Table of Contents

INDIVIDUAL COMMENTS BY RESOURCE OR NEPA TOPIC

AIR QUALITY

Comment ID	Comment Text
116-1	Climate change is the most dire event for our planet. Reducing CO2 emissions is essential to our survival. I support completely the Vineyard offshore wind energy project and feel that the excellent team going forward will safeguard and mitigate the project as goes forward.
118-1	Being a resident of Martha's Vineyard I am especially concerned about climate change and sea level rise
119-3	It is time to develop it here as quickly as we can so we can decrease our greenhouse gas production
120-1	I think climate change is the biggest threat to our way of life in Cape Cod
120-2	Climate change is scary and I want to have my daughter have a place to live on the coast.
130-1	The project has many important positive benefits to our region and our planet. It can significantly reduce greenhouse gas emissions.
140-1	Time is short to make this required transition to renewables which numerous delaying tactics (in the form of political, legal, utility-related, economic, siting, etc.) have prevented from moving forward in Massachusetts, New England and over much of the USA. Greater than fifteen years were lost in fighting against the Cape Wind project; and over ten years of relative inactivity in moving to implement Massachusetts 2008 Global Warming Solutions Act which mandates huge reductions of GHG (25% by 2020 and finally, by 2050 an 80% reduction from those of 1990). Near coastal Massachusetts has the wind resource (the "Saudi Arabia of wind"), has the appropriate near shore siting locations and the support facilities (blade testing center, deep water port and University of Massachusetts Renewable Energy Research Laboratory) to make this happen. But it has to start now and aggressively proceed as it will take some 13 to 16 similar scale projects to produce 40 to 48% of the state's estimated electric demand in 2050.
145-5	Such a project stands to make a major contribution to lowering greenhouse gas emissions and other pollutants from electricity generation, and to creating an entire new industry in Massachusetts and on the New England and mid-Atlantic coasts. Moreover, the contribution of a project with a high winter capacity factor is clear given concerns about the competition during the winter between the use of natural gas for electricity and heating.

ALTERNATIVES

Comment ID	Comment Text
4-1	We do not oppose the proposed wind farm but specifically Vineyard Winds preferred undersea cable route that will travel through the middle of Lewis Bay, an important resident and tourist attraction.
4-3	In 2013 the Hyannis Inner Harbor and the federal navigation channel utilized for ferry routes were dredged but not Lewis Bay. Vineyard Wind intends to bury its high voltage cable in shallow water and not the deeper channel dredged in 2013. This locates high voltage electric cables in ...parts of Lewis Bay in need of dredging.
4-8	Vineyard Wind should be required to amend its proposal and, like its two competitors, bring its offshore cables to the industrial site at Brayton Point, Somerset, MA. This location has been identified by a state sanctioned study as an ideal connection site to key power grids. This would avoid inevitable costly environmental law suits, certain public outcry and further delay.
7-2	There are other options for laying these cables, please do not use Lewis Bay for this purpose!
8-1	It will connect to the electrical grid in Yarmouth through a submarine connector cable that travels through Nantucket Sound into Lewis Bay. This is the same path sited for Cape Wind, which was given federal and state approval as being the preferable route with respect to environmental impacts.

Comment ID	Comment Text
20-4	At this same meeting, one woman said the cable could not be landed in New Bedford because it was too far from the turbines. Another representative of Vineyard Wind said that at one point the company had considered laying the cable around Provincetown to land somewhere north of Cape Cod. If that longer route was a possibility, why would New Bedford be too far? Whose facts are correct?
20-5	There are two other routes, one of which seems to have been rejected already by the proponent, but the details given of that rejection also were unclear and unconvincing.
20-6	The cable could land at Covell Beach, the alternate route still listed by Vineyard Wind. This route would completely avoid Lewis Bay. The only negatives to this route, as mentioned in the various as meetings I have attended, are that the upland route would be through a more populated area (although the cable route would be through public ways) and that there would need to be a lot of equipment in the parking lot during construction (which, we have been assured, will be off-season). The laying of the cable on land would be through already disturbed areas, meaning paved roads and developed house lots.
20-7	Because this route [landing at Covell Beach] does not lead through the more closed ecosystem of Lewis Bay, but is in the open water, it would be the less environmentally dangerous route.
20-8	A third route, landing at Great Island, seems to have been dropped by Vineyard Wind. At first, their objections were the eel grass in the area and the dunes. However, restoration of both eelgrass and dunes is possible... Most recently we were told the concern is private ownership of the roadway... One of the maps shown at previous meetings showed the cable landing very near the guard house of the gated island, which would mean using only a bit of private land. This route again avoids the sensitive Lewis Bay and, once outside the gates of Great Island, the route would proceed on public ways.
20-9	I urge the BOEM and other federal agencies, as well as state and local entities, to consider avoiding Lewis Bay entirely through the use of one of the two alternative routes.
40-22	We recommend that the EIS contain a comprehensive discussion of construction period impacts and alternatives spanning the several years it will take to construct the project. We encourage BOEM to develop specific information to describe what work will occur at the proposed ports that will supply and support the offshore project construction.
41-29	The Great Island alternative landfall site is located within coastal waterbird breeding habitat and land protected under Article 97 of the Massachusetts State Constitution. Any potential impacts to those resources must be carefully reviewed in the EIS in relation to applicable legal requirements.
43-1	We support the marine spatial planning approach used to identify Wind Energy Areas in federal waters, including the area leased to Vineyard Wind for its turbines, at this time, we cannot support the Vineyard Wind Connector or any transmission line project that could potentially connect with or facilitate a future project in Nantucket Sound. Our future support would, at a minimum, require a binding and enforceable agreement between Vineyard Wind and the relevant federal, state, and local governments that ensures the transmission line could not be used for any project located in Nantucket Sound.
43-13	The Alliance also recommends that the review include alternative transmission line routes outside of Lewis Bay and Nantucket Sound. For example, the Massachusetts Clean Energy Center's September 2014 "Offshore Wind Transmission Study" identified the Brayton Point Substation in Somerset, MA as one of the most attractive interconnection points for offshore wind generation. It would be reasonable to consider an alternative transmission line route connecting from Vineyard Wind to Brayton Point in the scope of the review.
44-4	The use of AIS data is also insufficient. AIS wasn't required until 2016 and even then, there was an exemption on when you had to have to have the unit turned on, AIS doesn't have to be turned on until a vessel is 12nm from shore. It was also explained in detail how important it is for an otter trawl vessel to have enough room between turbines to maneuver their gear as it simply does not "follow" directly behind the vessel. We explained that having 1nm between turbines is simply not enough room to operate. What has come out of the VW plan, after meeting with us for over a year, is 1nm between turbines

Comment ID	Comment Text
46-7	If the Vineyard Wind project is allowed to continue, there is a much better place to put the cables than the possibility of destroying Lewis Bay.
47-1	I reviewed a report from MA Clean Energy Center, that identified Brayton Pt., MA as a preferred landing site for the underwater cables. Brayton Pt is in an excellent location, close to the shore, in an industrial park with ample space to construct interconnection facilities, and has an existing grid.
47-2	This particular location[Lewis Bay] does not provide any programmatic benefit, or any special public good benefit, just financial benefit for the developer.
48-1	Lewis Bay already has environmental issues that need correction. Putting these cables in our fragile Bay will only cause more issues. There are other places where the cables can land. A location on the shore rather than an enclosed Bay is a more appropriate solution. The argument that it costs less to put the cables through the Bay should not be a factor.
50-1	The issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay 2. Reasonable alternatives, at either Covell's Beach or Brayton Point exist
50-3	The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed here when there are significantly more appropriate alternatives, especially Brayton Point.
51-1	the proposal includes one possibility of Vineyard Wind sending cables from the turbines into Lewis Bay. the issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay.2. There are reasonable alternatives, at either Covell's Beach or Brayton Point.
51-3	The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed in Lewis Bay when there are significantly more appropriate alternatives, especially Brayton Point.
52-1	My comment is regarding proposed wind farm, Vineyard Wind, LLC, and the landing of the cables from the turbines in Lewis Bay. 1: It’s an unreasonable impact on a fragile environment. 2: There are reasonable alternatives.
52-3	The Bay is a huge recreational and economic resource to both Yarmouth and Barnstable. These cables should not be placed in this area. Please look at the alternatives.
53-2	The "Alternatives Analysis" section of the EIS should include a discussion of the full range of practicable alternatives to the proposed project, particularly those that are less damaging to the environment. The development of project alternatives should consider the balance between energy generation and environmental impacts. The analysis should follow the sequence of avoidance, minimization, and mitigation of impacts.
53-3	The potential for renewable energy sources in the upland environment should be considered as an alternative to development of the outer continental shelf. If this alternative is not considered for further analysis, the EIS should briefly discuss the reasons for it having been eliminated from further consideration.
53-4	First, the size of the project and the proposed phasing of project construction should be considered as alternatives. Specially, plans to construct an 800 MW project at once or phase construction under two 400 MW projects, or four 200 MW projects should be considered under the alternatives analysis. While we understand a number of factors contribute to the ultimate size of the project, phasing the size and schedule of the project would influence the scale of impacts. In addition to direct impacts associated with additional turbines and cable installation, multiple consecutive construction seasons may exacerbate impacts to marine resources and fishing operations in the area. The time of year construction activities occur would also be an important factor in evaluating potential biological, economic, and social impacts of the project. The opportunity to study project impacts to inform future phases of development should also be considered under this analysis.
53-5	Commercial and recreational fishing are essential components of the existing landscape that must be preserved in the development of the project. Alternatives for turbine layout, location, and spacing, particularly related to impacts on fishing operations and transit, are important considerations for the alternatives analysis in the EIS. Operation of ongoing scientific surveys should also be considered, including our science center surveys, the Northeast Area Monitoring Assessment Program (NEAMAP), and state surveys.

Comment ID	Comment Text
53-6	We understand your design envelop concept allows for a range of turbine spacing in the project proposals; however, specific alternative spacing and layouts should be considered in the EIS. While the proposed layout in the draft COP considers vessels transiting through the project, it may conflict with existing commercial fishing activities that occur in the northern end of the proposed WDA, particularly mobile gear operations. If spacing and orientation cannot be modified in such a way that allow for transit and fishing activity, alternatives that remove sections from the WDA with the highest fishing activity or reduce the number of turbines in that area should be considered. Under this alternatives analysis, you should also consider the most appropriate location for project siting within the Wind Energy Area (WEA) to meet the purpose and need of the project.
53-7	It is also important to consider the proposed layout and spacing of adjacent wind farm proposals as you develop project layout alternatives. Given the proximity of adjacent projects proposed by multiple developers, the layout of turbine foundations is a critical factor that requires coordination through the Federal process to minimize cumulative impacts to commercial and recreational fishing operations. We recommend you work closely with the commercial and recreational fishing communities and the U.S. Coast Guard to determine the most appropriate spacing and orientation of the turbines.
53-8	The proposed cable routes should also be evaluated in the alternatives analysis. While the draft COP proposes several potential cable routes, it is our understanding that the required cables would all be located within the same cable corridor. This corridor may be up to 1,000 meters wide and include sensitive habitat areas. The cable corridor alternatives should be evaluated for minimization of impacts to sensitive habitats, impacts related to the methods of construction, and the extent of the route that allows for full cable burial to minimize permanent habitat impacts and potential interactions with fishing gear. Similar to the comments about coordinating turbine spacing and layout between multiple wind projects, the EIS should consider alternatives that would allow for coordination and consolidation of cable routes with adjacent projects.
54-1	Please deny Vineyard Wind's request to disrupt the valuable and fragile environment of Lewis Bay with placement of cables underwater in the area.
55-1	I'm concerned that Lewis Bay is being targeted as it's less expensive!! If this project moves forward without 100% confidence that it will not have an impact to Lewis Bay it may be more expensive in the long run!!
56-1	In the last ten years, significant shoaling [in Lewis Bay] has created much more shallow conditions which lead to some frightening changes to the vegetation and sea life. Vineyard Winds proposal to bury an electric cable in the sea bed to connect their wind farm to the grid is deeply discouraging...We fear the process will further the shoaling and make any remediation impossible in the future.
56-2	We implore you to reconsider your choice of siting for this cable.
57-1	I am opposed to the proposal for Vineyard wind laying cables through Lewis Bay and accessing the power grid traveling up New Hampshire Ave.
58-1	objection to the Vineyard Wind Connector proposed placement of off-shore turbines and cables in Lewis Bay and the landing at New Hampshire Ave
58-5	There are reasonable, less impactful alternatives, at either Covell's Beach or Brayton Point. While initial cost may be a consideration, they should not out weight safety or impact on the community
59-4	Establishing a clear purpose and need and specifying an appropriate range of alternatives are central to developing a high quality EIS that will inform decision makers and the public. Specifically, we ask that BOEM consider a robust range of alternatives related to turbine spacing and arrangement. A clear assessment of the costs and benefits associated with various layouts is critically important, as the set up of the array is fundamental to the ability of fishing activities to continue within the wind farm.
59-5	Alternative cable routes should also be formally considered.
59-6	Regarding both turbine layout and cable routing, we ask that BOEM consider alignment between adjacent wind energy projects.
61-1	Lewis Bay far to fragile for wind cables. Please consider other alternatives as environmental risk is too great.

Comment ID	Comment Text
63-1	The alternate locations, at Covell's Beach or Brayton Point offer far less opportunity for environmental damage than the Lewis Bay approach.
64-1	There are alternative locations [to Lewis Bay]. They may cost more but just like the location of the power plant itself it needs to go there. The Somerset location, a former coal fired plant seems to me to be the best place to run the mega cables from Vineyard Wind.
65-2	There are other options to bring wind power ashore, not the least of which is New Bedford, where the infrastructure already exists and the town awaits with open arms.
66-13	As noted above in the reference to the Mass. Ocean Management Plan, part of the "Western" transmission route is proposed to pass through Hard and Complex Bottom to the Southeast of Wasque. The DEIS should address why possibly more suitable bottom just to the East was not chosen. Although a more in-depth assessment of the bottom will be required in the DEIS, why choose bottom that is more likely to be significant habitat and unsuitable?
66-7	Some mitigation measures for conflicts of operation have been explored and are included in the proposal. This shows a willingness on the part of the proponent to communicate and plan well. Impacts should be avoided wherever possible. For example, a small part on one edge of the facility lies within squidding grounds. A small adjustment could remove that conflict. Even with appropriate avoidance of conflict, it seems inevitable that there will be some negative impact. There should be a mitigation/compensation plan with substance.
66-9	Although some maps are referenced, there is no discussion of the Ocean Plan. In particular, part of the lower portion of the western transmission route is proposed to be laid through Hard and Complex Bottom to the Southeast of Wasque, although there is bottom just to the East that is less likely to be significant habitat. The DEIS should examine particularly Appendix 5 – figure 4 Close-up of areas to avoid, areas of concern, and preliminary areas for offshore wind transmission corridors.
68-1	NO to Vineyard Wind landing at either Lewis Bay or Covell's Beach! Unreasonable impacts on Lewis Bay which is environmentally fragile. Covell's Beach is a horrible choice since it is an extremely popular beach for both locals and tourists. Brayton Point is preferred alternative.
72-1	Lewis Bay is one of the Capes and the States most beautiful natural resources. We would like alternatives sites for landfall to be considered. Lewis Bay, which is already compromised, is too fragile for wind cables. Please consider the environmental impact to an already strained area.
76-4	There are other cable landing sites available, Vineyard Wind has chosen this route, because it is the most cost effective route for them, regardless of the environmental damage it will cause.
79-1	I am adamantly opposed to the placement of cables across Lewis Bay. There are other viable alternatives and Lewis Bay should be protected. The natural environment of the bay needs our protection.
80-4	...the Division requests that the EIS evaluate a range of alternative construction methodologies [such as varieties of installation methods for offshore cables and foundations] provide information relative to the impacts and disturbance associated with each such alternative, the anticipated recovery time of benthic organisms after installation, and any potential secondary impacts (e.g. electromagnetic fields or heat from the cables) and whether they will further impact benthic organisms.
81-2	With regard to the possibility of "environmental degradation" that critics say would be created by laying a cable under Lewis Bay, I have seen nothing to support claims of environmental calamity.
82-7	an independent study [is recommended] evaluating the three alternative transmission cable landing points by comparing the scale of ecosystem, navigation, recreational and commercial users, residential and economic impacts. This will provide guidance for locating the landing site that will have the least impact on the environment, area economy and quality of life.

Comment ID	Comment Text
83-18	...to ensure BOEM can perform a sufficient NEPA review of a project, the COP must provide enough specifics of the critical species impacts and each possible configuration covered by its envelope to fully evaluate the proposal. For example, it would be insufficient to simply identify the total number of turbines that might be built because the timing of pile-driving is also critical to evaluating noise-related impacts to marine mammals. Additionally, to encompass the full range of reasonably foreseeable impacts, a careful assessment of a "design envelope" alternative must amalgamate the most disruptive components of each option included in the envelope. Thus, if Option A involves 20 turbines and Option B involves 30, the analysis of pile-driving noise should be based on the installation of 30 turbines; on the other hand, if Option B proposes the use of suction caisson foundations, the analysis of noise impacts should be based on the 20 pile-driven foundations from Option A. Finally, the "design envelope" alternative cannot be conceived so broadly, or assessed without regard to the independence of its several options, that it vitiates BOEM's duty to effectively "inform decision-makers and the public of the reasonable alternatives which would avoid or minimize impacts," as NEPA requires.
83-19	In the context of a design envelope, either seasonal restrictions and/or specific schedules must be included in the alternatives and/ or mitigation analysis, pursuant to the agency's duty to consider reasonable alternatives and mitigation measures, and should be included in the ROD.
83-31	In discussing the "No Action Alternative," the Draft EIS should identify and discuss the positive environmental impacts of offshore wind, including the climate, environmental and public health benefits of offshore wind in backing out existing fossil fuel power plants and the associated public health, climate pollution, other air pollution and water pollution impacts associated with fossil fuel generation. BOEM has also catalogued other potential environmental, public health and socio-economic benefits of offshore wind (including electricity system benefits and jobs benefits) that should be identified and discussed in the environmental review process.
84-1	No cables should be brought into Lewis Bay, West Yarmouth. The bay is environmentally fragile as it currently exists. At this point in time, Lewis Bay needs to be studied and protected to determine how to refurbish it to its original state.
87-3	BOEM should assess alternative offshore wind power generating technologies. The offshore wind generating industry is evolving rapidly and new technologies have the ability to reduce impacts from offshore wind generating projects. For example, "suction" and "gravity" turbine foundations do not require loud pile driving, one of the largest impacts to the marine environment from offshore wind power installations.
87-4	The "no action" alternative must also be seriously examined to account for cumulative impacts, data deficiencies, and our understanding of impacts from offshore wind generating projects. Seriously considering the "no action" alternative would allow BOEM to proceed incrementally and cautiously to ensure that impacts from one project are understood before expanding the size of that project or proceeding with additional projects.
89-18	Issues were also raised with the fact that the power cable coming from the project to the mainland is sited to be laid directly through some of the most productive summer loligo squid fishery tows for commercial vessels. Should the route require concrete mattresses to be laid over the cable, these trawl tows would be rendered useless as nets would easily tear up on the cable mats... BOEM should require a different, non- conflicting cable route as part of any COP approval. Vineyard Wind representatives assured the industry that they did not anticipate the need for any concrete mattresses. Should a similar situation occur with the proposed Vineyard Wind cable, significant squid fishery revenue is at stake, in addition to the cost of trawl net replacement, repair, and vessel down time as a result of losing gear on potential cable mats.
90-5	CLF wishes to emphasize the need for BOEM to perform an analysis of cumulative impacts from electric transmission cables linking future offshore wind development in the federal wind energy areas to the electric grid onshore, and consider what steps BOEM might take to minimize the number of transmission cables necessary to deliver maximum offshore wind power. Placement of transmission cables can disrupt sensitive marine benthic habitats as well as coastal lands and the flora and fauna inhabiting these areas. Electromagnetic fields emitted from the cables can affect various marine species.

Comment ID	Comment Text
90-7	The EIS should include a review of the relevant state ocean plans and their regulatory requirements to ensure that project alternatives are fully consistent with the state ocean plans and their associated regulatory requirements.
91-1	Vineyard Wind proposes to make landfall in West Yarmouth, by laying cables through environmentally damaged Lewis Bay [as opposed to the other two proposed projects utilizing the Brayton Pt, in Somerset MA location] . When asked why Vineyard Wind chose to lay cables in Lewis Bay, their officials answered "it is cheaper for us".
92-5	Coordination is needed on transit lanes and turbine layouts to minimize the impact on navigation.
92-6	The group also believes that pre-approved and shared cable corridors will minimize the impact on fisheries. The size and scale of the project is of great concern to fishermen who target all species and there is significant concern among our group that a larger, 800MW project would have a larger unknown impact than a smaller project.
93-3	Lewis Bay is a major recreational and economic resource to both Yarmouth and Barnstable and is environmentally fragile and must be protected. The fact is that the cables should not be placed in Lewis Bay when there are two much better alternatives in Covell's Beach landing and especially the Brayton Beach landing. Please think of the health of Lewis Bay and it's fragile natural resources and keep the cables from cutting through this precious natural area.
94-18	WTGs should be spaced with at least a minimum distance of 1 nautical mile to allow for navigation of trawlers and avoidance of fixed gear and scouring around base of WTGs. It should be noted, that many in the fishing industry have said they cannot safely operate a trawl around as many WTGs as have been proposed even with 1 nautical mile spacing.
94-19	WTGS should be placed on straight lines so that trawlers can easily navigate the Project Area in an east to west direction, avoid zig-zagging, without impacting fixed gear fisheries.
94-4	Given all of the intense fishing efforts underway in the Project Area, it is important that BOEM consider an alternate project size with fewer WTGs and coordination and communication with the for—hire recreational fishing industry during construction especially between May and Labor Day.
94-8	The problem with the “envelope” concept from the Commercial Fisheries Center’s perspective is that the project has been proposed at full build out, without any proposed alternatives to size, location of WTGS, or construction and design. This approach forces the Commercial Fisheries Center to comment on a worst case scenario without any sense of the possible alternatives that might be considered by BOEM and without an opportunity to evaluate the specifics of a more reasonable project design outside of formally commenting on the Environmental Impact Statement.
95-4	it is vitally important to compare the impacts of Vineyard Wind to those of a business-as-usual scenario where we continue to burn fossil fuels, so that climate impacts continue to escalate and soon spiral out of control. To my mind, there is no doubt that climate change poses a far greater threat to marine life and the fishing industry than does offshore wind.
96-6	the issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay2. There are reasonable alternatives, at either Covell's Beach or Brayton Point3. The Bay is environmentally fragile and needs protection with no impediments to future actions we may want to take, such as dredging.4. The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed here when there are significantly more appropriate alternatives, especially Brayton Point.
97-5	Reduce the development footprint by moving the first rows of turbines further from Nantucket's shore [see figure in submission]. In referencing the map of the "Wind Development Area for COP Review," we strongly advocate for the developer to relocate the closest thirteen WTGS from the first three rows, to the rear of the development area (see enclosed map markings). This design modification of essentially "pushing back" the closest, most visible WTGs from Nantucket, would minimize the local visual impact, without reducing the power output potential of the lease area.

Comment ID	Comment Text
97-6	Defer development of the closest WTGs to allow technological advancements that could lessen the visual impacts. Based on public feedback of the visual simulations, we understand that that the most negative reactions to the WTG visuals are primarily associated with the number of turbines visible from the coastline, and not necessarily the size of the turbines. With the prospect of larger turbines (10-12MW) being available to developers in the near future, a lesser number of turbines will soon be required in order to achieve the same power output.
98-3	Why won't the applicant be forced to study alternative sites to bring their cables landward - through this regulatory approval / denial process? At the public hearing I asked why the landward location at Kalmus Beach in Hyannis was not given genuine & full consideration. Kalmus Beach in Hyannis is where Nantucket Electric was approved to bring their electric cable several years ago. The excuse of the presenters was that Ocean Street is full. Ocean Street is a major town road….albeit a dead end at the ocean. It is a 40 foot layout - as is standard. It is absolutely ridiculous to assert that those 40 feet are full!!! Please don't allow the applicant to attempt to portray reality…when in fact, their assertion that a 40 foot wide town road layout is full….is fiction. Their other red flag excuse for prematurely dismissing this obvious & most desirable alternative location was…. "The town says it will disrupt Main Street Hyannis."
99-10	The only way fishing could be conducted within an array is to spread out the turbines to at least 12,000 feet apart. Place them in rows in both directions, and point them into the tide, place the cables at least two meters below the bottom surface, and run the cables to the bottom of the turbines. Fishing may be doable in good weather if the array is designed and built as stated. But putting turbines 3 to 6 thousand feet apart and not in the direction of the tide then fishing operations within the array by bottom-tending mobile gear vessels is simply impossible. The bottom-tending mobile fishing gear vessels are the big losers.
99-5	The Governors also learned from Cape Wind that no one wants to see wind turbines in front of the multimillion-dollar vacation homes. Therefore, they (the Governors of NY,MD, VA, and other states) drive the arrays offshore into the fishing grounds. This is a shame because they could get less expensive power if the arrays were within state waters or near shore where the construction would be less expensive and the cable runs would be much shorter.
102-2	No cables landing Covell's Beach Centerville (Barnstable) send to Brayton Point
103-1	My Concern: the route thru Lewis Bay. There is a more direct route than placing cables thru the already distressed Bay. VW has promised studies and nothing should be decided until all are complete.
104-1	I strongly oppose the placement of cables in Lewis Bay. There are other alternatives available. Adding these cables may lead to further degradation of our bay.
105-1	I strongly oppose the placement of cables in Lewis Bay. There are other alternatives on land available. Put them somewhere else! Our shallow bay needs protection!
106-1	As a life long commercial fisherman I oppose the location of the wind farm. My main concern is the affect it will have on the longfin squid fishery. It has been my livelihood and only source of income to support my family. I would like to see the turbines located on land. IE landfills dumps or freeways.
107-1	I oppose the proposed placement of cables in Lewis Bay and the landing at New Hampshire Ave. As there are other more reasonable open water alternatives without unreasonable impacts that exist for our bay.
111-1	I strongly oppose the placement of cables in Lewis Bay. Please consider other options such as Covell's Beach. Lewis Bay is already environmentally compromised and the addition of cables may lead to further degradation.
112-1	I strongly oppose the plan to place cables in Lewis Bay. I understand there are other options available at Covell's beach or Brayton Point.
114-1	The Bay is already compromised and there are options available.
123-2	Will other lease area cables connect to VW or separate cables to shore.

Comment ID	Comment Text
137-3	A successor to Cape Wind could seek to connect to VW's cable and FERC might be able to order such a connection to be allowed. The State and local municipalities would be relatively powerless to prevent such a connection, thereby imperiling more than sixteen years of responsible and successful opposition to a project whose litany of environmental risks need not be discussed in detail here. Years of litigation would then likely ensue and could delay Vineyard Wind indefinitely as an unintended consequence.
137-7	Because of the threat posed to Barnstable's drinking water supplies as noted above, it would obviously be safer for Vineyard Wind to run its cables to Brayton Point and a very viable alternative. However, in a presentation before the Commonwealth's energy Facilities Siting Board on Tuesday, April 24, 2018, Vineyard Wind representatives conceded that they did not study the Brayton Point alternative because it was "less economic". The accuracy of the economics analysis is very much in doubt but, more relevantly, a solution that would eliminate such a dramatic risk to the Town's water supply should not be rejected out of hand in order to save a sum of money that represents a rounding error, given the capital costs and projected income to be derived from the Vineyard Wind project.
141-1	We are writing in strong opposition to the proposed placement and landing of cables in Lewis Bay. We do not understand why this site would be used as even Vineyard Wind at a prior meeting stated that landing at Covell’s Beach was an "equally feasible" site.
141-2	We also believe that there should be no future capacity ("highways") created in this route for later projects. Other sites appear to have significantly more ability to handle later approved projects.
141-8	In our conversations with Lewis Bay neighbors and associations there has been a common theme expressed and many indicated they were simply going to send you short bullet point messages about their opposition. They believe that they are being ignored as they attempt to defend their beloved bay against a multi-million dollar financed corporation who seeks to profit from this with no regard to the residents and true stakeholders of Lewis Bay commenting without similar financial resources!
141-9	We do not understand why either Brayton Point or Covell's Beach are not being used as they are reasonable, reliable and economically feasible. It is noteworthy that all other ocean cables currently in operation on Cape Cod and at the Block Island wind farm use open ocean landings, not bays. Vineyard Wind has previously stated that it is "cheaper" for them- why is Lewis Bay being asked to pay for their profit margin?
143-1	Over the last 10 years, Conrad and help from the county have developed a bay scallop which has adapted to Lewis Bay...I can't believe we are going to let this business come in and destroy it again!!!
144-7	Are there other and closer areas for landfall for Vineyard Wind electric lines?
146-2	Vineyard Wind's proposed turbine spacing follows a grid format with turbines on axes with consistent orientation/bearing. While there are concerns about the ability of some mobile gear types to fish within the array, feedback we have received has indicated a strong preference for having turbines on a consistent grid orientation, as opposed to alternatives that have turbines located in more seemingly random formation, presumably optimized solely for energy production. This issue needs further examination and coordination, as there are important considerations for turbine array spacing that include turbine performance and energy production as well as navigational safety and benthic habitat. The EIS should provide an analysis of different arrays and turbine spacing to optimize both energy production and safe navigation through and between lease areas.
146-3	Feedback we received from the FWG indicated that a one-mile wide transit corridor may not be sufficient. Additionally, there were questions as to the optimal orientation of one or more transit corridors. The U.S. Coast Guard will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. We will continue to work with and through the U.S. Coast Guard to engage stakeholders and the offshore wind leaseholders to identify preferred routes, assess transit corridor width, and determine best practices to avoid and minimize navigation conflicts. The EIS should assess alternatives and provide detailed information on navigational risks and measures to mitigate assessment.

Comment ID	Comment Text
146-4	Transmission solutions that require fewer cables are strongly preferred, and cables should be co-located within specific corridor routes. The EIS should contain an evaluation of the various export cable route and landfall alternatives and a thorough justification of the preferred configuration proposed.
147-10	Recent public comments have indicated that the cable route through Muskeget Channel may have impacts on commercial surf clam fishing activities. CZM understands that studies are underway to explore the possibility of relocating this section of cable to a more westerly location. This new location has the potential to impact North Atlantic right whale core habitat as mapped in the OMP. A detailed discussion of this route, the potential impacts, and avoidance measures, including time of year avoidance, should be discussed in the EIS.
147-20	The COP and ENF state that if cable burial is unsuccessful, it may be necessary to use concrete mats or riprap to protect the cables. CZM discourages the use of armoring due to the detrimental impacts which can include increased scouring of the seafloor adjacent to the mats or bags, increasing substrate providing a vector for invasive species colonization, and impacts to commercial and recreational fishing operations. As an alternative, the EIS should assess whether other means of cable installation such as hand jetting could be implemented to avoid the need for armoring. The EIS should include analysis to characterize the wave dynamics, currents, and sediment transport along the proposed cable routes, particularly in areas of sand waves, to better understand whether the proposed depth of burial is sufficient and avoid the potential use of armoring.
147-4	The EIS should present detailed information and comparison of all routes evaluated as part of an alternatives analysis, including the Nantucket Offshore Export Cable Corridor. The proponent is seeking approval of both offshore export cable routes and has indicated a preferred landfall at New Hampshire Avenue in Yarmouth. The EIS should also include details of what surveys and data collection were done prior to the filing of the EIS. The data, analysis, and conclusions reached from these surveys, including the multi-beam, side scan sonar, sub-bottom profiling, vibracore sampling, benthic grab samples, and underwater video transects data should be included in the EIS, along with the geophysical track lines surveyed. The EIS should present a scope of work for a detailed survey and sampling plan that covers both proposed cable corridors.
147-7	In order to minimize impacts to resources and uses, transmission solutions that require fewer cables are strongly preferred. The EIS should contain a comprehensive evaluation of the various export cable alternatives and a thorough justification of the preferred configuration proposed.
147-9	In order to minimize impacts to resources and uses, transmission solutions that require fewer cables are strongly preferred. The EIS should contain a comprehensive evaluation of the various export cable alternatives and a thorough justification of the preferred configuration proposed.
HY-01-2	but I'm wondering what happened to the Great Island option. It's something we've been hearing about, and all of a sudden, it seems to be off the map, so to speak, and I'm wondering where you stand with the town of Yarmouth on this.
HY-02-1	but I'm wondering what happened to the Great Island option. It's something we've been hearing about, and all of a sudden, it seems to be off the map, so to speak, and I'm wondering where you stand with the town of Yarmouth on this.
HY-08-1	We have not heard one word tonight about an alternate route involving Brayton Point. From my understanding, the two adjacent wind farms are slated to go up Mount Hope Bay, and it's rather perplexing that the very next-door neighbor to those projects can't seem to team up and go in that direction.
HY-10-1	we do not see any earthly reason why you would place the cables through Lewis Bay(…)Lewis Bay in Hyannis, in particular, is a serious, serious recreational and economic driver of the towns of both Barnstable and Yarmouth. It is the ferry service that you used tonight to go out to get to a meeting on Nantucket, and it is a vital -- 1 it's fisheries. It's tourism. It's everything else. And as such, it does not belong there. These cables belong out in open ocean landing somewhere.

Comment ID	Comment Text
HY-13-1	laying a cable could impact dredging decisions that need to be made in the future... But say supposedly Army Corps of Engineers says, "Yeah. It's on our agenda, but it's not for eight years," and then the cable gets laid 5 feet in the ground, and then the Army Corps of Engineers comes in and says, "We've got to dredge this thing. We've got to go down 10 feet, 12 feet." What happens? Does the dredging not occur? Does Vineyard Wind have to re-lay the cable?
HY-14-1	You don't need to bring a cable into a channel. You've got several alternatives to have it just come into the open shore line.
HY-14-2	how is it that the developer can tell us that Kalmus is out because the road is full? That was the answer I got at a hearing that was held at the Cape Codder...All these roads are full of utilities. It's a 40-foot layout. Ocean Street needs a sidewalk. Put the cable where it needs a sidewalk... There's a nexus between needing a sidewalk and the cable impact. Put it there. And then you're coming right in at the open ocean. The beach is as wide as that screen is to where I'm standing. You're not going to disturb any beach. And as you showed very nicely on the slide, there's a manhole cover. You'd hardly notice that they were there. Why is that not -- and I just can't even believe that all you saw was Covell's, Brayton Point, or Lewis Bay, when Kalmus is the answer.
HY-16-1	we've seen many problems, nitrogen loading because we don't have a sewer system. Now, eventually we're going to have a sewer system, but one part is we run the cables up Berry Ave. We're not gonna be able to get a sewer system in there.
HY-16-3	There's plenty of deep water to attach to beaches. They found it with all the other cables. The other companies, Deep Wind -- Deepwater and the other company, Conan (phonetic), have found areas to go in. You're trying to take the most direct route that's the easiest way for you to go 'cause obviously going in shallow water is a lot cheaper for you than going in deep water... But one of the reasons why you didn't want to go to Brayton Point or New Bedford or Fairhaven was that deep water -- quotes from you -- cable laying was a lot more extensive.
KI-04-1	Now, one of the things that I wanted to point out and I guess I have a question about is the cable. So the -- the cable that we saw looked like it had at least two possible routes. And so when you look at this one project, it has two possible routes. When you look at the next project, it's gonna have its own cable routes. Now, the cable installation and the cable itself has some impact, the -- that process, but it's something that could be mitigated if BOEM, when they developed these lease areas, developed a highway for the electricity to be piped into land. So in other words, consider the cable impact as a whole, rather than each project looking at different cable routes...If this was looked at more as a whole, I think you could mitigate the impacts of all those cables.
KI-11-2	So I -- what I'm offering here is maybe a solution to being able to tow. I just took some time today to just take a dry erase and sort of tried to mirror Vineyard Wind's leased area here. What I did was put these on latitudes so that we have linear lines, so that every mile -- so every minute is a mile. So you start with the turbines here at 45, 50. If you go south, you go to 45, 49, and then you go to 48, 47, 46, 45. So they're a mile-spaced, and they're a mile east and west. So what this does is it allows the corridor this way so that we can tow. Why do we tow east and west? Well, we've presented to Eric, and we've showed him tracks.
KI-11-3	So this, I think, is a viable solution. Now, they're not staggered. I didn't do this so that they're staggered because you had mentioned that it was important that they didn't steal the wind. So in order to optimize the wind, I've staggered these things so that they're a mile, a mile, and a mile, and the ones below it are in between that, and then you go back to the ones again that are a mile and a mile and a mile. So this is the layout that we have. The other thing I don't see are corridors. How do vessels that need to go to the south -- this would probably be better here -- that need to go to the south get through this maze? I mean, we're talking here -- from here to there, 40, 45 miles. So what do I have to do? I'm certainly not inclined to have my crew members steam, especially if it's foggy out, which it is most of the time in the summer when we're there, steam through this maze of wind turbines. I mean, it's suicide. So I have to steam 40 miles to go south, or I have to come back 40, 45 miles to go south? We're talking maybe one transit lane here by where Bay State is. One transit lane. So that means I still have to go 25 miles or 20 miles one way or the other, causing another expense, just so that I can go to the southern, so I can get below this maze of turbines to continue to fish. It's a problem, and it's something that needs to be addressed

Comment ID	Comment Text
KI-16-1	We are opposed to having the cables land in a environmentally fragile shallow bay, when there are reasonable alternatives available.
KI-22-1	One of the things that -- we've -- I've fished the area around the Block Island wind farm before the farm was ever put there, while it was under construction, and since. And I would say that the biggest impact we saw was during construction, and that was probably because of the pile driving. Now, what would scare me is -- when you're talking about the pile driving at Block Island, I think you were talking about a 24 inch diameter pile that was driven down through the legs. I'm not sure exactly the size. But now you're talking about something that's more than 30 feet in diameter if you go to the monopile design. I think that's a big negative of the monopile design.
KI-22-2	I think that if you look at the way Block Island was constructed -- I think that was the second design alternative that the gentleman from Vineyard Wind mentioned -- that would certainly have impact during construction but less than driving this one monopile. In addition, one of the positive things that we see from the Block Island wind farm is the structure that is placed in the water. So now that structure has become filled with marine organisms. We have a whole community of fish which has developed in that structure. I think that's a secondary reason that the multiple leg design is positive, because it will give more habitat for development of young fish in those areas than a monopile would. So I think those are a couple reasons that I would lean toward the multiple legs rather than monopile.
NB-11-6	You're the one drilling access lines to the Vineyard. Why don't they land the...cable (Indiscernible) and give the island a second power line, right, and then they wouldn't have to run it up through Muskeget Channel, which is -- I don't even want to say it, but it's some of the most productive sea turtle (Indiscernible.) ground on the East Coast.
NB-13-1	I'm actually representing over thousand homeowners on the West Bay, and there are major concerns about the idea that one of the alternates -- or the primary first alternate landing is through a shallow, environmentally fragile bay that has serious needs for dredging and other kinds of issues that finally have been established after a number of years of work...
NB-13-3	And we have real concerns and real opposition, total opposition to the idea that you're going to place a first-time wind farm, which it has a learning curve which has significant issues that need to be looked at because you're going to put it out there, put it in a position for 30 years and say oh, yeah, we'll mitigate that and take care of it. Lewis Bay doesn't have that option. It's 9 feet deep in most of it, and so we're looking at the real concern given that there are other open water landing locations. We are continuously and completely in opposition to the placement of these cables in Lewis Bay.
NT-06-1	being that that area is definitely the number one spawning area for these longfin squid, and any -- again, dredging of the cable, I would say, would have to be done outside of the parameter when they're there. And you're talking about doing this whole thing in one year. So even if they were gonna put these -- say, this whole section in, I would say that in the summer, when all that stuff's inshore, that I would prefer the construction start offshore in the deeper water, and then work, you know, in the shallower water when that event isn't happening
VH-11-1	I wonder if there's any need to continue on at the same pace you're trying to roll this project out at? And with that in mind, would you consider doing maybe a test bed area out there, say only 40 windmills so just in case, erring on the side of caution, if we're going to wreck that area, let's not do it all the way

BENTHIC HABITAT

Comment ID	Comment Text
22-3	Electromagnetic Fields (EMF), pile driving, silting, jet plowing and the overall impacts a large scale offshore wind project will have on the entire benthic habitat before a shovel of sand is moved.
43-10	The scope of the review should include assessment of the biological and physical impacts of the cables on sensitive resources such as sea grass, eel grass, shellfish, and other marine life as part of the scope of the review.

43-5	The review should also evaluate impacts to benthos, sediment, and aquatic vegetation.
44-6	We have a lot of concerns about how the habitat, biology, and ecology will be affected by the construction, operation and electromagnetic fields from the wind array. This should have been in place at the start of the lease and studies should already be well underway. We fear that there will simply not be enough time to carry out a legitimate time series of data for this site
5-3	Where as Wind Energy is new to the area the cable systems that will be necessary to connect the Cape and Islands to the power is not... Vineyard wind plans to use proven "jet plow" technology which causes minimal disturbance to the ocean floor.
53-14	The ecological impacts resulting from the loss of seabed and the associated benthic communities and forage base should be evaluated. This should include a discussion of the ecological and economic impacts associated with habitat conversion (e.g., soft sediments to hard bottom/artificial reef habitat) from turbine installation. This analysis should also include site-specific benthic data collection and an evaluation of impacts to higher trophic levels due to the loss of prey species.
53-18	This [Cumulative Effects] analysis should include a broad view of reasonably foreseeable projects, including development projects that are only in the proposed leasing or site assessment phase. Specifically, the cumulative effects analysis should consider other existing, proposed or planned energy infrastructure projects in the vicinity of the project including, but not limited to, Bay State Wind Project, South Fork Project, Revolution Wind, and the potential for development of the two Massachusetts Wind Energy Areas that have not yet been leased. Proposed wind development projects in the mid-Atlantic region should also be included in the analysis of cumulative effects on marine resources. This is particularly important for migrating species, such as marine mammals, sea turtles, fish and invertebrates that may use or transit multiple proposed project areas. The potential cumulative impacts on these species resulting from changes to benthic and pelagic habitats and potential food sources due to the presence of multiple projects should be evaluated in the cumulative effects analysis.
53-24	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include: Potential for an increased risk of vessel strike due to increases in vessel traffic and/or shifts in vessel traffic patterns due to the placement of structures.
53-34	Information related to the time of year and duration of proposed construction will be necessary to evaluate the extent of impacts, as habitat use, species, and life stages present will depend on temporal and seasonal factors. Impacts from project operations should also be evaluated including permanent loss and the conversion of one habitat to another, such as the creation of hard bottom habitat in predominantly sandy areas.
53-35	Impacts to EFH associated with noise from project operation and EMF from cable transmission should be evaluated. This should include an evaluation of these impacts to pelagic and benthic habitat, including benthic infauna.
53-42	...if mobile species move away from construction noise during spawning season, substantial disruption, delay, or elimination of spawning activity, and therefore spawning success, may occur within the area of impact. Further, longfin squid egg mops are attached to the bottom and susceptible to high mortality when buried by sediment. This is not discussed the COP, but is an indirect impact of such activities. Such potential biological, economic, and social impacts must be considered in the EIS.
53-47	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include:...impacts of elevated underwater noise during any geophysical and geotechnical surveys, pile driving, and other activities;

53-48	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include...any activities which may displace individuals from preferred habitats, alter movements or feeding behaviors, increase stress and/or result in temporary or permanent injury or mortality; disruption of benthic habitats during construction-related barge anchorage, infrastructure placement, pile driving, or cable route development that may increase the risk of entanglement or change of migratory behavior, alter prey assemblages or result in the displacement of individuals
53-9	The "Affected Environment" section of the EIS should cover a sufficient geographic area to fully examine the impacts of the proposed project and support an analysis of the cumulative effects. Within this section, the EIS should include results of on-site surveys, and site specific habitat information including the physical oceanography (temperature, salinity, depth, and dissolved oxygen), plankton and larval distribution, chlorophyll a, and characterization of benthic communities. Additional details should be provided related to sensitive habitats in the project area.
60-1	AOLA [Atlantic Offshore Lobstermans' Association] supports, through advocacy and leadership, the efforts of the offshore lobster industry to develop and maintain a strong, stable, and sustainably minded fishery. While clean energy is a laudable goal, marine wind farm development must not displace local fishing fleets and should only be sited in areas that do not impact ocean resources, including fish and crustacean stocks, marine mammals, and essential habitat.
66-1	Dredging in Horseshoe Shoals for transmission is likely to impact whelk, a significant resource for Vineyard fishermen. EMF impacts during transmission operations need to be addressed. Impacts to the whelk resource of the proposed dredging should be thoroughly explored in the DEIS.
66-13	As noted above in the reference to the Mass. Ocean Management Plan, part of the “Western” transmission route is proposed to pass through Hard and Complex Bottom to the Southeast of Wasque. The DEIS should address why possibly more suitable bottom just to the East was not chosen. Although a more in-depth assessment of the bottom will be required in the DEIS, why choose bottom that is more likely to be significant habitat and unsuitable?
66-9	Although some maps are referenced, there is no discussion of the Ocean Plan. In particular, part of the lower portion of the western transmission route is proposed to be laid through Hard and Complex Bottom to the Southeast of Wasque, although there is bottom just to the East that is less likely to be significant habitat. The DEIS should examine particularly Appendix 5 – figure 4 Close-up of areas to avoid, areas of concern, and preliminary areas for offshore wind transmission corridors.
69-23	The EIS should address how the extent of armoring will be minimized and how any extent of armoring will be mitigated.
69-24	The EIS should consider how the Vineyard Wind environment is similar to European wind farms, and identify how impacts measured there could affect the environment here.
69-25	Similarly, if there are information sources from the power cables to Martha’s Vineyard and Nantucket describing the environment and potential impacts, including interactions with fishing gear, that information should be included.
69-26	A description of how the seafloor data being collected by Vineyard Wind is being used to site wind turbine generators to minimize impact to the seafloor is needed.
69-27	More information regarding the distribution and temporal persistence of longfin squid mops and their vulnerability to project activities is needed in the EIS.
69-28	Comprehensive habitat maps are needed with an assessment of which habitats are vulnerable to impacts and how those impacts will be avoided and minimized.
69-29	The identification of high density shellfish areas in the wind development area and in Lewis Bay is needed to ensure cable and wind turbine generator placement is minimizing impacts to sessile macrofauna.

69-3	The EIS should include calibrated hydrodynamic models that resolve particle distribution for zooplankton and phytoplankton. The COP does not describe effects of oceanographic changes (Brostrom 2008, Cowles 2017) or the resulting impact on larval patterns and settlement of scallops or food patch dynamics for marine mammals. If the foundations alter currents in a manner that disrupts scallop settlement, there is potential for adverse impacts within the WDA and downstream.
69-30	A broader description of the primary mobile benthic invertebrates should be used in the EIS [more than just lobsters identified in the Figure 6-5.5 in the COP].
69-31	[Related to anchoring lines being used as habitat] The EIS should estimate the length of time the anchoring will take and use that to inform the impact assessment.
69-32	More information on electromagnetic fields (EMFs) is required...While EMF from cables decreases with distance, information is required to demonstrate that 2 m is an adequate depth to avoid impacts.
69-35	We recommend the EIS consider the impact of fouling communities, and how those communities are handled, be included in the EIS. If turbines are scraped to remove biomass, concentrations of decaying organisms can impact the seafloor by reducing oxygen.
69-37	This [SMAST video survey data]... was not conducted for the purpose of characterizing abundance [of benthic invertebrates] and was done at a scale irrelevant for siting and assessing impact of WTG construction and operation and cable laying. The EIS should use higher resolution data on the spatial and temporal distribution of benthic invertebrates to assess impact.
69-38	The EIS should consider how the resetting of suspended sediments after dredging and export cable installation may impact fish via burial of demersal eggs (i.e., eggs on or attached to the bottom sediments).
69-39	Whelks are highly susceptible to mortality due to burial during cable installation activities and potential impacts to this group should be addressed in the EIS.
69-40	Turbid water created by the jet plow or other dredging technique may hinder the horseshoe crab's ability to find mates, as vision plays a large role in the ability of males to find females (Barlow Jr. et al. 1982, Saunders et al. 2010). Minimizing this type of impact can be addressed in project sequencing.
83-11	Introducing hard bottom structures onto the seabed can result in: (i) mortality of individuals immediately underneath the towers by compaction or burial (the footprint of such an effect would be relatively small); (ii) increased habitat heterogeneity, which may alter the composition of the benthos and potentially result in broader ecosystem-level effects; (iii) for mobile species, short- or possibly long-term habitat displacement due to construction and operations, including due to hydrodynamic changes caused by the presence of turbines in the water column; (iv) potential injury from construction noise and vibration; (v) heightened physiological stress with potential long-term fitness consequences (e.g., due to continuous noise exposure from the operational wind farm, or heat emitted from subsea cables); and (vi) changes in orientation or foraging ability due to electromagnetic fields emitted by subsea cables. BOEM should carefully evaluate the potential impacts of offshore wind development on benthic species and their habitat, and site turbines with an eye toward maximum conservation of benthic species.
87-17	Mitigation options to address seasonal movements of marine species must be assessed.
87-6	Many marine species, which rely heavily on sound for survival, are critically sensitive to noise impacts [including noise pollution during surveying, construction, maintenance, and operation of turbines]. These include species throughout the food chain, from plankton to fish to marine mammals.
88-2	Will the silt/sediment cut off oxygen and light to all marine organisms? (i.e. phytoplankton)
90-5	CLF wishes to emphasize the need for BOEM to perform an analysis of cumulative impacts from electric transmission cables linking future offshore wind development in the federal wind energy areas to the electric grid onshore, and consider what steps BOEM might take to minimize the number of transmission cables necessary to deliver maximum offshore wind power. Placement of transmission cables can disrupt sensitive marine benthic habitats as well as coastal lands and the flora and fauna inhabiting these areas. Electromagnetic fields emitted from the cables can affect various marine species.

94-16	The project as contemplated by the envelope concept is too big. The applicant should not be allowed to construct more than 400 MW in the lease area, unless and until, a minimum of 3 years of research has been conducted, prior to construction of additional MW beyond the original 400 MW Research should examine the impacts that construction and operation, including the effects related to low frequency noise, electromagnetic fields, noise associated with pile driving, toxic dredge spoils, have had on the benthic habitat, spawning, early larval stages, fish stocks, and the fishing industry operating in the Project Area. Because of spawning concerns related to the squid fishery, a special area of research focus should be to study the effect of noise on the squid fishery between the months of May and late August.
108-3	The other major concern we have is for wildlife. Those living in the ocean and those flying above, that can potentially be impacted by the work to install and maintain the towers and turbines, laying and maintaining of power lines, as well as the turbine field that is going to occupy the air space above that area of ocean, must be seriously and fully vetted before the final approval is made
144-1	By digging multiple troughs in the total bay area, will scallops and other shellfish fall into them (and also vegetation and trash), get caught and silted over and the area then becomes a non-oxygenated "dead area" as has happened in other areas of the Bay.
144-2	will softening multiple (tracks) areas in Lewis Bay contribute to much more accelerated silting which negatively impacts shellfish native species and habitat and possibly build up or tear down many bottom areas and continue out well past the electric lines areas.
146-2	Vineyard Wind's proposed turbine spacing follows a grid format with turbines on axes with consistent orientation/bearing. While there are concerns about the ability of some mobile gear types to fish within the array, feedback we have received has indicated a strong preference for having turbines on a consistent grid orientation, as opposed to alternatives that have turbines located in more seemingly random formation, presumably optimized solely for energy production. This issue needs further examination and coordination, as there are important considerations for turbine array spacing that include turbine performance and energy production as well as navigational safety and benthic habitat. The EIS should provide an analysis of different arrays and turbine spacing to optimize both energy production and safe navigation through and between lease areas.
146-5	For both the transmission and inter-array cabling, achieving and maintaining sufficient burial depth is critically important. In the EIS, the impacts of the cable installation should be described, and it should include a comprehensive cable inspection program during the life time of the project to ensure adequate burial, including remediation plans for cables that arc found to be at inadequate burial depth after inspection.
147-12	A thorough analysis of electromagnetic field impacts on vertebrates and invertebrates along the proposed cable routes should also be presented in the EIS.
147-16	The proponent estimates that dredged corridors through sand waves will be approximately 65 feet wide for each of the three cables. The COP states that sand waves up to 15 feet in height exist along the cable route and states that pre-cable laying dredging may be needed to ensure sufficient cable burial beneath the stable seabed. The sand waves should be mapped and identified relative to the proposed cable routes. The depth of sand wave dredging, the amount of sand waves to be removed, and the grain size of the material removed should be calculated and presented in the EIS.
147-17	The sand waves and grain size variations provide habitat which may be impacted by the proposed dredging. An analysis of estimated impacts and area caused by the sidecasting of this material should be provided. The EIS should provide an analysis of the estimated time it will take the sand waves to resume their pre-construction profile and a related assessment of the length of time for benthic community recovery to occur.
147-18	The EIS should provide more details on the methods proposed for side-cast disposal of dredged sediments through the area of sand waves and specifically side-cast disposal methods that reduce and minimize impacts on the benthic community to ensure minimal impacts on currents running through the area of sand waves.

147-19	The EIS should include a breakdown of how the potential dredge areas and volumes were calculated. This information should be described in the narrative and the dredge footprint should be shown in plan-view. The COP and ENF also state that any dredge material will be sidecast once removed from the trench, however it is unclear if this area was included in the footprint of project impact. This detail should be included in the EIS narrative.
147-2	It [the EIS] should include an existing conditions plan that clearly locates and delineates all resource areas based on site specific surveys conducted by the proponent, including but not limited to eelgrass, shellfish, hard/complex bottom, intertidal flats, and rare and endangered species.
147-21	The COP also states that no impacts to specified resource areas are anticipated from dredging because it is expected to be limited to offshore areas away from intertidal zones, outstanding resource waters, and eelgrass beds. However, several species of bottom dwelling organisms, including surf clams, bay scallop, razor clams, channeled whelk, knobbed whelk, horseshoe crabs, and blue mussels exist in offshore areas. These resources should be identified and mapped and discussions should take place between the proponent, the Massachusetts Division of Marine Fisheries (DMF), and the National Marine Fisheries Service (NMFS) to avoid and minimize any possible impacts.
147-22	The use of an anchor and kedge system or stationary spud anchored vessels have the potential to increase impacted areas due to the presence of the anchor cable sweep or spud “footprints”. CZM strongly recommends the use of dynamically positioned vessels to avoid these impacts. The EIS should include a detailed anchoring plan for all vessels conducting and supporting the project. The anchoring plan should include the locations of all sensitive resources (including hard bottom and eelgrass) and how the proponent intends to avoid impacts due to anchor strike and anchor sweep. All vessel captains should be made aware of the anchoring plan and it should be required to be posted on all vessels associated with the project.
147-23	...the proponent must make every effort to avoid any eelgrass present in the proposed route.
147-25	If site-specific surveys [for shellfish] have not been conducted, these should be included in the next phase of surveys. A shellfish survey plan should be prepared after consultation with DMF and NMFS and presented in the EIS.
147-28	EIS should include the following information relating to the offshore structures and facilities: - The differences between the three proposed foundation types should be assessed, particularly the environmental impacts of each type; - More information should be presented regarding the potential scour protection to be employed for each type of foundation and the potential for habitat conversion, with a focus on the protective characteristics and beneficial uses (marine and fish habitat) from different rock sizes; - Potential effects on wind velocities and wave heights impacting the south coasts of Martha’s Vineyard, Nantucket and Cape Cod, particularly in light of the modeling presented in the recently released BOEM study entitled Use of Finite-Volume Modeling and the Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (BOEM 2016-050). - An analysis of the impacts caused by an array of turbines should be presented and discussed in the EIS, including effects on currents and water flow and the resulting potential changes to the distribution and abundance of fish and invertebrate eggs and larvae, with a focus on commercially and ecologically important species.
147-5	The impacts of the cable installation should be described in detail, along with a discussion of the predicted recovery time for any affected resources. This information should be updated as data is received and included in the EIS. Details of a post-construction survey, including video and acoustic assessments, over the buried cable should be included to document as-built conditions, to verify appropriate depth of burial, and to verify the estimated period of seafloor recovery.
147-6	The EIS should include an analysis of all the potential impacts of the cable installation, and it should include a comprehensive cable inspection program on a regular and as needed basis during the life time of the project to ensure adequate burial, including remediation plans for cables that are found to be at inadequate burial depth after inspection.

NB-11-4	And the other thing I want to talk about mitigation is the paths that you're going to be creating refer to a half an acre. Let's be nice here and say a third of an acre. How many turbines are going down there in total max? What was the total number max for turbines that might be down there? Not from you guys. The whole project...500? That's everybody. 500 times half an acre? That's a lot of bottom you converted from a productive bottom to a hard bottom that doesn't belong there.
NT-02-1	But I'm sure you guys looked at the Block Island project with a sharp eye. What issues, if any, do they have down there, as far as did they, you know, do preliminary surveys -- bird, mammals, benthic community -- during the construction? Were they, you know, totally monitoring the amount of turbidity in there, the reaction with animals? What -- so I'm curious of what things you might have found down there that would be watched up here with a good eye.
VH-03-4	Secondly, and perhaps this is a larger concern because the construction phase is finite and I understand there's been a lot of efforts in trying to minimize scour, minimize changes to the pelagic habitat and changes to the ocean floor. What concerns me is the introduction of so much electromagnetic energy coming through cables. Not just the interstitial cables, but also the transfer cables; and I believe that that's very, very poorly understood, and the risk is enormous.

BIRDS AND BATS

Comment ID	Comment Text
10-1	I am concerned about adverse impacts on wildlife, whether they are birds, fish, whales, dolphins, etc. What type of studies are being done on sound vibrations from this type of facility on wildlife?
41-10	Mass Audubon recommends that prior to construction (as well as during and after), bird populations should be more intensely monitored and documented. In addition to the aerial surveys already done, monitoring should include methods that work in a variety of weathers and seasons. The UK study cited above utilized a combination of radar and observation methods that could be considered for application to monitoring of offshore wind projects in the U.S.
41-11	Documentation of areas used by birds in the proposed turbine region should be based on multiple years of survey work. BOEM will need to coordinate data gathering and analysis across all projects throughout the East Coast over an extended period of time in order to adequately assess and minimize impacts both of individual projects and the overall offshore leasing program.
41-12	If the vast majority of birds fly above or below the RSZ [rotor swept zone], the wind energy project could pose little direct collision threat to local bird populations (although it may still have displacement impacts). However, if it is found that certain species frequently fly at RSZ height, this is important information to consider in evaluating the suitability of a project or turbine design for the project area.
41-13	It would be a useful metric to measure the percent avoidance of specific species- this could further add to our information about which species will be affected, a question that hasn't yet been satisfactorily answered. Sufficient pre-construction information needs to be gathered and analyzed in the EIS for this and other BOEM projects to objectively evaluate: 1) whether there are clear and present dangers from turbines to either rare birds or exceptionally large numbers of birds; and 2) comparison with post-construction data to measure the impacts of the turbines on bird foraging and migratory patterns. This is vital to inform future development and the overall build-out of the program.
41-14	Another primary way that wind farms can impact bird species is by limiting their access to prey in surrounding wind farm waters. While some seabirds will risk flying close to wind turbines to hunt, many birds will avoid these grounds altogether. The analysis of this aspect of impact could be informed by studies that have been done in Europe, although additional data is needed on the species and habitats located here.
41-15	The possible loss of food sources might be quantified in part by quantifying the amount of food already present (by using hydroacoustic methods, which can also show how local fish communities are changing as a result of the installation) and the number of birds seen foraging in the region (using aerial, radar, or ship-based observation techniques). This could be paired with a post-construction study in order to create a thorough Before-After-Control-Impact (or gradient) study. Gathering data on the richness of the lost foraging grounds could be vital in deciding which areas of development will be most detrimental to birds.

Comment ID	Comment Text
41-16	Construction and maintenance of offshore wind facilities will require the use of helicopters and ships both during and after construction of the wind turbines. It should be documented as to how this increased traffic will affect the behavior of birds in the region and whether or not that could pose an additional threat.
41-17	The EIS should include a detailed plan of anticipated helicopter and boat use during construction and maintenance, along with detailed record keeping. The effects of construction-related ships and construction methods on marine life, especially the North Atlantic Right Whale, also need to be carefully evaluated and minimized.
41-18	It is important to gather enough data to calculate these vulnerabilities [mathematical representations of the threats posed to a specific species or population] and then use them during the planning process and on an ongoing basis as the program is monitored and decisions are made about whether to continue further expansion.
41-19	A number of land-based songbirds migrate along the Atlantic Coast and could be at risk from the wind turbines as much as seabirds, at least during migration season. The EIS should examine fine-scale migration studies and conduct surveys during migration season. This area of study should be applied to migratory landbirds and offshore bats, which have been studied in BOEM reports in the Mid-Atlantic region.
41-2	Additional data is needed on avian and other wildlife use of the project area (and more broadly, the adjoining BOEM lease areas) for analysis of potential impacts and plans for avoiding, minimizing, and mitigating impacts. Both radar studies and additional direct observations should be conducted pre-, during and post-construction. Given the scope and duration of the overall BOEM offshore leasing program, data gathering and analysis needs to be conducted and coordinated over many years into the future.
41-22	Pending the results of future studies, we recommend that the eastern portion of these lease areas be subject to additional avian studies before any final decisions are made regarding potential restrictions or making some of those blocks ineligible for wind turbine construction due to the location's status as a seabird hotspot.
41-26	Rare species potentially impacted [by transmission cables] include the Piping Plover, Least Tern, and Spadefoot Toad. Impacts should be avoided as much as possible by final route selection. Unavoidable impacts should be minimized and fully mitigated. This could include details of precise routing, seasonal restrictions on work, and careful provisions for restoring disturbed areas following construction.
41-27	The New Hampshire Avenue landing route for the transmission cables will pass near Egg Island in Lewis Bay...It is a shallow shoal, exposed at low tide, and provides important feeding and resting habitat for coastal waterbirds including Piping Plovers, American Oystercatchers (Haematopus palliates), and terns.
41-28	The EFSB permit for that project [the Cape Wind project] included a condition requiring consultation with Mass Audubon and environmental permitting agencies to avoid, minimize and monitor effects of work in that area, including time of year restrictions to avoid impacts during the coastal waterbird breeding season. Similar provisions should be required for this project.
41-29	The Great Island alternative landfall site is located within coastal waterbird breeding habitat and land protected under Article 97 of the Massachusetts State Constitution. Any potential impacts to those resources must be carefully reviewed in the EIS in relation to applicable legal requirements.
41-3	Avian analysis needs to consider displacement effects such as avoidance and loss of important foraging habitat, as well as potential direct impacts. The vulnerabilities of particular species should be an area of focus, in particular rare or declining species and those with high usage of the lease areas. Additional review is needed for the easternmost lease blocks (close to Nantucket Shoals), where data to date indicates high usage by seabirds. Data should be collected on migratory landbirds and bats in addition to seabirds.
41-7	We also specifically request time-of-year and other conditions on the construction of the transmission line through Lewis Bay, to protect foraging and loafing habitat for terns and other coastal waterbirds on Mass Audubon's Egg Island property, a coastal shoal that is exposed at low tide, as work is proposed adjacent to this location.

Comment ID	Comment Text
41-8	Therefore, we recommend ongoing monitoring and documentation on the interactions between area avian life and offshore wind energy development [related to potential collisions]. Previously-undertaken European studies can help to inform developers and managers to reduce threats to seabirds from offshore wind.
41-9	In general, there are two main categories of avian - wind farm interactions: 1. Direct risk of collision, which often prove fatal to birds; and 2. Displacement from foraging grounds, or avoidance during migration. We recommend that BOEM document how each of these apply to OCS-area birds and also recommend the collection of data before, during, and after construction of wind turbines in order to inform decisions on current and future projects, and to adjust the offshore wind program and associated mitigation over time.
43-12	potential impacts to endangered species, including piping plovers, roseate terns, and the North Atlantic right whale
43-4	The scope of the review should include a detailed and comprehensive assessment of impacts to wildlife, marine species, and fisheries
80-1	Roseate Tern is especially at risk due to its small population size and the significant concentration (> 90%) of the U.S. population on only three nesting islands in Massachusetts and New York. Small increases in adult mortality or decreases in reproductive success could have severe consequences for tern populations; thus, it is crucial to assess whether wind turbine generators (WTGs) have the potential to affect Massachusetts tern populations. In addition to terns, the potential of WTGs to affect migrating Piping Plovers, Peregrine Falcons (state-listed as Threatened), and several other important migratory birds – including Common Loons, Long-tailed ducks, and other Seaducks - need to be thoroughly assessed.
80-2	In light of the regional importance of Massachusetts Roseate Tern and Piping Plover populations a more conservative and comprehensive approach to assessing risk and impact is necessary. The Division requests that the EIS include the results of BOEM's "Pilot Study Tracking Offshore Occurrence of Common Terns ad American Oystercatchers with VHF – extended to include Roseate Terns and Piping Plovers" as this study is anticipated to provide additional insight on dispersal flights during the post-breeding period.
80-3	...the COP identifies potential avoidance, minimization and mitigation measures, which include various forms of light management, anti-perching devices, and standardized protocol for documenting dead birds found on vessels and structures during the O&M phase. The COP does not, however, include specific information on the "standardized protocol." The Division requests that the final COP and EIS contain detailed information on documenting dead birds found during both the O&M and construction phases of the project, as well as include the use of thermal cameras to document avian mortality. More importantly, the Division recommends that the EIS evaluate whether seasonal cessation of turbine operations is necessary during key migration times.
80-5	The Division therefore recommends that the EIS thoroughly evaluate potential population level impact for all tern species. The EIS must thoroughly evaluate both spring and fall migration for terns through additional survey effort, including pre-breeding activity and post-breeding movement to staging grounds and address the relative importance of Massachusetts for breeding and staging of the North American population.
83-2	...there are three main categories of potential threats posed by offshore wind farms to birds: (i) direct risk of collision, which often prove fatal to birds; (ii) displacement from foraging grounds; and (iii) avoidance of wind farms, which can impact bird migration patterns and result in increased energy expenditure, with serious consequences. Attraction to the lights emitted by the wind project may also increase collision-risk, and boat traffic during construction and maintenance can increase stress and result in habitat exclusion. Strategies to minimize impacts to birds include avoiding siting turbines in important avian habitats where significant presence and abundance of species has been documented by the best available science (including nearshore areas, shoals, mouths of inlets, rocky/boulder reefs, and other areas important to various life stages of sensitive coastal and marine species) and alternative lighting designs that take birds into account.

Comment ID	Comment Text
83-3	It is important for BOEM to consider the full range of potential impacts on all bird species known to forage and rest in or near the lease area, including those species protected under the Migratory Bird Treaty Act and the Endangered Species Act, and, as such, BOEM should collect and evaluate data on bird species' vulnerability before, during, and after wind turbine construction in order to inform decision making, improve mitigation, and advise future offshore wind efforts.
83-4	We are aware that the Department of the Interior ("DOI") and the U.S. Fish and Wildlife Service ("FWS") are now relying on a new interpretation of the Migratory Bird Treaty Act that limits the scope of the Act to the purposeful take of birds. Our organizations strongly oppose this interpretation as contrary to the plain language and intent of the law, and we urge BOEM to continue to implement its Migratory Bird Treaty Act responsibilities as all previous administrations have done in the past, with explicit recognition that incidental take is prohibited. This would also be consistent with the memorandum of understanding that BOEM signed with FWS in 2009 to protect migratory bird populations.4 If DOI's new interpretation changes BOEM's analysis and associated requirements for impacts to migratory birds in any way, a detailed description and explanation of such changes must be included in the EIS.
83-7	Research and monitoring studies identify two potentially serious possible impacts on migratory bats from operational offshore wind turbines: (i) fatalities of migratory species from direct strikes and/ or barotrauma from the negative pressure associated with operating wind turbines; and (ii) cumulative impacts on populations of migratory tree-roosting species that are resident onshore or migrate offshore along the eastern United States.
83-8	Throughout the development process, BOEM should carry out the necessary research and monitoring to address uncertainties regarding the potential interactions of bats and offshore wind development and should thoroughly examine mitigation options. It is important to note, however, that given the challenges of conducting fatalities assessments at offshore sites, many dead or injured bats would most likely go unrecorded, either falling into the water or becoming prey to marine scavengers or predators. BOEM's assessment of the impacts to bats should, therefore, be conservative, and employ the best available scientific methods, such as autodetection and thermal imaging technology.
87-10	Offshore wind development may cause significant impacts to bird and bat populations from collisions with turbines and habitat displacement. Rotor speed, rotor size, the amount of turbines, turbine location, turbine lighting and the cumulative impact of other turbine projects, are all factors that BOEM must examine.
87-11	Offshore wind development may also displace populations [of birds/bats] from foraging grounds or cause avoidance of wind farms altogether. Impacts of avoidance should be examined through an ecosystem based management lens to determine the overall footprint of this disturbance, with careful monitoring and evaluation mechanisms in place to address any adjustments that might help mitigate negative outcomes.
87-16	For each of the environmental impacts listed above, BOEM must analyze them seasonally, as different species have varied sensitivities at different times of the year.
88-5	Will there be a detrimental effect in the marine foodchain if several species avoid this area? Will this ambient noise disrupt the migration of birds? Nomans Island is a bird sanctuary.
88-7	There will be cables surrounding the west and east coasts of the Vineyard as they head to the mainland. Will this effect the natural migrations of birds and aquatic life? Nature has build in homing systems that could be deviated with electrical interference.
90-8	This data [Northeast Ocean Data Portal, the Massachusetts Ocean Resource Information System, maps and data that informed the Rhode Island Ocean SAMP, Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles, and Abundance and Distribution of Seabirds off Southeastern Massachusetts, 2011-2015] should be supplemented by any of the project proponent's own data collected through site assessment and characterization. Any relevant data gaps should be identified. In addition, proposals should specify, where relevant, how they satisfy the Massachusetts Ocean Plan requirement that any state-issued permits are consistent with the Plan.

Comment ID	Comment Text
108-3	The other major concern we have is for wildlife. Those living in the ocean and those flying above, that can potentially be impacted by the work to install and maintain the towers and turbines, laying and maintaining of power lines, as well as the turbine field that is going to occupy the air space above that area of ocean, must be seriously and fully vetted before the final approval is made
109-3	Above the water fisherman, recreational boaters, and birds especially sea birds will be affected not to mention commercial shipping.
147-14	The following data should be evaluated, any potential impacts should be identified, and measures and practices to avoid and minimize adverse effects [to marine mammals, sea turtles, and sea birds] should be detailed in the EIS, including but certainly not limited to time of year restrictions, soft-starts for pile driving, and real-time detection capabilities. - Area of high density of North Atlantic right whale sightings adjacent to the project footprint south of Muskeget Channel; - High density observations for leatherback turtles in Muskeget Channel, and loggerhead turtles observations within the project footprint; - High density observations for Common Tern, Long-tailed Duck, Northern Gannet, Razorbill, Roseate Tern, two loon species, and three species of scoters in Muskeget Channel; and - Habitat for fulmars, Northern Gannet, Razorbill, several species of shearwater, and Wilson's Storm Petrel in the Vineyard Wind lease area.
NB-10-1	it's just horrible for the fisheries. No mammals, no birds, no fish, no lobsters are going to co-exist with this project.
NB-11-7	It's kind of the way you did your bird survey. By airplane; right? ...That's not a legally acceptable bird survey; ...As anybody who has been on the water knows, the birds that you're not seeing are the ones that are feeding on the bottom; you know?
NT-02-1	But I'm sure you guys looked at the Block Island project with a sharp eye. What issues, if any, do they have down there, as far as did they, you know, do preliminary surveys -- bird, mammals, benthic community -- during the construction? Were they, you know, totally monitoring the amount of turbidity in there, the reaction with animals? What -- so I'm curious of what things you might have found down there that would be watched up here with a good eye.
VH-03-2	and I as a fishermen representative, we have a lot of concern. There's some well documented evidence that a lot of different species from hummingbirds to leatherback turtles to yellowfin tuna utilize electromagnetic spatial recognition for their migration. The ospreys have just showed up back on the Vineyard. Most of them fly from Venezuela though fog in the night without visual cues. They don't use smell, and it is poorly understood now what the effects are of what a large amount of electromagnetic energy does to migration.
VH-03-5	The ospreys have just showed up back on the Vineyard. Most of them fly from Venezuela though fog in the night without visual cues. They don't use smell, and it is poorly understood now what the effects are of what a large amount of electromagnetic energy does to migration.
VH-09-2	We talked about the ducks and migration. That happens this time of year. I've seen it. It's quite an amazing site. I'd like to see it protected. The whales. This is a tough one for me. The turtles. Years ago I did offshore drift netting for swordfish.(...) we can't keep these whales or sustain the population they have if they don't have the smaller species they feed on which migrate through this route. I'd like to see this process slowed down. I'd like to see more research done, and I am scared.

COASTAL HABITAT

Comment ID	Comment Text
20-1	Laying cable through this extremely shallow and fragile bay [Lewis Bay] could do irreparable damage to the bay, which is used by swimmers, recreational boaters, fishermen, and is the site of quahog and scallop harvesting and a commercial oyster farm. The bay was healthier when it was being routinely dredged. At the last public meeting, I was told that dredging would no longer be possible.
22-4	The MLA is extremely concerned about any negative impact to the resources from the EMF and jet plowing
22-8	Lastly, the MLA is further worried given the uncertainty and indefinite impacts to the ALL the commercial viable resources our commercial fishermen depend upon given the proposed scale of this offshore wind farm and the unknown impacts to the ecosystem an approximately 800-megawatt wind farm will have not just on the economically viable resource in the ocean but all marine life
3-1	I attended a meeting whereby a representative from Vineyard Wind spoke about the level of attention that will be paid to the environmental impacts while building this and installing the cable. If they do what they say they will do, the Lewis Bay area will be in better condition when they're finished.
40-9	The EIS should provide a description of wetlands, streams and other waters of the United States that may potentially be directly or indirectly affected by the proposed infrastructure or activities associated with the project. We recommend that the discussion include the range of design/construction measures that can be implemented to avoid and minimize impacts of transmission cables as they transition to shore from the marine environment.
41-25	Some of the landing options for the transmission lines have impacts that will need to be reviewed and considered for avoidance, minimization, and/or mitigation. This includes potential impacts to eel grass beds, dunes, rare species habitat, and Article 97 lands.
41-27	The New Hampshire Avenue landing route for the transmission cables will pass near Egg Island in Lewis Bay...It is a shallow shoal, exposed at low tide, and provides important feeding and resting habitat for coastal waterbirds including Piping Plovers, American Oystercatchers (Haematopus palliates), and terns.
41-30	The potential land-based routes for routing between landfall and grid interconnections are located primarily within roadways, road edges, existing utility rights-of-way, or other previously disturbed corridors. Nonetheless, detailed plans and procedures need to be identified to minimize impacts to habitat, soils, and surface and ground water. Any impacts to Article 97 lands should be avoided if possible, and if it is determined to be unavoidable, then full compliance with the Article 97 policy and procedures should be demonstrated in the EIS.
41-7	We also specifically request time-of-year and other conditions on the construction of the transmission line through Lewis Bay, to protect foraging and loafing habitat for terns and other coastal waterbirds on Mass Audubon’s Egg Island property, a coastal shoal that is exposed at low tide, as work is proposed adjacent to this location.
43-10	The scope of the review should include assessment of the biological and physical impacts of the cables on sensitive resources such as sea grass, eel grass, shellfish, and other marine life as part of the scope of the review.
43-5	The review should also evaluate impacts to benthos, sediment, and aquatic vegetation.
43-9	neighborhood associations in the Hyannis and Yarmouth areas are opposed to constructing cables through the entrance to Hyannis Harbor and Lewis Bay because of potential impacts to fragile natural resources.
44-6	We have a lot of concerns about how the habitat, biology, and ecology will be affected by the construction, operation and electromagnetic fields from the wind array. This should have been in place at the start of the lease and studies should already be well underway. We fear that there will simply not be enough time to carry out a legitimate time series of data for this site
4-6	Of the three wind energy proposals, Vineyard Wind's is the riskiest. Again, the uncertainty of this proposal surrounds placement of high voltage electric cables beneath ecologically challenged Lewis Bay landing with an industrial purpose in a residential neighborhood.

Comment ID	Comment Text
46-1	They have proposed laying three cables in Lewis Bay less than a quarter of a mile from my [oyster] farm. These trenches will be approximately six feet wide and six feet deep. They have provided no proof that the silt from these trenches will not end up moving on top of my farm and covering, and smothering my oysters.
46-2	My concerns regarding the silting also extend to the quahog population for the Town of Yarmouth. If the quahogs also get smothered by the silt it would eliminate another portion of my income. They have also given me no proof that the scallop population will not end up in the trenches, again getting smothered.
46-3	They also want to do the work of laying the cables right in the middle of scallop season. They claim that each cable should take approximately a week. This would mean that for three or more weeks that [I] will not be able to work. This would also be a huge hit to my income as well as many others.
46-4	Yarmouth has one of the few areas remaining on the Cape that has a fairly decent scallop population. It would be terrible if this was lost.
46-5	I have several thousand dollars worth of gear in Lewis Bay that I use to cultivate my oysters. If electrolysis occurs and I have to replace the gear very frequently it would cost my business thousand of dollars yearly. I have consulted with some oyster experts and they recommended putting zincs near some existing lines to see how much electrolysis was actually occurring. Mr. Mayo had no desire to do this experiment, all he wanted to do was show me the data that Vineyard Winds scientist supposedly have collected. This is suppose to prove to me that it will not happen, but in no way gives me any physical proof that their data is correct.
47-3	Lewis Bay is already in degraded environmental condition... Laying cables in Lewis Bay will impede any remedial actions, negatively impact moorings and shell fishing, and introduce into the bay unresolved electro magnetic issues associated with high voltage cables.
48-1	Lewis Bay already has environmental issues that need correction. Putting these cables in our fragile Bay will only cause more issues. There are other places where the cables can land. A location on the shore rather than an enclosed Bay is a more appropriate solution. The argument that it costs less to put the cables through the Bay should not be a factor.
50-1	The issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay 2. Reasonable alternatives, at either Covell's Beach or Brayton Point exist
50-2	The Bay is environmentally fragile and needs protection with no impediments to future actions we may want to take, such as dredging.
51-1	the proposal includes one possibility of Vineyard Wind sending cables from the turbines into Lewis Bay. the issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay.2. There are reasonable alternatives, at either Covell's Beach or Brayton Point.
51-2	The Bay is environmentally fragile and needs protection with no impediments to future actions we may want to take, such as dredging.
52-1	My comment is regarding proposed wind farm, Vineyard Wind, LLC, and the landing of the cables from the turbines in Lewis Bay. 1: Its an unreasonable impact on a fragile environment. 2: There are reasonable alternatives.
52-2	Lewis Bay needs protection with no impediments to future actions needed, such as dredging.
53-9	The "Affected Environment" section of the EIS should cover a sufficient geographic area to fully examine the impacts of the proposed project and support an analysis of the cumulative effects. Within this section, the EIS should include results of on-site surveys, and site specific habitat information including the physical oceanography (temperature, salinity, depth, and dissolved oxygen), plankton and larval distribution, chlorophyll a, and characterization of benthic communities. Additional details should be provided related to sensitive habitats in the project area.
54-1	Please deny Vineyard Wind's request to disrupt the valuable and fragile environment of Lewis Bay with placement of cables underwater in the area.
55-1	I'm concerned that Lewis Bay is being targeted as it's less expensive!! If this project moves forward without 100% confidence that it will not have an impact to Lewis Bay it may be more expensive in the long run!!

Comment ID	Comment Text
56-1	In the last ten years, significant shoaling [in Lewis Bay] has created much more shallow conditions which lead to some frightening changes to the vegetation and sea life. Vineyard Winds proposal to bury a electric cable in the sea bed to connect their wind farm to the grid is deeply discouraging...We fear the process will further the shoaling and make any remediation impossible in the future.
57-3	The bay is a fragile environment that is currently suffering and in need of plan to restore its health.
58-1	The Bay is environmentally fragile and needs protection with no impediments to future actions we may want to take, such as dredging.
58-2	The Bay is notorious for it shifting sands, which increases the risk of cable exposure and its' impacts.
60-4	Further, BOEM should consider the oceanographic impacts of Vineyard Wind's proposal, considering how changes to habitat or local currents, for example, could affect the seasonal copepod aggregation, which are prey not only to whales, but also forage fish.
61-1	Lewis Bay far too fragile for wind cables. Please consider other alternatives as environmental risk is too great.
61-2	If no other alternative possible, please consider asking Vineyard Wind to dredge the opening of the bay to offset negative impacts.
63-1	The alternate locations, at Covell's Beach or Brayton Point offer far less opportunity for environmental damage than the Lewis Bay approach.
63-2	We currently face intense eutrophication in Lewis Bay requiring a near-term solution for the health of the Bay and this fragile ecosystem. Placing a further burden on this waterway with underground cabling making landfall, has the potential to further degrade our ecosystem and place critical restraints on our ability to improve the water quality going forward.
65-1	The ecosystems of Lewis Bay and many surrounding areas have already been extensively developed and threatened.
68-1	NO to Vineyard Wind landing at either Lewis Bay or Covell's Beach! Unreasonable impacts on Lewis Bay which is environmentally fragile. Covell's Beach is a horrible choice since it is an extremely popular beach for both locals and tourists. Brayton Point is preferred alternative.
69-16	A large increase in vessel and vehicle use will affect harbors that this project will utilize. A thorough assessment of the potential conflicts with existing harbor users, including commercial and recreational fishermen, is needed for both construction phase activities and operations.
69-17	Clarification of how fishermen will be notified in the event of an oil spill, and the process for oil spill reparations, is needed.
69-20	The EIS should include a clear description of how eelgrass and winter flounder impacts from turbidity would be avoided, as well as minimization of impact to horseshoe crab, quahog and bay scallop resources and fishing activities [at the New Hampshire Avenue Landfall Site].
69-21	The EIS should address potential impacts to existing eelgrass meadows and whether or not trenching would adversely affect future eelgrass growth if no eelgrass is there currently.
69-22	Impacts to marine habitat associated with the New Hampshire Avenue Landfall Site using the open cut trench method are characterized as "short-term and highly localized." (p. 6-86). This statement requires supporting information on expected turbidity plumes and benthic habitat characteristics pre- and post-trenching.
69-28	Comprehensive habitat maps are needed with an assessment of which habitats are vulnerable to impacts and how those impacts will be avoided and minimized.
69-29	The identification of high density shellfish areas in the wind development area and in Lewis Bay is needed to ensure cable and wind turbine generator placement is minimizing impacts to sessile macrofauna.
72-1	Lewis Bay is one of the Capes and the States most beautiful natural resources. We would like alternatives sites for landfall to be considered. Lewis Bay, which is already compromised, is too fragile for wind cables. Please consider the environmental impact to an already strained area.
76-1	It [the route through] would ultimately be devastating to the health of the Lewis Bay. It is a very fragile environmental body of water with oyster farms, quahog beds, scallop fishery and feeding area for migratory stripped bass, bluefish, false albacore, menhaden.

Comment ID	Comment Text
76-3	If a cable is payed in Lewis Bay it would interfere with dredging of the Bay, which would cause damage by not allowing adequate flushing by the tides. Eventually leading to the death of Bay.
79-1	I am adamantly opposed to the placement of cables across Lewis Bay. There are other viable alternatives and Lewis Bay should be protected. The natural environment of the bay needs our protection.
81-3	To the contrary, this is our chance to take advantage of the rigorous environmental review that Vineyard Wind is undergoing to test the current condition of the bay and to direct some of the dollars contributed by the project to reduce the taxpayers' burden for required wastewater treatment that will reduce nutrient pollution of the bay
82-1	Future plans on ecological restoration, water quality improvements and sediment management project studies need to be conducted [for Lewis Bay]. Pre project studies should be conducted to identify potential impacts, identify issues that will need to be addressed prior to the installation of the cables, and to develop a base line for the potential post project monitoring. If the Lewis Bay site is approved, additional information will need to be sought to assure the public's safety, as well as environmental stability and protection. Additionally, fiscal responsibilities would need to be identified to ensure environmental protection through improvement efforts and address any potential economic losses
82-2	an independent study [is recommended] expanding and updating the results of the Mass. Estuaries Project (2007) and the Environmental Study of Lewis Bay (2009) conducted by UMASS-Dartmouth School for Marine Science. Both studies concluded that Lewis Bay was a nitrogen impaired ecosystem in regard to: water quality, bottom vegetation, benthic animal communities, eelgrass, flushing, and sediment accretion.
82-3	an independent study [is needed], expanding and updating the 2010/11 US Army Corp of Engineer study pertaining to the existing environmental conditions associated with Lewis Bay and its tributaries; to include the flushing ability and residual retention of tidal waters throughout the water column, sediment transport within Lewis Bay and the Hyannis Outer Harbor and its effect on erosion and accretion, as well as identify dredging opportunities to improve flushing of Lewis Bay prior to the transmission cable installation so as not to impact the prescribed six foot cover depth.
82-4	an independent study [is recommended] as to the potential impact on the bay scallop population and its fishery In Lewis Bay. There appears to be no data on impact studies on bay scallops associated with the jet plowing installation process, maintenance, repairs and decommissioning of the transmission lines, electromagnetic impacts, substrate temperature increase and habitat loss.
82-6	a management plan should be required for the habitat restoration of valuable shellfish beds to the preconstruction conditions and provide enhancement measures to improve and maintain the shellfisheries (bay scallop, quahog, softshelled clam and oyster) or provide compensation for loss of actual and potential productivity associated with installation, maintenance, decommissioning and electrical transmission.
84-1	No cables should be brought into Lewis Bay, West Yarmouth. The bay is environmentally fragile as it currently exists. At this point in time, Lewis Bay needs to be studied and protected to determine how to refurbish it to its original state.
87-14	Impacts to natural resources in the nearshore area, such as wave breaks and slope, must be mitigated...the Surfrider Foundation urges BOEM to leverage the best practices identified in the Northeast Regional Ocean Plan to meet this important project goal.
90-5	CLF wishes to emphasize the need for BOEM to perform an analysis of cumulative impacts from electric transmission cables linking future offshore wind development in the federal wind energy areas to the electric grid onshore, and consider what steps BOEM might take to minimize the number of transmission cables necessary to deliver maximum offshore wind power. Placement of transmission cables can disrupt sensitive marine benthic habitats as well as coastal lands and the flora and fauna inhabiting these areas. Electromagnetic fields emitted from the cables can affect various marine species.

Comment ID	Comment Text
91-1	Vineyard Wind proposes to make landfall in West Yarmouth, by laying cables through environmentally damaged Lewis Bay [as opposed to the other two proposed projects utilizing the Brayton Pt, in Somerset MA location] . When asked why Vineyard Wind chose to lay cables in Lewis Bay, their officials answered "it is cheaper for us".
91-2	no comprehensive study concerning marine life in the bay and Hyannis Harbor has been done in more than twenty years, no comprehensive study of the topography and sediment flow in the bay and harbor has been done in more than twenty years, and no study about the effects of deep draft and high speed ferries through the bay and harbor has ever been done.
91-3	Further, cables will impede remedial efforts to clean up the bay, will impact moorings and recreational boating, and introduce into the shallow bay waters unresolved issues associated with electro-magnetic fields
93-1	The constant shifting of the sands in Lewis Bay requires yearly dredging which the Vineyard Wind company has not taken into account. This dredging is done right where the laying of cables would be entering the bay from Nantucket Sound.
93-2	The friends of Lewis Bay have been working hard on preserving and maintaining healthy shellfish beds and these beds would be destroyed since they are located in the area designated for the laying of the cables.
96-1	The Preferred Route for their multiple high voltage cables will enter Lewis Bay, an important water resource supporting tourism, shell fishing, recreational fishing, commercial ferry traffic, recreational and commercial boating activities, and swimming, and from there come ashore at New Hampshire Ave
96-6	the issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay2. There are reasonable alternatives, at either Covell's Beach or Brayton Point3. The Bay is environmentally fragile and needs protection with no impediments to future actions we may want to take, such as dredging.4. The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed here when there are significantly more appropriate alternatives, especially Brayton Point.
98-1	The Lewis Bay natural resource - needs your attention to bring it back to positive health….not industrial construction of cable ducts to accommodate Vineyard Wind Power Plant.
98-2	The impact on the Lewis Bay ecosystem has not been studied by the applicant. Your environmental impact assessment of this project must require a full study of all of the current & historic ecological realities of Lewis Bay. The applicant should be required to pay for such in depth studies, to be conducted by a third party - qualified scientifically based entity like the Marine Biological Laboratories or Woods Hole Oceanographic Institute…both located right here on Cape Cod in Woods Hole. We have the best scientists in the world, just a few miles from here….therefore, why wouldn't we utilize their expertise & desire to study our bays prior to allowing such an incredibly high impact industrial project?
103-1	My Concern: the route thru Lewis Bay. There is a more direct route than placing cables thru the already distressed Bay. VW has promised studies and nothing should be decided until all are complete.
107-2	This proposed placement will affect the environmental and economic life of the bay, which is significant recreational tourist and fishing site.
111-1	I strongly oppose the placement of cables in Lewis Bay. Please consider other options such as Covell's Beach. Lewis Bay is already environmentally compromised and the addition of cables may lead to further degradation.
114-1	The Bay is already compromised and there are options available.
122-1	A specific environmental study is needed in regards to Lewis Bay. Lewis Bay is far too fragile to go forward without a detailed impact study. Without such a study and impact assessments it would be irresponsible to go forwards. Choose an alternative route.
123-1	Considering jet plow has difficulty on slopes of 75 degrees or hard structures, how will the method change considering the massive sandwaves/ shoals and cobble habitat in Muskegot Channel.
125-1	Why bring cables into a sensitive environmental bay, which is in trouble???

Comment ID	Comment Text
137-17	It is undisputed that Lewis Bay is experiencing ecological degradation. At least one solution will incorporate extensive dredging to facility better water flow into and out of the Bay. It is critical, therefore, that cables be sunk to a depth that would allow dredging to take place throughout the Bay, unhindered by a shallow cable. Woods Hole Oceanographic or other eminently qualified consultants should review such contingencies and their approval of final plans should be a prerequisite to a ROD...the cable should be set at sufficient depth and distance from the channel edge to allow for proper sloping of the sides of a deeper channel [to accommodate deeper dredging for larger draft vessels in the future.
141-1	We are writing in strong opposition to the proposed placement and landing of cables in Lewis Bay. We do not understand why this site would be used as even Vineyard Wind at a prior meeting stated that landing at Covell's Beach was an "equally feasible" site.
141-3	There are many known problems with such a heavily used bay with a very narrow access at its mouth. They include the nitrogen loading issue for which the Town of Yarmouth is seeking multi-town long-term solutions; and shifting sand, sediment movement, island expansion and harbor entrance narrowing issues that required/will require additional dredging and have already been discussed at other hearings by residents with historical documentation/maps. Yarmouth and Barnstable need to have the ability to plan and implement remediation that will not be compromised by obstruction from these cables.
141-4	In addition, the potential use of concrete mattresses has already been discussed by the fishing industry at your hearings but represents a serious problem for sailboats with large keels in our bay. We have read that in Europe they have actually created "no go" zones around some of their cables to prevent further damage from anchors and fishing operations- this would be devastating in Lewis Bay
142-1	First, I suggest that Catastrophe Insurance or Bond be put in place in case of any catastrophic accidents that are located in Lewis Bay; associated with the Vineyard Wind Project. Some of the monies the Town of Yarmouth receives from Vineyard Wind Project should go into a dedicated fund for Lewis Bay not the General Fund. This would allow money for monitoring the water quality, monitoring the viability of the established shellfish population located in Lewis Bay and the overall health of the Bay, along with money available for future seeding of shellfish in Lewis Bay for years to come.
142-2	The Yarmouth Shellfish Department has worked hard for the past 22 Years to establish a population of Bay Scallops within Lewis Bay which the Commercial Fishermen count on each year for their winter fishery. I would like to see a contingency plan to reestablish said Scallop populations in the event the scallops are no longer viable in the Bay. I would like to see Vineyard Wind put in place multi-year contracts with local Hatcheries to purchase Bay Scallops for repopulating and for yearly seeding of Lewis Bay for years to come.
142-3	...when jet plowing the (3) three cables into the bottom at a depth of (6) six feet, the plow might stir up something toxic that's been buried for hundreds of years in the bottom of Lewis Bay which will mix into the overlying waters of the Bay, where it could be consumed by the shellfish. One answer to this problem is to jet plow the cable when the water temperature of Lewis Bay is at or below 45 degrees F, so the shellfish will not be pumping much water as their metabolisms will be shut down for the winter.
142-4	Another concern of the [Shellfish] Lease Holders is not being able to remove their gear in November and December for the winter because of congestion from Vineyard Winds equipment blocking the boat ramp at Englewood Beach. One solution would be installing a temporary boat ramp at Bayview or Baxter Ave until the project is completed or leave it in for future use.
143-1	Over the last 10 years, Conrad and help from the county have developed a bay scallop which has adapted to Lewis Bay...I can't believe we are going to let this business come in and destroy it again!!!
144-1	By digging multiple troughs in the total bay area, will scallops and other shellfish fall into them (and also vegetation and trash), get caught and silted over and the area then becomes a non-oxygenated "dead area" as has happened in other areas of the Bay.

Comment ID	Comment Text
144-2	will softening multiple (tracks) areas in Lewis Bay contribute to much more accelerated silting which negatively impacts shellfish native species and habitat and possibly build up or tear down many bottom areas and continue out well past the electric lines areas.
144-4	I believe in the Town of Yarmouth dock pilings can't be sunk for docks in shellfish areas without a shellfish survey being done for impact results. Has anything like this been done for Lewis Bay for the electric lines areas?
144-5	If any of the lines are breached (damaged) will any of the above concerns be multiplied? How will the damaged area(s) be found? e.g., How much will have to be re-dug up to repair and further disrupt the natural area?
144-6	if negative impacts happen affecting shellfishing in the area, who would cover my (and many others) $ losses in and for the future?
147-16	The proponent estimates that dredged corridors through sand waves will be approximately 65 feet wide for each of the three cables. The COP states that sand waves up to 15 feet in height exist along the cable route and states that pre-cable laying dredging may be needed to ensure sufficient cable burial beneath the stable seabed. The sand waves should be mapped and identified relative to the proposed cable routes. The depth of sand wave dredging, the amount of sand waves to be removed, and the grain size of the material removed should be calculated and presented in the EIS.
147-17	The sand waves and grain size variations provide habitat which may be impacted by the proposed dredging. An analysis of estimated impacts and area caused by the sidecasting of this material should be provided. The EIS should provide an analysis of the estimated time it will take the sand waves to resume their pre-construction profile and a related assessment of the length of time for benthic community recovery to occur.
147-18	The EIS should provide more details on the methods proposed for side-cast disposal of dredged sediments through the area of sand waves and specifically side-cast disposal methods that reduce and minimize impacts on the benthic community to ensure minimal impacts on currents running through the area of sand waves.
147-19	The EIS should include a breakdown of how the potential dredge areas and volumes were calculated. This information should be described in the narrative and the dredge footprint should be shown in plan-view. The COP and ENF also state that any dredge material will be sidecast once removed from the trench, however it is unclear if this area was included in the footprint of project impact. This detail should be included in the EIS narrative.
147-2	It [the EIS] should include an existing conditions plan that clearly locates and delineates all resource areas based on site specific surveys conducted by the proponent, including but not limited to eelgrass, shellfish, hard/complex bottom, intertidal flats, and rare and endangered species.
147-21	The COP also states that no impacts to specified resource areas are anticipated from dredging because it is expected to be limited to offshore areas away from intertidal zones, outstanding resource waters, and eelgrass beds. However, several species of bottom dwelling organisms, including surf clams, bay scallop, razor clams, channeled whelk, knobbed whelk, horseshoe crabs, and blue mussels exist in offshore areas. These resources should be identified and mapped and discussions should take place between the proponent, the Massachusetts Division of Marine Fisheries (DMF), and the National Marine Fisheries Service (NMFS) to avoid and minimize any possible impacts.
147-23	...the proponent must make every effort to avoid any eelgrass present in the proposed route.
147-5	The impacts of the cable installation should be described in detail, along with a discussion of the predicted recovery time for any affected resources. This information should be updated as data is received and included in the EIS. Details of a post-construction survey, including video and acoustic assessments, over the buried cable should be included to document as-built conditions, to verify appropriate depth of burial, and to verify the estimated period of seafloor recovery.
147-6	The EIS should include an analysis of all the potential impacts of the cable installation, and it should include a comprehensive cable inspection program on a regular and as needed basis during the life time of the project to ensure adequate burial, including remediation plans for cables that are found to be at inadequate burial depth after inspection.

Comment ID	Comment Text
HY-03-7	and if there's a catastrophic release out there, you can do the math and see that this could have a critical impact to the environment out there
HY-05-1	I am a coastal engineer(…) , it's my understanding that the subsurface cable that's going to be laid is going to be laid via jet plow. And my question is -- is Vineyard Sound has a lot of sand shoals and a lot of sand waves, and the jet plow's operational range is only about 5 percent grade. So in those areas, how are you guys going to address that?
HY-05-2	There's also a lot of cobble habitat out there that is fisheries' habitat, and it's my understanding from the geophysical 1 report that there was cobble habitat that was found in Muskeget Channel. So how is a jet plow going to lay the cable in those areas?
HY-08-2	most of the harm to Lewis Bay is man-made, and here we have another situation where the hand of man may do something that no one understands. And so what I'm suggesting is caution and perhaps more study rather than less be done
HY-13-1	laying a cable could impact dredging decisions that need to be made in the future... But say supposedly Army Corps of Engineers says, "Yeah. It's on our agenda, but it's not for eight years," and then the cable gets laid 5 feet in the ground, and then the Army Corps of Engineers comes in and says, "We've got to dredge this thing. We've got to go down 10 feet, 12 feet." What happens? Does the dredging not occur? Does Vineyard Wind have to re-lay the cable?
HY-13-2	The sands are shifting. It is not nearly as deep as it used to be. And if they expect it to be the channel of commerce to all the islands, then I assume that somebody at some point is going to look to dredge that channel in that bay.
HY-14-3	And then you don't have to have this huge report that has, well, what if this happens, what if that happens, because you're coming into a channel and a bay. If you don't come into a channel at all, you don't even have to worry about the dredging...They don't to have to worry about the what if later or the liability later.
HY-16-2	Another thing is that when you're running these cables through the bay, it is the dredging. We have to have tidal flushing in there, and we're so shallow in places now we're not getting enough tidal flushing through the bay. So once that comes to fruition, there wouldn't be any chance to dredge. You can't dredge under it. You can't dredge over it because, if you expose it, it can't be left that way. It becomes a danger.
HY-17-1	I see dredging every year going on in the channel. I sail my boat. I can barely get through the opening of Lewis Bay to get out to Nantucket Sound now because it is so narrow. There's no room for the ferries and any other boats. It's so narrow. And for you to think that you can bring a cable in there and never have to dredge -- it's dredging all the time now...So I just think you should find another alternative than Lewis Bay.
KI-16-1	We are opposed to having the cables land in a environmentally fragile shallow bay, when there are reasonable alternatives available.
KI-18-5	The wind developers here have absolutely no science in my book to provide baselines in these areas to the way the potential impacts moving forward to the habitat or the ecosystems. There's minimal requirements to cover these. We need a smaller project with studies for baselines and long-term studies going on afterwards before we make a rush to put steel in the water to produce nuclear power plant-sized electrical generation.
NB-13-1	I'm actually representing over thousand homeowners on the West Bay, and there are major concerns about the idea that one of the alternates -- or the primary first alternate landing is through a shallow, environmentally fragile bay that has serious needs for dredging and other kinds of issues that finally have been established after a number of years of work...
NB-13-2	Lewis Bay is basically the only small, sort of shallow bay in Yarmouth; and it is a shared bay with Barnstable, and as a consequence, it is both a significant economic and recreational area for both communities. It is where the ferry boats to Martha's Vineyard and Nantucket come in. It's where the tour boats, the other sightseeing things where the yacht clubs are all located, where sailing programs are, and where numbers and numbers of moorings are placed.

Comment ID	Comment Text
NT-02-1	But I'm sure you guys looked at the Block Island project with a sharp eye. What issues, if any, do they have down there, as far as did they, you know, do preliminary surveys -- bird, mammals, benthic community -- during the construction? Were they, you know, totally monitoring the amount of turbidity in there, the reaction with animals? What -- so I'm curious of what things you might have found down there that would be watched up here with a good eye.

COMMERCIAL FISHERIES AND FOR-HIRE RECREATIONAL FISHING

Comment ID	Comment Text
2-1	If these are implemented my family's 100 year business which is harvesting wild seafood from the Northwest Atlantic Ocean will be over...my future children will not have the option or availability to be commercial fishers.
16-9	Vineyard Wind has committed to conduct pre- and post-construction assessments of fisheries and related impacts, in collaboration with the University of Massachusetts School for Marine Science and Technology. It has conducted extensive surveys and other studies and has carefully selected submarine and onshore cable routes.
17-4	Vineyard Wind is committed to working with the fishing industry so that both the wind and fishing industries can grow together offshore Massachusetts. One example is that Vineyard Wind, in consultation with local fishermen, established specific vessel transit lanes in the turbine layout design.
22-1	The commercial fishing industries have successfully fished these waters for hundreds of years and we do not want to see them destroyed in a couple of decades
22-2	The MLA is troubled by the lack of studies that have or have not been done on the negative impacts to the lobster, conch and crab resources. Collectively, these are some of the primary and profitable species currently being harvested by our members currently in VS, LMA 2 and LMA 3.
22-7	The commercial lobster and fixed gear industries are continually constrained because of potential future interactions with these animals(…) More research is undeniably needed in this area of concern so that the commercial fleet does not further endure any more baseless constraints
22-8	Lastly, the MLA is further worried given the uncertainty and indefinite impacts to the ALL the commercial viable resources our commercial fishermen depend upon given the proposed scale of this offshore wind farm and the unknown impacts to the ecosystem an approximately 800-megawatt wind farm will have not just on the economically viable resource in the ocean but all marine life
22-9	Our fear is that once these large scale wind farms are realized and constructed it will be too late to undue the negative impacts to the ecosystem and will cause economic hardships on the commercial fishing fleet in Southern New England.
30-1	The RFA is a proponent of green energy but not to the detriment of our resource as well as when it proves to be economically feasible using only private equity, not rate payers or public funding sources.
30-2	There is no doubt that the base of each proposed wind turbine unit serves as an artificial reef that attracts forage fish and game fish.
30-3	Our ongoing concerns are associated with the subsurface cable lines and associated EMF and noise generated from hundreds of wind turbine units and detrimental impact if any associated with such;
30-5	…[our ongoing concerns are associated with]...potential for the proposed wind turbine areas to be shut down prohibiting access in the future.
30-7	the Block Island Wind Turbines... are now devoid of fish where fish were historically located in the past. Is the EMF associated with subsurface cable resulting in such behavior?...what is the impact to… [marine] species… resulting from EMF…?
30-9	A scientific credible study assessing the adequate and safe distance to land pelagics is lacking and is absolutely necessary, reasonable and appropriate in order to sight the units.

Comment ID	Comment Text
36-7	Further understanding the importance of a healthy natural marine environment, Vineyard wind has also made a $3 million commitment to enhance protections for marine mammals, has engaged the nation's first fisheries representative, and incorporated a multitude of fishing concerns into it layout and design.
39-4	marine biologists have reported that offshore wind projects near Denmark and other countries have found that, other than the construction/installation phase, not only is there no harm to marine life, but, on the contrary, after that initial phase, marine life flourishes on and around the underwater support structures for the wind turbines.
40-2	...we encourage BOEM to be particularly attentive to the concerns of the fishing industry and state and federal agencies charged with protecting fishing and marine mammal resources.
43-11	the review should also include assessment of the impact of the cables on commercial and recreational fishing and navigation…
43-4	The scope of the review should include a detailed and comprehensive assessment of impacts to wildlife, marine species, and fisheries
44-1	At each of our meetings with Vineyard Wind we shared our concerns about the construction and operation of a wind farm in such fertile fishing grounds especially for squid… and whiting
44-2	The year that was used to show squid industry activity, 2014, was a slow year for the fishery and does not accurately portray just how much the industry depends on that for squid. BOEM and Vineyard Wind need to be looking at a complete data set that goes back years to get an accurate account of the activity in this area.
44-3	I suggest that more industry data be collected on this area. It will undoubtedly show how dependent we are on this area.
44-4	The use of AIS data is also insufficient. AIS wasn't required until 2016 and even then, there was an exemption on when you had to have to have the unit turned on, AIS doesn't have to be turned on until a vessel is 12nm from shore. It was also explained in detail how important it is for an otter trawl vessel to have enough room between turbines to maneuver their gear as it simply does not "follow" directly behind the vessel. We explained that having 1nm between turbines is simply not enough room to operate. What has come out of the VW plan, after meeting with us for over a year, is 1nm between turbines
44-5	with Vineyard Wind looking to break ground in 2021 they are running out of time to conduct a time series of surveys and studies that would help to track any changes construction and operation might have on this area
44-6	We have a lot of concerns about how the habitat, biology, and ecology will be affected by the construction, operation and electromagnetic fields from the wind array. This should have been in place at the start of the lease and studies should already be well underway. We fear that there will simply not be enough time to carry out a legitimate time series of data for this site
44-8	As a small mesh fishery, we can't simply move and fish elsewhere because of closed areas and mesh restrictions. This area south of the Massachusetts Islands has been the fleet's fishing ground for decades. These projects truly threaten our lively hood and the conflicts in developing this area have not been adequately addressed or resolved. In a perfect would, this process would be slowed down, appropriate surveys and studies would be conducted prior, during, and post construction and this process would only be approved for ONE major wind farm, so we can study the effects of this revolutionary technology in our waters. We are asking for this process to be done right.
45-4	In collaboration with the University of Massachusetts Dartmouth's School for Marine Science and Technology (SMAST), Vineyard Wind has committed to conduct pre- and post- construction assessments of fisheries and associated ecological conditions.
46-1	They have proposed laying three cables in Lewis Bay less than a quarter of a mile from my [oyster] farm. These trenches will be approximately six feet wide and six feet deep. They have provided no proof that the silt from these trenches will not end up moving on top of my farm and covering, and smothering my oysters.

Comment ID	Comment Text
46-2	My concerns regarding the silting also extend to the quahog population for the Town of Yarmouth. If the quahogs also get smothered by the silt it would eliminate another portion of my income. They have also given me no proof that the scallop population will not end up in the trenches, again getting smothered.
46-3	They also want to do the work of laying the cables right in the middle of scallop season. They claim that each cable should take approximately a week. This would mean that for three or more weeks that [I] will not be able to work. This would also be a huge hit to my income as well as many others.
46-5	I have several thousand dollars worth of gear in Lewis Bay that I use to cultivate my oysters. If electrolysis occurs and I have to replace the gear very frequently it would cost my business thousand of dollars yearly. I have consulted with some oyster experts and they recommended putting zincs near some existing lines to see how much electrolysis was actually occurring. Mr. Mayo had no desire to do this experiment, all he wanted to do was show me the data that Vineyard Winds scientist supposedly have collected. This is suppose to prove to me that it will not happen, but in no way gives me any physical proof that their data is correct.
47-3	Lewis Bay is already in degraded environmental condition... Laying cables in Lewis Bay will impede any remedial actions, negatively impact moorings and shell fishing, and introduce into the bay unresolved electro magnetic issues associated with high voltage cables.
53-12	Due to the significance of commercial and recreational fisheries issues associated with this project, we recommend that "Fisheries Resources" be addressed as a separate section within the "Affected Environment" section. This section should include all of the biological, cultural, and socioeconomic issues related to fisheries resources. Specifically, this section should include an assessment of managed species, their status, and habitat requirements; landings and value of landings and recreational effort; fishery participants including vessels, gear types, and ports; and potential impacts beyond the vessel owner level (processors, distributors etc.). This evaluation should cover the immediate project area and adjacent locations.
53-14	The ecological impacts resulting from the loss of seabed and the associated benthic communities and forage base should be evaluated. This should include a discussion of the ecological and economic impacts associated with habitat conversion (e.g., soft sediments to hard bottom/artificial reef habitat) from turbine installation. This analysis should also include site-specific benthic data collection and an evaluation of impacts to higher trophic levels due to the loss of prey species.
53-16	In addition to focused evaluations on protected species, fish, invertebrates, and habitats, the "Environmental Consequences" section of the EIS should include a subsection evaluating impacts to commercial and recreational fisheries. The EIS should discuss the economic impacts caused by the permanent loss of bottom habitat, impacts of any temporary exclusion zones during construction, and potential impacts to commercial and recreational fishing activities from project operation. This evaluation should also include any potential displacement of fishing activities and resulting increased fishing pressure in other locations.
53-17	Measures to minimize impacts such as soft start procedures, construction timing, anchoring plans, or micrositing should be discussed in detail...While the project should be planned to avoid and minimize adverse effects to the marine environment to the greatest extent practicable, compensatory mitigation should be proposed to offset permanent and temporary impacts. Social and economic losses as well as ecological losses should be considered, particularly any loss of fisheries revenue resulting from the construction and operation of the project. Measures to compensate for potential economic losses should be discussed in the EIS.

Comment ID	Comment Text
53-21	Cumulative impacts to fishing operations, such as changes to time and area fished, gear type used, and fisheries targeted, should be evaluated in the EIS. It is important to evaluate cumulatively how the projects could affect other fisheries operating outside the project area due to effort displacement, shifts from one fishery to another, and increased fishing effort due to fishing in less productive areas. Shifts in fishing behavior, including location and timing, may result in cumulative impacts to habitat as well as target and bycatch species that have not been previously analyzed in fishery management actions. The number and spacing of turbines in relation to adjacent projects should also be considered in detail and modifications should be made to minimize cumulative impacts of adjacent projects on fishing operations and vessel transit.
53-40	Species important to both commercial and recreational interests are found within the WEA and WDA...While catch of or derived revenue from certain species may not be high within these areas, because both the species and associated EFH are found within these areas, it is important for the COP and the subsequent EIS to accurately characterize and present additional analysis of species distribution and abundance within the project area to provide a complete description of the affected environment for this action.
53-41	Information related to the proposed construction season is important in evaluating potential impacts of the project, and characterization of the species and life stages expected to be most impacted during those seasons should be discussed in the EIS. While we welcome the use of NEFSC trawl survey data, these surveys are conducted twice a year and may not be conducive to catching certain species, such as squid and lobster, based on gear type and season. Therefore, they represent an incomplete assessment of abundance for particular species. The information provided also appears to be limited only to spring and fall seasons. The duration and timing of construction and decommissioning activities should also be discussed with respect to their potential biological, economic, and social impacts to the affected environment.
53-42	...if mobile species move away from construction noise during spawning season, substantial disruption, delay, or elimination of spawning activity, and therefore spawning success, may occur within the area of impact. Further, longfin squid egg mops are attached to the bottom and susceptible to high mortality when buried by sediment. This is not discussed the COP, but is an indirect impact of such activities. Such potential biological, economic, and social impacts must be considered in the EIS.
53-43	...information on fishing communities within New Jersey and New York must be included in the affected environment section, as vessels hailing from these states participate in fisheries within affected areas. Quantitative analysis of the potential costs associated with reduced fishing revenues as a result of short-or long-term effort displacement, reduced catch rates, changes to species composition, negative effects on spawning/recruitment, and permanent or short-term changes to EFH during construction, operational, and decommissioning phases of this project must be included in the COP and subsequent EIS. Opportunity costs such as revenue lost by fishing effort that is displaced into less productive areas, including vessels displaced out of the project area and those already fishing in an area into which displaced vessels move, and the potential for poor recruitment resulting from construction activities should be assessed. Similarly, analysis of the affiliated non-market social impacts of such activities needs to be included in the EIS.
53-44	The EIS should evaluate any potential economic impacts to the commercial and recreational fishing industry as a result of the project and incorporate proposed mitigation measures. This should include an evaluation of potential changes in fishing effort within the WDA, the potential for gear loss or damages, and the potential changes in revenue as a result of the proposed project. An evaluation of the potential for gear damage, from operation within the WDA, from project survey vessels, or from towing over concrete mats along the cable routes should be included in the EIS along with proposed mitigation measures to compensate loss or damages. An analysis of potential loss in revenue from construction activity should also be considered in the EIS.

Comment ID	Comment Text
53-45	The EIS should provide a detailed analysis of how the presence of the project and turbine spacing would affect fishing gear operation, including the ability for vessels to maintain maneuverability and minimize risk of fouling gear with other gear or with the turbines. The draft COP assumes that vessels can continue to operate within the WDA, even stating that two vessels can operate between turbines; however, information to support this assumption was not provided. Specifications of all gear types operating in the project area should be compiled and incorporated into this analysis. This analysis should consider both fishing vessels and survey vessels, including state and Federal fisheries surveys.
53-5	Commercial and recreational fishing are essential components of the existing landscape that must be preserved in the development of the project. Alternative for turbine layout, location, and spacing, particularly related to impacts on fishing operations and transit, are important considerations for the alternatives analysis in the EIS. Operation of ongoing scientific surveys should also be considered, including our science center surveys, the Northeast Area Monitoring Assessment Program (NEAMAP), and state surveys.
53-6	We understand your design envelop concept allows for a range of turbine spacing in the project proposals; however, specific alternative spacing and layouts should be considered in the EIS. While the proposed layout in the draft COP considers vessels transiting through the project, it may conflict with existing commercial fishing activities that occur in the northern end of the proposed WDA, particularly mobile gear operations. If spacing and orientation cannot be modified in such away that allow for transit and fishing activity, alternatives that remove sections from the WDA with the highest fishing activity or reduce the number of turbines in that area should be considered. Under this alternatives analysis, you should also consider the most appropriate location for project siting within the Wind Energy Area (WEA) to meet the purpose and need of the project.
59-1	Commercial and recreational fisheries for the species managed by the [New England Fishery Management] Council are important sources of economic benefits along the entire Atlantic coast. If future benefits of these activities are to be realized, offshore energy development must minimize risks to marine species and existing human uses.
59-12	Given the number of wind energy projects being proposed along the Atlantic coast, the cumulative effects analysis must be comprehensive. The analysis should consider other existing, proposed or planned energy infrastructure projects. We encourage a broad view of those projects that are reasonably foreseeable, keeping in mind that many fisheries operate on a regional scale and could be affected by projects offshore of Massachusetts and Rhode Island, as well as New York and New Jersey.
59-7	Commercial and recreational fisheries should be explicitly considered in both the affected environment and environmental consequences sections of the EIS.
59-8	The EIS must examine fisheries data over multiple years to ensure identification of potentially affected fishery resources and fisheries because there can be significant interannual variability in resources and the fisheries that target them due to both environmental and regulatory factors. Longfin squid, seabass, scup, and whiting are just a few of the fisheries that work in this area. The area is particularly important for longfin squid in early summer, after the June 11 closure of the Massachusetts state waters fishery.
59-9	The EIS should explore issues around displacement of fishing within the area as well as whether transiting might be impacted by the turbines.
60-1	AOLA [Atlantic Offshore Lobstermans' Association] supports, through advocacy and leadership, the efforts of the offshore lobster industry to develop and maintain a strong, stable, and sustainably minded fishery. While clean energy is a laudable goal, marine wind farm development must not displace local fishing fleets and should only be sited in areas that do not impact ocean resources, including fish and crustacean stocks, marine mammals, and essential habitat.

Comment ID	Comment Text
60-2	In recent years, much of the southern New England lobster fleet has transitioned to a mixed crustacean fishery targeting both Jonah crabs and lobsters. The emerging Jonah crab effort is increasingly active in an area along the eastern border of the RI/MA lease area. The EIS should address not only the fisheries and economic impacts to this mixed crustacean fleet, but also the biological impacts to migrating lobster and Jonah crab. Impacts of constructing, siting, operating, and decommissioning should be considered.
60-7	Commercial fishing is one of the oldest industries in the United States and the fishing tradition continues to support coastal economies throughout the Atlantic Coast. It would be incredibly foolish to put that heritage at risk without fully analyzing the cumulative needs, costs, and benefits of all offshore energy proposals, including the Vineyard Wind LLC's proposed facility.
6-3	As for the fishing industry, there still will be very abundant areas for catches, given that the Atlantic coast is significantly larger in fishing capacity than the North Sea where there is has been some minimal impact.
66-1	Dredging in Horseshoe Shoals for transmission is likely to impact whelk, a significant resource for Vineyard fishermen. EMF impacts during transmission operations need to be addressed. Impacts to the whelk resource of the proposed dredging should be thoroughly explored in the DEIS.
66-4	The DEIS should include much more on Martha's Vineyard fishing. Gillnets, lobster pots and squid trawls are all pre-existing uses of the lease area. Martha's Vineyard's economy depends upon the vacation industry, which depends on maintaining the picturesque fishing fleet of small boats. The iconic small boat fishermen and fisherwomen of Martha's Vineyard need assurance of coexistence and/or appropriate mitigation. The DEIS should include much more data and should thoroughly explore impacts, possible avoidance of conflict, and a mitigation plan of substance.
67-1	Recreational anglers believe offshore wind power can benefit fishing. Currently, pollution from traditional power plants harms fishing by contributing to mercury contamination of certain fish, acidifying our oceans and threatening shellfish, and is contributing to climate change.
67-2	To articulate how offshore wind power can be developed responsibly in a manner that respects and protects recreational fishing off our shores, our organizations provided input on the formal Anglers Principles for Offshore Wind Power. These include: fishing access to the turbines, clearly communicated opportunities to participate in the permitting process, and a commitment to ongoing scientific monitoring of fisheries by developers.
67-3	The Block Island Wind Farm has been a fishing destination for many of our members since the turbine foundations were installed in 2015. Since then, anglers have shared reports of catching black sea bass, scup, cod, tautog and flounder in the wind farm area that were clearly attracted to the foundation's artificial reef effect.
67-5	we...encourage close attention to species of interest to recreational anglers, and the businesses that support them, in the process. Depending on the season, fishermen target mahi-mahi, white marlin, giant tuna, and other popular species in the area. Adding structure to this area will very likely attract these species. We request that BOEM specifically assess the possible impacts of pre-construction, construction, and operation of wind turbines to these and other important gamefish in the area.
69-1	MA DMF remains concerned that the assumption that the area will be open to fishing is an oversimplification. We would like to see an assessment of the mechanisms by which fishing could be restricted (e.g. New England Fisheries Management Council action, actions by the Coast Guard associated with construction, insurance restrictions). The socioeconomic analysis in the EIS should assess alternatives that include the impact of no mobile gear fishing in the WDA.
69-12	The EIS should address how time of year restrictions or other mitigative measures will be used to minimize impact to marine fisheries resources, commercial fisheries activities, and long-running trawl surveys conducted by MA DMF and NOAA.
69-13	The pre-lay grapnel run for the cable could result in the collection of fishing pots or other fishing gear. Under MA law at M.G.L. c. 130, s.31, the taking, use, destruction or interference with fishing gear without the owner's consent is punishable by the specified fine and/or penalty. From December 16-April 14th there is no potting allowed for fish, conch, or sea bass.

Comment ID	Comment Text
69-15	Scour protection for cables and cable crossings are described as using rocks and/or concrete mattresses. The impact of these materials on fishing should be assessed.
69-16	A large increase in vessel and vehicle use will affect harbors that this project will utilize. A thorough assessment of the potential conflicts with existing harbor users, including commercial and recreational fishermen, is needed for both construction phase activities and operations.
69-17	Clarification of how fishermen will be notified in the event of an oil spill, and the process for oil spill reparations, is needed.
69-20	The EIS should include a clear description of how eelgrass and winter flounder impacts from turbidity would be avoided, as well as minimization of impact to horseshoe crab, quahog and bay scallop resources and fishing activities [at the New Hampshire Avenue Landfall Site].
69-33	The EIS should address the commercial and recreational value of these species [horseshoe crabs, Jona crabs], the potential impacts to those activities, as well as the vulnerability of these species and their habitats to the proposed activities.
69-42	The EIS should consider potential gear conflicts from increased recreational fishing effort as a result of installing WTGs that can act as fish aggregating devices.
69-44	Lobster fishing activities are spatially constrained, so estimates of lost revenue should be specific to the management area to which they are restricted (Area 2). The EIS should include a better estimate of lost revenue that is specific to impacts to the Massachusetts and Rhode Island-based southern New England fleet.
69-45	The EIS should examine all potential reasons for vessel exclusion from the WDA resulting from installation of the project (e.g., increased insurance costs, feasibility of towing mobile gears around WTGs).
69-47	There have been conflicting assessments of the impact of wind farms on radar used for vessel navigation. A clarification of what radar systems will be unaffected is needed, and would be benefitted by a survey identifying the types of radar systems fishermen use.
69-48	The EIS should evaluate the extent to which the concrete mattresses or rock cover installed at locations where the cable cannot be placed at sufficient depth will impact fishing patterns and gear.
69-49	The EIS should consider whether the potential increase in angler activity in the WDA would require new or additional fishery management measures and potential socioeconomic impacts of those measures.
69-50	The EIS should include a description of financial compensation procedures to mitigate impacts to the commercial or for-hire recreational fisheries. These procedures should be clearly defined prior to beginning construction. A Fishermen's Contingency Fund, along the lines of what is available to fishermen affected by offshore oil and gas development, could be used to mitigate impacts to fishermen (see http://www.nmfs.noaa.gov/mb/financial_services/fcf.htm). This fund should be available to both commercial and recreational fishermen and include impacts related to the wind development area and the offshore export cable corridor.
69-6	Cumulative impact concerns include changes to the spatial distribution of species including but not limited to scallops, surf clams, black sea bass, flatfish, marine mammals, and highly migratory species. There are also several socioeconomic cumulative impact concerns that need to be identified and scoped out, including but not limited to changes in fixed and mobile gear fisheries and commercial and recreational fisheries.
77-4	A more accurate and complete characterization of commercial fishing effort is needed for both the WDA and OECC. The maps and descriptions displaying and describing the commercial fishing effort in these areas fail to incorporate fishing effort from vessels not using Vessel Monitoring Systems (VMS), which include many MA State Regulated fisheries such as American lobster and channeled whelk, as well as federally regulated species such as tuna, swordfish, dolphinfish, and tilefish. Incorporating landing data from the MA Division of Marine Fisheries, or meeting with fishermen directly may help provide a more accurate representation of fishing effort in these areas, as well as the inshore-offshore transit routes used by non-VMS vessels. Fishing grounds need to be described and documented accurately.

Comment ID	Comment Text
77-5	In the likely event that commercial fishing businesses are negatively impacted by the offshore wind projects, a clear plan regulating and outlying a compensation process should be developed and required by BOEM
83-10	The potential impacts to fish from offshore wind development are generally understood to fall into the following categories: (i) interactions with electromagnetic fields emitted from cables;(ii) temporary or permanent loss of habitat from construction activities and the operational wind farm (e.g., from acoustic masking due to continuous noise emitted by operational turbines and increased vessel traffic); (iii) localized injury or mortality due to barotrauma from pile driving; and (iv) increased use of the habitat as a result of turbines potentially acting as artificial reefs, thereby increasing benthic prey resource and acting as an aggregating device. BOEM should carefully evaluate the potential impacts of offshore wind development to fish populations and their habitat as part of the Draft EIS, as well as work with commercial and recreational fishermen to identify optimal siting.
87-21	Impacts to recreational and commercial fishing must also be assessed, including possible economic, cultural, and safety concerns.
87-22	Turbines could potentially create dangerous situations for fishermen, as well as other ocean users such as pleasure boaters and divers. BOEM must evaluate Vineyard Wind's emergency response plans for any turbine safety issues.
89-10	The transit data compiled by BOEM and available at stakeholder meetings has been comprised only of commercial fishing AIS data from 2013. However, AIS only became required for commercial fishing vessels in 2015, and only for vessels greater than 65 feet in registered length. Many vessels with activity in the area do not meet this criteria. This AIS requirement is only applicable inside of 12 nautical miles from shore and does not represent accurate vessel transit activity in or around the lease/COP area. AIS is a low power VHF signal that is not always reliable at long distances, particularly based on the grade of AIS unit. Therefore, BOEM is relying on artificially low transit numbers/data. This must be addressed in an EIS. VMS data, at all speeds, should be used rather than AIS data.
89-11	Transit lanes for the proposed project do not necessarily meet the needs of transiting vessels as to placement, direction, and width; accurate transit data is necessary to complete this analysis and has not been acquired to date.
89-13	However, at current scheduling, Vineyard Wind will only accumulate approximately one year of fisheries monitoring data prior to construction, which is not a scientifically acceptable and measurable standard. Should commercially important species suffer negative impacts and result in a decrease in available product, contrary to Vineyard Wind's assertions that negative impacts are "not expected" (see Table 4.2.1 COP Volume III), Vineyard Wind would be abdicating responsibility for appropriate compensation to the fishing industry for its actions if it fails to collect appropriate data through an externally peer reviewed time series. A minimum of 5 to 7 years of pre-construction data, in addition to during and post construction data, is necessary and must be required as part of COP approval.
89-14	It is not reasonable that negative impacts are "not expected" considering the habitat destruction that the Project would cause for certain species, the impacts that offshore wind farms in other countries have had on certain fisheries/species in those areas, and literature that shows the low frequency noise generated by operational offshore wind farms can be detected by sound sensitive fish even over heavy shipping traffic and at distances of tens of kilometers away.
89-15	Of particular concern is the impact to squid, as intense squid commercial fishing activity occurs in the summer months along the northern border and inside the border of the Vineyard Wind COP. Squid experience essentially blunt force trauma as a result of low frequency sound in the frequency given off by operating wind farms, which can lead to death of the animal.[1] [1] See Sole et al., "Offshore exposure experiments on cuttlefish indicate received sound pressure and particle motion levels associated with acoustic trauma", Scientific Reports, 2017; and Andre, et.al. "Low-frequency sounds cause acoustic trauma in cephalopods", Research Communications 2011.
89-16	Vineyard Wind must be financially liable should commercially important stocks experience decline or adverse impacts due to the Vineyard Wind Project, and it must be so stated in the COP.

Comment ID	Comment Text
89-17	Commercial fishermen also raised concerns with turbine spacing and transit lane spacing. None of their concerns or requests have been taken into account.
89-18	Issues were also raised with the fact that the power cable coming from the project to the mainland is sited to be laid directly through some of the most productive summer loligo squid fishery tows for commercial vessels. Should the route require concrete mattresses to be laid over the cable, these trawl tows would be rendered useless as nets would easily tear up on the cable mats... BOEM should require a different, non- conflicting cable route as part of any COP approval. Vineyard Wind representatives assured the industry that they did not anticipate the need for any concrete mattresses. Should a similar situation occur with the proposed Vineyard Wind cable, significant squid fishery revenue is at stake, in addition to the cost of trawl net replacement, repair, and vessel down time as a result of losing gear on potential cable mats.
89-19	This was discussed at length with Vineyard Wind and Vineyard Power representatives at the February 19, 2018 meeting, and industry demanded a financially considerable compensation fund for lost fishing gear, damaged gear, and wage compensation for vessels/captains/crews for lost fishing time and income due to interaction with concrete cable matting. This fund must be a requirement of COP approval, and as nets alone can cost tens of thousands of dollars each, in addition to the lost income and down time should a trip need to be cut short and a net repaired or replaced, must contain enough funds to fully compensate the fishing industry.
89-2	As various fisheries and many individual businesses/vessels will be impacted by a potential Vineyard Wind project, as well as navigation be impeded, BOEM is under legal obligation to ensure that fishing and navigation rights/safety are protected before any approval of a COP.
89-20	As part of an EIS, and should BOEM not require that the cable be re-routed to an area of less conflict, BOEM must value the squid fishery of the area itself, should the tows become unfeasible if numbers of concrete mats are placed along the cable route.
89-21	BOEM must also do research on the costs of the trawl nets and gear used in the area, approximate labor costs and vessel down time, and require that a compensation fund contain more than enough funds to fully compensate vessel owners, captains, crew, and fish houses for lost gear, lost income/fishing opportunity, and lost product.
89-23	To not require removal of all Project components amounts to a permanent exclusion from trawl gear from the area even after the life of the Project, which is not acceptable to the commercial fishing industry. Section 4.4.4 of Volume I of the COP states: “Subject to consultation with the fishing community, appropriate marine fisheries agencies and BOEM approval of the decommissioning plan, Vineyard Wind would likely propose that the scour protection be left in place. As described in Section 3.1.3, each of the WTGs and ESPs would have stone and/or rock scour protection.” The commercial fishing industry...demands that every single stone and all scour protection be removed at the life of the project; Vineyard Wind’s stated intent to pollute the ocean permanently and permanently create untrawlable bottom is unacceptable. Any and all costs of full decommissioning must be estimated at this stage of the project, adjusted for future inflation, and bonded as a requirement of any COP by both the developer and power purchaser, to account for the event that one of the parties becomes insolvent during the life of the project and the structures left to rot as has been the case in other wind projects across the country in the past.
89-3	Therefore, the fishing industry was not consulted in turbine placement or design, nor for input on appropriate transit lanes. Vineyard Wind was made aware at multiple meetings that certain fishing gear types, trawling in particular, will not be operationally feasible in a wind farm.
89-4	This is not true, as fishing vessels will lose historic access to areas of income throughout the life of and due to the Vineyard Wind Project, and Vineyard Wind has not carried out any such analysis.
89-5	The BOEM WEA/Vineyard Wind lease area was an unsolicited WEA identification and siting done by BOEM alone, with no pre-consideration of fishing activity in the area. It was not sited to exclude fishing activity. It was, in fact, sited on top of commercial fishing activity. Portions of the original WEA were removed after engagement with representatives from certain fisheries, but not all fisheries.

Comment ID	Comment Text
89-6	Vineyard Wind has not proposed any compensation for this future lack of access, product, and income that the Project will inflict on those who use the seabed for a fishery and whose correlative rights are not being protected.
89-7	BOEM must work with NMFS, the Fishery Management Councils, and the fishing industry to gather detailed fisheries activity and socioeconomic information that can be used for financial compensation for every vessel that will be operationally excluded, should the Project go forward. This information must be included in an EIS, and direct financial compensation to individual vessels for the life of the Project made a requirement of COP approval
89-8	Conversely, this information may result in determination that the COP be sent back to the drawing board for reconfiguration, COP disapproval, and/or lease disapproval, pursuant to 30 C.F.R. 585.437(b)(4)(i)-(iii).[1] This type of intensive fisheries study must be done prior to EIS finalization as part of BOEM due diligence. [1] Which states that BOEM may cancel a lease if three criteria are met: "(i)[The wind farm] [w]ould cause serious harm or damage to natural resources….or human environment…; (ii) That the threat of harm or damage would not disappear or decrease to an acceptable extent within a reasonable period of time; (iii) The advantages of cancellation outweigh the advantages of continuing the lease or grant in force."
89-9	To date, BOEM has also been relying on only partial information as to the affected fisheries, even as recently as the "BOEM Open Houses" for stakeholders during the MAFMC and NEFMC April 2018 meetings. The VMS charts which BOEM has relied upon for fisheries information do not capture any of the "DOF commercial" fisheries which take place in the COP/lease area, such as whiting, butterfish, fluke, scup, black sea bass, red hake, etc. Squid data is only captured from 2014 onwards, as prior to 2014, squid was also a "DOF commercial" fishery. Mackerel was also "DOF commercial" prior to 2014. Therefore, the squid and mackerel datasets are incomplete time series. BOEM must work with NMFS, the Fishery Management Councils and commercial fishing industry to gather accurate and comprehensive cumulative impacts data in order to complete its due diligence under NEPA as well as OSCLA.
92-1	As you well know, commercial fishing vessels have approval from NOAA to engage in fishing activities in Vineyard Wind LLC's lease area, and this project cannot unreasonably interfere with or endanger their fishing activities.
92-10	The lease area lies between the primary fishing ports and active scallop fishing grounds, making transit through the lease area a concern. The regulations for the scallop fleet mandate that the vessel has a limited number of days at sea. Transit through or around the lease area will be charged against the limited number of days at sea allocated to the scallop fleet. Additionally, the scallop fleet believes much larger transit lanes of 4 miles between each turbine may be necessary. Transit through this area is also important to the red crab, jonah crab and offshore lobster fisheries.
92-11	The NBPA can facilitate more interaction between BOEM/Vineyard Wind and fixed gear fishermen who may not be represented in the fisheries data. There is concern among the fluke, scup, butterfish and whiting fisheries that the installation of wind turbines in the lease areas will prevent vessels from towing between turbines. The surf clam and ocean quahog fisheries participants are sure that they will not be able to fish within the wind turbine array and the connecting cable will also be a problem. The cable corridors including through Muskeget Channel must be monitored and kept at a depth of at least 2 meters at all times.
92-12	There are questions among fishermen and other mariners regarding radar interference that will occur while transiting the lease area. There is no detailed mitigation plan and process for the financial losses caused by the installation of wind turbines to the fisheries impacted by the Vineyard Wind lease area.
92-13	The NBPA proposes to work with Vineyard Wind on the development of a mitigation plan to be included in the Fisheries Communication Plan. The Fisheries Communication Plan is a solid draft. The fishermen on the committee would like to be involved in the next iteration of the plan based on the feedback provided in this letter through NBPA as Fisheries' Representative to Vineyard Wind. We would like Vineyard Wind and all developers to adopt and endorse a standardized process for fisheries engagement, with components that reflect the unique makeup of Vineyard Wind's lease site's fisheries stakeholders.

Comment ID	Comment Text
92-14	Our proposed Fisheries Communication Plan process (components taken from BOEM's 2015 Guidelines): o Quarterly public meetings with all fishing interests and more frequent meetings with our Fisheries Advisory Committee on Offshore Wind or individual fishermen that will identify and tackle issues pertaining to the following: § Potentially affected fisheries; § Communication methods and tools; § Measures under consideration to reduce potential impacts to fishery resources and operations; § Potential methods to monitor effectiveness of impact-reduction measures. § Science initiatives to monitor the impact of the proposed project § Best practices for dismantling at end of useful life § Mitigation projects Decommissioning Plan Comments: · · We would like BOEM to ensure that in the future there is an option to have the ocean floor returned to its original state; otherwise it could be a permanent exclusion of all bottom-tending mobile fishing gear from the area
92-17	There is no scientific process in place to measure the impact of individual turbines, a whole wind farm, and all of the wind farms proposed for the continental shelf on individual fisheries. Any diversion of fishing effort outside of the lease area will have an unintended consequence of increasing fishing effort in the remaining areas. The impact of that diversion should be studied to identify its impacts to fisheries and to fishermen.
92-19	A comprehensive study with the USCG and professional mariners on transit navigational concerns can alleviate some concerns from fishermen based in New Bedford, Pt. Judith, Montauk, Shinnecock and points south transiting the area.
92-2	It is imperative that Vineyard Wind and all of the developers continue to engage with our group so we can prevent any unreasonable interference with fishing activities in the lease area and so we can develop a plan and process for the offshore wind industry to grow and coexist with our fishing industry
92-3	This COP struggles to identify all of the fisheries impacted by Vineyard Wind's proposed site and acknowledges the gaps in fisheries data because a number of the species in the lease area, namely fluke, scup, sea bass, whiting, butterfish, red hake and ling are conducted without the · · requirement of VMS. BOEM and Vineyard Wind should see the NBPA as a resource to help fill those data gaps and more detail on the plan to mitigate those impacts would be helpful
92-7	Despite assurances from all developers to the contrary, it is the opinion of our group that once a wind farm is constructed most, if not all, mobile-gear fishermen will be unable to harvest fish in the lease area as proposed. We would like Vineyard Wind to provide more details on the proposed study to be conducted by UMass Dartmouth's SMAST and identify ways that the fishing industry can be represented.
92-8	As Vineyard Wind noted in their submission, the proposal is in a prime squid fishing area. Our group believes the project will likely have a dramatic and adverse impact on the squid fishery. The proposed area is in the middle of some of the most productive squid fishing ground, which flourish in the spring and summer. Once wind turbines are installed, the squid fishing vessels represented on our committee are indicating that they will not be able to fish within the array of wind turbines, seriously undercutting their landings and financial viability.
92-9	The proposed lease area is also located in prime fishing grounds for fluke, flounder, scup, whiting, red hake, and sea bass fishermen. The inability to fish in these valuable fishing grounds will impact the financial situation of these fishing vessels. The proposed installation will also have an impact on other groundfishing vessels. The squid vessels that currently do not harvest groundfish lease their groundfish quota to other groundfish vessels throughout southern New England. Those squid vessels will no longer lease the fish, but rather fish it themselves, thereby causing financial losses to the groundfish fleet.
94-1	They [The Commercial Fisheries Center] have supported the idea of renewable energy and its promise to reduce emissions associated with global climate change. That being said, they also bear the brunt of and, unfairly shoulder the blame for depleted stocks in fisheries impacted by climate change, and/or by the constant barrage of newly permitted offshore activities. The continued imposition of burdensome regulations and quotas, established by government agencies to compensate for the effects that the many ocean uses and climate change are having on fisheries, make it harder and harder for the fishing industry every day.

Comment ID	Comment Text
94-10	The proposed layout of the WTGs in the COP is a grid layout. The scattered turbines do not allow for navigation or access. The layout is based on optimization of energy production, not coordination with other existing ocean users. The RI commercial fishing industry asked to be consulted about the layout of the grid design, but was not consulted. In fact, it would seem that the fishing industry was ignored because the need for at least 1 nautical mile distance between WTGs was made clear. The proposed layout does not provide the minimum spacing required.
94-11	Given the fact that some cabling will likely not be buried at sufficient depth, it will have to be protected with concrete or rocks or mattresses. Mobile gear fishermen are concerned about their safety and the loss of gear and equipment in the Project Area.
94-12	The plan to construct during the summer months when the Project Area has the most vessel traffic and the most tourism will result in displacement that negatively impacts fisheries and the fishing industry
94-13	If trawlers are unable to navigate safely, they will be forced to leave the area and fish elsewhere. This displacement not only damages the financial bottom-line of the specific companies displaced, but it will also result in navigational hazards from larger vessels fishing in locations with smaller vessels and increased fishing pressure on other fish species, which could affect fish stocks in the longer term. This one scenario assumes that the trawlers are being displaced.
94-14	Another very possible scenario is that fixed gear fishery is displaced. This could cause an increased fixed gear effort in areas more commonly used by mobile gear fishermen, creating new conflicts and disruptions in the fishing industry. BOEM and Vineyard Wind, LLC must examine the full range of impacts that will result undoubtedly from a variety of fisheries displacement scenarios.
94-16	The project as contemplated by the envelope concept is too big. The applicant should not be allowed to construct more than 400 MW in the lease area, unless and until, a minimum of 3 years of research has been conducted, prior to construction of additional MW beyond the original 400 MW Research should examine the impacts that construction and operation, including the effects related to low frequency noise, electromagnetic fields, noise associated with pile driving, toxic dredge spoils, have had on the benthic habitat, spawning, early larval stages, fish stocks, and the fishing industry operating in the Project Area. Because of spawning concerns related to the squid fishery, a special area of research focus should be to study the effect of noise on the squid fishery between the months of May and late August.
94-17	The use of monopoles versus four-sided jackets should be carefully examined. There are serious concerns associated with the acoustic sound ring that would be generated, and associated impacts on fisheries, by driving monopoles of the size described in the COP into the seabed.
94-18	WTGs should be spaced with at least a minimum distance of 1 nautical mile to allow for navigation of trawlers and avoidance of fixed gear and scouring around base of WTGs. It should be noted, that many in the fishing industry have said they cannot safely operate a trawl around as many WTGs as have been proposed even with 1 nautical mile spacing.
94-20	No pile driving should be allowed from mid February to mid May to prevent mortality, disturbance of spawning activity, and reduce impacts on spawning habitat, larvae, and fish stocks (specifically stocks with swim-bladders). It is important to note that very little is known about the effects of pile driving noise on spawning and the impacts to spawning habitat. There is genuine concern than any pile driving from February through August will cause serious harm to the squid fishery.
94-21	Even a 400 MW project, as opposed to the 800 MW project contemplates, will have significant impacts on the fisheries, especially during construction. The applicant should be required to establish a mitigation fund that will compensate fishermen for loss of use, displacement, gear loss or damage, fish kills, and/or change in migration patterns that result in loss of revenue or impact future stock assessments. The applicant should create a process for filing fishery compensation claims. There is precedent for this kind of relationship between submarine fiber optic cable companies and trawl fishermen.

Comment ID	Comment Text
94-22	Impacts that appear collectively minor could have significant impacts on individual fishermen or sectors of the fishing industry. The cumulative effect of those impacts could result in significant harm to the Commercial Fisheries Center. Despite the rather serious implications for Rhode Island fishermen that could result from the construction of this project there has been very little effort to obtain more research and reliable baseline data before allowing construction. There has been little to no effort by BOEM, and little effort by the developer, to discuss the draft COP with the impacted Rhode Island. This has been a source of a great deal of frustration and has elevated the concerns of the Commercial Fisheries Center.
94-3	The Commercial Fisheries Center should be able to have some expectation that information conveyed to BOEM and Vineyard Wind, LLC will be appropriately incorporated into the materials available for public review and comment. BOEM and Vineyard Wind, LLC must actively seek out relevant information about how the fishing industry uses the Project Area, and responsibly incorporate that information into the project plans so that all reasonably foreseeable impacts can be evaluated.
94-4	Given all of the intense fishing efforts underway in the Project Area, it is important that BOEM consider an alternate project size with fewer WTGs and coordination and communication with the for—hire recreational fishing industry during construction especially between May and Labor Day.
94-5	In the spring and summer (May — September) there is a major effort in the shoal water south of Martha's Vineyard and southwest of Nantucket by 30 — 50 vessels / day trawling for squid. As the season progresses the squid migrate into the southwest, directly into the Project Area. The proposed design layout and spacing for a maximum of 106 WTGs in the northern end of the Project Area would make trawling for squid impossible
94-6	The placement of 106 WTGS with their spacing at less than 1 nautical mile in some cases, would force a trawler to zig zag through the area without being able to locate or avoid fixed gear and quite possibly without being able to avoid the scour protection around the base of each WTG. The likelihood of entanglement or collision would be enough to force squid fishermen to abandon the area. This loss of safe access to a prime fishing ground would result in displacement, forcing vessels to alternative grounds that already have excessive pressure from the trawling fleet harvesting other species such as; (whiting, hake, scup, summer flounder, monkfish, etc.) causing an economic decline, possibly approaching 25%.
94-7	Not only could the project result in the displacement of fishermen, noise associated with pile driving massive monopoles into the seabed and electromagnetic fields and other low frequency noises could drive longfin squid from the traditional summer grounds (Martha's Vineyard to Nantucket / SW). This could result in a potential loss of up to 20% - 25% of the longfin squid quota between May and August.
94-8	The problem with the "envelope" concept from the Commercial Fisheries Center's perspective is that the project has been proposed at full build out, without any proposed alternatives to size, location of WTGS, or construction and design. This approach forces the Commercial Fisheries Center to comment on a worst case scenario without any sense of the possible alternatives that might be considered by BOEM and without an opportunity to evaluate the specifics of a more reasonable project design outside of formally commenting on the Environmental Impact Statement.
94-9	The placement of the maximum number of WTGs in the Project Area (up to 106) is a non-starter for the Commercial Fisheries Center for many reasons, including, but not limited to, safe navigation, access to high value fisheries, displacement of both fisheries and fishermen, the effect of displacement on stock assessments, loss of gear and damage to gear, fish kills, damage to critical benthic habitat during construction and mechanical trenching, long-term and unstudied effects of electromagnetic fields (EMF) on species of importance to the fishing community, long-term and unstudied effects of disruption of the benthic habitat on fisheries of significance, long-term and unstudied effects of noise created by pile driving on fish stocks.
95-3	In addition, there should be open channels within the array to allow fishing vessels to pass through so they're not forced to make a long detour around the project.

Comment ID	Comment Text
99-1	The clam industry opposes the four New York and New England wind arrays projects because of their designed, which make it impossible for hydraulic clam dredge vessels to operate safely within the arrays. The clam industry has attempted to work with your agency, the states and the wind farm developers with zero success. The fishing industry has been here for hundreds of years and is now being displaced from our fishing grounds with no consideration or compensation. The clam industry is not going to sit still and be shutout of our fishing grounds.
99-10	The only way fishing could be conducted within an array is to spread out the turbines to at least 12,000 feet apart. Place them in rows in both directions, and point them into the tide, place the cables at least two meters below the bottom surface, and run the cables to the bottom of the turbines. Fishing may be doable in good weather if the array is designed and built as stated. But putting turbines 3 to 6 thousand feet apart and not in the direction of the tide then fishing operations within the array by bottom-tending mobile gear vessels is simply impossible. The bottom-tending mobile fishing gear vessels are the big losers.
99-11	The fishermen are displaced by inefficient structures with no consideration or compensation what so ever. These are non-Magnuson Stevens Fishery Conservation and Management Act defacto Marine Protected Areas that would never be approved in a fisheries management plan by a regional fishery management council. These arrays interfere with fisheries, degrade the environment and habitat. The fishing industry must protect themselves.
99-2	The industry only fish where clams are, the clams do not move. Clams live in sandy areas where the water and habitat are conducive to their needs. Sadly, that is the only type of bottom that wind turbines foundations can be constructed.
99-3	Vineyard Wind proposal to build about 100 + turbines in 30 to 60 meters of water southwest of Martha's Vineyard in areas that has an active ocean quahog fishery. There will be no way to fish within their array because the turbines are so close together. Even if the turbines were further apart, the array is designed in such a way that the tide runs at an angle through the array making it difficult to keep a vessel from being swept into the turbines.
99-4	The clam industry also want it understood that other leases and new-leased areas in water depths of 30 meters and deeper are now where young surfclams are found. The industry's problem with the additional lease areas is that the developers will design their arrays in the same way that the current lessees are laying out. The new proposals will also make it impossible for bottom-tending mobile gear to take place within the arrays unless major design changes are made.
99-5	The Governors also learned from Cape Wind that no one wants to see wind turbines in front of the multimillion-dollar vacation homes. Therefore, they (the Governors of NY,MD, VA, and other states) drive the arrays offshore into the fishing grounds. This is a shame because they could get less expensive power if the arrays were within state waters or near shore where the construction would be less expensive and the cable runs would be much shorter.
99-6	The fishing industry gets run over and without any protection, consideration or compensation. Those fishermen that fish for things like finfish are a little better off than the clam and scallop fleets because their target species can move, and once out of the array the fishermen have a chance to target them. That is not the case for the clam or scallop fishermen, those shellfish do not move and therefore, stay within the arrays and out of commercial and financial reach of the U.S. fishermen. The shellfish die of old age with no benefit to the country, consumers or the fisherman.
99-7	Adding another requirement to protect the fishermen would add to the cost per kilowatt hour and would make the arrays already sky-high cost go a little higher.
99-8	The developers do not consider how the tide runs through the array and in most cases set the rows of turbines at an angle to the tide, which makes it difficult to transit through the array and impossible for bottom-tending mobile fishing vessels to fish in the array safely.
99-9	When talking to one developer, the clam industry was told that they will have a few years to go clean out the clam beds from the leased area. If the industry put the entire clam fleet in an area for years they may be able to fish it out before construction starts. But, what about the new set of clams in the area after the array is built and the clam boats cannot fish with in the array.

Comment ID	Comment Text
106-1	As a life long commercial fisherman I oppose the location of the wind farm. My main concern is the affect it will have on the longfin squid fishery. It has been my livelihood and only source of income to support my family. I would like to see the turbines located on land. IE landfills dumps or freeways.
107-2	This proposed placement will affect the environmental and economic life of the bay, which is significant recreational tourist and fishing site.
108-1	Specifically from our perspective, the impact on fishermen who work these waters for their livelihood must be considered and that issue is being addressed
108-2	Besides them, other parties, like commercial shipping and recreational fishermen have specific concerns but they along with any other interested parties can and must be heard before any approval is given for any power company to go forward
109-3	Above the water fisherman, recreational boaters, and birds especially sea birds will be affected not to mention commercial shipping.
139-1	I am a commercial trap fisherman for conch, sea bass and lobster from Edgartown, Mass. From May through September I set traps in Nantucket Sound in the path of the export cable. To minimize gear loss and negative impacts on fishing, I hope that all cable installation would be done in January through March.
14-4	The Wind farm structures could act as an artificial reef for saltwater anglers which could improve fishing opportunities.
146-2	Vineyard Wind's proposed turbine spacing follows a grid format with turbines on axes with consistent orientation/bearing. While there are concerns about the ability of some mobile gear types to fish within the array, feedback we have received has indicated a strong preference for having turbines on a consistent grid orientation, as opposed to alternatives that have turbines located in more seemingly random formation, presumably optimized solely for energy production. This issue needs further examination and coordination, as there are important considerations for turbine array spacing that include turbine performance and energy production as well as navigational safety and benthic habitat. The EIS should provide an analysis of different arrays and turbine spacing to optimize both energy production and safe navigation through and between lease areas.
146-3	Feedback we received from the FWG indicated that a one-mile wide transit corridor may not be sufficient. Additionally, there were questions as to the optimal orientation of one or more transit corridors. The U.S. Coast Guard will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. We will continue to work with and through the U.S. Coast Guard to engage stakeholders and the offshore wind leaseholders to identify preferred routes, assess transit corridor width, and determine best practices to avoid and minimize navigation conflicts. The EIS should assess alternatives and provide detailed information on navigational risks and measures to mitigate assessment.
146-7	...it is also appropriate to begin a dialogue around mitigation for lost access/ displacement. This would include times of temporary closures of fishing areas due to the installation and construction of offshore wind projects, as well as longer-term claims of revenue losses that can be validated. Mitigation may not necessarily be solely in the form of direct compensation but could also include financial and other support for developing new commercial fisheries, enhancing access to areas, or supporting certain sectors and fisheries in other ways. The EIS should include an assessment of anticipated lost access and/or displacement and identify and evaluate potential mitigation measures.
147-10	Recent public comments have indicated that the cable route through Muskeget Channel may have impacts on commercial surf clam fishing activities. CZM understands that studies are underway to explore the possibility of relocating this section of cable to a more westerly location. This new location has the potential to impact North Atlantic right whale core habitat as mapped in the OMP. A detailed discussion of this route, the potential impacts, and avoidance measures, including time of year avoidance, should be discussed in the EIS.

Comment ID	Comment Text
147-26	DMF Resource Assessment Trawl, Vessel Monitoring System, and other data sources indicate fisheries resources and several commercial fisheries uses that occur within or adjacent to the Vineyard Wind project. Potential effects to these fisheries and practices/approaches to avoid, minimize and mitigate adverse effects should be addressed in the EIS: - Sectors including otter trawling, gill netting, midwater trawling, and lobster, fish and whelk fixed gear fisheries use waters within or adjacent to the project area; - Vessels targeting the following fisheries under specific Fisheries Management Plans (FMP) within the lease area include Sea Scallop FMP; Squid, Mackerel, Butterfish FMP; Monkfish FMP; Northeast Multispecies FMP; Northeast Small Mesh Multispecies FMP; and Summer Flounder, Scup, Black Sea Bass FMP; - Vessels using ports in the following coastal communities were documented fishing within or adjacent to the project area: Barnstable, Boston, Chatham, Dennis, Fairhaven, Falmouth, Gloucester, Harwich, Nantucket, New Bedford, Plymouth, and Provincetown; - Vessels using these ports were also documented travelling through the proposed lease area to access fishing grounds further offshore.
147-27	The Northeast Ocean Data Portal also contains mapped marine vessel use data representing several coastal use sectors that could potentially be affected by the Vineyard Wind project. The EIS should discuss potential impacts and avoidance measures to these sectors: - Commercial marine transportation traffic: maps show high densities of passenger vessels and Tug/Tow transiting from Massachusetts ports through the project area; - Recreational boating: maps depict high density use from Massachusetts ports within the project area; - Aquaculture: there is a mussel culture area and a kelp culture area near or potentially within the project area.
147-28	EIS should include the following information relating to the offshore structures and facilities: - The differences between the three proposed foundation types should be assessed, particularly the environmental impacts of each type; - More information should be presented regarding the potential scour protection to be employed for each type of foundation and the potential for habitat conversion, with a focus on the protective characteristics and beneficial uses (marine and fish habitat) from different rock sizes; - Potential effects on wind velocities and wave heights impacting the south coasts of Martha's Vineyard, Nantucket and Cape Cod, particularly in light of the modeling presented in the recently released BOEM study entitled Use of Finite-Volume Modeling and the Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (BOEM 2016-050). - An analysis of the impacts caused by an array of turbines should be presented and discussed in the EIS, including effects on currents and water flow and the resulting potential changes to the distribution and abundance of fish and invertebrate eggs and larvae, with a focus on commercially and ecologically important species.
147-3	It [the EIS] should also include an evaluation of water-dependent uses in state and federal waters, such as commercial and recreational fishing, shipping, and marine transportation. CZM requests that data on potential effects on resource areas and water dependent uses caused by the construction and operation of the project in both state and federal waters be presented in the EIS.
HY-03-17	I don't know what's being proposed for containment out there, but given the high toxicity of this -- of these fluids, if we're going to be out there, we've got to have on-site robust containment capacity to launch immediately to -- I just don't know what the effect of the fisheries will be if you have that because this stuff creates such sensitivity to the water, and I don't know what the effect would be of a spill of that category, if you lost an ESP because of some 1 catastrophic event.
HY-04-1	We're a local climate change organization, and -- so that's -- I was very impressed with the segment of the presentation that was about community engagement, particularly with fishermen. The fishing community is the lifeblood of Cape Cod.

Comment ID	Comment Text
HY-10-1	we do not see any earthly reason why you would place the cables through Lewis Bay(…)Lewis Bay in Hyannis, in particular, is a serious, serious recreational and economic driver of the towns of both Barnstable and Yarmouth. It is the ferry service that you used tonight to go out to get to a meeting on Nantucket, and it is a vital -- 1 it's fisheries. It's tourism. It's everything else. And as such, it does not belong there. These cables belong out in open ocean landing somewhere.
HY-12-2	There's been a -- there's been a question, a story line, that's come out about the electrical residue and does it cause an issue... I definitely want the impacts or potential impacts in the analysis that's going into the EIS to consider what's the existing technology, because I'm a fisherman... I've been in the industry, and I've never heard one complaint about any of the five cables that cross between the islands and Cape Cod right now. So I want to know if this is a different technology, and I hope that the EIS covers that.
KI-01-5	Vibrational noise is gonna be so much more higher. So I just wanted to make you aware that it is a concern in the fishing industry, which I'm sure you've heard before either way.
KI-07-1	There's been no studies on how the cable -- all that power going through it has affected the monkfish and the skates, the bluefish
KI-07-3	let's think about the environment. Everyone says green environment, but as Tina spoke out, all the stuff inside them is not good. I mean, they make oil spills, the water heat up, and the electronic mag- -- the field, I think, in my eyes, has hurt the fishing, personally
KI-07-4	I mean, I was fishing right there when they pile drive them in. And days they were pile driving, all the fish in our nets were dead. They were completely dead. In the silt, the water was completely disgusting, and no fish would want to be in there while it's getting it done. And they're trying to say it doesn't affect the fish, but they have somebody out looking for any marine mammals. (...) , that's just what I'm nervous about [with Vineyard Wind]
KI-08-1	I worked on the Caltrans Bay Bridge retrofit. We also got fish kills with pile driving.
KI-10-1	we're coming up with all this broken off fishing gear, and there's a lot of damage being done. And we fish at 12-inch mesh. So if you broke one mesh, now you have a 24-inch hole. So that hurts our -- our catch and to rehang a gillnet is $400. So what's happened is I've been off three years in a row, and I've been off one-third of my stock. So what that is is that's my profit. And this can't keep going on or I'll no longer be a gillnetter.
KI-10-2	Our fishing in this area will be all done and over, and then it'll be too late.(…) . So now we've lost this historical area, and it's become a charter boat tourist destination, and that's what they want to do. They want to go out, and they want to see the wind towers. They want to fish around them. Well, for them to come out, they're only allowed to catch eight fish per person per day, and, to them, they think that's great. Now, we're operating on a cheaper fish, where we have to catch 3,000 to 5,000 pounds per day. So if you take -- and where we haul three strings of gillnets. If we only produce 500 pounds out of each string, where we used to produce 3,000 pounds out of each string, we're operating at a loss. And we can't operate at a loss because crew is gonna go work somewhere else.
KI-10-3	...and these squid fishermen, they're gonna be in serious trouble. They're gonna be scratching their heads three years from now and say, "What happened?" And if it gets done during the spawning season, these percussion rings will kill the squids that are trying to lay eggs, and then the ones that do get the eggs laid, when these eggs hatch and still growing on, they're gonna kill them. So now there's gonna be whole generation of fish that are killed off. So two years from now, they're all gonna be down there waiting, and there's gonna be boats checking each week to see when they're showing up, and they're not gonna show up, and -- so now you're talking 200, 300 boats with four crew members on each boat, and that's the economy.

Comment ID	Comment Text
KI-11-1	I'm also a retired commercial fisherman for 40 years, spent decades here in these grounds (…) . Rhode Island harvests 60 percent of all the squid cost on the East Coast. So you can see it's a primary species for Rhode Island, and it is a huge economic factor. I'm concerned that if all of these grounds have turbines in them, we're not going to be able to tow in and amongst these. The grid pattern that you have for Vineyard Hav- -- for Vineyard Sou- -- for Vineyard Wind is not compatible to towing, you know. (...) So all of these grounds are going to be lost. We'll be displaced. And that's a grave concern, because when you lose these grounds, that means you change the effort and you put the effort somewhere else. And so that causes economic hardship for other fishermen in other grounds.
KI-12-3	And I think that's particularly important, given the fact that there seem to be a number of assumptions that have been made in the COP, particularly with respect to revenue and impacts to the commercial fishery industry that are not accurate.
KI-15-1	the squid activity that you had is one year, one year only. There wasn't any that year in Vineyard Wind's area. I have the data in -- with me right now that shows a completely different set of information. So I hope BOEM is going to get more than what they have now. You have AIS data there for 2013. AIS data was voluntary. So I guess it can show patterns of where guys are going, but it was voluntary until 2016, I believe And one year of fishing activity in the squid fishery -- it was just the squid fishery -- is certainly not enough information.
KI-17-1	We're talking 40 to 50 miles and potentially 500 to 600 turbines. Think in mind, you're gonna drive on 95. We're gonna put a red light every quarter of a mile... So it's a renewable resource, and we need that. That's energy. Well, we produce a renewable resource. It's protein and it's fish. So you need electricity and you need food.
KI-18-2	I'm personally not directly affected by this, but I will be affected directly by displacement issues, as has been mentioned earlier, when the draggers, the clammers, and particularly the fixed gear guys get driven out of these areas by pile driving and potential future issues. They will be displaced and taking over other grounds that are traditionally fished by other fishermen,
KI-18-6	We have done absolutely no science to prove potential impacts to fish species -- commercially important -- nor marine animals, such as whales, turtles, and particularly great whales. Only the fishermen on the issues are going to be held accountable because we're held accountable on ESA and the Magnuson-Stevens Act.
KI-18-7	And I also see -- on the third leg of that triangle, I see absolutely no science to prove no harm -- no harmful effects on the local fishermen, ports, or infrastructure. (Indiscernible) I feel is merely checking off boxes in a rush to get steel in water.
KI-18-8	Navigation is gonna be impossible. Fishing at night is gonna be impossible. Fishing in the fog is going to be impossible due to radar scatter. I've have had pictures of five different -- five turbines already. The scatter that's gonna be produced is almost going to be impossible to fish except for in clear daylight within these wind farms.
KI-20-1	But I do think that our fishing industry is hit really hard by a lot of different regulations and different changes, and what I would like to see -- and my question to you is, what kind of institutions are there, what kind of committee is there to make sure that as this project goes forward, if it does, that their voices can be included, that they can have a say and some actual power and not just -- not just lip service.
KI-22-1	One of the things that -- we've -- I've fished the area around the Block Island wind farm before the farm was ever put there, while it was under construction, and since. And I would say that the biggest impact we saw was during construction, and that was probably because of the pile driving. Now, what would scare me is -- when you're talking about the pile driving at Block Island, I think you were talking about a 24 inch diameter pile that was driven down through the legs. I'm not sure exactly the size. But now you're talking about something that's more than 30 feet in diameter if you go to the monopile design. I think that's a big negative of the monopile design.
KI-25-1	And I spoke earlier with BOEM already...this process, if done incorrectly, is going to be devastating to the Rhode Island fishing community. And if done in a proper manner and allowed -- if the developers and the fishing industry worked together, I think there's a way that we could find something that lets us coexist.

Comment ID	Comment Text
KI-26-1	Rhode Island Lobstermen's Association. The Association's biggest fear is actually the displacement of other fishing entities and where they might have to relocate their fisheries during construction periods and postoperation. And that is the biggest concern of our -- you know, basically of the lobstermen's association. We are a fixed-gear fishery. And if the mobile gear gets displaced, then they need somewhere to go.
NB-04-1	The cable axis he's talking about is a 20-by 6-foot cement block. We've already lost fishing gear on this...So the term mat is a 20-foot by 6-foot cement block.
NB-08-1	I've been a lobster fisherman for 38 years here in New Bedford...And I'm really concerned about the traffic that this is going to entail. We're not just talking about where these turbines are going to be, but we're talking about to get to the turbines is going to entail a tremendous amount of barges, tugboats, ships; and there's a lot of individuals that make a living between Point A and Point B. ... You're going to leave New Bedford -- just going through Buzzards Bay you're going to track through a tremendous amount of fisheries, and this is going to be tremendously disruptive.
NB-11-2	I appreciate all the talk about mitigation for gear loss, but how do you mitigate for a guy who put his gill nets ashore because he can't fish right now because the limits are so low and goes out in five or six years and finds out his grounds are gone? So there's a huge amount of financial impact for people that are involved in commercial fishing.
NB-11-3	but the problem with us mobile gear guys, the reason we're on the fives and the zeroes is because there's more (indiscernible) in between, you know. And so it -- not only does it bunch traffic into areas for potential problems; okay? Like jamming all the regular guys and all the commercial guys and all the (Indiscernible.) off of Block Island, right, and coming into Buzzards Bay; but it also jams all the fishing gear together. And in this industry that doesn't work. I mean, there's some stuff you can fish right next to each other. It will work. Most of it doesn't work, you know?
NB-14-1	One of my concerns is since I'm in the scalloping industry, I'm very sensitive to the currents. When the scallops spawn, they go up the water column and the currents move them up and down and they find a spot to deposit and grow. Now if we start with 75,000 acres of underwater foundation and all of a sudden you move them to merely acres of structure underwater, that is going to disrupt water currents that might mess up what is happening in the Great South Channel. It's got a terrific place there for the scallops to grow.
NB-24-1	so most of the fishermen don't want this to take place, but there may be some fishermen out there -- there may be some compromises that may be reached as far as concerns about gear being lost and cable protection.
NB-29-1	I'd like to start just by saying that we are currently a sustainable industry operating in these grounds offshore, and that needs to be kept in mind.
NB-29-3	I mean, this one project isn't going to ruin any full industry. There might be a couple of lobstermen with small operations in the area, but it's everything being built out all at once; and everything has a 20-year life span. So I'd like to see everything slow down a little bit more.
NB-29-4	For us to go out and displace an industry that we argue are most affected by climate change, we can see it out there, is a huge detriment to us, so all of our nation's, you know, greenhouse gas-producing addictions are kind of outsourced onto us as an industry; and now we're being asked also to take the brunt of having to correct that too, which is scary for us
NB-29-5	there's a great document put out by BOEM about mitigation techniques between fishing groups and offshore environments, but it is not legally required that any of the wind developers follow it. We have tried to sit down and talk to a lot of wind developers. I have engaged with Martha's Vineyard. I have engaged with Bay State and Deepwater Wind, and what they love to do is say how many times they've met with us; but they've done very little action to document our concerns.
NB-30-2	Full-time jobs and electric bills. How does that balance out compared to what we could potentially lose, and you know they lost fishing jobs on the projects over in Europe,

Comment ID	Comment Text
NB-30-3	You've got a crystal ball that seems to be working pretty good from your point of view. It should also be able to tell you what the cost to the consumer will be, and then you'll be able to compare that to the economic loss; right? Because you're saying the jobs in this wind business are going to be more than the displacement of commercial fisheries; right? And I'm saying you don't know these numbers because you're talking about $2 million for training. Of the 20 boats that fish down there, I know 2 of them. Only 2 of the guys that I talk to, and they're stocking over a million dollars a year. And that's 2 boats stocking a million dollars apiece, and all that money is coming back into this city; right? You're talking about one shot, $2 million trade. So if you're going to come in here and talk to us about economic impact, right, and we're going to mitigate this and we're going to figure that out, you can't really be telling me that you don't know what the power is going to cost and you don't know if the savings is going to be greater than the economic impact to the fisheries; right
NB-31-2	So when this -- the full-size project is implemented, you know, Vineyard Wind, Deepwater Wind, it will eliminate the summer squid fishing. The summer squid fishing is 50 boats. These boats have four people. That's 200 full-time jobs.
NB-36-2	The self-employed fisherman is not being represented at all, and the only people that are going to these meetings and stuff are the big companies. So it's going to be there's no more owner/operators. It's as simple as that. More consolidation, and that's something that's a very big fight against around here. Everyone knows that that's involved in fishing. There will be no more operators. It will be big business. This will eliminate mom and pop fishing 100 percent. No questions asked. I studied it. I know this is going to happen.
NB-36-3	It's no longer going to be economically viable for one person to own one boat. It's going to be big companies. This will create a wasteland. This will be a wasteland. And I think other people that have generational experience and have grown up in the waters here know this, and we're getting really frustrated because there's people making those decisions that don't have that firsthand experience on the water there, so everyone should be really scared that the people making the decisions, how much firsthand experience do they have in this box. How much do the people who are making these decisions actually know about this box.
NB-37-1	Four generations of doing this. My kids will not be able to do this. They will not be able to own a boat. You'll have to work for a fleet. It's going to be these big companies owning the permits.
NB-37-4	You know, we're going to create 1500 jobs. Well, what if a Category 4 hurricane comes and knocks them out for five years? How do you know if it's going to survive a Category 4 hurricane? And that box is -- you're not going through it. It's going to be a wasteland. There's going to be no more fishing in it. We're going to lose our historic jobs. It's as simple as that.
NT-06-1	being that that area is definitely the number one spawning area for these longfin squid, and any -- again, dredging of the cable, I would say, would have to be done outside of the parameter when they're there. And you're talking about doing this whole thing in one year. So even if they were gonna put these -- say, this whole section in, I would say that in the summer, when all that stuff's inshore, that I would prefer the construction start offshore in the deeper water, and then work, you know, in the shallower water when that event isn't happening
VH-03-1	The pile driving and the noise impacts. And in studies that I've looked at and have been shared with me actually by the Bureau of Ocean Energy Management, there seem to be a lot of potentially negative impacts on fin fish, not just invertebrates; and those are very detrimental both to fish migration or even their survival, and especially considering what we call forage species, that being Atlantic Herring, Atlantic Mackerel, squid, butterfish. And squid is a very important commercial species for us here in Massachusetts and Rhode Island, and I appreciate that there are studies underway both at SMAST and URI but without conclusive data as to what the effects of the pile driving noise would do to the pelagic and the entire ecosystem out there.
VH-07-1	most fish migrate east and west; and this cable is running north and south. It's going to be crossing a lot of migratory areas, and I have a lot of concerns, like my fellow fishermen here. That's basically what I'm worried about, is the migration of the species that have been coming through here for millions of years...

Comment ID	Comment Text
VH-09-1	I've fished out of every port on the island. That designated area has been my backyard. I have major concerns. I have permits in that area. You can draw out all your charts and can show where everything is going, but I don't see any fisheries management closures or any division of areas that you even show on your charts, which is frustrating to me. I have an Area Two permit right smack dab in the middle of where all these turbines are going. I am going to be affected. How do us as fishermen we as fishermen get coverage for this?
VH-10-1	and if I am to understand correctly, what you're saying is that you're anticipating and expecting vessels to operate freely amongst your wind turbines? Is that what you're saying? They would be allowed to. And is there any study and I understand that there's is a mile distance between each; is that correct? So you're expecting fishing boats and fishing boats to be able to maneuver in and amongst your towers; is that correct?
VH-13-1	I would like to see this process speed up. I understand there are concerns with the fishermen. I don't argue with any of their concerns, and I hope they can all be answered to their satisfaction; and if there are changes that need to be made, they should be made. But we live on an island. We just experienced six or seven weeks of ridiculous weather, and I don't know how much smaller the island is now than it was seven weeks ago; but I would love to know that because it's substantially smaller because it's washed away. Global warming climate change is a huge, huge, huge, huge issue. It's going to cost us billions of dollars to deal with it, so anything we can do to reduce our carbon footprint needs to be done as quickly as possible.
VH-17-2	Compromises are going to be inevitable. I think we're being as responsible as we can about them, like a lot of the fishing issues; but we certainly have to move forward,

CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

Comment ID	Comment Text
40-12	We recommend that BOEM coordinate closely with potentially affected tribes in determining whether any of the proposed lease areas are historically, culturally or spiritually important.
40-13	We recommend that BOEM work with the tribes to confirm that they treat this coordination by the project proponent as consultation satisfying Executive Order (EO) 13175 Consultation and Coordination with Indian Tribal Governments.
40-14	We recommend that BOEM document coordination pursuant to EO 13175 in the EIS. We also recommend that BOEM work with federal agencies involved in the project to determine the lead agency for project consultation for impacts from the project on land and the ocean.
40-15	...the tribes strongly prefer to participate when the archaeology work is being conducted, as opposed to reviewing a report after the field work is completed. We encourage BOEM to work to promote that level of coordination for the project.
87-21	Impacts to recreational and commercial fishing must also be assessed, including possible economic, cultural, and safety concerns.
97-3	Strobing or blinking nighttime lighting systems, as are standardly installed on wind turbine generators (WTGs), are incongruous with Nantucket's lighting regulations and will negatively impact the Island's cultural identity of historic and environmental preservation.
97-4	Nantucket's economy is seasonal in nature and tourism driven. Not only are visitors attracted to the Island's preservation of historic buildings, places, and districts, but also to its world-class, public beaches. We are therefore sensitive to any potential visual impacts to the ocean horizon and sunset views, especially from the Island's southern coastline: from Madaket Beach in the west to Sconset Beach in the east.
97-7	Due to the high cultural and historic sensitivity of the Island, and its proximity to the development site and cable routes, we strongly urge that Nantucket's historical and cultural review boards and stakeholders, such as the Nantucket HDC and the Nantucket Historical Commission, be consulted and engaged in any historic or archaeological review process of the Project.

Comment ID	Comment Text
KI-10-2	Our fishing in this area will be all done and over, and then it'll be too late.(…) . So now we've lost this historical area, and it's become a charter boat tourist destination, and that's what they want to do. They want to go out, and they want to see the wind towers. They want to fish around them. Well, for them to come out, they're only allowed to catch eight fish per person per day, and, to them, they think that's great. Now, we're operating on a cheaper fish, where we have to catch 3,000 to 5,000 pounds per day. So if you take -- and where we haul three strings of gillnets. If we only produce 500 pounds out of each string, where we used to produce 3,000 pounds out of each string, we're operating at a loss. And we can't operate at a loss because crew is gonna go work somewhere else.
NT-03-1	And Nantucket is a historic -- is registered as a historic place with the federal government, a federal historic site; however, I personally believe that building Vineyard Wind and building out the resource area would help protect that historic site, Nantucket Island, from the effects of climate change. If we reduce greenhouse gas emissions, carbon dioxide, by millions of tons building these wind farms, that helps Nantucket in the long run and the short run by reducing greenhouse gas, which has been proven to cause rising sea levels, more powerful storms and coastal flooding.

CUMULATIVE IMPACTS

Comment ID	Comment Text
18-2	In a multi-state report prepared by Massachusetts, New York and Rhode Island, offshore wind is one of the biggest economic opportunities we will see as it has the ability to create up to 500,000 jobs by 2050. Vineyard Wind is offering 3,600 local full time jobs over the life of the project once it starts construction.
30-7	the Block Island Wind Turbines... are now devoid of fish where fish were historically located in the past. Is the EMF associated with subsurface cable resulting in such behavior?...what is the impact to… [marine] species… resulting from EMF…?
40-19	Because minority populations near the project ports may already be subject to disproportionate environmental burdens, an examination of cumulative impacts that add to the existing burden is a particularly important part of the environmental justice analysis.
40-24	The EIS should include and analyze impacts from current and reasonably foreseeable projects and activity near the Vineyard Wind project area including the wind power projects in previously leased areas and the two additional BOEM lease sale areas totaling approximately 390,000 acres. We recommend that the analysis clearly identify the resources that may be cumulatively impacted, the timeframe for the impacts and the geographic extent of impacts caused by the proposed project. For resources analyzed, we encourage BOEM to include: a description of the current condition of the resource; current trends regarding the condition of the resource; and a discussion of likely future conditions of the resource based on the consideration of current conditions, trends and other reasonably foreseeable projects. For all resources considered it would also be helpful if the analysis links the potential for cumulative impacts to long term health of the resource under consideration.
40-25	Where adverse cumulative impacts are identified, BOEM should make it clear which parties will be responsible for avoiding, minimizing, and mitigating those adverse impacts. We recommend that the cumulative impact analysis include a discussion of opportunities to co-locate transmission cables from multiple projects as they come ashore to help minimize and avoid project impacts. We recommend that the analysis pay particular attention to impacts to endangered species and marine related commerce.
40-26	We also recommend that the cumulative impact analysis examine the landside effects of noise to residential and commercial buildings near the port facilities. Existing port facilities may already experience higher than normal noise levels, and additional noise may increase cumulative impacts.

Comment ID	Comment Text
40-27	The EIS should explain how whales will behave if they encounter the proposed wind turbine generator array, or the larger array that would accompany multiple wind energy projects over time. Another relevant question includes whether the structures themselves create current eddies that could concentrate zooplankton, particularly those on which some baleen whale species target as forage, thereby attracting whales towards these areas. If whales detect and avoid the project area structures staying further offshore as they head north, they could approach the traffic separation scheme for the northern approaches to New York Harbor. Vessels transiting to and from port may also avoid the lease sites, particularly at night or in bad weather. Consequently, vessels and whales may end up closer together in their attempts to avoid the arrays. Any available information on marine mammal behavior around structural arrays should be reviewed to better understand how these federally-protected marine mammals will react to the presence of these structures within their migratory route.
40-30	Vineyard Wind proposes to install a transmission cable through Muskeget Channel en route to Cape Cod. Musgeket Channel has been identified in the past as a promising location for tidal power projects due to strong tidal currents. It would be helpful if the EIS can explain whether the presence of the Vineyard Wind transmission cable will likely prevent the use of the channel for future tidal energy projects or whether these projects could co-exist.
41-18	It is important to gather enough data to calculate these vulnerabilities [mathematical representations of the threats posed to a specific species or population] and then use them during the planning process and on an ongoing basis as the program is monitored and decisions are made about whether to continue further expansion.
41-2	Additional data is needed on avian and other wildlife use of the project area (and more broadly, the adjoining BOEM lease areas) for analysis of potential impacts and plans for avoiding, minimizing, and mitigating impacts. Both radar studies and additional direct observations should be conducted pre-, during and post-construction. Given the scope and duration of the overall BOEM offshore leasing program, data gathering and analysis needs to be conducted and coordinated over many years into the future.
43-1	We support the marine spatial planning approach used to identify Wind Energy Areas in federal waters, including the area leased to Vineyard Wind for its turbines, at this time, we cannot support the Vineyard Wind Connector or any transmission line project that could potentially connect with or facilitate a future project in Nantucket Sound. Our future support would, at a minimum, require a binding and enforceable agreement between Vineyard Wind and the relevant federal, state, and local governments that ensures the transmission line could not be used for any project located in Nantucket Sound.
53-18	This [Cumulative Effects] analysis should include a broad view of reasonably foreseeable projects, including development projects that are only in the proposed leasing or site assessment phase. Specifically, the cumulative effects analysis should consider other existing, proposed or planned energy infrastructure projects in the vicinity of the project including, but not limited to, Bay State Wind Project, South Fork Project, Revolution Wind, and the potential for development of the two Massachusetts Wind Energy Areas that have not yet been leased. Proposed wind development projects in the mid-Atlantic region should also be included in the analysis of cumulative effects on marine resources. This is particularly important for migrating species, such as marine mammals, sea turtles, fish and invertebrates that may use or transit multiple proposed project areas. The potential cumulative impacts on these species resulting from changes to benthic and pelagic habitats and potential food sources due to the presence of multiple projects should be evaluated in the cumulative effects analysis.
53-19	The EIS should evaluate in detail, the cumulative impacts on protected species and fisheries resources associated with overlapping construction activity of adjacent projects, including elevated noise levels and increased vessel traffic. Specific information related to the timing of the activity and the expected number of proposed construction seasons is important, particularly for evaluating cumulative impacts to marine mammals, sea turtles, and spawning activity of fish and invertebrates.

Comment ID	Comment Text
53-20	An assessment of cumulative impacts of existing and proposed transmission cables should also be considered. Based on the proposed wind development projects in this region, there is the potential for substantial additive impacts associated with the number of required cables. As part of the cumulative effects analysis, measures to minimize the additive impacts should be considered, including the evaluation of designated cable routes and coordination and consolidation with adjacent projects to minimize cumulative impacts.
53-21	Cumulative impacts to fishing operations, such as changes to time and area fished, gear type used, and fisheries targeted, should be evaluated in the EIS. It is important to evaluate cumulatively how the projects could affect other fisheries operating outside the project area due to effort displacement, shifts from one fishery to another, and increased fishing effort due to fishing in less productive areas. Shifts in fishing behavior, including location and timing, may result in cumulative impacts to habitat as well as target and bycatch species that have not been previously analyzed in fishery management actions. The number and spacing of turbines in relation to adjacent projects should also be considered in detail and modifications should be made to minimize cumulative impacts of adjacent projects on fishing operations and vessel transit.
53-22	The establishment of a regional monitoring program will be important to help understand potential impacts of wind energy projects and identify potential mitigation measures for any future projects. We support the establishment of a regional scientific research and monitoring framework to better identify and understand cumulative impacts and interactions between fisheries and offshore wind energy. We are encouraged to see ongoing efforts to establish a regional monitoring program with Rhode Island and Massachusetts for the Southern New England wind development areas. We also encourage you to consider monitoring at all scales and taking an ecosystem-based approach and assessing monitoring needs of fisheries, habitat, and protected species. This will be important to not only assess the cumulative impacts of project development, but also to help inform any future development.
53-36	Modeling changes in localized flow and currents from project operation should be conducted to assess impacts to larval distribution and settlement in the region. Juvenile settlement and habitat use on the OCS remains a data gap that should be addressed, particularly for evaluation of cumulative impacts of the offshore wind projects. As part of your evaluation, it is also important to discuss any potential effects from the project on food sources of species with designated EFH in the project area. Decommissioning procedures and the potential impacts to EFH should also be included in the EIS.
53-37	As part of the expanded EFH assessment, an alternatives analysis and any proposed mitigation measures should be discussed in detail. For all potential impacts evaluated in the EIS, alternatives for avoiding and minimizing adverse effects to EFH should be clearly identified and analyzed. Mitigation measures such as soft start, sequencing construction timing, and micrositing and anchoring plans to avoid sensitive habitats, should be included in the EFH assessment. Proposed mitigation and monitoring plans, particularly for unavoidable impacts, should also be included in the EIS. The EIS should include a discussion of both site-specific mitigation and monitoring as well as regional scale monitoring efforts to assess cumulative impacts of adjacent projects. We encourage you to coordinate with us during the development of the expanded EFH assessment to ensure the information we will need is addressed in the assessment.
53-7	It is also important to consider the proposed layout and spacing of adjacent wind farm proposals as you develop project layout alternatives. Given the proximity of adjacent projects proposed by multiple developers, the layout of turbine foundations is a critical factor that requires coordination through the Federal process to minimize cumulative impacts to commercial and recreational fishing operations. We recommend you work closely with the commercial and recreational fishing communities and the U.S. Coast Guard to determine the most appropriate spacing and orientation of the turbines.

Comment ID	Comment Text
59-12	Given the number of wind energy projects being proposed along the Atlantic coast, the cumulative effects analysis must be comprehensive. The analysis should consider other existing, proposed or planned energy infrastructure projects. We encourage a broad view of those projects that are reasonably foreseeable, keeping in mind that many fisheries operate on a regional scale and could be affected by projects offshore of Massachusetts and Rhode Island, as well as New York and New Jersey.
60-7	Commercial fishing is one of the oldest industries in the United States and the fishing tradition continues to support coastal economies throughout the Atlantic Coast. It would be incredibly foolish to put that heritage at risk without fully analyzing the cumulative needs, costs, and benefits of all offshore energy proposals, including the Vineyard Wind LLC's proposed facility.
66-14	The Town of Edgartown secured a FERC permit for its Muskeget Channel Tidal Energy Project ~2011. Impacts on the tidal project should be examined in the DEIS.
69-19	While the proposed project will provide an alternative to fossil fuel-derived energy, reductions in greenhouse gas emissions from the Vineyard Wind project alone are unlikely to provide local benefits to marine mammals and other marine life that currently occupy the project area, particularly large whales that use these waters as foraging habitat. If this logic is being used to justify adverse impacts on local populations of marine species, quantifying the GHG reduction benefits is necessary and should include associated construction costs.
69-5	We strongly recommend that key cumulative impact priorities be identified and discussed in the EIS. Studies looking at cumulative impacts have been done in Europe (Slavik et al. 2017). Also, there are several groups currently laying the groundwork for a study plan and the fiscal mechanism to fund work related to assessing the impact of multiple wind farms. These groups include the National Academies Atlantic Offshore Renewable Energy Development and Fisheries Steering Committee, the Massachusetts Offshore Wind Fisheries Working Group, the Rhode Island Fisheries Advisory Board, and independent contractors funded by Deepwater Wind and Vineyard Wind. These efforts should be referenced in the EIS. Additionally, information from the Working Together to Resolve Environmental Effects of Wind Energy (WREN) project at the Pacific Northwest National Laboratory should be referenced.
69-6	Cumulative impact concerns include changes to the spatial distribution of species including but not limited to scallops, surf clams, black sea bass, flatfish, marine mammals, and highly migratory species. There are also several socioeconomic cumulative impact concerns that need to be identified and scoped out, including but not limited to changes in fixed and mobile gear fisheries and commercial and recreational fisheries.
80-7	In addition, and given the broader scale of potential development across the entire Wind Development Area (WDA; all Lease Areas) cumulatively, this staged approach could provide an adaptive framework for further avoiding, minimizing and mitigating both direct and indirect impacts across the WDA. For these reasons, the Division requests that BOEM expressly require the above staged construction and permitting approach as an integral component of the overall project.
82-15	an independent study [is recommended] documenting the potential effects of the transmission lines...Including scientific studies of negative consequences/absence of consequences of similar installations in other parts of the globe.
83-12	Given the rapidly expanding offshore wind development activity off the U.S. East Coast, and the array of potential impacts to marine life, including the acute vulnerability of the North Atlantic right whale, it is vitally important that BOEM undertake a careful and detailed quantitative analysis of cumulative impacts, at the project-level and lease area-level, and also programmatically for the U.S. East Coast. In conducting these analyses, cumulative impacts should be defined by BOEM to encompass: (i) repeated disturbance from the same activity over time; (ii) the interactions between different types of stressor; (iii) multiple wind energy development projects; and (iv) the broader context of other ocean uses both within the leasing area and that may be encountered by transboundary and migratory species during their life cycle.

Comment ID	Comment Text
83-13	BOEM should conservatively assume that any substantial decrements in communication range or habitat for the North Atlantic right whale, including habitat avoidance, will result in adverse impacts on the stock. A conservative approach is justified given the species' extreme vulnerability, where any additional stressor may potentially result in population-level impacts, and the difficulty in obtaining empirical data on population-level impacts on wild animals.
83-14	To account for the impacts of the simultaneous development of multiple lease areas on North Atlantic right whales, as well as other species and habitats, we recommend that the agency also prepare a programmatic EIS encompassing all U.S. East Coast offshore wind development.
83-15	BOEM must consider the impacts of other activities and events as part of its environmental analysis, including non-acoustic impacts from vessel collisions, bycatch and entanglement, and the potential for large-scale seismic exploration and offshore oil and gas drilling.
83-27	Developers should commit to carry out scientific research and long-term monitoring in lease areas to advance understanding of the effects of offshore wind development on marine and coastal resources, and the effectiveness of mitigation technologies (e.g., noise attenuation, thermal detection). Science should be conducted in a collaborative and transparent manner, utilizing recognized marine experts, engaging relevant stakeholders, and making results publicly available. Developers should coordinate with state and regional scientific efforts to ensure results from individual lease areas can be interpreted within a regional context and contribute to the generation of regional-scale data, which is required to address questions related to population-level change and cumulative impacts across the geographic range of the North Atlantic right whale.
83-7	Research and monitoring studies identify two potentially serious possible impacts on migratory bats from operational offshore wind turbines: (i) fatalities of migratory species from direct strikes and/ or barotrauma from the negative pressure associated with operating wind turbines; and (ii) cumulative impacts on populations of migratory tree-roosting species that are resident onshore or migrate offshore along the eastern United States.
87-10	Offshore wind development may cause significant impacts to bird and bat populations from collisions with turbines and habitat displacement. Rotor speed, rotor size, the amount of turbines, turbine location, turbine lighting and the cumulative impact of other turbine projects, are all factors that BOEM must examine.
87-19	The cumulative impact from other planned offshore wind projects must also be addressed, as the offshore wind energy industry is poised to grow exponentially in the next decade.
87-4	The "no action" alternative must also be seriously examined to account for cumulative impacts, data deficiencies, and our understanding of impacts from offshore wind generating projects. Seriously considering the "no action" alternative would allow BOEM to proceed incrementally and cautiously to ensure that impacts from one project are understood before expanding the size of that project or proceeding with additional projects.
90-3	CLF strongly encourages BOEM to establish a long-term monitoring program to analyze the cumulative impacts on marine resources of offshore wind energy development both in New England and along the entire Eastern seaboard where wind energy facilities have been proposed. Offshore wind energy is a new activity in the nation's oceans, and a premium should be placed on clearly understanding the impacts of these facilities so that appropriate steps can be taken to ensure that the development of wind energy in the United States proceeds in an environmentally responsible manner that protects vulnerable species such as the North Atlantic right whale.
90-5	CLF wishes to emphasize the need for BOEM to perform an analysis of cumulative impacts from electric transmission cables linking future offshore wind development in the federal wind energy areas to the electric grid onshore, and consider what steps BOEM might take to minimize the number of transmission cables necessary to deliver maximum offshore wind power. Placement of transmission cables can disrupt sensitive marine benthic habitats as well as coastal lands and the flora and fauna inhabiting these areas. Electromagnetic fields emitted from the cables can affect various marine species.

Comment ID	Comment Text
92-17	There is no scientific process in place to measure the impact of individual turbines, a whole wind farm, and all of the wind farms proposed for the continental shelf on individual fisheries. Any diversion of fishing effort outside of the lease area will have an unintended consequence of increasing fishing effort in the remaining areas. The impact of that diversion should be studied to identify its impacts to fisheries and to fishermen.
94-22	Impacts that appear collectively minor could have significant impacts on individual fishermen or sectors of the fishing industry. The cumulative effect of those impacts could result in significant harm to the Commercial Fisheries Center. Despite the rather serious implications for Rhode Island fishermen that could result from the construction of this project there has been very little effort to obtain more research and reliable baseline data before allowing construction. There has been little to no effort by BOEM, and little effort by the developer, to discuss the draft COP with the impacted Rhode Island. This has been a source of a great deal of frustration and has elevated the concerns of the Commercial Fisheries Center.
123-2	Will other lease area cables connect to VW or separate cables to shore.
147-11	Each proposed cable corridor may be up to 1.2 nm wide. CZM recommends that the width should be minimized to avoid conflicts with future projects. The EIS should provide justification for the width of these corridors.
HY-03-12	with the increasing veracity that we've seen up here on the Cape just in the last 12 months of storms and frequency of storms, that -- the very real possibility that Category 3, 4 or, God forbid, 5 storms, hurricanes might hit us, and we need to know definitively, again in terms of the cumulative effects -- not only for this project but cumulatively -- how much of this dielectric fluid is going to be sitting out on ESPs south of the Vineyard, and are all of those projects going to be built to stand -- to withstand this type of potential impact
HY-03-2	Although Vineyard Wind has been very candid in their assertions that they have no intent of allowing [redux] to happen, it may be out of their control
HY-03-3	So we need to work very, very closely with you because the prospect of a Cape Wind redux presents enormous issues for the environment of Nantucket Sound.
HY-08-1	We have not heard one word tonight about an alternate route involving Brayton Point. From my understanding, the two adjacent wind farms are slated to go up Mount Hope Bay, and it's rather perplexing that the very next-door neighbor to those projects can't seem to team up and go in that direction.
KI-01-3	you know we had several whale incidents within five months of the Block Island turbines going online? I believe there were seven whole incidents, five deaths in five months. We haven't had five whale deaths in Narragansett Bay in 10 years, total.
KI-04-2	Now, the cable installation and the cable itself has some impact, the -- that process, but it's something that could be mitigated if BOEM, when they developed these lease areas, developed a highway for the electricity to be piped into land. So in other words, consider the cable impact as a whole, rather than each project looking at different cable routes. You know, we've got cable routing from the Block Island wind farm currently that goes into Block Island and then into the mainland. The South Fork project will have a cable that will go south of Block Island and over into Montauk.
KI-04-4	An analogy that I had was an industrial park. If you have an industrial park that you're going to develop and you have various leasing sites in that industrial park, you develop a road going into the industrial park. You don't say, All right. GE, you've got this part of the industrial park. Develop your own roads. Monsanto, you've got this part. You develop your own roads. You do it in an organized fashion. It would make sense here too
KI-10-1	we're coming up with all this broken off fishing gear, and there's a lot of damage being done. And we fish at 12-inch mesh. So if you broke one mesh, now you have a 24-inch hole. So that hurts our -- our catch and to rehang a gillnet is $400. So what's happened is I've been off three years in a row, and I've been off one-third of my stock. So what that is is that's my profit. And this can't keep going on or I'll no longer be a gillnetter.

Comment ID	Comment Text
NB-05-1	Since the cable engineering seems to be such a hot topic and Vineyard Wind now is only proposing building a section of their lease, will the cables be engineered to handle the capacity of a fully developed project and is there an option for engineering it for some of the other leaseholders that will be adjacent?
NB-11-4	And the other thing I want to talk about mitigation is the paths that you're going to be creating refer to a half an acre. Let's be nice here and say a third of an acre. How many turbines are going down there in total max? What was the total number max for turbines that might be down there? Not from you guys. The whole project...500? That's everybody. 500 times half an acre? That's a lot of bottom you converted from a productive bottom to a hard bottom that doesn't belong there.
NB-31-2	So when this -- the full-size project is implemented, you know, Vineyard Wind, Deepwater Wind, it will eliminate the summer squid fishing. The summer squid fishing is 50 boats. These boats have four people. That's 200 full-time jobs.
VH-15-2	Second point is Block Island. I propose to do an oversight for that one. That has 5 turbines. You are proposing 106 turbines. Please consider the significant impact of 5 versus 106.

FINFISH, INVERTEBRATES, AND ESSENTIAL FISH HABITAT

Comment ID	Comment Text
10-1	I am concerned about adverse impacts on wildlife, whether they are birds, fish, whales, dolphins, etc. What type of studies are being done on sound vibrations from this type of facility on wildlife?
14-3	It doesn’t appear to me that the MV Wind Farm site will have negative effects on the Essential Fish Habitat for the 27 species managed by the NEFMC (New England Fishery Management Council).
22-8	Lastly, the MLA is further worried given the uncertainty and indefinite impacts to the ALL the commercial viable resources our commercial fishermen depend upon given the proposed scale of this offshore wind farm and the unknown impacts to the ecosystem an approximately 800-megawatt wind farm will have not just on the economically viable resource in the ocean but all marine life
22-9	Our fear is that once these large scale wind farms are realized and constructed it will be too late to undue the negative impacts to the ecosystem and will cause economic hardships on the commercial fishing fleet in Southern New England.
30-7	the Block Island Wind Turbines... are now devoid of fish where fish were historically located in the past. Is the EMF associated with subsurface cable resulting in such behavior?...what is the impact to… [marine] species… resulting from EMF…?
34-2	One change that would have a significant effect is the disuse of nylon nets and lobster lines and all other boating lines. Nylon nets that have broken loose simply become floating death traps forever ensnaring all kinds of sea creatures.
39-4	marine biologists have reported that offshore wind projects near Denmark and other countries have found that, other than the construction/installation phase, not only is there no harm to marine life, but, on the contrary, after that initial phase, marine life flourishes on and around the underwater support structures for the wind turbines.
40-28	We recommend that the EIS explore to what degree, if any, the buried electric transmission cables will affect lobsters' ability to migrate successfully to areas of thermal refuge.
40-29	In addition to providing air pollutant reduction benefits, the project and others like it, may supplant traditional power plants in the region which are often cooled by water withdrawals from nearby waters. EPA recommends that the EIS discuss these environmental benefits, including any improvements to fish habitat, and related spawning and survival rates that may flow from the reduction in water cooled plants.
43-10	The scope of the review should include assessment of the biological and physical impacts of the cables on sensitive resources such as sea grass, eel grass, shellfish, and other marine life as part of the scope of the review.
4-4	The high voltage electric cables will pass through invaluable quahog, scallop and oyster beds with boating and swimming just above.

Comment ID	Comment Text
45-4	In collaboration with the University of Massachusetts Dartmouth's School for Marine Science and Technology (SMAST), Vineyard Wind has committed to conduct pre- and post- construction assessments of fisheries and associated ecological conditions.
47-3	Lewis Bay is already in degraded environmental condition... Laying cables in Lewis Bay will impede any remedial actions, negatively impact moorings and shell fishing, and introduce into the bay unresolved electro magnetic issues associated with high voltage cables.
53-10	This [Affected Environment] section should also include information on the seasonal abundance and distribution of marine mammals, sea turtles, fish and invertebrates throughout the area that may be directly or indirectly impacted by the project. It is important that the EIS discuss seasonal changes in the environment of the project area and how that influences the distribution and abundance of marine resources.
53-12	Due to the significance of commercial and recreational fisheries issues associated with this project, we recommend that "Fisheries Resources" be addressed as a separate section within the "Affected Environment" section. This section should include all of the biological, cultural, and socioeconomic issues related to fisheries resources. Specifically, this section should include an assessment of managed species, their status, and habitat requirements; landings and value of landings and recreational effort; fishery participants including vessels, gear types, and ports; and potential impacts beyond the vessel owner level (processors, distributors etc.). This evaluation should cover the immediate project area and adjacent locations.
53-15	Potential impacts to marine resources associated with construction and operation of the project, such as elevated noise levels, increased vessel traffic, electromagnetic fields (EMF), and localized changes in currents should be evaluated.
53-18	This [Cumulative Effects] analysis should include a broad view of reasonably foreseeable projects, including development projects that are only in the proposed leasing or site assessment phase. Specifically, the cumulative effects analysis should consider other existing, proposed or planned energy infrastructure projects in the vicinity of the project including, but not limited to, Bay State Wind Project, South Fork Project, Revolution Wind, and the potential for development of the two Massachusetts Wind Energy Areas that have not yet been leased. Proposed wind development projects in the mid-Atlantic region should also be included in the analysis of cumulative effects on marine resources. This is particularly important for migrating species, such as marine mammals, sea turtles, fish and invertebrates that may use or transit multiple proposed project areas. The potential cumulative impacts on these species resulting from changes to benthic and pelagic habitats and potential food sources due to the presence of multiple projects should be evaluated in the cumulative effects analysis.
53-19	The EIS should evaluate in detail, the cumulative impacts on protected species and fisheries resources associated with overlapping construction activity of adjacent projects, including elevated noise levels and increased vessel traffic. Specific information related to the timing of the activity and the expected number of proposed construction seasons is important, particularly for evaluating cumulative impacts to marine mammals, sea turtles, and spawning activity of fish and invertebrates.
53-23	The following listed species may be found in the Vineyard Wind project area: Endangered North Atlantic right (Eubalaena glacialis), fin (Balaenoptera physalus), sei (Balaenoptera borealis), and sperm (Physeter macrocephalus) whales; endangered Kemp's ridley (Lepidochelys kempii) and leather back (Dermochelys coriacea) sea turtles; threatened North Atlantic distinct population segment (DPS) of green (Chelonia mydas) sea turtles and Northwest Atlantic DPS of loggerhead (Caretta caretta) sea turtles; and have DPSs of Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus). Sea turtles are only present in the project area seasonally, with occurrence largely limited to May - November. More information on these species is available on our Greater Atlantic Regional Fisheries Office (GARFO) website...Right whale sightings are available at our Northeast Fisheries Science Center webpage. There is no designated critical habitat that overlaps with the project area.

Comment ID	Comment Text
53-24	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include: Potential for an increased risk of vessel strike due to increases in vessel traffic and/or shifts in vessel traffic patterns due to the placement of structures.
53-26	...the EIS should consider requiring the development of minimization and monitoring measures that minimize the risk of vessel strike and exposure to potentially harassing or injurious levels of noise to marine mammals and fish.
53-27	As currently described in the NOI, this facility will be constructed and operated in an area described and identified as EFH for fish managed under the New England Fishery Management Council (NEFMC), the Mid-Atlantic Fishery Management Council (MAFMC), the South Atlantic Fishery Management Council (SAFMC), and NMFS. Fish managed under the fishery management plans include the Northeast multispecies, sea scallop, Atlantic salmon, monkhsh, Atlantic herring, spiny dogfish, northeast skates, small-mesh multispecies, red crab, bluefish, Atlantic mackerel, squid, butterfish, Atlantic surfclam and ocean quahog, summer flounder, scup, black sea bass, Atlantic highly migratory species, and coastal pelagic fish.
53-28	EFH and Habitat Areas of Particular Concern (HAPC) for 28 species managed by the NEFMC have been modified under the Omnibus Amendment. The EIS should use the updated EFH and HAPC designations for the EFH assessment. While spatial data for these species are not yet available for viewing or location queries under the EFH Mapper, the New England EFH designation maps can be downloaded from our habitat website...and text descriptions and HAPC designations can also be accessed on our habitat website...The EFH mapper can be used to query and view and spatial data for the species managed under the Mid-Atlantic Councils and for Highly Migratory Species/Secretarial species. The EFH mapper can be accessed from our habitat website...
53-29	Due to the potential for substantial adverse effects to EFH from the proposed project, an expanded EFH consultation as described in 50 C.F.R. $ 600.920(f) should be included within the EIS...As part of the expanded EFH assessment, additional information including results of on-site inspections, views of recognized experts, a review of pertinent literature, an analysis of alternatives, and any other relevant information should be included. Project specific information should be addressed in the expanded EFH assessment such as identification and characterization of sensitive habitat types; an evaluation of habitat impacts that may result from proposed construction methods; pre-, concurrent, and post-construction monitoring; and proposed decommissioning procedures.
53-30	The EFH consultation is a separate review mandated pursuant to the terms of the MSA, although you may use the NEPA document as the vehicle within which to present the EFH assessment. Should the EFH assessment be included in the EIS, it should be contained within a separate section of the document and be clearly identified as an EFH assessment.
53-31	While it will be important to assess impacts on all federally managed species with designated EFH in the project area, the EFH assessment should include additional analysis of the more sensitive habitats and life stages in both the offshore and inshore project areas.
53-32	The EFH Assessment should include full delineation, enumeration, and characterization of sensitive habitats that may be impacted by the project. Additional analysis should be included for federally managed species and life stages that may be more vulnerable to impacts of the projects, such as immobile species, larvae, or demersal eggs. The EIS should also include results of acoustic modeling for installation of the proposed turbine foundation types. The expected noise levels, and extent of area associated with mortality and impairment in fish and invertebrates should be evaluated. Potential impacts of elevated noise levels to spawning activity will also be important to address in the NEPA analysis and EFH Assessment.
53-33	The evaluation of water withdrawals for jet plowing should use existing plankton data assess the expected impacts to EFH sensitive life stages.

Comment ID	Comment Text
53-34	Information related to the time of year and duration of proposed construction will be necessary to evaluate the extent of impacts, as habitat use, species, and life stages present will depend on temporal and seasonal factors. Impacts from project operations should also be evaluated including permanent loss and the conversion of one habitat to another, such as the creation of hard bottom habitat in predominantly sandy areas.
53-35	Impacts to EFH associated with noise from project operation and EMF from cable transmission should be evaluated. This should include an evaluation of these impacts to pelagic and benthic habitat, including benthic infauna.
53-36	Modeling changes in localized flow and currents from project operation should be conducted to assess impacts to larval distribution and settlement in the region. Juvenile settlement and habitat use on the OCS remains a data gap that should be addressed, particularly for evaluation of cumulative impacts of the offshore wind projects. As part of your evaluation, it is also important to discuss any potential effects from the project on food sources of species with designated EFH in the project area. Decommissioning procedures and the potential impacts to EFH should also be included in the EIS.
53-37	As part of the expanded EFH assessment, an alternatives analysis and any proposed mitigation measures should be discussed in detail. For all potential impacts evaluated in the EIS, alternatives for avoiding and minimizing adverse effects to EFH should be clearly identified and analyzed. Mitigation measures such as soft start, sequencing construction timing, and micrositing and anchoring plans to avoid sensitive habitats, should be included in the EFH assessment. Proposed mitigation and monitoring plans, particularly for unavoidable impacts, should also be included in the EIS. The EIS should include a discussion of both site-specific mitigation and monitoring as well as regional scale monitoring efforts to assess cumulative impacts of adjacent projects. We encourage you to coordinate with us during the development of the expanded EFH assessment to ensure the information we will need is addressed in the assessment.
53-38	There are also a number of species within the project area that do not have management plans through the Councils or Commission, but may be managed through the State of Massachusetts and/or play an important ecosystem role, including bay scallop, razor clams, channeled whelk, knobbed whelk, and blue mussels. Additionally, NOAA manages numerous protected species in the project area under the Endangered Species Act and/or the Marine Mammal Protection Act, including large whales, sea turtles and sturgeon. Information on these protected resources can be found on our GARFO protected resources website...We anticipate that all of these species will be included in your impact assessments, both in its consultation document(s) and in its NEPA document (some of which may be concurrent). We also expect the assessment to include impacts to the recreational and commercial fishing communities that rely on these species.
53-39	We should note, the behaviors and habitat needs of diadromous and estuary-dependent fishes (associated with cable route locations) may not be represented by a discussion solely of the surrounding marine fishes in the wind turbine area. The discussion for FWCA species should be designed around an ecological guild model that uses locally important species to evaluate the project impacts to organisms or populations associated with the various trophic levels and life history strategies exhibited by FWCA species known to occupy the project area as residents or transients. Focus should be on issues surrounding particular species, life history stages, or habitat components that would be most susceptible to the various potential project impacts.
53-42	...if mobile species move away from construction noise during spawning season, substantial disruption, delay, or elimination of spawning activity, and therefore spawning success, may occur within the area of impact. Further, longfin squid egg mops are attached to the bottom and susceptible to high mortality when buried by sediment. This is not discussed the COP, but is an indirect impact of such activities. Such potential biological, economic, and social impacts must be considered in the EIS.

Comment ID	Comment Text
53-43	...information on fishing communities within New Jersey and New York must be included in the affected environment section, as vessels hailing from these states participate in fisheries within affected areas. Quantitative analysis of the potential costs associated with reduced fishing revenues as a result of short-or long-term effort displacement, reduced catch rates, changes to species composition, negative effects on spawning/recruitment, and permanent or short-term changes to EFH during construction, operational, and decommissioning phases of this project must be included in the COP and subsequent EIS. Opportunity costs such as revenue lost by fishing effort that is displaced into less productive areas, including vessels displaced out of the project area and those already fishing in an area into which displaced vessels move, and the potential for poor recruitment resulting from construction activities should be assessed. Similarly, analysis of the affiliated non-market social impacts of such activities needs to be included in the EIS.
53-47	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include:...impacts of elevated underwater noise during any geophysical and geotechnical surveys, pile driving, and other activities;
53-48	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include...any activities which may displace individuals from preferred habitats, alter movements or feeding behaviors, increase stress and/or result in temporary or permanent injury or mortality; disruption of benthic habitats during construction-related barge anchorage, infrastructure placement, pile driving, or cable route development that may increase the risk of entanglement or change of migratory behavior, alter prey assemblages or result in the displacement of individuals
59-8	The EIS must examine fisheries data over multiple years to ensure identification of potentially affected fishery resources and fisheries because there can be significant interannual variability in resources and the fisheries that target them due to both environmental and regulatory factors. Longfin squid, seabass, scup, and whiting are just a few of the fisheries that work in this area. The area is particularly important for longfin squid in early summer, after the June 11 closure of the Massachusetts state waters fishery.
60-1	AOLA [Atlantic Offshore Lobstermans' Association] supports, through advocacy and leadership, the efforts of the offshore lobster industry to develop and maintain a strong, stable, and sustainably minded fishery. While clean energy is a laudable goal, marine wind farm development must not displace local fishing fleets and should only be sited in areas that do not impact ocean resources, including fish and crustacean stocks, marine mammals, and essential habitat.
60-2	In recent years, much of the southern New England lobster fleet has transitioned to a mixed crustacean fishery targeting both Jonah crabs and lobsters. The emerging Jonah crab effort is increasingly active in an area along the eastern border of the RI/MA lease area. The EIS should address not only the fisheries and economic impacts to this mixed crustacean fleet, but also the biological impacts to migrating lobster and Jonah crab. Impacts of constructing, siting, operating, and decommissioning should be considered.
60-3	Since 2011, the areas within and around the RI/MA lease area have become important forage habitat for the critically endangered North Atlantic right whale. An oceanographic model developed by Dr. Nicholas Record and colleagues, indicates that this area has increasingly become a spring hotspot for blooms of the copepod Calanus finmarchicus, favorite prey of right whales. This is evidenced by NOAA declaring Dynamic Management Areas south of the Cape & Islands from February through July 2017 and in March and April, to date, this year. BOEM must consult with NOAA and consider the requirements of the Endangered Species Act and Marine Mammal Protection Act as part of this EIS.
60-4	Further, BOEM should consider the oceanographic impacts of Vineyard Wind’s proposal, considering how changes to habitat or local currents, for example, could affect the seasonal copepod aggregation, which are prey not only to whales, but also forage fish.

Comment ID	Comment Text
66-2	EMF impacts to the west-to-east migrating finfish need to be addressed. The transmission lines will run north to south, and many important species are known to use electromagnetics in navigation.
66-3	Noise impacts during construction need to be addressed. Pile-driving, in particular, is known to negatively impact important forage species like mackerel, herring, squid and butterfish; breaking up schools. Mitigation measures, such as temporal avoidance of migration times, should be thoroughly explored.
66-7	Some mitigation measures for conflicts of operation have been explored and are included in the proposal. This shows a willingness on the part of the proponent to communicate and plan well. Impacts should be avoided wherever possible. For example, a small part on one edge of the facility lies within squidding grounds. A small adjustment could remove that conflict. Even with appropriate avoidance of conflict, it seems inevitable that there will be some negative impact. There should be a mitigation/compensation plan with substance.
67-3	The Block Island Wind Farm has been a fishing destination for many of our members since the turbine foundations were installed in 2015. Since then, anglers have shared reports of catching black sea bass, scup, cod, tautog and flounder in the wind farm area that were clearly attracted to the foundation's artificial reef effect.
67-5	we...encourage close attention to species of interest to recreational anglers, and the businesses that support them, in the process. Depending on the season, fishermen target mahi-mahi, white marlin, giant tuna, and other popular species in the area. Adding structure to this area will very likely attract these species. We request that BOEM specifically assess the possible impacts of pre-construction, construction, and operation of wind turbines to these and other important gamefish in the area.
69-12	The EIS should address how time of year restrictions or other mitigative measures will be used to minimize impact to marine fisheries resources, commercial fisheries activities, and long-running trawl surveys conducted by MA DMF and NOAA.
69-2	The EIS should include a more thorough EFH and fisheries resource characterization. Jonah crab and horseshoe crab information is particularly lacking [in the COP].
69-20	The EIS should include a clear description of how eelgrass and winter flounder impacts from turbidity would be avoided, as well as minimization of impact to horseshoe crab, quahog and bay scallop resources and fishing activities [at the New Hampshire Avenue Landfall Site].
69-27	More information regarding the distribution and temporal persistence of longfin squid mops and their vulnerability to project activities is needed in the EIS.
69-29	The identification of high density shellfish areas in the wind development area and in Lewis Bay is needed to ensure cable and wind turbine generator placement is minimizing impacts to sessile macrofauna.
69-3	The EIS should include calibrated hydrodynamic models that resolve particle distribution for zooplankton and phytoplankton. The COP does not describe effects of oceanographic changes (Brostrom 2008, Cowles 2017) or the resulting impact on larval patterns and settlement of scallops or food patch dynamics for marine mammals. If the foundations alter currents in a manner that disrupts scallop settlement, there is potential for adverse impacts within the WDA and downstream.
69-30	A broader description of the primary mobile benthic invertebrates should be used in the EIS [more than just lobsters identified in the Figure 6-5.5 in the COP].
69-31	[Related to anchoring lines being used as habitat] The EIS should estimate the length of time the anchoring will take and use that to inform the impact assessment.
69-34	The EIS should consider the potential for attraction of inshore black sea bass and tautog, and whether such attraction could result in changes in abundance of these inshore stocks. This is an important interstate fisheries management question.
69-35	We recommend the EIS consider the impact of fouling communities, and how those communities are handled, be included in the EIS. If turbines are scraped to remove biomass, concentrations of decaying organisms can impact the seafloor by reducing oxygen.

Comment ID	Comment Text
69-36	The MA DMF trawl survey is not conducted outside state waters and can only provide data for the portion of cable corridor inside state waters and Nantucket Sound. We have no data from the WDA. The EIS must address this distinction in characterizing the fisheries resources of the WDA and the cable corridor(s). The EIS should include all currently available data (1978-2017) as well as the most recent decade (2007-2017) in describing and identifying potentially vulnerable species. Furthermore, while the MA DMF trawl survey data can provide information on existing demersal finfish and invertebrate resources for certain species in May and September, there may be other species and vulnerable life history stages present at other times of the year. This information should be provided in the EIS.
69-37	This [SMAST video survey data]... was not conducted for the purpose of characterizing abundance [of benthic invertebrates] and was done at a scale irrelevant for siting and assessing impact of WTG construction and operation and cable laying. The EIS should use higher resolution data on the spatial and temporal distribution of benthic invertebrates to assess impact.
69-38	The EIS should consider how the resetting of suspended sediments after dredging and export cable installation may impact fish via burial of demersal eggs (i.e., eggs on or attached to the bottom sediments).
69-39	Whelks are highly susceptible to mortality due to burial during cable installation activities and potential impacts to this group should be addressed in the EIS.
69-4	For some of the species in the WDA and OECC areas, the impacts of electromagnetic fields (EMF) are poorly studied. Additional studies to demonstrate that 2 m is an adequate depth to avoid impacts is needed. A more thorough discussion of EMF impacts from the AC cables is needed. The impact of EMF on specific organisms, in particular longfin inshore squid, Jonah crab, lobster, little skate, and winter skate should be addressed in the EIS.
69-40	Turbid water created by the jet plow or other dredging technique may hinder the horseshoe crab's ability to find mates, as vision plays a large role in the ability of males to find females (Barlow Jr. et al. 1982, Saunders et al. 2010). Minimizing this type of impact can be addressed in project sequencing.
69-6	Cumulative impact concerns include changes to the spatial distribution of species including but not limited to scallops, surf clams, black sea bass, flatfish, marine mammals, and highly migratory species. There are also several socioeconomic cumulative impact concerns that need to be identified and scoped out, including but not limited to changes in fixed and mobile gear fisheries and commercial and recreational fisheries.
76-1	It [the route through] would ultimately be devastating to the health of the Lewis Bay. It is a very fragile environmental body of water with oyster farms, quahog beds, scallop fishery and feeding area for migratory stripped bass, bluefish, false albacore, menhaden.
77-1	We request that biological assessment studies be conducted by third-party groups before, during, and after the wind energy project in both the Wind Development Area (WDA) and the Offshore Export Cable Corridor (OECC). If detrimental impacts are determined, we request a clear plan to mitigate or cease current impacts and to prevent future ecological impacts from other offshore wind projects.
77-2	Will the timing of the construction and installation phases be restricted during fish and invertebrate spawning times in both the WDA and OECC?
77-8	More research on the impacts these projects may incur on the physical oceanography of the area (i.e. currents, sedimentation), impacts from electromagnetic fields on fish and invertebrate migration and behavior, and acoustic impacts on piling driving on fish and invertebrates, should be prioritized prior to the start of the construction and operation phase.
78-3	Of course, our urgent pursuit of renewable energy is not just economic: our region faces extreme risks from the rising tides and chaotic weather brought on by climate change, which we've experienced first-hand recently. Intense warming of the North Atlantic threatens the health of our most precious species, from valuable fisheries to endangered marine mammals.
82-4	an independent study [is recommended] as to the potential impact on the bay scallop population and its fishery In Lewis Bay. There appears to be no data on impact studies on bay scallops associated with the jet plowing installation process, maintenance, repairs and decommissioning of the transmission lines, electromagnetic impacts, substrate temperature increase and habitat loss.

Comment ID	Comment Text
83-10	The potential impacts to fish from offshore wind development are generally understood to fall into the following categories: (i) interactions with electromagnetic fields emitted from cables;(ii) temporary or permanent loss of habitat from construction activities and the operational wind farm (e.g., from acoustic masking due to continuous noise emitted by operational turbines and increased vessel traffic); (iii) localized injury or mortality due to barotrauma from pile driving; and (iv) increased use of the habitat as a result of turbines potentially acting as artificial reefs, thereby increasing benthic prey resource and acting as an aggregating device. BOEM should carefully evaluate the potential impacts of offshore wind development to fish populations and their habitat as part of the Draft EIS, as well as work with commercial and recreational fishermen to identify optimal siting.
83-15	BOEM must consider the impacts of other activities and events as part of its environmental analysis, including non-acoustic impacts from vessel collisions, bycatch and entanglement, and the potential for large-scale seismic exploration and offshore oil and gas drilling.
83-17	We therefore ask BOEM to deemphasize the assumption of avoidance [species moving to other available habitat for the duration of activities] for wildlife in the Draft EIS and, instead, recommend that research will be needed to understand: (i) if, and how, wildlife exhibit avoidance behavior, and (ii) what, if any, the cost of that behavioral modification may be for the individual and population. This is of particular concern for migratory species, such as the North Atlantic right whale, that may traverse multiple wind energy areas during its annual life cycle.
87-12	BOEM must analyze impacts from electromagnetic fields (EMFs) created by power cords connecting turbines to each other and to land. Many ocean species can detect EMFs, and some have been shown to change their behavior because of EMFs, including fish, sharks, turtles, and marine mammals.
87-16	For each of the environmental impacts listed above, BOEM must analyze them seasonally, as different species have varied sensitivities at different times of the year.
87-17	Mitigation options to address seasonal movements of marine species must be assessed.
87-6	Many marine species, which rely heavily on sound for survival, are critically sensitive to noise impacts [including noise pollution during surveying, construction, maintenance, and operation of turbines]. These include species throughout the food chain, from plankton to fish to marine mammals.
88-3	There is scientific evidence that ambient noise is detrimental to all forms marine life, throughout the entire food chain, as sound is magnified underwater.
88-4	All marine life has an adaptation to located food and reproduction through the sense of sound Will the constant noise of pile driving and jettison of electric cables damage the auditory functions of marine life? (i.e. damage eardrums of cetaceans?)Will the constant noise of pile driving and jettison of electric cables disrupt communication with marine life? Searching for food, socializing, procreating? Will the constant noise of pile driving and jettison of electric cables prevent species from this habitat?
88-5	Will there be a detrimental effect in the marine foodchain if several species avoid this area? Will this ambient noise disrupt the migration of birds? Nomans Island is a bird sanctuary.
88-6	There will be an enormous electrical grid surrounding Martha's Vineyard. With all the electrical cables connecting hundreds of turbines together, it will resemble an electric blanket on the seabed. How will this effect species that live on the ocean floor?
88-7	There will be cables surrounding the west and east coasts of the Vineyard as they head to the mainland. Will this effect the natural migrations of birds and aquatic life? Nature has build in homing systems that could be deviated with electrical interference.
89-14	It is not reasonable that negative impacts are “not expected” considering the habitat destruction that the Project would cause for certain species, the impacts that offshore wind farms in other countries have had on certain fisheries/species in those areas, and literature that shows the low frequency noise generated by operational offshore wind farms can be detected by sound sensitive fish even over heavy shipping traffic and at distances of tens of kilometers away.
92-20	Impacts of this proposal to cod and herring spawning, squid mop and scallop larvae transfer areas needs to be studied.

Comment ID	Comment Text
94-20	No pile driving should be allowed from mid February to mid May to prevent mortality, disturbance of spawning activity, and reduce impacts on spawning habitat, larvae, and fish stocks (specifically stocks with swim-bladders). It is important to note that very little is known about the effects of pile driving noise on spawning and the impacts to spawning habitat. There is genuine concern than any pile driving from February through August will cause serious harm to the squid fishery.
94-9	The placement of the maximum number of WTGs in the Project Area (up to 106) is a non-starter for the Commercial Fisheries Center for many reasons, including, but not limited to, safe navigation, access to high value fisheries, displacement of both fisheries and fishermen, the effect of displacement on stock assessments, loss of gear and damage to gear, fish kills, damage to critical benthic habitat during construction and mechanical trenching, long-term and unstudied effects of electromagnetic fields (EMF) on species of importance to the fishing community, long-term and unstudied effects of disruption of the benthic habitat on fisheries of significance, long-term and unstudied effects of noise created by pile driving on fish stocks.
99-11	The fishermen are displaced by inefficient structures with no consideration or compensation what so ever. These are non-Magnuson Stevens Fishery Conservation and Management Act defacto Marine Protected Areas that would never be approved in a fisheries management plan by a regional fishery management council. These arrays interfere with fisheries, degrade the environment and habitat. The fishing industry must protect themselves.
108-3	The other major concern we have is for wildlife. Those living in the ocean and those flying above, that can potentially be impacted by the work to install and maintain the towers and turbines, laying and maintaining of power lines, as well as the turbine field that is going to occupy the air space above that area of ocean, must be seriously and fully vetted before the final approval is made
109-2	In the ocean the infrasound produced by these massive machines will be disruptive to sea life in all forms
117-2	But sound during pile driving will have to be mitigated to protect marine mammals and fish.
147-12	A thorough analysis of electromagnetic field impacts on vertebrates and invertebrates along the proposed cable routes should also be presented in the EIS.
147-2	It [the EIS] should include an existing conditions plan that clearly locates and delineates all resource areas based on site specific surveys conducted by the proponent, including but not limited to eelgrass, shellfish, hard/complex bottom, intertidal flats, and rare and endangered species.
147-21	The COP also states that no impacts to specified resource areas are anticipated from dredging because it is expected to be limited to offshore areas away from intertidal zones, outstanding resource waters, and eelgrass beds. However, several species of bottom dwelling organisms, including surf clams, bay scallop, razor clams, channeled whelk, knobbed whelk, horseshoe crabs, and blue mussels exist in offshore areas. These resources should be identified and mapped and discussions should take place between the proponent, the Massachusetts Division of Marine Fisheries (DMF), and the National Marine Fisheries Service (NMFS) to avoid and minimize any possible impacts.
147-25	If site-specific surveys [for shellfish] have not been conducted, these should be included in the next phase of surveys. A shellfish survey plan should be prepared after consultation with DMF and NMFS and presented in the EIS.

Comment ID	Comment Text
147-26	DMF Resource Assessment Trawl, Vessel Monitoring System, and other data sources indicate fisheries resources and several commercial fisheries uses that occur within or adjacent to the Vineyard Wind project. Potential effects to these fisheries and practices/approaches to avoid, minimize and mitigate adverse effects should be addressed in the EIS: - Sectors including otter trawling, gill netting, midwater trawling, and lobster, fish and whelk fixed gear fisheries use waters within or adjacent to the project area; - Vessels targeting the following fisheries under specific Fisheries Management Plans (FMP) within the lease area include Sea Scallop FMP; Squid, Mackerel, Butterfish FMP; Monkfish FMP; Northeast Multispecies FMP; Northeast Small Mesh Multispecies FMP; and Summer Flounder, Scup, Black Sea Bass FMP; - Vessels using ports in the following coastal communities were documented fishing within or adjacent to the project area: Barnstable, Boston, Chatham, Dennis, Fairhaven, Falmouth, Gloucester, Harwich, Nantucket, New Bedford, Plymouth, and Provincetown; - Vessels using these ports were also documented travelling through the proposed lease area to access fishing grounds further offshore.
147-28	EIS should include the following information relating to the offshore structures and facilities: - The differences between the three proposed foundation types should be assessed, particularly the environmental impacts of each type; - More information should be presented regarding the potential scour protection to be employed for each type of foundation and the potential for habitat conversion, with a focus on the protective characteristics and beneficial uses (marine and fish habitat) from different rock sizes; - Potential effects on wind velocities and wave heights impacting the south coasts of Martha's Vineyard, Nantucket and Cape Cod, particularly in light of the modeling presented in the recently released BOEM study entitled Use of Finite-Volume Modeling and the Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (BOEM 2016-050). - An analysis of the impacts caused by an array of turbines should be presented and discussed in the EIS, including effects on currents and water flow and the resulting potential changes to the distribution and abundance of fish and invertebrate eggs and larvae, with a focus on commercially and ecologically important species.
KI-07-1	There's been no studies on how the cable -- all that power going through it has affected the monkfish and the skates, the bluefish
KI-07-3	let's think about the environment. Everyone says green environment, but as Tina spoke out, all the stuff inside them is not good. I mean, they make oil spills, the water heat up, and the electronic mag- -- the field, I think, in my eyes, has hurt the fishing, personally
KI-07-4	I mean, I was fishing right there when they pile drive them in. And days they were pile driving, all the fish in our nets were dead. They were completely dead. In the silt, the water was completely disgusting, and no fish would want to be in there while it's getting it done. And they're trying to say it doesn't affect the fish, but they have somebody out looking for any marine mammals. (...) , that's just what I'm nervous about [with Vineyard Wind]
KI-08-1	I worked on the Caltrans Bay Bridge retrofit. We also got fish kills with pile driving.
KI-15-1	the squid activity that you had is one year, one year only. There wasn't any that year in Vineyard Wind's area. I have the data in -- with me right now that shows a completely different set of information. So I hope BOEM is going to get more than what they have now. You have AIS data there for 2013. AIS data was voluntary. So I guess it can show patterns of where guys are going, but it was voluntary until 2016, I believe And one year of fishing activity in the squid fishery -- it was just the squid fishery -- is certainly not enough information.
KI-18-4	We have two of the worlds' biggest hammers coming to drive 40-foot wide nails in the ocean. 160 of them here -- 106 over here. 165 of them in the project just to the north of me. Tell me that's not gonna make a big ...problem for every species within 40 to 50 miles of that area.

Comment ID	Comment Text
KI-22-2	I think that if you look at the way Block Island was constructed -- I think that was the second design alternative that the gentleman from Vineyard Wind mentioned -- that would certainly have impact during construction but less than driving this one monopile. In addition, one of the positive things that we see from the Block Island wind farm is the structure that is placed in the water. So now that structure has become filled with marine organisms. We have a whole community of fish which has developed in that structure. I think that's a secondary reason that the multiple leg design is positive, because it will give more habitat for development of young fish in those areas than a monopile would. So I think those are a couple reasons that I would lean toward the multiple legs rather than monopile.
NB-10-1	it's just horrible for the fisheries. No mammals, no birds, no fish, no lobsters are going to co-exist with this project.
NB-12-1	We've got a bunch of acoustic oceanographers with two different piles, three different types of noise attenuation where it impacts the California sea lions and harbor seals and also the whales. We had an acoustic oceanographer specialist look at the acoustic impacts and the harmonic wave impacts. What we didn't plan on was the fish kill. With each pile the fish came belly up ...Have you addressed this or are you looking at it? Will you now look at it? And we were going, Oh, shoot. Fish kill. Impacted the hearing of the fish. What was curious is the harbor seals were like oh, free food. But there was quite -- I want to say an outcry.
NB-14-1	One of my concerns is since I'm in the scalloping industry, I'm very sensitive to the currents. When the scallops spawn, they go up the water column and the currents move them up and down and they find a spot to deposit and grow. Now if we start with 75,000 acres of underwater foundation and all of a sudden you move them to merely acres of structure underwater, that is going to disrupt water currents that might mess up what is happening in the Great South Channel. It's got a terrific place there for the scallops to grow.
VH-03-1	The pile driving and the noise impacts. And in studies that I've looked at and have been shared with me actually by the Bureau of Ocean Energy Management, there seem to be a lot of potentially negative impacts on fin fish, not just invertebrates; and those are very detrimental both to fish migration or even their survival, and especially considering what we call forage species, that being Atlantic Herring, Atlantic Mackerel, squid, butterfish. And squid is a very important commercial species for us here in Massachusetts and Rhode Island, and I appreciate that there are studies underway both at SMAST and URI but without conclusive data as to what the effects of the pile driving noise would do to the pelagic and the entire ecosystem out there.
VH-03-2	and I as a fishermen representative, we have a lot of concern. There's some well documented evidence that a lot of different species from hummingbirds to leatherback turtles to yellowfin tuna utilize electromagnetic spatial recognition for their migration. The ospreys have just showed up back on the Vineyard. Most of them fly from Venezuela though fog in the night without visual cues. They don't use smell, and it is poorly understood now what the effects are of what a large amount of electromagnetic energy does to migration.
VH-07-1	most fish migrate east and west; and this cable is running north and south. It's going to be crossing a lot of migratory areas, and I have a lot of concerns, like my fellow fishermen here. That's basically what I'm worried about, is the migration of the species that have been coming through here for millions of years...
VH-08-1	Navy has done a number of studies on echo location with sonar, et cetera. That data may already exist. On the Caltrans grade bridge retrofit, the pile driving, what we weren't expecting and we mentioned this in New Bedford was a fish kill; and it scared the bejeebers out of us. It ruptured swim bladders, ruptured hearing. That was a big concern. But the harbor seals were like oh, a feeding frenzy. We used the gunderboom, the air bubble curtain, and NOAA attenuation. Gunderboom, the only problem we had with the gunderboom was that the current swept under it so the noise was able to get under it, and so I would suggest looking at the gunderboom with your air bubble curtain.

Comment ID	Comment Text
VH-09-2	We talked about the ducks and migration. That happens this time of year. I've seen it. It's quite an amazing site. I'd like to see it protected. The whales. This is a tough one for me. The turtles. Years ago I did offshore drift netting for swordfish.(...) we can't keep these whales or sustain the population they have if they don't have the smaller species they feed on which migrate through this route. I'd like to see this process slowed down. I'd like to see more research done, and I am scared.
VH-15-1	Sharks also migrate using echo location, hammerheads especially, to find their food. They kind of swarm over the food. They sense it. Pile driving impact, nobody looks at shark research.

LAND USE AND COASTAL INFRASTRUCTURE

Comment ID	Comment Text
69-16	A large increase in vessel and vehicle use will affect harbors that this project will utilize. A thorough assessment of the potential conflicts with existing harbor users, including commercial and recreational fishermen, is needed for both construction phase activities and operations.
60-5	The MA/RI lease area is near busy, historic, and highly valued fishing ports in Rhode Island and Southern Massachusetts, the impacts of an energy facility and transmission cables on transiting vessels, port access, and infrastructure need to be considered as part of the EIS.
87-15	BOEM must also analyze potential impacts of shorebased or nearshore infrastructure needed to transfer power to shore.
141-5	In addition, although hurricane impact has been discussed about turbines in the open ocean, no comments have been made about hurricane damage in this bay. You need to know that Hurricane Bob was devasting as significant numbers of boats broke loose from their moorings and were beached in large numbers on our shore line. Over the following weeks large barges and tow operations were required to anchor specifically along the northside of the bay (including New Hampshire Ave/Englewood Beach area) and work as much as 50 feet in from the water edge to remove the trapped boats. This issue will be significant especially for recreational boating as Vineyard Wind has said that helical moorings will not be able to be used in the future in the bay.
KI-18-7	And I also see -- on the third leg of that triangle, I see absolutely no science to prove no harm -- no harmful effects on the local fishermen, ports, or infrastructure. (Indiscernible) I feel is merely checking off boxes in a rush to get steel in water.
NB-13-2	Lewis Bay is basically the only small, sort of shallow bay in Yarmouth; and it is a shared bay with Barnstable, and as a consequence, it is both a significant economic and recreational area for both communities. It is where the ferry boats to Martha's Vineyard and Nantucket come in. It's where the tour boats, the other sightseeing things where the yacht clubs are all located, where sailing programs are, and where numbers and numbers of moorings are placed.

MARINE MAMMALS

Comment ID	Comment Text
10-1	I am concerned about adverse impacts on wildlife, whether they are birds, fish, whales, dolphins, etc. What type of studies are being done on sound vibrations from this type of facility on wildlife?
14-5	North Atlantic right whales which sometimes feed off of Cape Cod and the Islands in the Spring. NARWs feed where their large zooplankton prey are concentrated and the distribution of the prey has been influenced by climate change and increased human uses...These changes are under active scientific investigation in light of the NARW “extreme mortality” designation by NOAA Fisheries. Hopefully this research and monitoring effort will lead to some predictive capabilities before the MV Wind project construction begins. In the interim “Vulnerability Analysis” could be utilized to use expert judgement of scientists and constituents to help ameliorate potential negative effects on NARWs from the wind farm construction phase.
22-6	we are concerned about the long-term impacts of OSW to the endangered North Atlantic Right Whale (NARW).

Comment ID	Comment Text
22-7	The commercial lobster and fixed gear industries are continually constrained because of potential future interactions with these animals(…) More research is undeniably needed in this area of concern so that the commercial fleet does not further endure any more baseless constraints
22-8	Lastly, the MLA is further worried given the uncertainty and indefinite impacts to the ALL the commercial viable resources our commercial fishermen depend upon given the proposed scale of this offshore wind farm and the unknown impacts to the ecosystem an approximately 800-megawatt wind farm will have not just on the economically viable resource in the ocean but all marine life
25-5	There are four huge funds or programs that Massachusetts will receive as well which are the: Offshore Wind Acceleration Fund $10M to develop this industry, Resiliency & Affordability Fund $15M to support low-income households & demonstrate effective use of distributed battery energy storage, Windward Workforce Program $2M to recruit, mentor and train residents for careers in the industry, and Whales & Wind Fund $3M to develop innovative methods and technologies to enhance protections for marine mammals.
27-1	I support the development of offshore wind facilities south of Martha's Vineyard. This area is not know for frequent whale sightings
30-8	Fisherman also report observations of whales and marine mammals that have not been observed for 50 plus years in the Block Island Wind Turbine area until the units were constructed and up and running. Is the noise generated from the wind turbine units or EMF impacting their behavior?
34-1	EMF effects are outweighed by the benefits of offshore wind power. North Atlantic right whales are an endangered species and although accommodations have been made to shipping lanes and seasonal changes, other changes are necessary
34-2	One change that would have a significant effect is the disuse of nylon nets and lobster lines and all other boating lines. Nylon nets that have broken loose simply become floating death traps forever ensnaring all kinds of sea creatures.
36-7	Further understanding the importance of a healthy natural marine environment, Vineyard wind has also made a $3 million commitment to enhance protections for marine mammals, has engaged the nation’s first fisheries representative, and incorporated a multitude of fishing concerns into it layout and design.
38-1	As a retired scientist from the Fisheries Lab in Woods Hole and a grassroots environmental activist, I feel that increased human uses (wind farms; fisheries; transportation; potential oil/gas exploration; military training; etc.) and eutrophication (nutrient enrichment)/climate change (ocean acidification and warming waters) have lead to a regime shift in southern New England waters and bottom up/top down changes in the marine food chain (this is most evident in the Gulf of Maine region which is warming rapidly at depth from water mass exchanges with the shelf sea).
38-2	The NARWs may have to spend more search time locating their prey which may partially explain partially explain the poor condition of the breeding females. There is active research ongoing by NOAA Fisheries and academic scientists on this linkage between Spring diatom bloom/large zooplankton prey/NARW feeding areas in space/ time. The EIS should find a way to convert this scientific date into information accessible by policy makers; regulators; wind construction firms; various constituent groups and the concerned public.
38-3	BOEM and the wind contractors might have to support some of the aerial and acoustical surveys required to address large whale and sea turtle distributions in relationship to wind farm construction and operation
38-4	Given the shifting environmental baseline in the ocean in Nantucket Sound and likely increased importance of the microbial food web (which lengthens food chain and increases respiration leading to lower growth and reproduction of Protected Resources), the EIS monitoring program [needs] to locate some reference to compare with MA WEA region
39-4	marine biologists have reported that offshore wind projects near Denmark and other countries have found that, other than the construction/installation phase, not only is there no harm to marine life, but, on the contrary, after that initial phase, marine life flourishes on and around the underwater support structures for the wind turbines.

Comment ID	Comment Text
40-2	...we encourage BOEM to be particularly attentive to the concerns of the fishing industry and state and federal agencies charged with protecting fishing and marine mammal resources.
40-27	The EIS should explain how whales will behave if they encounter the proposed wind turbine generator array, or the larger array that would accompany multiple wind energy projects over time. Another relevant question includes whether the structures themselves create current eddies that could concentrate zooplankton, particularly those on which some baleen whale species target as forage, thereby attracting whales towards these areas. If whales detect and avoid the project area structures staying further offshore as they head north, they could approach the traffic separation scheme for the northern approaches to New York Harbor. Vessels transiting to and from port may also avoid the lease sites, particularly at night or in bad weather. Consequently, vessels and whales may end up closer together in their attempts to avoid the arrays. Any available information on marine mammal behavior around structural arrays should be reviewed to better understand how these federally-protected marine mammals will react to the presence of these structures within their migratory route.
41-17	The EIS should include a detailed plan of anticipated helicopter and boat use during construction and maintenance, along with detailed record keeping. The effects of construction-related ships and construction methods on marine life, especially the North Atlantic Right Whale, also need to be carefully evaluated and minimized.
41-23	The EIS also needs to carefully evaluate potential impacts to marine life, notably marine mammals and sea turtles. The program must not further endanger already endangered species such as the North Atlantic Right Whale and federally-listed sea turtles...We are particularly concerned about the dire status of the North Atlantic Right Whale, with less than 450 individuals remaining in the population.
41-4	Marine mammals and sea turtle studies also need to continue, with a special focus on ensuring that offshore wind energy projects do not further threaten the already seriously endangered North Atlantic Right Whale (Eubalaena glacialis).
43-12	potential impacts to endangered species, including piping plovers, roseate terns, and the North Atlantic right whale
43-4	The scope of the review should include a detailed and comprehensive assessment of impacts to wildlife, marine species, and fisheries
53-10	This [Affected Environment] section should also include information on the seasonal abundance and distribution of marine mammals, sea turtles, fish and invertebrates throughout the area that may be directly or indirectly impacted by the project. It is important that the EIS discuss seasonal changes in the environment of the project area and how that influences the distribution and abundance of marine resources.
53-18	This [Cumulative Effects] analysis should include a broad view of reasonably foreseeable projects, including development projects that are only in the proposed leasing or site assessment phase. Specifically, the cumulative effects analysis should consider other existing, proposed or planned energy infrastructure projects in the vicinity of the project including, but not limited to, Bay State Wind Project, South Fork Project, Revolution Wind, and the potential for development of the two Massachusetts Wind Energy Areas that have not yet been leased. Proposed wind development projects in the mid-Atlantic region should also be included in the analysis of cumulative effects on marine resources. This is particularly important for migrating species, such as marine mammals, sea turtles, fish and invertebrates that may use or transit multiple proposed project areas. The potential cumulative impacts on these species resulting from changes to benthic and pelagic habitats and potential food sources due to the presence of multiple projects should be evaluated in the cumulative effects analysis.
53-19	The EIS should evaluate in detail, the cumulative impacts on protected species and fisheries resources associated with overlapping construction activity of adjacent projects, including elevated noise levels and increased vessel traffic. Specific information related to the timing of the activity and the expected number of proposed construction seasons is important, particularly for evaluating cumulative impacts to marine mammals, sea turtles, and spawning activity of fish and invertebrates.

Comment ID	Comment Text
53-23	The following listed species may be found in the Vineyard Wind project area: Endangered North Atlantic right (Eubalaena glacialis), fin (Balaenoptera physalus), sei (Balaenoptera borealis), and sperm (Physeter macrocephalus) whales; endangered Kemp's ridley (Lepidochelys kempii) and leather back (Dermochelys coriacea) sea turtles; threatened North Atlantic distinct population segment (DPS) of green (Chelonia mydas) sea turtles and Northwest Atlantic DPS of loggerhead (Caretta caretta) sea turtles; and have DPSs of Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus). Sea turtles are only present in the project area seasonally, with occurrence largely limited to May - November. More information on these species is available on our Greater Atlantic Regional Fisheries Office (GARFO) website...Right whale sightings are available at our Northeast Fisheries Science Center webpage. There is no designated critical habitat that overlaps with the project area.
53-24	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include: Potential for an increased risk of vessel strike due to increases in vessel traffic and/or shifts in vessel traffic patterns due to the placement of structures.
53-25	We encourage you to work with Vineyard Wind to develop a project schedule that minimizes potential impacts to North Atlantic right whales. Marine mammal responses to sound can be highly variable, depending on the individual hearing sensitivity of the animal, the behavioral or motivational state at the time of exposure, past exposure to the noise which may have caused habituation or sensitization, demographic factors, habitat characteristics, environmental factors that affect sound transmission, and non-acoustic characteristics of the sound source, such as whether it is stationary or moving (NRC 2003).
53-26	...the EIS should consider requiring the development of minimization and monitoring measures that minimize the risk of vessel strike and exposure to potentially harassing or injurious levels of noise to marine mammals and fish.
53-38	There are also a number of species within the project area that do not have management plans through the Councils or Commission, but may be managed through the State of Massachusetts and/or play an important ecosystem role, including bay scallop, razor clams, channeled whelk, knobbed whelk, and blue mussels. Additionally, NOAA manages numerous protected species in the project area under the Endangered Species Act and/or the Marine Mammal Protection Act, including large whales, sea turtles and sturgeon. Information on these protected resources can be found on our GARFO protected resources website...We anticipate that all of these species will be included in your impact assessments, both in its consultation document(s) and in its NEPA document (some of which may be concurrent). We also expect the assessment to include impacts to the recreational and commercial fishing communities that rely on these species.
53-47	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include:...impacts of elevated underwater noise during any geophysical and geotechnical surveys, pile driving, and other activities;
53-48	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include...any activities which may displace individuals from preferred habitats, alter movements or feeding behaviors, increase stress and/or result in temporary or permanent injury or mortality; disruption of benthic habitats during construction-related barge anchorage, infrastructure placement, pile driving, or cable route development that may increase the risk of entanglement or change of migratory behavior, alter prey assemblages or result in the displacement of individuals
60-1	AOLA [Atlantic Offshore Lobstermans' Association] supports, through advocacy and leadership, the efforts of the offshore lobster industry to develop and maintain a strong, stable, and sustainably minded fishery. While clean energy is a laudable goal, marine wind farm development must not displace local fishing fleets and should only be sited in areas that do not impact ocean resources, including fish and crustacean stocks, marine mammals, and essential habitat.

Comment ID	Comment Text
60-3	Since 2011, the areas within and around the RI/MA lease area have become important forage habitat for the critically endangered North Atlantic right whale. An oceanographic model developed by Dr. Nicholas Record and colleagues, indicates that this area has increasingly become a spring hotspot for blooms of the copepod Calanus finmarchicus, favorite prey of right whales. This is evidenced by NOAA declaring Dynamic Management Areas south of the Cape & Islands from February through July 2017 and in March and April, to date, this year. BOEM must consult with NOAA and consider the requirements of the Endangered Species Act and Marine Mammal Protection Act as part of this EIS.
66-10	During construction, there are a number of measures for protection of marine mammals which should be thoroughly addressed, particularly that for the Northern Right Whale and the Finback. This issue is thoroughly addressed in Wind Energy Plan for Dukes County, available on the MVC website
66-11	Although the proposal avoids an area of core habitat for Northern Right Whale, there are much more protective measures available. Because these whales are seriously threatened with extinction, protection should rise above avoidance of a core habitat. These whales migrate through Vineyard waters and vicinity in the spring and fall on their way to and from summer grounds in Cape Cod Bay and vicinity. The best protection for these whales is a temporal-based avoidance of ship strikes and other construction impacts. The Marine Mammal Protection Act requires vessels to cease activities when one of these whales is sighted. MVC recommends the further protection of employing passive acoustic monitoring to inform the crew of nearby Right Whales. They are very vocal and spend quite a bit of time underwater. Listening for them alerts the crew long before a watchstander may sight a whale at the surface.
66-12	Although the Right Whales just pass through, the waters south of the Vineyard do support a resident summer population of Finback whales. It is more feasible to avoid Finback impacts by avoiding the time and space where they spend the summer. Details are included in the Wind Energy Plan for Dukes County and references identified therein.
69-19	While the proposed project will provide an alternative to fossil fuel-derived energy, reductions in greenhouse gas emissions from the Vineyard Wind project alone are unlikely to provide local benefits to marine mammals and other marine life that currently occupy the project area, particularly large whales that use these waters as foraging habitat. If this logic is being used to justify adverse impacts on local populations of marine species, quantifying the GHG reduction benefits is necessary and should include associated construction costs.
69-3	The EIS should include calibrated hydrodynamic models that resolve particle distribution for zooplankton and phytoplankton. The COP does not describe effects of oceanographic changes (Brostrom 2008, Cowles 2017) or the resulting impact on larval patterns and settlement of scallops or food patch dynamics for marine mammals. If the foundations alter currents in a manner that disrupts scallop settlement, there is potential for adverse impacts within the WDA and downstream.
69-43	The EIS should address the current lack of data on impacts to large whales and assess potential impacts of foundation installation on large whale habitat. For example, right whales feed on zooplankton, which are aggregated into higher density patches by ocean currents. If the foundations alter currents in a manner that disrupts this patch formation, the WEA may no longer function as foraging habitat for the endangered right whale and other large whale species.
69-6	Cumulative impact concerns include changes to the spatial distribution of species including but not limited to scallops, surf clams, black sea bass, flatfish, marine mammals, and highly migratory species. There are also several socioeconomic cumulative impact concerns that need to be identified and scoped out, including but not limited to changes in fixed and mobile gear fisheries and commercial and recreational fisheries.
77-1	We request that biological assessment studies be conducted by third-party groups before, during, and after the wind energy project in both the Wind Development Area (WDA) and the Offshore Export Cable Corridor (OECC). If detrimental impacts are determined, we request a clear plan to mitigate or cease current impacts and to prevent future ecological impacts from other offshore wind projects.

Comment ID	Comment Text
78-3	Of course, our urgent pursuit of renewable energy is not just economic: our region faces extreme risks from the rising tides and chaotic weather brought on by climate change, which we've experienced first-hand recently. Intense warming of the North Atlantic threatens the health of our most precious species, from valuable fisheries to endangered marine mammals.
83-12	Given the rapidly expanding offshore wind development activity off the U.S. East Coast, and the array of potential impacts to marine life, including the acute vulnerability of the North Atlantic right whale, it is vitally important that BOEM undertake a careful and detailed quantitative analysis of cumulative impacts, at the project-level and lease area-level, and also programmatically for the U.S. East Coast. In conducting these analyses, cumulative impacts should be defined by BOEM to encompass: (i) repeated disturbance from the same activity over time; (ii) the interactions between different types of stressor; (iii) multiple wind energy development projects; and (iv) the broader context of other ocean uses both within the leasing area and that may be encountered by transboundary and migratory species during their life cycle.
83-13	BOEM should conservatively assume that any substantial decrements in communication range or habitat for the North Atlantic right whale, including habitat avoidance, will result in adverse impacts on the stock. A conservative approach is justified given the species' extreme vulnerability, where any additional stressor may potentially result in population-level impacts, and the difficulty in obtaining empirical data on population-level impacts on wild animals.
83-14	To account for the impacts of the simultaneous development of multiple lease areas on North Atlantic right whales, as well as other species and habitats, we recommend that the agency also prepare a programmatic EIS encompassing all U.S. East Coast offshore wind development.
83-16	In determining the potential impact of noise from geophysical surveys, and construction and operations activities, BOEM needs to request new guidelines on thresholds for marine mammal behavioral disturbance from the National Marine Fisheries Service ("NMFS") that are sufficiently protective and consistent with the best available science...Acceptance of the current NMFS' acoustic threshold for Level B take will lead to BOEM significantly underestimating the impacts to marine mammals and potentially the permitting, recommendation, or prescription of ineffective mitigation measures (e.g., under-protective exclusion zones).
83-17	We therefore ask BOEM to deemphasize the assumption of avoidance [species moving to other available habitat for the duration of activities] for wildlife in the Draft EIS and, instead, recommend that research will be needed to understand: (i) if, and how, wildlife exhibit avoidance behavior, and (ii) what, if any, the cost of that behavioral modification may be for the individual and population. This is of particular concern for migratory species, such as the North Atlantic right whale, that may traverse multiple wind energy areas during its annual life cycle.
83-20	Offshore wind projects should not be sited in North Atlantic right whale foraging or calving critical habitat, as defined under the Endangered Species Act, unless and until research demonstrates that wind project operations will not displace right whales or adversely modify their habitat use.
83-21	Construction activities and geophysical surveys with noise levels that could cause injury or harassment in marine mammals must not occur during periods of highest risk to North Atlantic right whales, defined as times of highest relative density of animals during their migration, and times when mother-calf pairs, pregnant females, surface active groups (indicative of breeding behavior), or aggregations of three or more whales (indicative of feeding behavior), are expected to be present, as supported by best available science.
83-22	Geophysical survey and pile driving activities should commence, with ramp-up, during daylight hours only to maximize the probability that North Atlantic right whales are detected and confirmed clear of the exclusion zone (see, also, (3), below). The activity can then continue into nighttime hours. If a right whale is detected in the exclusion zone during nighttime hours and the activity is shut down, developers should be required to wait until daylight hours for ramp-up to commence.
83-23	For the North Atlantic right whale, a minimum exclusion zone of 1,000 meters should be established around all vessels conducting activities with noise levels that could result in injury or harassment to these species (e.g., geophysical surveys and pile driving).

Comment ID	Comment Text
83-24	To maximize the probability of detection of North Atlantic right whales, comprehensive exclusion zone monitoring is essential. At minimum, a combination of certified Protected Species Observers ("PSOs") and passive acoustic monitoring should be required during daylight hours. Staffing and shift-schedules should allow for each PSO to monitor a maximum of 180° during daylight hours. Aerial surveys would also provide a useful supplement to increase detection probability. At night, a combination of nightvision, thermal imaging technology, and passive acoustic monitoring should be used.
83-25	...all vessels operating within or transiting to/from lease areas should observe a speed restriction of 10 knots during times when mother-calf pairs, pregnant females, surface active groups (indicative of breeding behavior), or aggregations of three or more whales (indicative of feeding behavior), are expected to be present based on best available science. As an alternative to speed reductions for transiting vessels, developers may propose monitoring technologies or vessel design alternatives that have been scientifically proven to reduce the probability of collision, mortality, and serious injury to an equal or lesser extent as a speed reduction of 10 knots. We look forward to working with developers on developing an independent and scientific testing protocol if they wish to explore such alternatives.
83-26	During construction, developers should commit to minimizing impacts of underwater noise on the North Atlantic right whale to the full extent practicable through: (i) the consideration and use of foundation types and installation methods that eliminate or reduce noise, and (ii) the use of technically and commercially feasible and effective noise attenuation measures, including the use of the lowest practicable source level.
83-27	Developers should commit to carry out scientific research and long-term monitoring in lease areas to advance understanding of the effects of offshore wind development on marine and coastal resources, and the effectiveness of mitigation technologies (e.g., noise attenuation, thermal detection). Science should be conducted in a collaborative and transparent manner, utilizing recognized marine experts, engaging relevant stakeholders, and making results publicly available. Developers should coordinate with state and regional scientific efforts to ensure results from individual lease areas can be interpreted within a regional context and contribute to the generation of regional-scale data, which is required to address questions related to population-level change and cumulative impacts across the geographic range of the North Atlantic right whale.
83-29	BOEM should ensure that research is conducted, optimally in collaboration with developers, to test the effectiveness of night vision and infrared technology for detecting marine mammals, and particularly the North Atlantic right whale, in all climatologies (i.e., air and water temperatures) representative of lease areas off the U.S. East Coast.
83-30	In developing its mitigation requirements for developers, BOEM should carry out research on the most effective combination of these real-time monitoring approaches for detecting marine mammals off the U.S. East Coast, including large whales, at distances capable of mitigating the impacts of harmful noise and other disturbances. The development of a comprehensive real-time monitoring approach, supported by science, is necessary before large-scale offshore wind energy construction commences in the Atlantic and, by proxy, advances within North Atlantic right whale habitat.
83-5	There are a number of potential impacts on marine mammals from offshore wind development. These include: (i) potential injury and behavioral impacts, including short- and long-term displacement, from pre-construction and construction noise and other activities; (ii) heightened collision risk from construction and service vessels; and (iii) long-term alteration of the prey base at the wind energy site.
83-6	...given the highly endangered status of the North Atlantic right whale, protection of this species should be BOEM's top priority; however, it is important for BOEM to consider the full range of potential impacts on all marine mammal species known to utilize the lease areas, and surrounding areas, as required under the auspices of the Marine Mammal Protection Act and the Endangered Species Act.

Comment ID	Comment Text
87-12	BOEM must analyze impacts from electromagnetic fields (EMFs) created by power cords connecting turbines to each other and to land. Many ocean species can detect EMFs, and some have been shown to change their behavior because of EMFs, including fish, sharks, turtles, and marine mammals.
87-16	For each of the environmental impacts listed above, BOEM must analyze them seasonally, as different species have varied sensitivities at different times of the year.
87-17	Mitigation options to address seasonal movements of marine species must be assessed.
87-6	Many marine species, which rely heavily on sound for survival, are critically sensitive to noise impacts [including noise pollution during surveying, construction, maintenance, and operation of turbines]. These include species throughout the food chain, from plankton to fish to marine mammals.
87-8	BOEM must analyze potential impacts of the Project on all marine mammal populations that utilize the lease areas and surrounding areas, as required under the Marine Mammal Protection Act and the Endangered Species Act. Avoidance measures for certain activities, such as pile driving, that are known to disrupt and threaten the North Atlantic right whale, must be undertaken when scheduling project activities to best ensure project timeline deliverables while protecting the health of the species and the ocean ecosystem.
88-3	There is scientific evidence that ambient noise is detrimental to all forms marine life, throughout the entire food chain, as sound is magnified underwater.
88-4	All marine life has an adaptation to located food and reproduction through the sense of sound Will the constant noise of pile driving and jettison of electric cables damage the auditory functions of marine life? (i.e. damage eardrums of cetaceans?)Will the constant noise of pile driving and jettison of electric cables disrupt communication with marine life? Searching for food, socializing, procreating? Will the constant noise of pile driving and jettison of electric cables prevent species from this habitat?
88-5	Will there be a detrimental effect in the marine foodchain if several species avoid this area? Will this ambient noise disrupt the migration of birds? Nomans Island is a bird sanctuary.
88-6	There will be an enormous electrical grid surrounding Martha's Vineyard. With all the electrical cables connecting hundreds of turbines together, it will resemble an electric blanket on the seabed. How will this effect species that live on the ocean floor?
88-7	There will be cables surrounding the west and east coasts of the Vineyard as they head to the mainland. Will this effect the natural migrations of birds and aquatic life? Nature has build in homing systems that could be deviated with electrical interference.
90-2	Any responsible approach to offshore wind development must take strong, precautionary action to safeguard the North Atlantic right whale.
90-3	CLF strongly encourages BOEM to establish a long-term monitoring program to analyze the cumulative impacts on marine resources of offshore wind energy development both in New England and along the entire Eastern seaboard where wind energy facilities have been proposed. Offshore wind energy is a new activity in the nation’s oceans, and a premium should be placed on clearly understanding the impacts of these facilities so that appropriate steps can be taken to ensure that the development of wind energy in the United States proceeds in an environmentally responsible manner that protects vulnerable species such as the North Atlantic right whale.
90-4	As an example of recent actions taken, necessary to protect the North Atlantic right whale, CLF notes that on April 25, 2018, the Massachusetts’ Division of Marine Fisheries enacted two emergency regulations intended to protect significant aggregations of North Atlantic right whales seen feeding in Cape Cod Bay. These measures included an extension of the Trap Gear Closure and Vessel Speed Limit restrictions. This action underscores both the dire situation of the North Atlantic right whale as well as the importance of planning for adequately protective mitigation measures at the EIS stage, so that the potential for seasonal restrictions on activities like the one currently affecting the lobster industry in Cape Cod Bay is accounted for in the Project’s Construction and Operations Plan (“COP”).

Comment ID	Comment Text
90-8	This data [Northeast Ocean Data Portal, the Massachusetts Ocean Resource Information System, maps and data that informed the Rhode Island Ocean SAMP, Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles, and Abundance and Distribution of Seabirds off Southeastern Massachusetts, 2011-2015] should be supplemented by any of the project proponent's own data collected through site assessment and characterization. Any relevant data gaps should be identified. In addition, proposals should specify, where relevant, how they satisfy the Massachusetts Ocean Plan requirement that any state-issued permits are consistent with the Plan.
92-18	The potential impact of this proposal to the right whale population in this area should be studied if it hasn't already.
108-3	The other major concern we have is for wildlife. Those living in the ocean and those flying above, that can potentially be impacted by the work to install and maintain the towers and turbines, laying and maintaining of power lines, as well as the turbine field that is going to occupy the air space above that area of ocean, must be seriously and fully vetted before the final approval is made
109-2	In the ocean the infrasound produced by these massive machines will be disruptive to sea life in all forms
117-2	But sound during pile driving will have to be mitigated to protect marine mammals and fish.
135-2	The presence of the North Atlantic right whale and sea turtles appear to be of great concern but areas of sighting have been largely avoided. Sonic study information potentially impacting these creatures during operation appears to have been addressed to protect these grand creatures.
137-12	...[if the ESPs collapsed or sank]...some 615 BILLION gallons of seawater would be contaminated to a level beyond which, if were drinking water, could not be consumed by humans. Surely this level of contamination would be disastrous for sea life, including potentially the endangered Right Whales which have been seen in the area.
147-10	Recent public comments have indicated that the cable route through Muskeget Channel may have impacts on commercial surf clam fishing activities. CZM understands that studies are underway to explore the possibility of relocating this section of cable to a more westerly location. This new location has the potential to impact North Atlantic right whale core habitat as mapped in the OMP. A detailed discussion of this route, the potential impacts, and avoidance measures, including time of year avoidance, should be discussed in the EIS.
147-14	The following data should be evaluated, any potential impacts should be identified, and measures and practices to avoid and minimize adverse effects [to marine mammals, sea turtles, and sea birds] should be detailed in the EIS, including but certainly not limited to time of year restrictions, soft-starts for pile driving, and real-time detection capabilities. - Area of high density of North Atlantic right whale sightings adjacent to the project footprint south of Muskeget Channel; - High density observations for leatherback turtles in Muskeget Channel, and loggerhead turtles observations within the project footprint; - High density observations for Common Tern, Long-tailed Duck, Northern Gannet, Razorbill, Roseate Tern, two loon species, and three species of scoters in Muskeget Channel; and - Habitat for fulmars, Northern Gannet, Razorbill, several species of shearwater, and Wilson's Storm Petrel in the Vineyard Wind lease area.
KI-01-3	you know we had several whale incidents within five months of the Block Island turbines going online? I believe there were seven whole incidents, five deaths in five months. We haven't had five whale deaths in Narragansett Bay in 10 years, total.
KI-01-6	But the Europeans...have...a lot more turbines in their waters than we do,...They're having massive problems with whale migrations, dolphin migrations...But in the 2011 study from BOEM it was highly probably that there were gonna be navigational problems during migration of whales, dolphins and turtle.
KI-18-3	There's no baselines for what the EMF and the low frequency noises are. And, again, low frequency noise, what its affect on mammals is gonna be, whales and whatnot, I think that's gonna be a big problem.

Comment ID	Comment Text
KI-18-4	We have two of the worlds' biggest hammers coming to drive 40-foot wide nails in the ocean. 160 of them here -- 106 over here. 165 of them in the project just to the north of me. Tell me that's not gonna make a big ...problem for every species within 40 to 50 miles of that area.
KI-18-6	We have done absolutely no science to prove potential impacts to fish species -- commercially important -- nor marine animals, such as whales, turtles, and particularly great whales. Only the fishermen on the issues are going to be held accountable because we're held accountable on ESA and the Magnuson-Stevens Act.
NB-01-2	And then the last one, are you looking at impacts to seals with your hammer driving? I used to work on the Caltran (Indiscernible.) retrofit looking at the impacts to harbor seals and California sea lions. So what kinds of impacts on those situations. Hearing loss to harbor seals and other seals in this area.
NB-10-1	it's just horrible for the fisheries. No mammals, no birds, no fish, no lobsters are going to co-exist with this project.
NB-11-1	the biggest congregation of right whale songs is right where this project is going. Not necessarily this little first start, but the whole project kind of basically from the Acid Barge to the western end of the Lightship is a huge amount of ground; and I appreciate all the talk about mitigation and -- so, number one, right whales; right?
NB-11-8	Every one of these turbines creates a harmonic footprint, a noise pattern that's individual to each tower. No two are ever going to be the same; right?...What can happen under the water is a couple of things start vibrating and they're making (Indiscernible.) And all of a sudden now they're now making the sounds you've been hearing; right? You've got a hundred turbines and it's no problem. You put 101 on, and the next thing you know it's really creating a problem...So I'm not talking about the level of noise that blinds them and prevents them from feeding. I'm talking about the kind of noise that happens with mid-range acoustics where whales end up beaching themselves and you find seals and porpoises on the beach.
NB-12-1	We've got a bunch of acoustic oceanographers with two different piles, three different types of noise attenuation where it impacts the California sea lions and harbor seals and also the whales. We had an acoustic oceanographer specialist look at the acoustic impacts and the harmonic wave impacts. What we didn't plan on was the fish kill. With each pile the fish came belly up ...Have you addressed this or are you looking at it? Will you now look at it? And we were going, Oh, shoot. Fish kill. Impacted the hearing of the fish. What was curious is the harbor seals were like oh, free food. But there was quite -- I want to say an outcry.
NT-04-1	Marine Mammal Alliance, Nantucket. We're talking streamlining of EIS and things like that from five years down to one or two years. Is that going to be ongoing if this administration changes, or will we go back to five years? And is one or two years enough to take into account the fact that we do have a radically changing marine mammal situation just south of the island?
VH-09-2	We talked about the ducks and migration. That happens this time of year. I've seen it. It's quite an amazing site. I'd like to see it protected. The whales. This is a tough one for me. The turtles. Years ago I did offshore drift netting for swordfish.(...) we can't keep these whales or sustain the population they have if they don't have the smaller species they feed on which migrate through this route. I'd like to see this process slowed down. I'd like to see more research done, and I am scared.

MITIGATION

Comment ID	Comment Text
40-20	We also support efforts by BOEM and Vineyard Wind to consider recommendations in the CEQ guidance in developing an outreach program. We recommend close coordination with potentially affected communities and translation of project summaries to improve understanding of the proposed action and its potential impacts. Ultimately, identification and outreach to minority and low-income populations should heighten agency attention to alternatives including alternative sites, mitigation strategies, monitoring needs and preferences expressed by the affected populations.
40-25	Where adverse cumulative impacts are identified, BOEM should make it clear which parties will be responsible for avoiding, minimizing, and mitigating those adverse impacts. We recommend that the cumulative impact analysis include a discussion of opportunities to co-locate transmission cables from multiple projects as they come ashore to help minimize and avoid project impacts. We recommend that the analysis pay particular attention to impacts to endangered species and marine related commerce.
41-10	Mass Audubon recommends that prior to construction (as well as during and after), bird populations should be more intensely monitored and documented. In addition to the aerial surveys already done, monitoring should include methods that work in a variety of weathers and seasons. The UK study cited above utilized a combination of radar and observation methods that could be considered for application to monitoring of offshore wind projects in the U.S.
41-20	Data collection alone is not enough. Application of the data both to individual projects and the overall offshore wind leasing program is essential to inform the development of this new industry. BOEM should continue to compile data from all sources. Both pre- and post-construction data from projects must continuously be made publicly available. Ongoing coordination across federal and state agencies, scientists, project managers, and interested stakeholders must be provided as a core function of the BOEM offshore wind energy leasing program. Additionally, the active use of data to inform management and development is essential. It is imperative that the actions of offshore wind developers should reflect the empirical findings of the scientific studies in the area. That has been a problem in some European wind farm projects, where some important research results have been ignored resulting in harm to avian species. This should not be allowed to happen with offshore wind development on the US OCS.
41-21	Many authors provide a variety of best practices and recommendations, but a few are listed here: 1. Mark the turbines with blinking lights, either red or white, as constant light sources can serve as attractants. 2. Eliminate any possible perches or 'loafing structures' on turbines to prevent birds from roosting on them, which has been noted. 3. Shut down turbines during storms, when it is most likely that a bird will fly into them, especially during peak migration seasons. 4. Paint turbines in high-contrast colors for greater visibility. 5. Avoid areas of conservation importance.
41-25	Some of the landing options for the transmission lines have impacts that will need to be reviewed and considered for avoidance, minimization, and/or mitigation. This includes potential impacts to eel grass beds, dunes, rare species habitat, and Article 97 lands.
41-26	Rare species potentially impacted [by transmission cables] include the Piping Plover, Least Tern, and Spadefoot Toad. Impacts should be avoided as much as possible by final route selection. Unavoidable impacts should be minimized and fully mitigated. This could include details of precise routing, seasonal restrictions on work, and careful provisions for restoring disturbed areas following construction.
41-28	The EFSB permit for that project [the Cape Wind project] included a condition requiring consultation with Mass Audubon and environmental permitting agencies to avoid, minimize and monitor effects of work in that area, including time of year restrictions to avoid impacts during the coastal waterbird breeding season. Similar provisions should be required for this project.
41-4	Marine mammals and sea turtle studies also need to continue, with a special focus on ensuring that offshore wind energy projects do not further threaten the already seriously endangered North Atlantic Right Whale (Eubalaena glacialis).

Comment ID	Comment Text
41-6	The EIS should document any adjustments needed to the project layout or design to avoid significant impacts. BOEM must also be prepared to adjust its program in cooperation with project developers over time, in the event post-construction impacts prove to be greater than anticipated.
41-7	We also specifically request time-of-year and other conditions on the construction of the transmission line through Lewis Bay, to protect foraging and loafing habitat for terns and other coastal waterbirds on Mass Audubon's Egg Island property, a coastal shoal that is exposed at low tide, as work is proposed adjacent to this location.
41-8	Therefore, we recommend ongoing monitoring and documentation on the interactions between area avian life and offshore wind energy development [related to potential collisions]. Previously-undertaken European studies can help to inform developers and managers to reduce threats to seabirds from offshore wind.
41-9	In general, there are two main categories of avian - wind farm interactions: 1. Direct risk of collision, which often prove fatal to birds; and 2. Displacement from foraging grounds, or avoidance during migration. We recommend that BOEM document how each of these apply to OCS-area birds and also recommend the collection of data before, during, and after construction of wind turbines in order to inform decisions on current and future projects, and to adjust the offshore wind program and associated mitigation over time.
45-4	In collaboration with the University of Massachusetts Dartmouth's School for Marine Science and Technology (SMAST), Vineyard Wind has committed to conduct pre- and post- construction assessments of fisheries and associated ecological conditions.
53-17	Measures to minimize impacts such as soft start procedures, construction timing, anchoring plans, or micrositing should be discussed in detail...While the project should be planned to avoid and minimize adverse effects to the marine environment to the greatest extent practicable, compensatory mitigation should be proposed to offset permanent and temporary impacts. Social and economic losses as well as ecological losses should be considered, particularly any loss of fisheries revenue resulting from the construction and operation of the project. Measures to compensate for potential economic losses should be discussed in the EIS.
53-20	An assessment of cumulative impacts of existing and proposed transmission cables should also be considered. Based on the proposed wind development projects in this region, there is the potential for substantial additive impacts associated with the number of required cables. As part of the cumulative effects analysis, measures to minimize the additive impacts should be considered, including the evaluation of designated cable routes and coordination and consolidation with adjacent projects to minimize cumulative impacts.
53-22	The establishment of a regional monitoring program will be important to help understand potential impacts of wind energy projects and identify potential mitigation measures for any future projects. We support the establishment of a regional scientific research and monitoring framework to better identify and understand cumulative impacts and interactions between fisheries and offshore wind energy. We are encouraged to see ongoing efforts to establish a regional monitoring program with Rhode Island and Massachusetts for the Southern New England wind development areas. We also encourage you to consider monitoring at all scales and taking an ecosystem-based approach and assessing monitoring needs of fisheries, habitat, and protected species. This will be important to not only assess the cumulative impacts of project development, but also to help inform any future development.
53-25	We encourage you to work with Vineyard Wind to develop a project schedule that minimizes potential impacts to North Atlantic right whales. Marine mammal responses to sound can be highly variable, depending on the individual hearing sensitivity of the animal, the behavioral or motivational state at the time of exposure, past exposure to the noise which may have caused habituation or sensitization, demographic factors, habitat characteristics, environmental factors that affect sound transmission, and non-acoustic characteristics of the sound source, such as whether it is stationary or moving (NRC 2003).

Comment ID	Comment Text
53-26	...the EIS should consider requiring the development of minimization and monitoring measures that minimize the risk of vessel strike and exposure to potentially harassing or injurious levels of noise to marine mammals and fish.
53-37	As part of the expanded EFH assessment, an alternatives analysis and any proposed mitigation measures should be discussed in detail. For all potential impacts evaluated in the EIS, alternatives for avoiding and minimizing adverse effects to EFH should be clearly identified and analyzed. Mitigation measures such as soft start, sequencing construction timing, and micrositing and anchoring plans to avoid sensitive habitats, should be included in the EFH assessment. Proposed mitigation and monitoring plans, particularly for unavoidable impacts, should also be included in the EIS. The EIS should include a discussion of both site-specific mitigation and monitoring as well as regional scale monitoring efforts to assess cumulative impacts of adjacent projects. We encourage you to coordinate with us during the development of the expanded EFH assessment to ensure the information we will need is addressed in the assessment.
53-44	The EIS should evaluate any potential economic impacts to the commercial and recreational fishing industry as a result of the project and incorporate proposed mitigation measures. This should include an evaluation of potential changes in fishing effort within the WDA, the potential for gear loss or damages, and the potential changes in revenue as a result of the proposed project. An evaluation of the potential for gear damage, from operation within the WDA, from project survey vessels, or from towing over concrete mats along the cable routes should be included in the EIS along with proposed mitigation measures to compensate loss or damages. An analysis of potential loss in revenue from construction activity should also be considered in the EIS.
59-10	The EIS should also consider mitigation approaches to minimize and compensate for both environmental and economic impacts. Vineyard Wind should identify a transparent process for determining when compensation will be paid and should provide formal financial assurance of funding.
59-11	Funds must be set aside for decommissioning as well.
66-10	During construction, there are a number of measures for protection of marine mammals which should be thoroughly addressed, particularly that for the Northern Right Whale and the Finback. This issue is thoroughly addressed in Wind Energy Plan for Dukes County, available on the MVC website
66-11	Although the proposal avoids an area of core habitat for Northern Right Whale, there are much more protective measures available. Because these whales are seriously threatened with extinction, protection should rise above avoidance of a core habitat. These whales migrate through Vineyard waters and vicinity in the spring and fall on their way to and from summer grounds in Cape Cod Bay and vicinity. The best protection for these whales is a temporal-based avoidance of ship strikes and other construction impacts. The Marine Mammal Protection Act requires vessels to cease activities when one of these whales is sighted. MVC recommends the further protection of employing passive acoustic monitoring to inform the crew of nearby Right Whales. They are very vocal and spend quite a bit of time underwater. Listening for them alerts the crew long before a watchstander may sight a whale at the surface.
66-12	Although the Right Whales just pass through, the waters south of the Vineyard do support a resident summer population of Finback whales. It is more feasible to avoid Finback impacts by avoiding the time and space where they spend the summer. Details are included in the Wind Energy Plan for Dukes County and references identified therein.
66-3	Noise impacts during construction need to be addressed. Pile-driving, in particular, is known to negatively impact important forage species like mackerel, herring, squid and butterfish; breaking up schools. Mitigation measures, such as temporal avoidance of migration times, should be thoroughly explored.
66-5	Construction impacts will restrict navigation in some fishing grounds short-term. This short-term conflict may result in loss of income, boats or homes by those boat owners. There should be a mitigation plan with substance.

Comment ID	Comment Text
66-7	Some mitigation measures for conflicts of operation have been explored and are included in the proposal. This shows a willingness on the part of the proponent to communicate and plan well. Impacts should be avoided wherever possible. For example, a small part on one edge of the facility lies within squidding grounds. A small adjustment could remove that conflict. Even with appropriate avoidance of conflict, it seems inevitable that there will be some negative impact. There should be a mitigation/compensation plan with substance.
66-8	The Martha's Vineyard fishing fleet consists mostly of small boats, often manned by a single operator with no crew. In order for fishing to continue within the development, there needs to be assurance that a small boat with an individual operator will be able to continue as before the development. A statement from USCG that the boats may still use the area, as long as they carry crew, would not help. Will these small boat owners be able to safely continue to ply their trade? Will they be able to purchase insurance for the extra liability? Impacts and mitigation need to be thoroughly addressed in the DEIS.
69-12	The EIS should address how time of year restrictions or other mitigative measures will be used to minimize impact to marine fisheries resources, commercial fisheries activities, and long-running trawl surveys conducted by MA DMF and NOAA.
69-40	Turbid water created by the jet plow or other dredging technique may hinder the horseshoe crab's ability to find mates, as vision plays a large role in the ability of males to find females (Barlow Jr. et al. 1982, Saunders et al. 2010). Minimizing this type of impact can be addressed in project sequencing.
69-41	The EIS should consider the impacts and validity of the "softstart" pile driving technique. It would be useful, for example, to determine the anticipated sound level generated by this "softstart" approach to determine whether the sound levels from this activity may be detrimental or lethal to organisms in the surrounding area.
69-50	The EIS should include a description of financial compensation procedures to mitigate impacts to the commercial or for-hire recreational fisheries. These procedures should be clearly defined prior to beginning construction. A Fishermen's Contingency Fund, along the lines of what is available to fishermen affected by offshore oil and gas development, could be used to mitigate impacts to fishermen (see http://www.nmfs.noaa.gov/mb/financial_services/fcf.htm). This fund should be available to both commercial and recreational fishermen and include impacts related to the wind development area and the offshore export cable corridor.
69-51	To date there is not a developed plan for pre- and post-construction monitoring. These plans must be developed and considered in the EIS.
69-7	Mechanisms to minimize impact by coordinating turbine locations, cable installations, and timing associated with overlapping construction periods need to be identified and described in the EIS. It is unclear over how many seasons and years pile driving could be occurring.
77-1	We request that biological assessment studies be conducted by third-party groups before, during, and after the wind energy project in both the Wind Development Area (WDA) and the Offshore Export Cable Corridor (OECC). If detrimental impacts are determined, we request a clear plan to mitigate or cease current impacts and to prevent future ecological impacts from other offshore wind projects.
77-3	Will measures to decrease sedimentation and to mitigate sound impacts during the construction, installation, and operational phases be mandated?
77-5	In the likely event that commercial fishing businesses are negatively impacted by the offshore wind projects, a clear plan regulating and outlying a compensation process should be developed and required by BOEM

Comment ID	Comment Text
80-3	...the COP identifies potential avoidance, minimization and mitigation measures, which include various forms of light management, anti-perching devices, and standardized protocol for documenting dead birds found on vessels and structures during the O&M phase. The COP does not, however, include specific information on the "standardized protocol." The Division requests that the final COP and EIS contain detailed information on documenting dead birds found during both the O&M and construction phases of the project, as well as include the use of thermal cameras to document avian mortality. More importantly, the Division recommends that the EIS evaluate whether seasonal cessation of turbine operations is necessary during key migration times.
80-7	In addition, and given the broader scale of potential development across the entire Wind Development Area (WDA; all Lease Areas) cumulatively, this staged approach could provide an adaptive framework for further avoiding, minimizing and mitigating both direct and indirect impacts across the WDA. For these reasons, the Division requests that BOEM expressly require the above staged construction and permitting approach as an integral component of the overall project.
82-14	an independent study [is recommended] documenting the potential effects of the transmission lines on fishing, shell fishing [and] shell fish farming.
82-16	an independent study [is recommended] documenting the potential effects of unintended consequences of installation of ocean/land based transmission lines be addressed and mitigated to avoid costly legal processes. Guide lines should be included establishing negotiation measures for compensation and remediation.
82-6	a management plan should be required for the habitat restoration of valuable shellfish beds to the preconstruction conditions and provide enhancement measures to improve and maintain the shellfisheries (bay scallop, quahog, softshelled clam and oyster) or provide compensation for loss of actual and potential productivity associated with installation, maintenance, decommissioning and electrical transmission.
83-16	In determining the potential impact of noise from geophysical surveys, and construction and operations activities, BOEM needs to request new guidelines on thresholds for marine mammal behavioral disturbance from the National Marine Fisheries Service ("NMFS") that are sufficiently protective and consistent with the best available science...Acceptance of the current NMFS' acoustic threshold for Level B take will lead to BOEM significantly underestimating the impacts to marine mammals and potentially the permitting, recommendation, or prescription of ineffective mitigation measures (e.g., under-protective exclusion zones).
83-19	In the context of a design envelope, either seasonal restrictions and/or specific schedules must be included in the alternatives and/ or mitigation analysis, pursuant to the agency's duty to consider reasonable alternatives and mitigation measures, and should be included in the ROD.
83-2	...there are three main categories of potential threats posed by offshore wind farms to birds: (i) direct risk of collision, which often prove fatal to birds; (ii) displacement from foraging grounds; and (iii) avoidance of wind farms, which can impact bird migration patterns and result in increased energy expenditure, with serious consequences. Attraction to the lights emitted by the wind project may also increase collision-risk, and boat traffic during construction and maintenance can increase stress and result in habitat exclusion. Strategies to minimize impacts to birds include avoiding siting turbines in important avian habitats where significant presence and abundance of species has been documented by the best available science (including nearshore areas, shoals, mouths of inlets, rocky/boulder reefs, and other areas important to various life stages of sensitive coastal and marine species) and alternative lighting designs that take birds into account.
83-21	Construction activities and geophysical surveys with noise levels that could cause injury or harassment in marine mammals must not occur during periods of highest risk to North Atlantic right whales, defined as times of highest relative density of animals during their migration, and times when mother-calf pairs, pregnant females, surface active groups (indicative of breeding behavior), or aggregations of three or more whales (indicative of feeding behavior), are expected to be present, as supported by best available science.

Comment ID	Comment Text
83-22	Geophysical survey and pile driving activities should commence, with ramp-up, during daylight hours only to maximize the probability that North Atlantic right whales are detected and confirmed clear of the exclusion zone (see, also, (3), below). The activity can then continue into nighttime hours. If a right whale is detected in the exclusion zone during nighttime hours and the activity is shut down, developers should be required to wait until daylight hours for ramp-up to commence.
83-23	For the North Atlantic right whale, a minimum exclusion zone of 1,000 meters should be established around all vessels conducting activities with noise levels that could result in injury or harassment to these species (e.g., geophysical surveys and pile driving).
83-24	To maximize the probability of detection of North Atlantic right whales, comprehensive exclusion zone monitoring is essential. At minimum, a combination of certified Protected Species Observers ("PSOs") and passive acoustic monitoring should be required during daylight hours. Staffing and shift-schedules should allow for each PSO to monitor a maximum of 180° during daylight hours. Aerial surveys would also provide a useful supplement to increase detection probability. At night, a combination of nightvision, thermal imaging technology, and passive acoustic monitoring should be used.
83-25	...all vessels operating within or transiting to/from lease areas should observe a speed restriction of 10 knots during times when mother-calf pairs, pregnant females, surface active groups (indicative of breeding behavior), or aggregations of three or more whales (indicative of feeding behavior), are expected to be present based on best available science. As an alternative to speed reductions for transiting vessels, developers may propose monitoring technologies or vessel design alternatives that have been scientifically proven to reduce the probability of collision, mortality, and serious injury to an equal or lesser extent as a speed reduction of 10 knots. We look forward to working with developers on developing an independent and scientific testing protocol if they wish to explore such alternatives.
83-26	During construction, developers should commit to minimizing impacts of underwater noise on the North Atlantic right whale to the full extent practicable through: (i) the consideration and use of foundation types and installation methods that eliminate or reduce noise, and (ii) the use of technically and commercially feasible and effective noise attenuation measures, including the use of the lowest practicable source level.
83-27	Developers should commit to carry out scientific research and long-term monitoring in lease areas to advance understanding of the effects of offshore wind development on marine and coastal resources, and the effectiveness of mitigation technologies (e.g., noise attenuation, thermal detection). Science should be conducted in a collaborative and transparent manner, utilizing recognized marine experts, engaging relevant stakeholders, and making results publicly available. Developers should coordinate with state and regional scientific efforts to ensure results from individual lease areas can be interpreted within a regional context and contribute to the generation of regional-scale data, which is required to address questions related to population-level change and cumulative impacts across the geographic range of the North Atlantic right whale.
83-28	BOEM should drive the research and testing of these [alternative foundation types and installation methods] solutions and provide the support necessary for their supply chain development and manufacture in the United States. BOEM should also incentivize developers to employ these best available technologies in their construction plans, ensuring that the United States acts as a global leader in the manufacture and employment of cutting-edge technology capable of maximizing both wind energy generation and environmental protection.
83-29	BOEM should ensure that research is conducted, optimally in collaboration with developers, to test the effectiveness of night vision and infrared technology for detecting marine mammals, and particularly the North Atlantic right whale, in all climatologies (i.e., air and water temperatures) representative of lease areas off the U.S. East Coast.

Comment ID	Comment Text
83-30	In developing its mitigation requirements for developers, BOEM should carry out research on the most effective combination of these real-time monitoring approaches for detecting marine mammals off the U.S. East Coast, including large whales, at distances capable of mitigating the impacts of harmful noise and other disturbances. The development of a comprehensive real-time monitoring approach, supported by science, is necessary before large-scale offshore wind energy construction commences in the Atlantic and, by proxy, advances within North Atlantic right whale habitat.
83-8	Throughout the development process, BOEM should carry out the necessary research and monitoring to address uncertainties regarding the potential interactions of bats and offshore wind development and should thoroughly examine mitigation options. It is important to note, however, that given the challenges of conducting fatalities assessments at offshore sites, many dead or injured bats would most likely go unrecorded, either falling into the water or becoming prey to marine scavengers or predators. BOEM's assessment of the impacts to bats should, therefore, be conservative, and employ the best available scientific methods, such as autodetection and thermal imaging technology.
83-9	Sea turtles are expected to be vulnerable during both the construction and operation periods of offshore wind development. Sea turtles may experience: (i) behavioral changes and displacement from noise and other disturbances produced by construction vessels, geophysical surveys, foundation installation, cable laying, and operational wind energy projects; (ii) increased risk of collision with construction and service vessels; (iii) attraction to bright lighting during construction and cable laying; (iv) orientation and navigational issues during migration due to electromagnetic fields emitted by cables; and (v) long-term alteration of the prey base at the wind energy site... we urge BOEM to undertake careful consideration of these potential impacts and carry out research and monitoring required to better understand potential impacts, and effective mitigation measures, for sea turtles off the U.S. East Coast.
87-11	Offshore wind development may also displace populations [of birds/bats] from foraging grounds or cause avoidance of wind farms altogether. Impacts of avoidance should be examined through an ecosystem based management lens to determine the overall footprint of this disturbance, with careful monitoring and evaluation mechanisms in place to address any adjustments that might help mitigate negative outcomes.
87-17	Mitigation options to address seasonal movements of marine species must be assessed.
87-23	BOEM must implement changes in management practices concerning offshore wind power generation outlined in the approved ocean plan [Northeast Regional Ocean Plan]. In its analysis of impacts from the Project, BOEM must use the data provided in the Northeast Ocean Data Portal, which is a product of the regional planning process.
87-5	BOEM must also employ adaptive management to ensure that new information is applied to assess needs for modification, mitigation, or removal of turbines.
87-7	BOEM must analyze methods of noise pollution mitigation through a range of noise reduction techniques, technologies, and avoidance measures.
87-8	BOEM must analyze potential impacts of the Project on all marine mammal populations that utilize the lease areas and surrounding areas, as required under the Marine Mammal Protection Act and the Endangered Species Act. Avoidance measures for certain activities, such as pile driving, that are known to disrupt and threaten the North Atlantic right whale, must be undertaken when scheduling project activities to best ensure project timeline deliverables while protecting the health of the species and the ocean ecosystem.
89-13	However, at current scheduling, Vineyard Wind will only accumulate approximately one year of fisheries monitoring data prior to construction, which is not a scientifically acceptable and measurable standard. Should commercially important species suffer negative impacts and result in a decrease in available product, contrary to Vineyard Wind's assertions that negative impacts are "not expected" (see Table 4.2.1 COP Volume III), Vineyard Wind would be abdicating responsibility for appropriate compensation to the fishing industry for its actions if it fails to collect appropriate data through an externally peer reviewed time series. A minimum of 5 to 7 years of pre-construction data, in addition to during and post construction data, is necessary and must be required as part of COP approval.

Comment ID	Comment Text
89-16	Vineyard Wind must be financially liable should commercially important stocks experience decline or adverse impacts due to the Vineyard Wind Project, and it must be so stated in the COP.
89-19	This was discussed at length with Vineyard Wind and Vineyard Power representatives at the February 19, 2018 meeting, and industry demanded a financially considerable compensation fund for lost fishing gear, damaged gear, and wage compensation for vessels/captains/crews for lost fishing time and income due to interaction with concrete cable matting. This fund must be a requirement of COP approval, and as nets alone can cost tens of thousands of dollars each, in addition to the lost income and down time should a trip need to be cut short and a net repaired or replaced, must contain enough funds to fully compensate the fishing industry.
89-20	As part of an EIS, and should BOEM not require that the cable be re-routed to an area of less conflict, BOEM must value the squid fishery of the area itself, should the tows become unfeasible if numbers of concrete mats are placed along the cable route.
89-26	Fishing vessels must also be compensated for the time they will be excluded from the area during decommissioning, which amount must also be bonded.
89-6	Vineyard Wind has not proposed any compensation for this future lack of access, product, and income that the Project will inflict on those who use the seabed for a fishery and whose correlative rights are not being protected.
89-7	BOEM must work with NMFS, the Fishery Management Councils, and the fishing industry to gather detailed fisheries activity and socioeconomic information that can be used for financial compensation for every vessel that will be operationally excluded, should the Project go forward. This information must be included in an EIS, and direct financial compensation to individual vessels for the life of the Project made a requirement of COP approval
90-3	CLF strongly encourages BOEM to establish a long-term monitoring program to analyze the cumulative impacts on marine resources of offshore wind energy development both in New England and along the entire Eastern seaboard where wind energy facilities have been proposed. Offshore wind energy is a new activity in the nation's oceans, and a premium should be placed on clearly understanding the impacts of these facilities so that appropriate steps can be taken to ensure that the development of wind energy in the United States proceeds in an environmentally responsible manner that protects vulnerable species such as the North Atlantic right whale.
90-4	As an example of recent actions taken, necessary to protect the North Atlantic right whale, CLF notes that on April 25, 2018, the Massachusetts' Division of Marine Fisheries enacted two emergency regulations intended to protect significant aggregations of North Atlantic right whales seen feeding in Cape Cod Bay. These measures included an extension of the Trap Gear Closure and Vessel Speed Limit restrictions. This action underscores both the dire situation of the North Atlantic right whale as well as the importance of planning for adequately protective mitigation measures at the EIS stage, so that the potential for seasonal restrictions on activities like the one currently affecting the lobster industry in Cape Cod Bay is accounted for in the Project's Construction and Operations Plan ("COP").
92-13	The NBPA proposes to work with Vineyard Wind on the development of a mitigation plan to be included in the Fisheries Communication Plan. The Fisheries Communication Plan is a solid draft. The fishermen on the committee would like to be involved in the next iteration of the plan based on the feedback provided in this letter through NBPA as Fisheries' Representative to Vineyard Wind. We would like Vineyard Wind and all developers to adopt and endorse a standardized process for fisheries engagement, with components that reflect the unique makeup of Vineyard Wind's lease site's fisheries stakeholders.

Comment ID	Comment Text
92-14	Our proposed Fisheries Communication Plan process (components taken from BOEM's 2015 Guidelines): o Quarterly public meetings with all fishing interests and more frequent meetings with our Fisheries Advisory Committee on Offshore Wind or individual fishermen that will identify and tackle issues pertaining to the following: § Potentially affected fisheries; § Communication methods and tools; § Measures under consideration to reduce potential impacts to fishery resources and operations; § Potential methods to monitor effectiveness of impact-reduction measures. § Science initiatives to monitor the impact of the proposed project § Best practices for dismantling at end of useful life § Mitigation projects Decommissioning Plan Comments: · · We would like BOEM to ensure that in the future there is an option to have the ocean floor returned to its original state; otherwise it could be a permanent exclusion of all bottom-tending mobile fishing gear from the area
94-16	The project as contemplated by the envelope concept is too big. The applicant should not be allowed to construct more than 400 MW in the lease area, unless and until, a minimum of 3 years of research has been conducted, prior to construction of additional MW beyond the original 400 MW Research should examine the impacts that construction and operation, including the effects related to low frequency noise, electromagnetic fields, noise associated with pile driving, toxic dredge spoils, have had on the benthic habitat, spawning, early larval stages, fish stocks, and the fishing industry operating in the Project Area. Because of spawning concerns related to the squid fishery, a special area of research focus should be to study the effect of noise on the squid fishery between the months of May and late August.
94-17	The use of monopoles versus four-sided jackets should be carefully examined. There are serious concerns associated with the acoustic sound ring that would be generated, and associated impacts on fisheries, by driving monopoles of the size described in the COP into the seabed.
94-18	WTGs should be spaced with at least a minimum distance of 1 nautical mile to allow for navigation of trawlers and avoidance of fixed gear and scouring around base of WTGs. It should be noted, that many in the fishing industry have said they cannot safely operate a trawl around as many WTGs as have been proposed even with 1 nautical mile spacing.
94-19	WTGS should be placed on straight lines so that trawlers can easily navigate the Project Area in an east to west direction, avoid zig-zagging, without impacting fixed gear fisheries.
94-20	No pile driving should be allowed from mid February to mid May to prevent mortality, disturbance of spawning activity, and reduce impacts on spawning habitat, larvae, and fish stocks (specifically stocks with swim-bladders). It is important to note that very little is known about the effects of pile driving noise on spawning and the impacts to spawning habitat. There is genuine concern than any pile driving from February through August will cause serious harm to the squid fishery.
94-21	Even a 400 MW project, as opposed to the 800 MW project contemplates, will have significant impacts on the fisheries, especially during construction. The applicant should be required to establish a mitigation fund that will compensate fishermen for loss of use, displacement, gear loss or damage, fish kills, and/or change in migration patterns that result in loss of revenue or impact future stock assessments. The applicant should create a process for filing fishery compensation claims. There is precedent for this kind of relationship between submarine fiber optic cable companies and trawl fishermen.
95-2	No energy source is completely free from adverse impacts. Regrettably, Vineyard Wind will likely cause some harm to marine life and ecosystems, birds, and the fishing industry. Care must be taken to minimize these impacts by avoiding migration pathways and breeding grounds of birds, fish, and marine mammals, reptiles, and invertebrates, as well as any other areas of special ecological significance to the maximum extent possible.
97-5	Reduce the development footprint by moving the first rows of turbines further from Nantucket's shore [see figure in submission]. In referencing the map of the "Wind Development Area for COP Review," we strongly advocate for the developer to relocate the closest thirteen WTGS from the first three rows, to the rear of the development area (see enclosed map markings). This design modification of essentially "pushing back" the closest, most visible WTGs from Nantucket, would minimize the local visual impact, without reducing the power output potential of the lease area.

Comment ID	Comment Text
97-6	Defer development of the closest WTGs to allow technological advancements that could lessen the visual impacts. Based on public feedback of the visual simulations, we understand that that the most negative reactions to the WTG visuals are primarily associated with the number of turbines visible from the coastline, and not necessarily the size of the turbines. With the prospect of larger turbines (10-12MW) being available to developers in the near future, a lesser number of turbines will soon be required in order to achieve the same power output.
99-1	The clam industry opposes the four New York and New England wind arrays projects because of their designed, which make it impossible for hydraulic clam dredge vessels to operate safely within the arrays. The clam industry has attempted to work with your agency, the states and the wind farm developers with zero success. The fishing industry has been here for hundreds of years and is now being displaced from our fishing grounds with no consideration or compensation. The clam industry is not going to sit still and be shutout of our fishing grounds.
99-6	The fishing industry gets run over and without any protection, consideration or compensation. Those fishermen that fish for things like finfish are a little better off than the clam and scallop fleets because their target species can move, and once out of the array the fishermen have a chance to target them. That is not the case for the clam or scallop fishermen, those shellfish do not move and therefore, stay within the arrays and out of commercial and financial reach of the U.S. fishermen. The shellfish die of old age with no benefit to the country, consumers or the fisherman.
117-2	But sound during pile driving will have to be mitigated to protect marine mammals and fish.
126-1	When considering construction impact mitigation: I heard about nets with foam objects on them as a substitute for bubble curtains - could be a good energy saving
137-18	The Army Corps has mandated new and retrofitted bumper systems designed to absorb and deflect the impact of errant vessels. Similar structures should be considered for this project and, at the very least, for the ESP legs, given the risks discussed above if an ESP fails.
137-5	Because the risk of a release is ever-present and because the consequences of a worst-case scenario release would shut down the Hyannis water system indefinitely, the only way deemed feasible to protect the water system is to move the wellheads and treatment plant up-gradient from the proposed substation. The cost to do so is conservatively estimated at $32,000,000 in 2018 dollars. This outcome must be ordered by BOEM as a condition of approving the siting of the sub-station on Barnstable land.
137-6	..interim steps must be implemented to provide temporary protection to the Hyannis well system. This would come in the form of robust containment vessels under the proposed substation as well as retro-fitting the adjacent Eversource sub-station and the Eversource substation in West Barnstable. Curiously, from day one, Vineyard Wind has, to its credit, offered to install such containment but there is no discussion whatsoever in their COP. Detailed, state-of-the-art plans will need to be developed and approved by Town Engineers. The on-shore cannot proceed without such containment.
139-1	I am a commercial trap fisherman for conch, sea bass and lobster from Edgartown, Mass. From May through September I set traps in Nantucket Sound in the path of the export cable. To minimize gear loss and negative impacts on fishing, I hope that all cable installation would be done in January through March.
142-1	First, I suggest that Catastrophe Insurance or Bond be put in place in case of any catastrophic accidents that are located in Lewis Bay; associated with the Vineyard Wind Project. Some of the monies the Town of Yarmouth receives from Vineyard Wind Project should go into a dedicated fund for Lewis Bay not the General Fund. This would allow money for monitoring the water quality, monitoring the viability of the established shellfish population located in Lewis Bay and the overall health of the Bay, along with money available for future seeding of shellfish in Lewis Bay for years to come.

Comment ID	Comment Text
142-2	The Yarmouth Shellfish Department has worked hard for the past 22 Years to establish a population of Bay Scallops within Lewis Bay which the Commercial Fishermen count on each year for their winter fishery. I would like to see a contingency plan to reestablish said Scallop populations in the event the scallops are no longer viable in the Bay. I would like to see Vineyard Wind put in place multi-year contracts with local Hatcheries to purchase Bay Scallops for repopulating and for yearly seeding of Lewis Bay for years to come.
142-3	...when jet plowing the (3) three cables into the bottom at a depth of (6) six feet, the plow might stir up something toxic that's been buried for hundreds of years in the bottom of Lewis Bay which will mix into the overlying waters of the Bay, where it could be consumed by the shellfish. One answer to this problem is to jet plow the cable when the water temperature of Lewis Bay is at or below 45 degrees F, so the shellfish will not be pumping much water as their metabolisms will be shut down for the winter.
142-4	Another concern of the [Shellfish] Lease Holders is not being able to remove their gear in November and December for the winter because of congestion from Vineyard Winds equipment blocking the boat ramp at Englewood Beach. One solution would be installing a temporary boat ramp at Bayview or Baxter Ave until the project is completed or leave it in for future use.
144-6	if negative impacts happen affecting shellfishing in the area, who would cover my (and many others) $ losses in and for the future?
146-12	..the Commonwealth believes that as offshore wind advances, there should be an independent, third-party process to ensure that the appropriate research and monitoring activities are undertaken to track issues affecting the Southern New England region and beyond and monitor the interactions between the fisheries and offshore wind structures.
146-13	e Commonwealth is calling for the establishment of the Southern New England fisheries Science Panel on Offshore Wind, and we have been engaged in discussions on the concept of the panel with the Massachusetts FWG, the Rhode Island Fisheries Advisory Board (RI-FAB), BOEM, NMFS, Rhode Island and others. In order to advance the establishment of the Fisheries Science Panel, the Commonwealth is committing $400,000 in funding for the creation of the panel with the goal of commencing pre-construction studies and other survey work this Fall 2018. We would ask that BOEM provide a similar investment to support this vital effort and establish a mechanism whereby developers seeking to construct offshore wind projects in the region would be required to provide sustainable funding for panel.
146-6	A system to verify valid gear loss or damage claims and to address reasonable compensation should be put in place. BOEM should include this issue in the ElS and explore similar alternatives based on experiences from the telecommunications industry and offshore oil and gas industries.
146-7	...it is also appropriate to begin a dialogue around mitigation for lost access/ displacement. This would include times of temporary closures of fishing areas due to the installation and construction of offshore wind projects, as well as longer-term claims of revenue losses that can be validated. Mitigation may not necessarily be solely in the form of direct compensation but could also include financial and other support for developing new commercial fisheries, enhancing access to areas, or supporting certain sectors and fisheries in other ways. The EIS should include an assessment of anticipated lost access and/or displacement and identify and evaluate potential mitigation measures.
146-8	The EIS should provide a robust analysis of the available information and evaluate the suite of mitigation measures -including but certainly not limited to time of year restrictions, soft-starts for pile driving, and real-time detection capabilities - to ensure that any potential adverse effects arc avoided or minimized
146-9	In developing the EIS, BOEM should account for the recommendations of this workshop [Offshore Wind Marine Mammal Science Framework Workship].
147-10	Recent public comments have indicated that the cable route through Muskeget Channel may have impacts on commercial surf clam fishing activities. CZM understands that studies are underway to explore the possibility of relocating this section of cable to a more westerly location. This new location has the potential to impact North Atlantic right whale core habitat as mapped in the OMP. A detailed discussion of this route, the potential impacts, and avoidance measures, including time of year avoidance, should be discussed in the EIS.

Comment ID	Comment Text
147-13	Installation of the WTGs, ESPs, and offshore cables will have potential water quality impacts caused by both dredging and jetplow activities, including increases in total suspended solids. The impacts should be quantified, evaluated and presented in the EIS, along with measures to be taken to minimized and avoided.
147-14	The following data should be evaluated, any potential impacts should be identified, and measures and practices to avoid and minimize adverse effects [to marine mammals, sea turtles, and sea birds] should be detailed in the EIS, including but certainly not limited to time of year restrictions, soft-starts for pile driving, and real-time detection capabilities. - Area of high density of North Atlantic right whale sightings adjacent to the project footprint south of Muskeget Channel; - High density observations for leatherback turtles in Muskeget Channel, and loggerhead turtles observations within the project footprint; - High density observations for Common Tern, Long-tailed Duck, Northern Gannet, Razorbill, Roseate Tern, two loon species, and three species of scoters in Muskeget Channel; and - Habitat for fulmars, Northern Gannet, Razorbill, several species of shearwater, and Wilson's Storm Petrel in the Vineyard Wind lease area.
147-26	DMF Resource Assessment Trawl, Vessel Monitoring System, and other data sources indicate fisheries resources and several commercial fisheries uses that occur within or adjacent to the Vineyard Wind project. Potential effects to these fisheries and practices/approaches to avoid, minimize and mitigate adverse effects should be addressed in the EIS: - Sectors including otter trawling, gill netting, midwater trawling, and lobster, fish and whelk fixed gear fisheries use waters within or adjacent to the project area; - Vessels targeting the following fisheries under specific Fisheries Management Plans (FMP) within the lease area include Sea Scallop FMP; Squid, Mackerel, Butterfish FMP; Monkfish FMP; Northeast Multispecies FMP; Northeast Small Mesh Multispecies FMP; and Summer Flounder, Scup, Black Sea Bass FMP; - Vessels using ports in the following coastal communities were documented fishing within or adjacent to the project area: Barnstable, Boston, Chatham, Dennis, Fairhaven, Falmouth, Gloucester, Harwich, Nantucket, New Bedford, Plymouth, and Provincetown; - Vessels using these ports were also documented travelling through the proposed lease area to access fishing grounds further offshore.
147-29	The U.S. Coast Guard is the lead authority on navigation safety and security and will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. The EIS should present an analysis of the selected corridor along with alternate layouts and provide detailed information on navigational risks and measures to mitigate assessment. Impacts to the vessels transiting this area and any restrictions that would be required of these vessels should also be presented.
147-5	The impacts of the cable installation should be described in detail, along with a discussion of the predicted recovery time for any affected resources. This information should be updated as data is received and included in the EIS. Details of a post-construction survey, including video and acoustic assessments, over the buried cable should be included to document as-built conditions, to verify appropriate depth of burial, and to verify the estimated period of seafloor recovery.
147-6	The EIS should include an analysis of all the potential impacts of the cable installation, and it should include a comprehensive cable inspection program on a regular and as needed basis during the life time of the project to ensure adequate burial, including remediation plans for cables that are found to be at inadequate burial depth after inspection.
HY-03-14	but I think you need to take a look at what type of collision-avoidance systems and bumpering systems might be appropriate offshore to mitigate impacts with any of these projects
HY-09-2	The benefits that all of the -- all the components are offering unions, like the training for the labor unions, how is that enforced? These are not a material part of the application. So what is the enforcement mechanism so that whoever wins, whatever they promised to the communities, how can these citizens be assured that they're going to get what they're being promised?

Comment ID	Comment Text
KI-04-1	Now, one of the things that I wanted to point out and I guess I have a question about is the cable. So the -- the cable that we saw looked like it had at least two possible routes. And so when you look at this one project, it has two possible routes. When you look at the next project, it's gonna have its own cable routes. Now, the cable installation and the cable itself has some impact, the -- that process, but it's something that could be mitigated if BOEM, when they developed these lease areas, developed a highway for the electricity to be piped into land. So in other words, consider the cable impact as a whole, rather than each project looking at different cable routes...If this was looked at more as a whole, I think you could mitigate the impacts of all those cables.
KI-04-2	Now, the cable installation and the cable itself has some impact, the -- that process, but it's something that could be mitigated if BOEM, when they developed these lease areas, developed a highway for the electricity to be piped into land. So in other words, consider the cable impact as a whole, rather than each project looking at different cable routes. You know, we've got cable routing from the Block Island wind farm currently that goes into Block Island and then into the mainland. The South Fork project will have a cable that will go south of Block Island and over into Montauk.
KI-18-1	this isn't going away, that mitigation and working within this process is the best hope we have, realizing that BOEM has already leased these grounds out to foreign interests and this is coming our way irregardless. So how can we make this process work the best for us?
NB-01-1	For your noise mitigation, what type of mitigation are you using with regard to burying the cables? Are you planning on burying them?
NB-01-3	Are you using mitigation to prevent silt, sand redistribution? What kind of dredging are you using to get that cable buried?
NB-11-2	I appreciate all the talk about mitigation for gear loss, but how do you mitigate for a guy who put his gill nets ashore because he can't fish right now because the limits are so low and goes out in five or six years and finds out his grounds are gone? So there's a huge amount of financial impact for people that are involved in commercial fishing.
NB-29-5	there's a great document put out by BOEM about mitigation techniques between fishing groups and offshore environments, but it is not legally required that any of the wind developers follow it. We have tried to sit down and talk to a lot of wind developers. I have engaged with Martha's Vineyard. I have engaged with Bay State and Deepwater Wind, and what they love to do is say how many times they've met with us; but they've done very little action to document our concerns.
NT-06-1	being that that area is definitely the number one spawning area for these longfin squid, and any -- again, dredging of the cable, I would say, would have to be done outside of the parameter when they're there. And you're talking about doing this whole thing in one year. So even if they were gonna put these -- say, this whole section in, I would say that in the summer, when all that stuff's inshore, that I would prefer the construction start offshore in the deeper water, and then work, you know, in the shallower water when that event isn't happening
VH-02-2	And a second, if for some reason you find that after the operation is up and running that there is a negative environmental or marine impact, have you built into the plan a willingness to change or to remove some or all of the windmills?
VH-02-3	have you any experience or any knowledge of other wind farm operations where something did go wrong and what took place as a result of that?
VH-11-1	I wonder if there's any need to continue on at the same pace you're trying to roll this project out at? And with that in mind, would you consider doing maybe a test bed area out there, say only 40 windmills so just in case, erring on the side of caution, if we're going to wreck that area, let's not do it all the way
VH-12-1	So just to take into consideration, you can certainly look at engineering to look at those other installations. In the case of Rhode Island, just keep an eye on it. I mean, granted, the roll out here is you're not going to start construction full blown for three years from now. So you would have three years of history on those windmills in Rhode Island. Could you or do you plan to make a report on those at some point two years from now so that we have some kind of understanding or feel for how that is going?

NAVIGATION AND VESSEL TRAFFIC

Comment ID	Comment Text
2-2	This will create more marine fatalities and increase the danger involved in being a mariner in the Northwest Atlantic ocean.
12-1	I am concerned as to the navigational impact of laying the cable through the very narrow and rough Muskegat Channel. How do you intend to do that and not impede small boat navigation through what is only a 100 yard wide channel with dangerous shoals on either side?
16-8	For example, Vineyard Wind consulted with local fishermen to establish specific vessel transit lanes in designing the project.
17-4	Vineyard Wind is committed to working with the fishing industry so that both the wind and fishing industries can grow together offshore Massachusetts. One example is that Vineyard Wind, in consultation with local fishermen, established specific vessel transit lanes in the turbine layout design.
22-5	We are also concerned about the safety of the fleet and their ability to safely transit to and from their homeports. We strongly ask that more research be done on the impacts of the OSW turbines and the interaction with radar on the vessels. The port of New Bedford is one of many hubs for the commercial fishing industry and the OSW lease areas are directly southeast from here and is highly travelled by the fleet.
30-10	What is a safe distance between wind turbines platforms in order to safely navigate these areas? There are reports of radar units impacted by the wind turbine arrays. According to the Cape Wind Energy Project, Final EIS dated 2009, Appendix H "the wind farm does have an impact on navigation. " As a result how will this be adequately addressed without completely shutting down our ability to fish or safely transit and navigate such areas?
30-4	Impact to radar and/or safe navigation; and the potential for the proposed wind turbine areas to be shut down prohibiting access in the future.
41-16	Construction and maintenance of offshore wind facilities will require the use of helicopters and ships both during and after construction of the wind turbines. It should be documented as to how this increased traffic will affect the behavior of birds in the region and whether or not that could pose an additional threat.
41-17	The EIS should include a detailed plan of anticipated helicopter and boat use during construction and maintenance, along with detailed record keeping. The effects of construction-related ships and construction methods on marine life, especially the North Atlantic Right Whale, also need to be carefully evaluated and minimized.
41-5	Planned and actual helicopter, plane, and ship/boat operations associated with the project and other BOEM offshore wind leasing projects must be documented and the impacts assessed.
4-2	We note a dramatic increase in recreational boating and commercial traffic...This boating use impacts Lewis Bay by kicking up sand, causing a noticeable decease in depth due to the displacement of water disturbing the bay bottom by larger ferry boats and high speed ferry craft. Shoaling is a continuing and significant issue in Lewis Bay aggravated by a lack of dredging.
4-3	In 2013 the Hyannis Inner Harbor and the federal navigation channel utilized for ferry routes were dredged but not Lewis Bay. Vineyard Wind intends to bury its high voltage cable in shallow water and not the deeper channel dredged in 2013. This locates high voltage electric cables in ...parts of Lewis Bay in need of dredging.
43-6	In concert with the U.S. Coast Guard, Federal Aviation Administration, and U.S. Department of Defense, the review must assess navigation safety, aviation safety, radar interference, national security, and search and rescue operations.
44-4	The use of AIS data is also insufficient. AIS wasn't required until 2016 and even then, there was an exemption on when you had to have to have the unit turned on, AIS doesn't have to be turned on until a vessel is 12nm from shore. It was also explained in detail how important it is for an otter trawl vessel to have enough room between turbines to maneuver their gear as it simply does not "follow" directly behind the vessel. We explained that having 1nm between turbines is simply not enough room to operate. What has come out of the VW plan, after meeting with us for over a year, is 1nm between turbines

Comment ID	Comment Text
53-13	All activities included in construction of the project should be considered, including the deposition of fill material, dredging, water withdrawals, pile driving, increased vessel traffic, anchoring, and transmission cable installation.
53-15	Potential impacts to marine resources associated with construction and operation of the project, such as elevated noise levels, increased vessel traffic, electromagnetic fields (EMF), and localized changes in currents should be evaluated.
53-19	The EIS should evaluate in detail, the cumulative impacts on protected species and fisheries resources associated with overlapping construction activity of adjacent projects, including elevated noise levels and increased vessel traffic. Specific information related to the timing of the activity and the expected number of proposed construction seasons is important, particularly for evaluating cumulative impacts to marine mammals, sea turtles, and spawning activity of fish and invertebrates.
53-24	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include: Potential for an increased risk of vessel strike due to increases in vessel traffic and/or shifts in vessel traffic patterns due to the placement of structures.
53-26	...the EIS should consider requiring the development of minimization and monitoring measures that minimize the risk of vessel strike and exposure to potentially harassing or injurious levels of noise to marine mammals and fish.
53-6	We understand your design envelop concept allows for a range of turbine spacing in the project proposals; however, specific alternative spacing and layouts should be considered in the EIS. While the proposed layout in the draft COP considers vessels transiting through the project, it may conflict with existing commercial fishing activities that occur in the northern end of the proposed WDA, particularly mobile gear operations. If spacing and orientation cannot be modified in such away that allow for transit and fishing activity, alternatives that remove sections from the WDA with the highest fishing activity or reduce the number of turbines in that area should be considered. Under this alternatives analysis, you should also consider the most appropriate location for project siting within the Wind Energy Area (WEA) to meet the purpose and need of the project.
60-5	The MA/RI lease area is near busy, historic, and highly valued fishing ports in Rhode Island and Southern Massachusetts, the impacts of an energy facility and transmission cables on transiting vessels, port access, and infrastructure need to be considered as part of the EIS.
60-6	Additionally, strategically place, well-defined 2-4 mile wide transit lanes should be considered a necessity within the wind farm field to limit impacts on vessel traffic.
66-5	Construction impacts will restrict navigation in some fishing grounds short-term. This short-term conflict may result in loss of income, boats or homes by those boat owners. There should be a mitigation plan with substance.
66-6	During operation of the wind generation facility, there may be impacts on the radar used by the small boats, particularly in fog or at night. Impacts need to be thoroughly addressed in the DEIS.
66-8	The Martha's Vineyard fishing fleet consists mostly of small boats, often manned by a single operator with no crew. In order for fishing to continue within the development, there needs to be assurance that a small boat with an individual operator will be able to continue as before the development. A statement from USCG that the boats may still use the area, as long as they carry crew, would not help. Will these small boat owners be able to safely continue to ply their trade? Will they be able to purchase insurance for the extra liability? Impacts and mitigation need to be thoroughly addressed in the DEIS.
69-47	There have been conflicting assessments of the impact of wind farms on radar used for vessel navigation. A clarification of what radar systems will be unaffected is needed, and would be benefitted by a survey identifying the types of radar systems fishermen use.
77-6	Decommissioning measures must be in place that require the complete removal of Wind Turbine Generators (WTG) steel transition pieces and foundation components rather than allowing these parts to be cut below the seabed. The removal of all structures will prevent the site from having navigational/gear issues for the years post the completion of the project

Comment ID	Comment Text
77-7	What navigational restrictions will be imposed in the WDA during the operational phase? Will the lease area be considered a power plant and fall under the Homeland Security Act and become off limits?
82-13	an independent study [is recommended] documenting the potential effects of the transmission lines on dredging activities [and] ocean traffic
82-5	By nature of the shallowness of the water and varying substrate the separation between the boat and transmission line may be as little as 8-10 feet apart bringing into question the potential impacts of Magnetic field interference on navigation equipment.
83-15	BOEM must consider the impacts of other activities and events as part of its environmental analysis, including non-acoustic impacts from vessel collisions, bycatch and entanglement, and the potential for large-scale seismic exploration and offshore oil and gas drilling.
87-22	Turbines could potentially create dangerous situations for fishermen, as well as other ocean users such as pleasure boaters and divers. BOEM must evaluate Vineyard Wind's emergency response plans for any turbine safety issues.
89-10	The transit data compiled by BOEM and available at stakeholder meetings has been comprised only of commercial fishing AIS data from 2013. However, AIS only became required for commercial fishing vessels in 2015, and only for vessels greater than 65 feet in registered length. Many vessels with activity in the area do not meet this criteria. This AIS requirement is only applicable inside of 12 nautical miles from shore and does not represent accurate vessel transit activity in or around the lease/COP area. AIS is a low power VHF signal that is not always reliable at long distances, particularly based on the grade of AIS unit. Therefore, BOEM is relying on artificially low transit numbers/data. This must be addressed in an EIS. VMS data, at all speeds, should be used rather than AIS data.
89-11	Transit lanes for the proposed project do not necessarily meet the needs of transiting vessels as to placement, direction, and width; accurate transit data is necessary to complete this analysis and has not been acquired to date.
89-12	The Department of Defense has made it clear that operational wind farms create thousands of false radar targets, and has established an Interagency Group on Wind Turbines to deal with the prospect of wind energy. As fishing vessels transiting at night, in fog, and in inclement weather rely on radar to see other oncoming vessels, a "radar interference buffer zone" will need to extend from either side of a well-marked transit lane, so that the middle of the transit lane is safe for vessels to transit, free of radar interference. Extensive study by radar experts, those in the marine field, perhaps in collaboration with groups such as the Interagency Task Force, is necessary to establish the extent of this buffer zone, and any and all transit lanes must be required to comply...The 1 nautical mile wide lanes proposed by Vineyard Wind are not up to this standard.
89-2	As various fisheries and many individual businesses/vessels will be impacted by a potential Vineyard Wind project, as well as navigation be impeded, BOEM is under legal obligation to ensure that fishing and navigation rights/safety are protected before any approval of a COP.
89-3	Therefore, the fishing industry was not consulted in turbine placement or design, nor for input on appropriate transit lanes. Vineyard Wind was made aware at multiple meetings that certain fishing gear types, trawling in particular, will not be operationally feasible in a wind farm.
92-10	The lease area lies between the primary fishing ports and active scallop fishing grounds, making transit through the lease area a concern. The regulations for the scallop fleet mandate that the vessel has a limited number of days at sea. Transit through or around the lease area will be charged against the limited number of days at sea allocated to the scallop fleet. Additionally, the scallop fleet believes much larger transit lanes of 4 miles between each turbine may be necessary. Transit through this area is also important to the red crab, jonah crab and offshore lobster fisheries.

Comment ID	Comment Text
92-11	The NBPA can facilitate more interaction between BOEM/Vineyard Wind and fixed gear fishermen who may not be represented in the fisheries data. There is concern among the fluke, scup, butterfish and whiting fisheries that the installation of wind turbines in the lease areas will prevent vessels from towing between turbines. The surf clam and ocean quahog fisheries participants are sure that they will not be able to fish within the wind turbine array and the connecting cable will also be a problem. The cable corridors including through Muskeget Channel must be monitored and kept at a depth of at least 2 meters at all times.
92-12	There are questions among fishermen and other mariners regarding radar interference that will occur while transiting the lease area. There is no detailed mitigation plan and process for the financial losses caused by the installation of wind turbines to the fisheries impacted by the Vineyard Wind lease area.
92-19	A comprehensive study with the USCG and professional mariners on transit navigational concerns can alleviate some concerns from fishermen based in New Bedford, Pt. Judith, Montauk, Shinnecock and points south transiting the area.
92-5	Coordination is needed on transit lanes and turbine layouts to minimize the impact on navigation.
94-10	The proposed layout of the WTGs in the COP is a grid layout. The scattered turbines do not allow for navigation or access. The layout is based on optimization of energy production, not coordination with other existing ocean users. The RI commercial fishing industry asked to be consulted about the layout of the grid design, but was not consulted. In fact, it would seem that the fishing industry was ignored because the need for at least 1 nautical mile distance between WTGs was made clear. The proposed layout does not provide the minimum spacing required.
94-12	The plan to construct during the summer months when the Project Area has the most vessel traffic and the most tourism will result in displacement that negatively impacts fisheries and the fishing industry
94-13	If trawlers are unable to navigate safely, they will be forced to leave the area and fish elsewhere. This displacement not only damages the financial bottom-line of the specific companies displaced, but it will also result in navigational hazards from larger vessels fishing in locations with smaller vessels and increased fishing pressure on other fish species, which could affect fish stocks in the longer term. This one scenario assumes that the trawlers are being displaced.
95-3	In addition, there should be open channels within the array to allow fishing vessels to pass through so they're not forced to make a long detour around the project.
96-1	The Preferred Route for their multiple high voltage cables will enter Lewis Bay, an important water resource supporting tourism, shell fishing, recreational fishing, commercial ferry traffic, recreational and commercial boating activities, and swimming, and from there come ashore at New Hampshire Ave
99-3	Vineyard Wind proposal to build about 100 + turbines in 30 to 60 meters of water southwest of Martha’s Vineyard in areas that has an active ocean quahog fishery. There will be no way to fish within their array because the turbines are so close together. Even if the turbines were further apart, the array is designed in such a way that the tide runs at an angle through the array making it difficult to keep a vessel from being swept into the turbines.
99-4	The clam industry also want it understood that other leases and new-leased areas in water depths of 30 meters and deeper are now where young surfclams are found. The industry’s problem with the additional lease areas is that the developers will design their arrays in the same way that the current lessees are laying out. The new proposals will also make it impossible for bottom-tending mobile gear to take place within the arrays unless major design changes are made.
99-8	The developers do not consider how the tide runs through the array and in most cases set the rows of turbines at an angle to the tide, which makes it difficult to transit through the array and impossible for bottom-tending mobile fishing vessels to fish in the array safely.
108-2	Besides them, other parties, like commercial shipping and recreational fishermen have specific concerns but they along with any other interested parties can and must be heard before any approval is given for any power company to go forward
109-3	Above the water fisherman, recreational boaters, and birds especially sea birds will be affected not to mention commercial shipping.

Comment ID	Comment Text
137-11	Beyond the treat of storms, BOEM must fully understand the design of the ESP's to know how they would react to a vessel collision if one leg was compromised. For now, it is unclear whether these facilities will be attached to the seabed or be floating and anchored.
137-9	It is vital that the effects of such massive structures [turbines] be fully examined and understood so that mariners and SAR personnel may safely operate in the project area.
146-1	BOEM should work with the U.S. Coast Guard to develop a written policy or statement clearly detailing the agencies' positions on this issue and clarifying how this policy will be manifested through the review process.
146-2	Vineyard Wind's proposed turbine spacing follows a grid format with turbines on axes with consistent orientation/bearing. While there are concerns about the ability of some mobile gear types to fish within the array, feedback we have received has indicated a strong preference for having turbines on a consistent grid orientation, as opposed to alternatives that have turbines located in more seemingly random formation, presumably optimized solely for energy production. This issue needs further examination and coordination, as there are important considerations for turbine array spacing that include turbine performance and energy production as well as navigational safety and benthic habitat. The EIS should provide an analysis of different arrays and turbine spacing to optimize both energy production and safe navigation through and between lease areas.
146-3	Feedback we received from the FWG indicated that a one-mile wide transit corridor may not be sufficient. Additionally, there were questions as to the optimal orientation of one or more transit corridors. The U.S. Coast Guard will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. We will continue to work with and through the U.S. Coast Guard to engage stakeholders and the offshore wind leaseholders to identify preferred routes, assess transit corridor width, and determine best practices to avoid and minimize navigation conflicts. The EIS should assess alternatives and provide detailed information on navigational risks and measures to mitigate assessment.
147-27	The Northeast Ocean Data Portal also contains mapped marine vessel use data representing several coastal use sectors that could potentially be affected by the Vineyard Wind project. The EIS should discuss potential impacts and avoidance measures to these sectors: - Commercial marine transportation traffic: maps show high densities of passenger vessels and Tug/Tow transiting from Massachusetts ports through the project area; - Recreational boating: maps depict high density use from Massachusetts ports within the project area; - Aquaculture: there is a mussel culture area and a kelp culture area near or potentially within the project area.
147-29	The U.S. Coast Guard is the lead authority on navigation safety and security and will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. The EIS should present an analysis of the selected corridor along with alternate layouts and provide detailed information on navigational risks and measures to mitigate assessment. Impacts to the vessels transiting this area and any restrictions that would be required of these vessels should also be presented.
147-3	It [the EIS] should also include an evaluation of water-dependent uses in state and federal waters, such as commercial and recreational fishing, shipping, and marine transportation. CZM requests that data on potential effects on resource areas and water dependent uses caused by the construction and operation of the project in both state and federal waters be presented in the EIS.
147-31	The EIS should describe the various vessels, activities, ports, and measures planned to provide sufficient notice to mariners and specifically to commercial fishermen, as well as best practices for ensuring safe navigation on the water and in port.
HY-03-11	really thorough comprehensive examination of the effect of vessel collisions with the ESPs and the monopiles(…) We're going to need to understand what's in there by way of potentially hazardous fluids and so forth in the monopiles up in the transform- -- up in the generating units. But certainly at the ESPs, we really need to know how those facilities 1 will handle a collision with a good-sized vessel because what we don't want to see is the whole ESP collapse into the water.

Comment ID	Comment Text
HY-03-13	is the location and depth and lateral separation of the cable; if it is to enter Lewis Bay, how far away from the main ship channel coming in will it be located and at what depth? The reason that is important and why Army Corp is involved particularly is because it's a federal channel and handles an enormous -- virtually all the freight traffic to Nantucket as well as seasonal recreational traffic and the like
HY-03-14	but I think you need to take a look at what type of collision-avoidance systems and bumpering systems might be appropriate offshore to mitigate impacts with any of these projects
KI-11-3	So this, I think, is a viable solution. Now, they're not staggered. I didn't do this so that they're staggered because you had mentioned that it was important that they didn't steal the wind. So in order to optimize the wind, I've staggered these things so that they're a mile, a mile, and a mile, and the ones below it are in between that, and then you go back to the ones again that are a mile and a mile and a mile. So this is the layout that we have. The other thing I don't see are corridors. How do vessels that need to go to the south -- this would probably be better here -- that need to go to the south get through this maze? I mean, we're talking here -- from here to there, 40, 45 miles. So what do I have to do? I'm certainly not inclined to have my crew members steam, especially if it's foggy out, which it is most of the time in the summer when we're there, steam through this maze of wind turbines. I mean, it's suicide. So I have to steam 40 miles to go south, or I have to come back 40, 45 miles to go south? We're talking maybe one transit lane here by where Bay State is. One transit lane. So that means I still have to go 25 miles or 20 miles one way or the other, causing another expense, just so that I can go to the southern, so I can get below this maze of turbines to continue to fish. It's a problem, and it's something that needs to be addressed
KI-18-8	Navigation is gonna be impossible. Fishing at night is gonna be impossible. Fishing in the fog is going to be impossible due to radar scatter. I've have had pictures of five different -- five turbines already. The scatter that's gonna be produced is almost going to be impossible to fish except for in clear daylight within these wind farms.
NB-08-1	I've been a lobster fisherman for 38 years here in New Bedford...And I'm really concerned about the traffic that this is going to entail. We're not just talking about where these turbines are going to be, but we're talking about to get to the turbines is going to entail a tremendous amount of barges, tugboats, ships; and there's a lot of individuals that make a living between Point A and Point B. ... You're going to leave New Bedford -- just going through Buzzards Bay you're going to track through a tremendous amount of fisheries, and this is going to be tremendously disruptive.
NB-09-1	There will be marine fatalities.
NB-11-3	but the problem with us mobile gear guys, the reason we're on the fives and the zeroes is because there's more (indiscernible) in between, you know. And so it -- not only does it bunch traffic into areas for potential problems; okay? Like jamming all the regular guys and all the commercial guys and all the (Indiscernible.) off of Block Island, right, and coming into Buzzards Bay; but it also jams all the fishing gear together. And in this industry that doesn't work. I mean, there's some stuff you can fish right next to each other. It will work. Most of it doesn't work, you know?
VH-10-1	and if I am to understand correctly, what you're saying is that you're anticipating and expecting vessels to operate freely amongst your wind turbines? Is that what you're saying? They would be allowed to. And is there any study and I understand that there's is a mile distance between each; is that correct? So you're expecting fishing boats and fishing boats to be able to maneuver in and amongst your towers; is that correct?

NEPA Process and Public Engagement

Comment ID	Comment Text
16-8	For example, Vineyard Wind consulted with local fishermen to establish specific vessel transit lanes in designing the project.
17-4	Vineyard Wind is committed to working with the fishing industry so that both the wind and fishing industries can grow together offshore Massachusetts. One example is that Vineyard Wind, in consultation with local fishermen, established specific vessel transit lanes in the turbine layout design.

Comment ID	Comment Text
24-2	To speed up the planning process, I would hope there is sufficient contact between BOEM and European wind farm officials so we can avoid the mistakes they learned over the past twenty years.
38-5	I certainly don't have all the answers to the issues to be addressed by the EIS and potential solutions/mitigation measures that would allow us to benefit from the renewable energy, while minimizing effects on wild places, wild things in the marine environment in Nantucket Sound, I don't want to see a repeat of the Cape Wind things in the marine environment in Nantucket Sound, I don't want to see a repeat of the Cape Wind situation which died because of continued litigation and a lack of permitting
41-20	Data collection alone is not enough. Application of the data both to individual projects and the overall offshore wind leasing program is essential to inform the development of this new industry. BOEM should continue to compile data from all sources. Both pre- and post-construction data from projects must continuously be made publicly available. Ongoing coordination across federal and state agencies, scientists, project managers, and interested stakeholders must be provided as a core function of the BOEM offshore wind energy leasing program. Additionally, the active use of data to inform management and development is essential. It is imperative that the actions of offshore wind developers should reflect the empirical findings of the scientific studies in the area. That has been a problem in some European wind farm projects, where some important research results have been ignored resulting in harm to avian species. This should not be allowed to happen with offshore wind development on the US OCS.
41-24	The EIS should confirm in detail full consistency with the Massachusetts Ocean Management Plan for the final preferred routing within Massachusetts waters. The EIS should also include a statement of consistency with Massachusetts Coastal Zone Management (CZM) policies, which will need to be reviewed by the Office of CZM for certification or any necessary refinements.
43-2	The Alliance is pleased that its longstanding recommendations on the need for regional planning to identify the best locations for offshore wind with a minimum amount of conflict have been followed. This advanced planning approach has ensured that no projects will be located in Nantucket Sound and that, instead, offshore areas that avoid controversy and conflict with other user groups have been identified
43-3	the Alliance believes that full consideration should be given to the Vineyard Wind project under the National Environmental Protection Act, the Endangered Species Act, the Migratory Bird Treaty Act, the National Historic Preservation Treaty Act, the National Historic Preservation Act, the Marine Mammal Protection Act, and the Oil Pollution Act. Under these laws, BOEM must conduct a rigorously thorough review of the potential project impacts, including careful study of available reports and scientific literature and must involve other regulatory agencies and the public.
44-7	As a business that has relied on this area for decades we hope that BOEM will slow this process down to allow for the proper time frame of surveys and studies to be planned and carried out. We have taken the time to meet with several different wind companies to be as involved as possible, however, we truly feel that after all the time we've spent, and information shared that our issues and concerns are not being taken into consideration.
44-8	As a small mesh fishery, we can't simply move and fish elsewhere because of closed areas and mesh restrictions. This area south of the Massachusetts Islands has been the fleet's fishing ground for decades. These projects truly threaten our lively hood and the conflicts in developing this area have not been adequately addressed or resolved. In a perfect would, this process would be slowed down, appropriate surveys and studies would be conducted prior, during, and post construction and this process would only be approved for ONE major wind farm, so we can study the effects of this revolutionary technology in our waters. We are asking for this process to be done right.

Comment ID	Comment Text
57-2	The process to date has been fast and proceeded when many homeowners are absent due to the summer nature of the neighborhood ... The last meeting at Barnstable High school was a sham by not allowing all those opposed to the development to speak until all of the pro wind people had their say which by that time was 10:30 at night. The total process for this project has been lacking in transparency and appears that it has been designed to ram it through government channels without a care for the residents or the health of Lewis Bay!
59-2	As an overarching comment, the Council requests that BOEM provide additional time for stakeholders to develop comments on this issue, and that BOEM consider longer comment periods on future COPs. We would suggest a minimum 45-day comment period on this notice (through May 15), 60 days if possible.
59-3	The Vineyard Wind COP is a substantial document with many elements to review and react to. This first COP/EIS process for a commercial-scale offshore wind facility is important to get right, as it will set precedents for others. It is therefore essential for BOEM to be thorough in its NEPA process for this project, taking the time needed to gather feedback from stakeholders and ensuring that project effects are considered from all angles.
59-7	Commercial and recreational fisheries should be explicitly considered in both the affected environment and environmental consequences sections of the EIS.
66-14	The Town of Edgartown secured a FERC permit for its Muskeget Channel Tidal Energy Project ~2011. Impacts on the tidal project should be examined in the DEIS.
67-2	To articulate how offshore wind power can be developed responsibly in a manner that respects and protects recreational fishing off our shores, our organizations provided input on the formal Anglers Principles for Offshore Wind Power. These include: fishing access to the turbines, clearly communicated opportunities to participate in the permitting process, and a commitment to ongoing scientific monitoring of fisheries by developers.
67-4	We believe the Block Island Wind Farm was a success because anglers were a part of the process from start to finish. The project developer shared their plans with our community and solicited our feedback, and the relevant state and federal permitting agencies ensured our concerns were addressed as the project moved forward. We...strongly encourage BOEM to ensure meaningful engagement with the recreational fishing community on... Vineyard Wind.
67-6	We also request that Vineyard Wind and all future offshore wind developers be required to provide a specific timeline for surveying and construction of their project, including all formal comment opportunities, so that anglers can stay apprised of the proposal and participate in the process.
69-11	The cable corridor pathways should be provided in a GIS format as line files of the route and as polygon files which include the impact corridor and cable trench pathway.
69-8	All of the reports referenced in the EIS should be provided in a publicly accessible manner. Due to the length restrictions on the EIS, BOEM stated that many topics will be incorporated by reference. Anticipating the need to ensure that conclusions reached in the EIS are consistent with the references, it will be important to have access to those references in a timely manner.
83-14	To account for the impacts of the simultaneous development of multiple lease areas on North Atlantic right whales, as well as other species and habitats, we recommend that the agency also prepare a programmatic EIS encompassing all U.S. East Coast offshore wind development.
83-16	In determining the potential impact of noise from geophysical surveys, and construction and operations activities, BOEM needs to request new guidelines on thresholds for marine mammal behavioral disturbance from the National Marine Fisheries Service ("NMFS") that are sufficiently protective and consistent with the best available science...Acceptance of the current NMFS' acoustic threshold for Level B take will lead to BOEM significantly underestimating the impacts to marine mammals and potentially the permitting, recommendation, or prescription of ineffective mitigation measures (e.g., under-protective exclusion zones).

Comment ID	Comment Text
83-4	We are aware that the Department of the Interior ("DOI") and the U.S. Fish and Wildlife Service ("FWS") are now relying on a new interpretation of the Migratory Bird Treaty Act that limits the scope of the Act to the purposeful take of birds. Our organizations strongly oppose this interpretation as contrary to the plain language and intent of the law, and we urge BOEM to continue to implement its Migratory Bird Treaty Act responsibilities as all previous administrations have done in the past, with explicit recognition that incidental take is prohibited. This would also be consistent with the memorandum of understanding that BOEM signed with FWS in 2009 to protect migratory bird populations. 4 If DOI's new interpretation changes BOEM's analysis and associated requirements for impacts to migratory birds in any way, a detailed description and explanation of such changes must be included in the EIS.
87-24	BOEM must also allow and cultivate meaningful community and public input and ensure transparency in the planning process. Public hearings must include an opportunity for community members to hear each others' comments on the Project, as that is a core tenant of a public hearing and good public process. There must be multiple public hearings, close to the affected population, accessible from mass transit, and held at a time that is convenient for the public. To ensure a robust public process, communications measures must be taken to properly notify the public of the engagement opportunities and to provide for opt-in as well as procured potentially affected stakeholder participation in the process.
89-1	As the Vineyard Wind COP is the first to be filed for a project in U.S. federal waters, it is imperative that BOEM establish an appropriate and thorough standard for fulfilling its legal obligations under the Outer Continental Shelf Lands Act, namely that its actions are "carried out in a manner that provides for—"… "safety" … "protection of correlative rights in the outer Continental Shelf"… "prevention of interference with reasonable uses", and "consideration of…any other use of the sea or seabed, including use for a fishery, a sealane…".
89-2	As various fisheries and many individual businesses/vessels will be impacted by a potential Vineyard Wind project, as well as navigation be impeded, BOEM is under legal obligation to ensure that fishing and navigation rights/safety are protected before any approval of a COP.
89-7	BOEM must work with NMFS, the Fishery Management Councils, and the fishing industry to gather detailed fisheries activity and socioeconomic information that can be used for financial compensation for every vessel that will be operationally excluded, should the Project go forward. This information must be included in an EIS, and direct financial compensation to individual vessels for the life of the Project made a requirement of COP approval
89-8	Conversely, this information may result in determination that the COP be sent back to the drawing board for reconfiguration, COP disapproval, and/or lease disapproval, pursuant to 30 C.F.R. 585.437(b)(4)(i)-(iii).[1] This type of intensive fisheries study must be done prior to EIS finalization as part of BOEM due diligence. [1] Which states that BOEM may cancel a lease if three criteria are met: "(i)[The wind farm] [w]ould cause serious harm or damage to natural resources….or human environment…; (ii) That the threat of harm or damage would not disappear or decrease to an acceptable extent within a reasonable period of time; (iii) The advantages of cancellation outweigh the advantages of continuing the lease or grant in force."
90-6	CLF strongly encourages BOEM to include in the EIS a detailed analysis of how the Vineyard Wind project alternatives comport with and are consistent with the regulatory and non-regulatory components of these plans [science-based, stakeholder-informed ocean planning at the state and regional level].
90-7	The EIS should include a review of the relevant state ocean plans and their regulatory requirements to ensure that project alternatives are fully consistent with the state ocean plans and their associated regulatory requirements.
94-10	The proposed layout of the WTGs in the COP is a grid layout. The scattered turbines do not allow for navigation or access. The layout is based on optimization of energy production, not coordination with other existing ocean users. The RI commercial fishing industry asked to be consulted about the layout of the grid design, but was not consulted. In fact, it would seem that the fishing industry was ignored because the need for at least 1 nautical mile distance between WTGs was made clear. The proposed layout does not provide the minimum spacing required.

Comment ID	Comment Text
94-15	There has been little to no process for communication the project applicants. This should be remedied before the permitting review process continues on to the draft EIS stage.
94-2	The Commercial Fisheries Center cannot be the "tolerated" collateral damage to the construction of this project in BOEM's expedited effort, per President Donald Trump's August 15, 2017, Executive Order 13807, to construct offshore wind turbines.
94-22	Impacts that appear collectively minor could have significant impacts on individual fishermen or sectors of the fishing industry. The cumulative effect of those impacts could result in significant harm to the Commercial Fisheries Center. Despite the rather serious implications for Rhode Island fishermen that could result from the construction of this project there has been very little effort to obtain more research and reliable baseline data before allowing construction. There has been little to no effort by BOEM, and little effort by the developer, to discuss the draft COP with the impacted Rhode Island. This has been a source of a great deal of frustration and has elevated the concerns of the Commercial Fisheries Center.
97-7	Due to the high cultural and historic sensitivity of the Island, and its proximity to the development site and cable routes, we strongly urge that Nantucket's historical and cultural review boards and stakeholders, such as the Nantucket HDC and the Nantucket Historical Commission, be consulted and engaged in any historic or archaeological review process of the Project.
137-1	INCOMPLETE ACCESS TO THE COP REQUIRES EXTENDING THE COMMENT PERIOD...VW has directed us to the BOEM website which of course contains posted copies of three volumes of the COP. Unfortunately; the public version of the COP as it appears on line contains extensive redactions which appear to shield from the Town's view many sections that are vital to the town's scoping commentary...Even at this early but very important stage of the proceedings, the failure to provide access to this information is a clear violation of NEPA and BOEM's own regulations. The appropriate response is to order Vineyard Wind to provide un-redacted copies of all BOEM filings, past and future, to the Town. Meanwhile, the scoping comment period must be extended for at least 30 days after the Town has been supplied with such un-redacted filings.
137-20	The ROD should not issue until disclosure of all aspects of and solutions for the project have been presented in a comprehensive manner. The amount of missing information in Vineyard Winds filing suggest a high risk that NEP A mandates might not be complied with. It would be a mistake and reversible error to rush this project to permitting completion and violate NEPA in the process.
141-7	There has been minimal information in the press or on the local radio station [on the project and hearings].
141-8	In our conversations with Lewis Bay neighbors and associations there has been a common theme expressed and many indicated they were simply going to send you short bullet point messages about their opposition. They believe that they are being ignored as they attempt to defend their beloved bay against a multi-million dollar financed corporation who seeks to profit from this with no regard to the residents and true stakeholders of Lewis Bay commenting without similar financial resources!
145-2	As described in the ENF, Vineyard Wind has listened carefully to the concerns of local residents, elected and appointed officials, local tribes, fishing and marine interests, environmental advocacy groups, and other interested parties. Vineyard Wind has pledged to continue an extensive outreach effort as the project moves forward.
146-1	BOEM should work with the U.S. Coast Guard to develop a written policy or statement clearly detailing the agencies' positions on this issue and clarifying how this policy will be manifested through the review process.

Comment ID	Comment Text
146-13	e Commonwealth is calling for the establishment of the Southern New England fisheries Science Panel on Offshore Wind, and we have been engaged in discussions on the concept of the panel with the Massachusetts FWG, the Rhode Island Fisheries Advisory Board (RI-FAB), BOEM, NMFS, Rhode Island and others. In order to advance the establishment of the Fisheries Science Panel, the Commonwealth is committing $400,000 in funding for the creation of the panel with the goal of commencing pre-construction studies and other survey work this Fall 2018. We would ask that BOEM provide a similar investment to support this vital effort and establish a mechanism whereby developers seeking to construct offshore wind projects in the region would be required to provide sustainable funding for panel.
HY-03-1	Barnstable has two overriding concerns on this project. One is that with the authority of the federal regulatory authorities governing the control of the cable, we're vitally concerned that we have an ironclad guarantee that nothing can be ordered that would allow another Cape Wind redux, if you will, to come in, occupy Nantucket Sound, and connect to the cable in question
HY-03-9	The standard of review, both federally and at the state level, is that it isn't the question of whether or not there is a chance that a -- a small chance that a project might go awry and, in this case, that might be a release of these fluids. It isn't the small chance that one needs to focus at as one scopes a project. The question is, in scoping, if that one chance materializes, that small chance materializes, your obligation, both at the state level and also the federal level, is to plan for that worst-case contingency.
HY-04-2	when you're taking input from the public, how is -- how are the opinions of laypeople weighted?
HY-04-3	We all want healthy oceans. My question is, when you're taking input from the public, how is -- how are the opinions of laypeople weighted -- I'm not going to say against -- but along with the fishermen -- the fishing community? There are so many people who live on the 1 Cape who are impacted by, you know, warming oceans, rising seas, more ferocious storms, and we see wind energy as, you know, what we need and fast, and we really don't want to see this project or any part of it to be laid unnecessarily because of objections that may -- some voices may be heard louder than others, than laypeople. So that's my question.
HY-06-2	you showed that you were funding some research work by colleges or universities for your studies. I know how difficult it is for scientists to acquire funds. How are we going to be assured that those studies are actually independent? And one way would be simply to say that those studies have to be peer-reviewed and published before you can use them.
HY-08-2	most of the harm to Lewis Bay is man-made, and here we have another situation where the hand of man may do something that no one understands. And so what I'm suggesting is caution and perhaps more study rather than less be done
HY-09-1	The leases, can they be broken? Can they be sold? Can they be sublet? How are those treated in terms of -- in other words could Vineyard Wind sell their lease to Cape Wind? Could they sublet it to Cape Wind? How is that handled in the contractual documents?
HY-09-3	Under what circumstances could they be broken -- could a lease be broken? 1 If that were to happen, does the public get an opportunity to comment at that point, or is that strictly -- And what about the benefits? How is that -- how is -- and that goes for all of them, all of the components. How is that enforced? Financial penalties?
HY-12-1	please tell me that things like town governments are able to get meetings with BOEM and directly with the wind producers so that intelligent people, like the lawyer from my town, can have an actual conversation and not ask 40 questions without getting, you know, 40 answers, and that -- that those things are available, that we don't have to do that all in public hearings; right?
HY-15-1	What happens if you don't meet the March 30th date next year?
KI-12-1	...I have requested an extension for the formal comment period for providing comments on the construction and operation plan from BOEM.
KI-12-2	given the complexity of the project and the size of the project and the number of concerns that you've had, I would like to just renew and reiterate that request for an extension to the formal comment period beyond the April 30th deadline, and I think we requested until May 18th, so that we could coordinate with the numerous interests from the fishery -- Rhode Island fishery industry and make sure that we get a thoughtful set of comments that allow you to fully address possible alternatives.

Comment ID	Comment Text
KI-16-2	And I guess one of the things that I've learned during the last three meetings that has been kind of fascinating to me and to some of us is about the federal and state review process. ... And I guess what's been frustrating me a great deal that I've heard in these meeting is that you're -- we're sort of -- by being here and talking about this, we're being asked to provide the data, and yet we're fighting a multimillion dollar corporation with fiscal partners overseas with investments that, you know -- I mean each meeting I've gone to -- because I've been to meetings since November -- there's a new employee introduced by BOEM...We've seen some of the consequences already of what's going on, and you're being asked to sort of speculate on unknown consequences that are still to be identified or aren't known until a project, the first of its type in this country, goes into place and you kind of know the learning curve that goes on the first time through. I feel that -- I entered into this believing we were going into some kind of a level playing field, that we were going to hearings and we were being asked to be listened to and, you know, asked for our opinions...And I am extremely concerned about some of this whole process, and how I feel this is anything but a level playing field for people who are living 24-7, have a very, very good understanding of the impact on their lives, whether it's on the bay in my life or on the water for you with your fishing, and then suddenly, you know, we're being asked to look past all that.
KI-18-1	this isn't going away, that mitigation and working within this process is the best hope we have, realizing that BOEM has already leased these grounds out to foreign interests and this is coming our way irregardless. So how can we make this process work the best for us?
KI-20-1	But I do think that our fishing industry is hit really hard by a lot of different regulations and different changes, and what I would like to see -- and my question to you is, what kind of institutions are there, what kind of committee is there to make sure that as this project goes forward, if it does, that their voices can be included, that they can have a say and some actual power and not just -- not just lip service.
KI-21-1	After -- going through several BOEM hearings over the last seven years, I've seen the size of the project transform from, you know, obviously a larger size down to what it is now. And I appreciate the input from stakeholders, local communities in the area, the fishing industry, advocates like myself coming out and speaking at these projects, as well as the industry on these. I appreciate the input that BOEM has taken in from all of the stakeholders. I appreciate the input that industry has taken in and adapted. And I do encourage everyone here to speak tonight, to submit comments. I have seen BOEM do the work of adapting into -- taking those comments, incorporating it. I've seen the industry incorporate those comments as well.
KI-25-1	And I spoke earlier with BOEM already...this process, if done incorrectly, is going to be devastating to the Rhode Island fishing community. And if done in a proper manner and allowed -- if the developers and the fishing industry worked together, I think there's a way that we could find something that lets us coexist.
NB-06-1	I'm the regional director for offshore wind for the Utilities Workers Union of America; and our union is responsible for installing, maintaining, and operating all the utilities on the Cape, New Bedford, Plymouth, Martha's Vineyard, Nantucket. I'm just wondering if anybody from Vineyard Wind has contacted anyone in our union to determine who is going to put those cables in and who is going to do the operations and maintenance on Martha's Vineyard, because I haven't heard anything.
NB-15-2	We've been working alongside developers in the Commonwealth for, as you heard earlier today, throughout the entire process for about eight to nine years now; and we have heard -- we've had our voices heard and we feel confident that our input has been reflected throughout the evolution of this process...
NB-20-1	And that's where the regulatory guidelines on a project that's never been built in the United States before of this magnitude, that's where those regulations will come from?
NB-22-1	How are you doing all this analysis after the operations plan has already been submitted?...Why are we doing the public comment period after it was already submitted? How much mitigation? How much can be done after it's already been submitted?
NB-29-3	I mean, this one project isn't going to ruin any full industry. There might be a couple of lobstermen with small operations in the area, but it's everything being built out all at once; and everything has a 20-year life span. So I'd like to see everything slow down a little bit more.

Comment ID	Comment Text
NT-04-1	Marine Mammal Alliance, Nantucket. We're talking streamlining of EIS and things like that from five years down to one or two years. Is that going to be ongoing if this administration changes, or will we go back to five years? And is one or two years enough to take into account the fact that we do have a radically changing marine mammal situation just south of the island?
VH-04-1	that there's been real outreach to the fishing community in addressing concerns such as micrositing, transit lanes, things like that, so we appreciate the open air.
VH-16-1	It's our community. This is a community initiative. Vineyard Power is a community initiative. The people worked together and decided together what would be best for us, and there are a lot of us on board with this because of it.

OTHER RESOURCES AND USES

Comment ID	Comment Text
30-6	Proposed subsurface cable lines are subject to ongoing erosion of the ocean floor sediment resulting in the lack of an adequate buffer to prevent impacts resulting from EMF exposure. Adequate buffer must be maintained to prevent detrimental impacts to the entire ecosystem. EMF could deter or attract crustaceans, forage fish, groundfish, finfish, highly migratory species (tuna, marlin, sharks) and marine mammals.
40-26	We also recommend that the cumulative impact analysis examine the landside effects of noise to residential and commercial buildings near the port facilities. Existing port facilities may already experience higher than normal noise levels, and additional noise may increase cumulative impacts.
43-6	In concert with the U.S. Coast Guard, Federal Aviation Administration, and U.S. Department of Defense, the review must assess navigation safety, aviation safety, radar interference, national security, and search and rescue operations.
53-15	Potential impacts to marine resources associated with construction and operation of the project, such as elevated noise levels, increased vessel traffic, electromagnetic fields (EMF), and localized changes in currents should be evaluated.
69-46	The EIS should address how rescue operations for helicopters and vessels including tug boats will be affected by the wind turbine generator array.
82-11	an independent study [is recommended] documenting the potential effects of all materials of any form, or soluble materials, used in the installation and/or operation of the transmission lines or connections in Yarmouth or Barnstable. Alternatives, remediation and containment for the prevention of contamination of the environment and ground water should be emphasized.
82-8	independent study [is needed] identifying all measures to be taken to avoid cable impacts minimizing the chance of cable breaks and provide the analysis of the study outlining the safety measures and options. This may include burying the cable deeper, providing a protective Kevlar or similar sleeve around the cable in Lewis Bay. Installation of storm anchor and helical anchor in the near shore area and the area off old Egg Island and Smiths Point for temporary or storm anchorage as well as south and west of Fiddle Head Rock barge anchorage with spuds.
92-21	The effects of the harmonic vibration and electromagnetic frequency (EMF) caused by the installation of the cables and the wind turbines are should be studied. Impacts of the Acoustic Sound Ring when Pile Driving 34’ mono piling 100’ into the ocean bed.
137-16	Additionally, because the environment for the project is so unforgiving, BOEM should direct that OSHA be consulted to review all Emergency Response Plans equipment, and training. OSHA's or OSHA-certified consultants should meet frequently with local responders and no ROD should issue unless locals have signed off on all such plans.
137-8	The FAA will need to thoroughly investigate these issues [related to interference with radar tracking] but BOEM should not move this project forward without first receiving an FAA decision that comprehensively assesses and resolves these critical public safety concerns.
139-2	Also, I am very concerned about the possible effects that EMFs will have on the marine ecosystem. Maximum insulating sheething of all cables should be considered and used.
144-3	Will errant trace electricity or noise vibration from lines affect native species life in the area negatively?

Comment ID	Comment Text
HY-03-10	there had been identified problems with the radar picking up or failing to pick up because of interference from the turbines nearby(...) you really need to get that process moving as quickly as possible and get a clear demonstration that the problems that have been identified can be resolved satisfactorily. It's unsatisfactory with the fog out here that develops in an hour's time during the summer to have the number of flights -- and, again, a prior case has lots of evidence on that subject -- but that we have planes relying on -- and often small noncommercial planes without full equipment, and it's a real concern for safety.
HY-06-1	I think it's very shortsighted to use historical data for hurricanes with the way things have been changing worldwide with regard to weather. I think you better set your standards higher.
KI-01-2	And then the neodymium dysprosium in each of the magnets in the turbines, what's the amount in such a large turbine, 8 megawatt, 10 megawatt? Because you do know that they're highly toxic, that they're rare Earth minerals. I'll tell you. It's almost approximately 3,000 pounds, and they're pound for pound more toxic than nuclear waste. What do you do when the magnets are done? How are you going to dispose of them? ...the hydraulic fluid that's used in them is a concern for us as well
KI-01-4	I've done a lot of studies on the EMF fields regarding sharks and rays and lobsters, and whales, dolphins, turtles, so on and so forth. So I just wanted to mention that as well, that these are much, much stronger than the Block Island turbines…
NB-16-1	The Hurricane in 1938. Then we got seven hurricanes between the '50s and the '60s on the East Coast. Seven out of 10 years of hurricanes. I don't believe for one second, and I don't believe anyone with rational thought would think that these projects can endure hurricanes like this. We haven't gotten them. We've been very lucky. But we could get one. It could be 10 years, it could be 15 years, or it could be next year; but I don't see how these cables will sustain the volume with these mats that you put on the bottom. The cables are going to be all over the place, and in a hurricane like 1938 where Rhode Island was 20 feet under water? I'm sorry. You've 70-foot seas out there? It's over. This project will be done.
VH-01-1	I used to work for Dominion Resources Services, now Dominion Energy. Very concerned on terrorist attacks on the power stations...The last EIS oversight was four documents about 3 inches thick stacking up to your knees. Yes. Having looked at I'm looking at I'm looking at a bowling alley. I'm getting a visual of a bowling alley, a plane just flying into it. Are you looking at that? Is that going to be in the EIS?
VH-05-1	the installation sound issue, is there also possibly a resonance that is created when all of these turbines from all of these different lease areas go online all, you know, spinning in a particular speed creating a particular resonance frequency?

PROJECT DESCRIPTION

Comment ID	Comment Text
16-7	The construction and operation of the project will have some environmental impacts, but they can be minimized in accordance with Vineyard Wind's submitted plan and will be small by comparison to the project's environmental and economic benefits.
16-9	Vineyard Wind has committed to conduct pre- and post-construction assessments of fisheries and related impacts, in collaboration with the University of Massachusetts School for Marine Science and Technology. It has conducted extensive surveys and other studies and has carefully selected submarine and onshore cable routes.
17-3	Vineyard Wind has committed to a $2 million Wind Workforce initiative that will recruit, mentor, and train local residents for high-skills careers. The program will be undertaken in partnership with vocational schools, community colleges and other local organizations.
19-2	The Project is backed by reliable, experienced companies in the wind energy industry; they have a proven track record of delivery and will deliver again here.
19-3	There is a Letter of Intent to use the New Bedford Terminal for construction of the Project. A new, multi-million dollar Operations and Maintenance facility is proposed for Vineyard Haven.

Comment ID	Comment Text
19-4	Engagement with the communities has been extensive and will continue going forward, including $2 million to help train local residents for the high-skilled jobs that the Project will create and a $1 million per year for 15 years Resiliency and Affordability Fund to provide benefits to low-income residents and communities hosting the Project.
20-3	Regarding the burying of the cable at sea and in the bay, we were first assured the cable would be buried at least 6 feet under the stable seabed. At the latest hearing on April 18, one expert said it would be buried, while another announced that it might have to be placed on top of the seabed, with a concrete blanket placed on top.
21-2	The Project is backed by reliable, experienced companies in the wind energy industry; they have a proven track record of delivery and will deliver again here.
21-3	There is a Letter of Intent to use the New Bedford Terminal for construction of the Project. A new, multi-million dollar Operations and Maintenance facility is proposed for Vineyard Haven.
21-4	Engagement with the communities has been extensive and will continue going forward, including $2 million to help train local residents for the high-skilled jobs that the Project will create and a $1 million per year for 15 years Resiliency and Affordability Fund to provide benefits to low-income residents and communities hosting the Project.
25-1	After extensive studies, both federal and state, since 2011, this site was found to be the best in minimizing negative effects and environmental impacts.
25-2	It will connect to the electric grid in Yarmouth through a submarine Connector Cable that travels from Nantucket Sound into Lewis Bay; the same path sited for Cape Wind as the preferable route with respect to environmental impacts.
25-3	Vineyard Wind is committed to ensuring protections for marine life and minimizing any impacts to the fishing industry.
30-10	What is a safe distance between wind turbines platforms in order to safely navigate these areas? There are reports of radar units impacted by the wind turbine arrays. According to the Cape Wind Energy Project, Final EIS dated 2009, Appendix H "the wind farm does have an impact on navigation. " As a result how will this be adequately addressed without completely shutting down our ability to fish or safely transit and navigate such areas?
30-5	…[our ongoing concerns are associated with]...potential for the proposed wind turbine areas to be shut down prohibiting access in the future.
40-21	We recommend that the EIS discuss whether adequate onshore infrastructure and space exist at the ports under consideration to support the proposed project. The analysis should explain what work will be necessary and the likely impacts from upgrades/modifications to the ports to support construction and operation phases of the Vineyard Wind project. The discussion should also include whether the project will require chemical storage in the port areas and whether the construction period operations will generate displacement of existing maritime businesses and operations (through a loss of dock space, etc.).
40-22	We recommend that the EIS contain a comprehensive discussion of construction period impacts and alternatives spanning the several years it will take to construct the project. We encourage BOEM to develop specific information to describe what work will occur at the proposed ports that will supply and support the offshore project construction.
40-30	Vineyard Wind proposes to install a transmission cable through Muskeget Channel en route to Cape Cod. Musgeket Channel has been identified in the past as a promising location for tidal power projects due to strong tidal currents. It would be helpful if the EIS can explain whether the presence of the Vineyard Wind transmission cable will likely prevent the use of the channel for future tidal energy projects or whether these projects could co-exist.
41-16	Construction and maintenance of offshore wind facilities will require the use of helicopters and ships both during and after construction of the wind turbines. It should be documented as to how this increased traffic will affect the behavior of birds in the region and whether or not that could pose an additional threat.
41-17	The EIS should include a detailed plan of anticipated helicopter and boat use during construction and maintenance, along with detailed record keeping. The effects of construction-related ships and construction methods on marine life, especially the North Atlantic Right Whale, also need to be carefully evaluated and minimized.

Comment ID	Comment Text
41-30	The potential land-based routes for routing between landfall and grid interconnections are located primarily within roadways, road edges, existing utility rights-of-way, or other previously disturbed corridors. Nonetheless, detailed plans and procedures need to be identified to minimize impacts to habitat, soils, and surface and ground water. Any impacts to Article 97 lands should be avoided if possible, and if it is determined to be unavoidable, then full compliance with the Article 97 policy and procedures should be demonstrated in the EIS.
53-11	The "Affected Environment" section should also include information on any necessary landside facilities and the staging locations of materials to be used in construction.
53-17	Measures to minimize impacts such as soft start procedures, construction timing, anchoring plans, or micrositing should be discussed in detail...While the project should be planned to avoid and minimize adverse effects to the marine environment to the greatest extent practicable, compensatory mitigation should be proposed to offset permanent and temporary impacts. Social and economic losses as well as ecological losses should be considered, particularly any loss of fisheries revenue resulting from the construction and operation of the project. Measures to compensate for potential economic losses should be discussed in the EIS.
53-36	Modeling changes in localized flow and currents from project operation should be conducted to assess impacts to larval distribution and settlement in the region. Juvenile settlement and habitat use on the OCS remains a data gap that should be addressed, particularly for evaluation of cumulative impacts of the offshore wind projects. As part of your evaluation, it is also important to discuss any potential effects from the project on food sources of species with designated EFH in the project area. Decommissioning procedures and the potential impacts to EFH should also be included in the EIS.
53-46	We encourage you to work closely with our agency in your evaluation of potential impacts to our survey methods [as a result of the proposed activities in the project area].
59-11	Funds must be set aside for decommissioning as well.
66-14	The Town of Edgartown secured a FERC permit for its Muskeget Channel Tidal Energy Project ~2011. Impacts on the tidal project should be examined in the DEIS.
66-15	Muskeget Channel is known to be a very dynamic environment, to say the least. The DEIS should explain how the cable is proposed to remain buried. Impacts of loose cable, and proposed response, should be identified in the DEIS.
67-6	We also request that Vineyard Wind and all future offshore wind developers be required to provide a specific timeline for surveying and construction of their project, including all formal comment opportunities, so that anglers can stay apprised of the proposal and participate in the process.
69-10	The EIS should identify other scour protection options available, including the variety of grain sizes available, and which minimizes seafloor impact and maximizes biological value.
69-13	The pre-lay grapnel run for the cable could result in the collection of fishing pots or other fishing gear. Under MA law at M.G.L. c. 130, s.31, the taking, use, destruction or interference with fishing gear without the owner’s consent is punishable by the specified fine and/or penalty. From December 16-April 14th there is no potting allowed for fish, conch, or sea bass.
69-14	The location of dredging and disposition of dredge material for the mechanical plow option needs to be identified.
69-23	The EIS should address how the extent of armoring will be minimized and how any extent of armoring will be mitigated.
69-24	The EIS should consider how the Vineyard Wind environment is similar to European wind farms, and identify how impacts measured there could affect the environment here.
69-25	Similarly, if there are information sources from the power cables to Martha’s Vineyard and Nantucket describing the environment and potential impacts, including interactions with fishing gear, that information should be included.
69-26	A description of how the seafloor data being collected by Vineyard Wind is being used to site wind turbine generators to minimize impact to the seafloor is needed.
69-9	The EIS should assess the difference between the different foundation types (monopiles, 3-, and 4-pile jackets) and determine if any reduces environmental impact.

Comment ID	Comment Text
77-6	Decommissioning measures must be in place that require the complete removal of Wind Turbine Generators (WTG) steel transition pieces and foundation components rather than allowing these parts to be cut below the seabed. The removal of all structures will prevent the site from having navigational/gear issues for the years post the completion of the project
77-7	What navigational restrictions will be imposed in the WDA during the operational phase? Will the lease area be considered a power plant and fall under the Homeland Security Act and become off limits?
80-6	Section 2.1 [of the COP] also indicates that construction of WTGs will be constructed in stages (e.g. 200 MW, 400MW & 800 MW), with up to 5 years in between stages. Ensuring project construction occurs in at least two separate stages with a 5 year increment prior to construction of any subsequent stage(s), would provide an invaluable opportunity to gather the necessary data information on the post-construction impacts of WTG operations (e.g., through the use of thermal cameras, monitoring, assessment of dead birds, etc.). It would also allow for a more complete assessment of potential, cumulative population-level impacts to state- and federally-listed migratory birds and, if necessary, provide the basis for incorporating refined and/or additional minimization and mitigation measures.
82-8	independent study [is needed] identifying all measures to be taken to avoid cable impacts minimizing the chance of cable breaks and provide the analysis of the study outlining the safety measures and options. This may include burying the cable deeper, providing a protective Kevlar or similar sleeve around the cable in Lewis Bay. Installation of storm anchor and helical anchor in the near shore area and the area off old Egg Island and Smiths Point for temporary or storm anchorage as well as south and west of Fiddle Head Rock barge anchorage with spuds.
83-18	...to ensure BOEM can perform a sufficient NEPA review of a project, the COP must provide enough specifics of the critical species impacts and each possible configuration covered by its envelope to fully evaluate the proposal. For example, it would be insufficient to simply identify the total number of turbines that might be built because the timing of pile-driving is also critical to evaluating noise-related impacts to marine mammals. Additionally, to encompass the full range of reasonably foreseeable impacts, a careful assessment of a "design envelope" alternative must amalgamate the most disruptive components of each option included in the envelope. Thus, if Option A involves 20 turbines and Option B involves 30, the analysis of pile-driving noise should be based on the installation of 30 turbines; on the other hand, if Option B proposes the use of suction caisson foundations, the analysis of noise impacts should be based on the 20 pile-driven foundations from Option A. Finally, the "design envelope" alternative cannot be conceived so broadly, or assessed without regard to the independence of its several options, that it vitiates BOEM's duty to effectively "inform decision-makers and the public of the reasonable alternatives which would avoid or minimize impacts," as NEPA requires.
87-18	Vineyard Wind must release a detailed construction schedule so that BOEM and the public can assess the effects to marine species.
87-23	BOEM must implement changes in management practices concerning offshore wind power generation outlined in the approved ocean plan [Northeast Regional Ocean Plan]. In its analysis of impacts from the Project, BOEM must use the data provided in the Northeast Ocean Data Portal, which is a product of the regional planning process.
87-3	BOEM should assess alternative offshore wind power generating technologies. The offshore wind generating industry is evolving rapidly and new technologies have the ability to reduce impacts from offshore wind generating projects. For example, "suction" and "gravity" turbine foundations do not require loud pile driving, one of the largest impacts to the marine environment from offshore wind power installations.
88-1	What will be the impact of the silt and sediment throughout the water column when the turbines are constructed by pile driving and the miles of electric cable jettisoned into the seabed? Will the oceans warm due to more sediment in the water? Will the ocean currents distribute the silt/sediment in other locations, changing the ecosystem?
88-6	There will be an enormous electrical grid surrounding Martha's Vineyard. With all the electrical cables connecting hundreds of turbines together, it will resemble an electric blanket on the seabed. How will this effect species that live on the ocean floor?

Comment ID	Comment Text
88-7	There will be cables surrounding the west and east coasts of the Vineyard as they head to the mainland. Will this effect the natural migrations of birds and aquatic life? Nature has build in homing systems that could be deviated with electrical interference.
89-18	Issues were also raised with the fact that the power cable coming from the project to the mainland is sited to be laid directly through some of the most productive summer loligo squid fishery tows for commercial vessels. Should the route require concrete mattresses to be laid over the cable, these trawl tows would be rendered useless as nets would easily tear up on the cable mats... BOEM should require a different, non- conflicting cable route as part of any COP approval. Vineyard Wind representatives assured the industry that they did not anticipate the need for any concrete mattresses. Should a similar situation occur with the proposed Vineyard Wind cable, significant squid fishery revenue is at stake, in addition to the cost of trawl net replacement, repair, and vessel down time as a result of losing gear on potential cable mats.
89-22	As part of and prior to COP approval, BOEM must require a detailed decommissioning plan and cost analysis at this stage of the Project- not theoretically in the future- including, but not limited to, removal of all monopiles, jackets, cable mats, wires, cofferdams, substations and all scour protection and rip rap.
89-23	To not require removal of all Project components amounts to a permanent exclusion from trawl gear from the area even after the life of the Project, which is not acceptable to the commercial fishing industry. Section 4.4.4 of Volume I of the COP states: "Subject to consultation with the fishing community, appropriate marine fisheries agencies and BOEM approval of the decommissioning plan, Vineyard Wind would likely propose that the scour protection be left in place. As described in Section 3.1.3, each of the WTGs and ESPs would have stone and/or rock scour protection." The commercial fishing industry...demands that every single stone and all scour protection be removed at the life of the project; Vineyard Wind's stated intent to pollute the ocean permanently and permanently create untrawlable bottom is unacceptable. Any and all costs of full decommissioning must be estimated at this stage of the project, adjusted for future inflation, and bonded as a requirement of any COP by both the developer and power purchaser, to account for the event that one of the parties becomes insolvent during the life of the project and the structures left to rot as has been the case in other wind projects across the country in the past.
89-24	Should either the power purchaser or developer be acquired by another company over the life of the project, all decommissioning costs must assumed by the acquiring entity. This must be a requirement of COP approval, or an amount must be bonded to compensate the commercial fishing industry indefinitely for permanent loss of access to historic fishing grounds.
89-25	Finally, additional site clearance surveys must be required to ensure compliance with decommissioning, and the cost estimate amounts bonded as a requirement of the COP.
89-3	Therefore, the fishing industry was not consulted in turbine placement or design, nor for input on appropriate transit lanes. Vineyard Wind was made aware at multiple meetings that certain fishing gear types, trawling in particular, will not be operationally feasible in a wind farm.
92-15	We would like BOEM to ensure that in the future there is an option to have the ocean floor returned to its original state; otherwise it could be a permanent exclusion of all bottom-tending mobile fishing gear from the area.
92-16	We would like BOEM to calculate the cost of full decommissioning (including the removal of all cables, foundations, scour protection, turbines, substations and expected inflation). That dollar amount will be representative of future decommissioning costs and it should be the required amount on the decommissioning assurance bond. · · We would like to know how deep the foundation will be cut in accordance with the BOEM's removal standards (30 C.F.R. 250.913). We would like BOEM to require additional surveys to ensure compliance with decommissioning.
92-22	It is difficult to make comments on a plan that is subject to alteration and change. While we appreciate the fact that a "design envelope" may lead to more flexibility during the design phase, the lack of clarity makes it difficult to measure the impact of a full build-out scenario.
92-4	BOEM needs to extrapolate the potential impact on fisheries of a full build out scenario at this site and at all of the other sites on the outer continental shelf. To date there has been little communication or coordination between offshore wind developers regarding cable routes or transit lanes.

Comment ID	Comment Text
94-10	The proposed layout of the WTGs in the COP is a grid layout. The scattered turbines do not allow for navigation or access. The layout is based on optimization of energy production, not coordination with other existing ocean users. The RI commercial fishing industry asked to be consulted about the layout of the grid design, but was not consulted. In fact, it would seem that the fishing industry was ignored because the need for at least 1 nautical mile distance between WTGs was made clear. The proposed layout does not provide the minimum spacing required.
94-11	Given the fact that some cabling will likely not be buried at sufficient depth, it will have to be protected with concrete or rocks or mattresses. Mobile gear fishermen are concerned about their safety and the loss of gear and equipment in the Project Area.
94-12	The plan to construct during the summer months when the Project Area has the most vessel traffic and the most tourism will result in displacement that negatively impacts fisheries and the fishing industry
94-6	The placement of 106 WTGS with their spacing at less than 1 nautical mile in some cases, would force a trawler to zig zag through the area without being able to locate or avoid fixed gear and quite possibly without being able to avoid the scour protection around the base of each WTG. The likelihood of entanglement or collision would be enough to force squid fishermen to abandon the area. This loss of safe access to a prime fishing ground would result in displacement, forcing vessels to alternative grounds that already have excessive pressure from the trawling fleet harvesting other species such as; (whiting, hake, scup, summer flounder, monkfish, etc.) causing an economic decline, possibly approaching 25%.
94-8	The problem with the “envelope” concept from the Commercial Fisheries Center’s perspective is that the project has been proposed at full build out, without any proposed alternatives to size, location of WTGS, or construction and design. This approach forces the Commercial Fisheries Center to comment on a worst case scenario without any sense of the possible alternatives that might be considered by BOEM and without an opportunity to evaluate the specifics of a more reasonable project design outside of formally commenting on the Environmental Impact Statement.
94-9	The placement of the maximum number of WTGs in the Project Area (up to 106) is a non-starter for the Commercial Fisheries Center for many reasons, including, but not limited to, safe navigation, access to high value fisheries, displacement of both fisheries and fishermen, the effect of displacement on stock assessments, loss of gear and damage to gear, fish kills, damage to critical benthic habitat during construction and mechanical trenching, long-term and unstudied effects of electromagnetic fields (EMF) on species of importance to the fishing community, long-term and unstudied effects of disruption of the benthic habitat on fisheries of significance, long-term and unstudied effects of noise created by pile driving on fish stocks.
96-2	VW stated that they intend to bury the high voltage cables from five to eight feet deep. This raises great concerns to me as the bottom depths can shift by more than these amounts giving rise to the probability that sailboat keels can scrape or hang-up on these cables if they become exposed... How does this not present significant public safety issues for swimmers, fisherman, boaters enjoying this very ecologically sensitive embayment system that is so important to our towns?
96-3	Once the cables make landfall, they will follow a very disruptive path to residents. They will tear up Berry Avenue and Higgins Crowell Road, blocking access to our only police station, a middle school and an elementary school.
112-1	I strongly oppose the plan to place cables in Lewis Bay. I understand there are other options available at Covell's beach or Brayton Point.
114-1	The Bay is already compromised and there are options available.
122-1	A specific environmental study is needed in regards to Lewis Bay. Lewis Bay is far too fragile to go forward without a detailed impact study. Without such a study and impact assessments it would be irresponsible to go forwards. Choose an alternative route.
123-1	Considering jet plow has difficulty on slopes of 75 degrees or hard structures, how will the method change considering the massive sandwaves/ shoals and cobble habitat in Muskegot Channel.
123-2	How will lay cable in the ~1 mile 100ft scour hole where drops of from 30-50 ft on either side

Comment ID	Comment Text
126-1	When considering construction impact mitigation: I heard about nets with foam objects on them as a substitute for bubble curtains - could be a good energy saving
135-1	In depth studies support the location of Vineyard Wind and its necessary accessory facilities. The boundaries were set to provide generous separation from areas crucial for shipping, fishing, avian, ocean mammals, and marine life to the best information available.
137-10	It is critical to a competent review that a full review of the towers and ESP's assure BOEM that these structures can withstand the assault of Category and higher hurricanes and of increasingly ferocious winter storms. This is especially important because, as discussed below, these structures will house 123,000 gallons or more of dielectric cooling fluids. Because of this massive volume and the inherent threat to the marine environment, whales, and sea life, robust containment that will withstand the sheering collapse of a tower or ESP is simply paramount.
137-11	Beyond the treat of storms, BOEM must fully understand the design of the ESP's to know how they would react to a vessel collision if one leg was compromised. For now, it is unclear whether these facilities will be attached to the seabed or be floating and anchored.
137-15	Vineyard Wind emergency plans should be thoroughly reviewed by experts made up largely of local responders. Every type of emergency should be studied and responses planned out. If Vineyard Wind is to fund and staff the full response capacity, it should so state and the ROD should so reflect. If locals are to be relied upon, Vineyard Wind should so state and the scoping should require a detailed plan that identifies the training and equipment necessary for locals to respond to every type of emergency. Costs for that training and equipment simply must be part of Vineyard Wind's budget and must be paid to the local municipalities long before the project becomes operational, and annually thereafter.
137-16	Additionally, because the environment for the project is so unforgiving, BOEM should direct that OSHA be consulted to review all Emergency Response Plans equipment, and training. OSHA's or OSHA-certified consultants should meet frequently with local responders and no ROD should issue unless locals have signed off on all such plans.
137-18	The Army Corps has mandated new and retrofitted bumper systems designed to absorb and deflect the impact of errant vessels. Similar structures should be considered for this project and, at the very least, for the ESP legs, given the risks discussed above if an ESP fails.
141-4	In addition, the potential use of concrete mattresses has already been discussed by the fishing industry at your hearings but represents a serious problem for sailboats with large keels in our bay. We have read that in Europe they have actually created "no go" zones around some of their cables to prevent further damage from anchors and fishing operations- this would be devastating in Lewis Bayl
146-10	While BOEM has consistently stated that the project will be required to submit and receive approval on a decommissioning plan and will have to establish a surety bond to ensure resources are available, we would request that the EIS include a full description and analysis of the requirements and options for the decommissioning of the offshore wind facilities.
146-11	We further recommend that BOEM develop a fact sheet on decommissioning to help with better communicating these requirements and other applicable provisions.
146-12	..the Commonwealth believes that as offshore wind advances, there should be an independent, third-party process to ensure that the appropriate research and monitoring activities are undertaken to track issues affecting the Southern New England region and beyond and monitor the interactions between the fisheries and offshore wind structures.
146-13	e Commonwealth is calling for the establishment of the Southern New England fisheries Science Panel on Offshore Wind, and we have been engaged in discussions on the concept of the panel with the Massachusetts FWG, the Rhode Island Fisheries Advisory Board (RI-FAB), BOEM, NMFS, Rhode Island and others. In order to advance the establishment of the Fisheries Science Panel, the Commonwealth is committing $400,000 in funding for the creation of the panel with the goal of commencing pre-construction studies and other survey work this Fall 2018. We would ask that BOEM provide a similar investment to support this vital effort and establish a mechanism whereby developers seeking to construct offshore wind projects in the region would be required to provide sustainable funding for panel.

Comment ID	Comment Text
146-3	Feedback we received from the FWG indicated that a one-mile wide transit corridor may not be sufficient. Additionally, there were questions as to the optimal orientation of one or more transit corridors. The U.S. Coast Guard will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. We will continue to work with and through the U.S. Coast Guard to engage stakeholders and the offshore wind leaseholders to identify preferred routes, assess transit corridor width, and determine best practices to avoid and minimize navigation conflicts. The EIS should assess alternatives and provide detailed information on navigational risks and measures to mitigate assessment.
146-4	Transmission solutions that require fewer cables are strongly preferred, and cables should be co-located within specific corridor routes. The EIS should contain an evaluation of the various export cable route and landfall alternatives and a thorough justification of the preferred configuration proposed.
146-5	For both the transmission and inter-array cabling, achieving and maintaining sufficient burial depth is critically important. In the EIS, the impacts of the cable installation should be described, and it should include a comprehensive cable inspection program during the life time of the project to ensure adequate burial, including remediation plans for cables that arc found to be at inadequate burial depth after inspection.
146-6	A system to verify valid gear loss or damage claims and to address reasonable compensation should be put in place. BOEM should include this issue in the ElS and explore similar alternatives based on experiences from the telecommunications industry and offshore oil and gas industries.
146-7	...it is also appropriate to begin a dialogue around mitigation for lost access/ displacement. This would include times of temporary closures of fishing areas due to the installation and construction of offshore wind projects, as well as longer-term claims of revenue losses that can be validated. Mitigation may not necessarily be solely in the form of direct compensation but could also include financial and other support for developing new commercial fisheries, enhancing access to areas, or supporting certain sectors and fisheries in other ways. The EIS should include an assessment of anticipated lost access and/or displacement and identify and evaluate potential mitigation measures.
146-9	In developing the EIS, BOEM should account for the recommendations of this workshop [Offshore Wind Marine Mammal Science Framework Workshop].
147-1	The EIS should include a complete description of the entire project, including all project elements (including the wind turbine array lay out, offshore electrical service platforms, offshore transmission to shore, onshore underground transmission, and the onshore substation) and construction phases.
147-10	Recent public comments have indicated that the cable route through Muskeget Channel may have impacts on commercial surf clam fishing activities. CZM understands that studies are underway to explore the possibility of relocating this section of cable to a more westerly location. This new location has the potential to impact North Atlantic right whale core habitat as mapped in the OMP. A detailed discussion of this route, the potential impacts, and avoidance measures, including time of year avoidance, should be discussed in the EIS.
147-11	Each proposed cable corridor may be up to 1.2 nm wide. CZM recommends that the width should be minimized to avoid conflicts with future projects. The EIS should provide justification for the width of these corridors.
147-15	Impact assessments presented in the EIS should take...this current, project-specific information into account and revised calculations should be presented.
147-2	It [the EIS] should include an existing conditions plan that clearly locates and delineates all resource areas based on site specific surveys conducted by the proponent, including but not limited to eelgrass, shellfish, hard/complex bottom, intertidal flats, and rare and endangered species.

Comment ID	Comment Text
147-22	The use of an anchor and kedge system or stationary spud anchored vessels have the potential to increase impacted areas due to the presence of the anchor cable sweep or spud "footprints". CZM strongly recommends the use of dynamically positioned vessels to avoid these impacts. The EIS should include a detailed anchoring plan for all vessels conducting and supporting the project. The anchoring plan should include the locations of all sensitive resources (including hard bottom and eelgrass) and how the proponent intends to avoid impacts due to anchor strike and anchor sweep. All vessel captains should be made aware of the anchoring plan and it should be required to be posted on all vessels associated with the project.
147-23	...the proponent must make every effort to avoid any eelgrass present in the proposed route.
147-24	The EIS should provide detailed assessment of both methods [horizontal directional drilling and open-trench installation] and provide an evaluation and rationale for the preferred landfall method.
147-28	EIS should include the following information relating to the offshore structures and facilities: - The differences between the three proposed foundation types should be assessed, particularly the environmental impacts of each type; - More information should be presented regarding the potential scour protection to be employed for each type of foundation and the potential for habitat conversion, with a focus on the protective characteristics and beneficial uses (marine and fish habitat) from different rock sizes; - Potential effects on wind velocities and wave heights impacting the south coasts of Martha's Vineyard, Nantucket and Cape Cod, particularly in light of the modeling presented in the recently released BOEM study entitled Use of Finite-Volume Modeling and the Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (BOEM 2016-050). - An analysis of the impacts caused by an array of turbines should be presented and discussed in the EIS, including effects on currents and water flow and the resulting potential changes to the distribution and abundance of fish and invertebrate eggs and larvae, with a focus on commercially and ecologically important species.
147-29	The U.S. Coast Guard is the lead authority on navigation safety and security and will be reviewing the Navigation Safety Risk Assessment and making recommendations for modifications as appropriate. The EIS should present an analysis of the selected corridor along with alternate layouts and provide detailed information on navigational risks and measures to mitigate assessment. Impacts to the vessels transiting this area and any restrictions that would be required of these vessels should also be presented.
147-30	The COP identifies the New Bedford Marine Commerce Terminal in New Bedford Massachusetts as the priority port to support the construction and operation of the proposed project. Several other areas in Massachusetts are identified as potential ports for where onshore infrastructure improvements and quay reinforcements are proposed. CZM recommends that the EIS present specific information regarding the work that would be required for these improvements and the impacts that would be caused by this work. The analysis should also describe how these impacts could be avoided or minimized. Impacts to existing marine operations should also be described.
147-7	In order to minimize impacts to resources and uses, transmission solutions that require fewer cables are strongly preferred. The EIS should contain a comprehensive evaluation of the various export cable alternatives and a thorough justification of the preferred configuration proposed.
147-8	Under the OMP, the siting standard for a cable infrastructure project requires the proponent to demonstrate that no less environmentally damaging alternative is practicable or that the project will cause no significant alteration of Special, Sensitive, or Unique (SSU) resources. Cable projects in the planning area must avoid certain SSU areas, including North Atlantic right whale core habitat, Humpback whale core habitat, areas of hard/complex seafloor, intertidal flats, and eelgrass. The performance standard in the OMP requires that the proponent demonstrate that the public benefits of the project outweigh the potential detriments posed by impacts to SSU resources and that all practicable steps have been taken to avoid damage to the SSU resources and that there will be no significant alteration of the SSU resource values or interests. ....Additional data collected by a project proponent may be required to confirm the presence or absence of an SSU resource and that certain projects may acquire the higher resolution data through site specific characterization.

Comment ID	Comment Text
HY-03-1	Barnstable has two overriding concerns on this project. One is that with the authority of the federal regulatory authorities governing the control of the cable, we're vitally concerned that we have an ironclad guarantee that nothing can be ordered that would allow another Cape Wind redux, if you will, to come in, occupy Nantucket Sound, and connect to the cable in question
HY-03-12	with the increasing veracity that we've seen up here on the Cape just in the last 12 months of storms and frequency of storms, that -- the very real possibility that Category 3, 4 or, God forbid, 5 storms, hurricanes might hit us, and we need to know definitively, again in terms of the cumulative effects -- not only for this project but cumulatively -- how much of this dielectric fluid is going to be sitting out on ESPs south of the Vineyard, and are all of those projects going to be built to stand -- to withstand this type of potential impact
HY-03-13	is the location and depth and lateral separation of the cable; if it is to enter Lewis Bay, how far away from the main ship channel coming in will it be located and at what depth? The reason that is important and why Army Corp is involved particularly is because it's a federal channel and handles an enormous -- virtually all the freight traffic to Nantucket as well as seasonal recreational traffic and the like
HY-03-14	but I think you need to take a look at what type of collision-avoidance systems and bumpering systems might be appropriate offshore to mitigate impacts with any of these projects
HY-03-16	and the COP indicated that there was going to be a very heavy reliance indeed on the locals for emergency response. We haven't seen details of what's proposed for response from the Vineyard, but having in mind that's at least 15 miles away and probably an hour and a half, two hours away, it has direct relevance to oil spill response and other hazardous materials response.
HY-03-4	the risk that I'm about to talk about does affect both the offshore platforms and the onshore facility where the cable will come ashore and hook up to the Eversource substation, and then ultimately to the regional grid. And the issue that we're concerned about is that these -- we learned from the prior project late in the game that the transformers that will be used and a lot of the ancillary equipment that is used 1 will obviously be generating heat.
HY-03-5	the way that the industry cools that off is with so-called dielectric fluids that regulate temperatures. Massachusetts has what we call the Massachusetts Contingency Plan, which is administered by the DE- -- state DEP. And when you generically go through that Mass. Contingency Plan, from what we learned in the Cape Wind case and the makeup or the chemical makeup of these dielectric fluids, the math is such that more than 1 gallon of -- or a gallon of -- I should say a gallon of dielectric fluid would pollute and make undrinkable 5 million gallons of groundwater.
HY-03-8	so I think it's incumbent that we all understand -- and particularly led by BOEM and your scientists -- understand fully and with real specificity what dielectric fluids are going to be used at the site, number one, and, two, what their chemical content is and 1 what their viscosity is(...)
HY-05-1	I am a coastal engineer(…) , it's my understanding that the subsurface cable that's going to be laid is going to be laid via jet plow. And my question is -- is Vineyard Sound has a lot of sand shoals and a lot of sand waves, and the jet plow's operational range is only about 5 percent grade. So in those areas, how are you guys going to address that?
HY-05-2	There's also a lot of cobble habitat out there that is fisheries' habitat, and it's my understanding from the geophysical 1 report that there was cobble habitat that was found in Muskeget Channel. So how is a jet plow going to lay the cable in those areas?
HY-06-1	I think it's very shortsighted to use historical data for hurricanes with the way things have been changing worldwide with regard to weather. I think you better set your standards higher.
HY-08-2	most of the harm to Lewis Bay is man-made, and here we have another situation where the hand of man may do something that no one understands. And so what I'm suggesting is caution and perhaps more study rather than less be done
HY-09-1	The leases, can they be broken? Can they be sold? Can they be sublet? How are those treated in terms of -- in other words could Vineyard Wind sell their lease to Cape Wind? Could they sublet it to Cape Wind? How is that handled in the contractual documents?

Comment ID	Comment Text
HY-09-3	Under what circumstances could they be broken -- could a lease be broken? 1 If that were to happen, does the public get an opportunity to comment at that point, or is that strictly -- And what about the benefits? How is that -- how is -- and that goes for all of them, all of the components. How is that enforced? Financial penalties?
HY-10-1	we do not see any earthly reason why you would place the cables through Lewis Bay(…)Lewis Bay in Hyannis, in particular, is a serious, serious recreational and economic driver of the towns of both Barnstable and Yarmouth. It is the ferry service that you used tonight to go out to get to a meeting on Nantucket, and it is a vital -- 1 it's fisheries. It's tourism. It's everything else. And as such, it does not belong there. These cables belong out in open ocean landing somewhere.
HY-12-2	There's been a -- there's been a question, a story line, that's come out about the electrical residue and does it cause an issue... I definitely want the impacts or potential impacts in the analysis that's going into the EIS to consider what's the existing technology, because I'm a fisherman... I've been in the industry, and I've never heard one complaint about any of the five cables that cross between the islands and Cape Cod right now. So I want to know if this is a different technology, and I hope that the EIS covers that.
KI-01-2	And then the neodymium dysprosium in each of the magnets in the turbines, what's the amount in such a large turbine, 8 megawatt, 10 megawatt? Because you do know that they're highly toxic, that they're rare Earth minerals. I'll tell you. It's almost approximately 3,000 pounds, and they're pound for pound more toxic than nuclear waste. What do you do when the magnets are done? How are you going to dispose of them? ...the hydraulic fluid that's used in them is a concern for us as well
KI-04-1	Now, one of the things that I wanted to point out and I guess I have a question about is the cable. So the -- the cable that we saw looked like it had at least two possible routes. And so when you look at this one project, it has two possible routes. When you look at the next project, it's gonna have its own cable routes. Now, the cable installation and the cable itself has some impact, the -- that process, but it's something that could be mitigated if BOEM, when they developed these lease areas, developed a highway for the electricity to be piped into land. So in other words, consider the cable impact as a whole, rather than each project looking at different cable routes...If this was looked at more as a whole, I think you could mitigate the impacts of all those cables.
KI-04-4	An analogy that I had was an industrial park. If you have an industrial park that you're going to develop and you have various leasing sites in that industrial park, you develop a road going into the industrial park. You don't say, All right. GE, you've got this part of the industrial park. Develop your own roads. Monsanto, you've got this part. You develop your own roads. You do it in an organized fashion. It would make sense here too
KI-05-1	is Vineyard Cape [sic] gonna have insurance, and is it gonna be in some secret envelope somewhere where nobody can see who it is so, if we have an issue, we can contact these people?
KI-05-2	you need to have, like, maybe a mediator to try to resolve these issues and don't let the responsible party try to deal with the fishermen
KI-07-2	And I'm more worried about what's the long-term effects of these cables?
KI-17-1	We're talking 40 to 50 miles and potentially 500 to 600 turbines. Think in mind, you're gonna drive on 95. We're gonna put a red light every quarter of a mile... So it's a renewable resource, and we need that. That's energy. Well, we produce a renewable resource. It's protein and it's fish. So you need electricity and you need food.
KI-18-4	We have two of the worlds' biggest hammers coming to drive 40-foot wide nails in the ocean. 160 of them here -- 106 over here. 165 of them in the project just to the north of me. Tell me that's not gonna make a big ...problem for every species within 40 to 50 miles of that area.
KI-18-5	The wind developers here have absolutely no science in my book to provide baselines in these areas to the way the potential impacts moving forward to the habitat or the ecosystems. There's minimal requirements to cover these. We need a smaller project with studies for baselines and long-term studies going on afterwards before we make a rush to put steel in the water to produce nuclear power plant-sized electrical generation.

Comment ID	Comment Text
KI-22-1	One of the things that -- we've -- I've fished the area around the Block Island wind farm before the farm was ever put there, while it was under construction, and since. And I would say that the biggest impact we saw was during construction, and that was probably because of the pile driving. Now, what would scare me is -- when you're talking about the pile driving at Block Island, I think you were talking about a 24 inch diameter pile that was driven down through the legs. I'm not sure exactly the size. But now you're talking about something that's more than 30 feet in diameter if you go to the monopile design. I think that's a big negative of the monopile design.
KI-22-2	I think that if you look at the way Block Island was constructed -- I think that was the second design alternative that the gentleman from Vineyard Wind mentioned -- that would certainly have impact during construction but less than driving this one monopile. In addition, one of the positive things that we see from the Block Island wind farm is the structure that is placed in the water. So now that structure has become filled with marine organisms. We have a whole community of fish which has developed in that structure. I think that's a secondary reason that the multiple leg design is positive, because it will give more habitat for development of young fish in those areas than a monopile would. So I think those are a couple reasons that I would lean toward the multiple legs rather than monopile.
KI-24-1	I've been hearing a lot that it seems like there's a lack of research going into some of these areas, and I was just wondering if you think there's a specific reason why there's a lack of research, if there's a specific resource that's not available for this research?
NB-01-3	Are you using mitigation to prevent silt, sand redistribution? What kind of dredging are you using to get that cable buried?
NB-02-1	How many cable protection mats are you using for the project?
NB-04-1	The cable axis he's talking about is a 20-by 6-foot cement block. We've already lost fishing gear on this...So the term mat is a 20-foot by 6-foot cement block.
NB-05-1	Since the cable engineering seems to be such a hot topic and Vineyard Wind now is only proposing building a section of their lease, will the cables be engineered to handle the capacity of a fully developed project and is there an option for engineering it for some of the other leaseholders that will be adjacent?
NB-06-1	I'm the regional director for offshore wind for the Utilities Workers Union of America; and our union is responsible for installing, maintaining, and operating all the utilities on the Cape, New Bedford, Plymouth, Martha's Vineyard, Nantucket. I'm just wondering if anybody from Vineyard Wind has contacted anyone in our union to determine who is going to put those cables in and who is going to do the operations and maintenance on Martha's Vineyard, because I haven't heard anything.
NB-11-5	when these things break down and they're not producing electricity anymore in 7 or 12 years, which I think is reasonable based on the models that happened in northern Europe; all right, when they wanted to do this in the Sound; They were touting that this is a super-duper-impervious-to-saltwater wind turbine, and they decommissioned them after 7 years; right? So my question is when you guys go bankrupt on this who is going to pay to pull all those paths and to cut off all those towers along the bottom and to remove that structure; you know?
NB-11-7	It's kind of the way you did your bird survey. By airplane; right? ...That's not a legally acceptable bird survey; ...As anybody who has been on the water knows, the birds that you're not seeing are the ones that are feeding on the bottom; you know?
NB-11-8	Every one of these turbines creates a harmonic footprint, a noise pattern that's individual to each tower. No two are ever going to be the same; right?...What can happen under the water is a couple of things start vibrating and they're making (Indiscernible.) And all of a sudden now they're now making the sounds you've been hearing; right? You've got a hundred turbines and it's no problem. You put 101 on, and the next thing you know it's really creating a problem...So I'm not talking about the level of noise that blinds them and prevents them from feeding. I'm talking about the kind of noise that happens with mid-range acoustics where whales end up beaching themselves and you find seals and porpoises on the beach.

Comment ID	Comment Text
NB-13-3	And we have real concerns and real opposition, total opposition to the idea that you're going to place a first-time wind farm, which it has a learning curve which has significant issues that need to be looked at because you're going to put it out there, put it in a position for 30 years and say oh, yeah, we'll mitigate that and take care of it. Lewis Bay doesn't have that option. It's 9 feet deep in most of it, and so we're looking at the real concern given that there are other open water landing locations. We are continuously and completely in opposition to the placement of these cables in Lewis Bay.
NB-16-1	The Hurricane in 1938. Then we got seven hurricanes between the '50s and the '60s on the East Coast. Seven out of 10 years of hurricanes. I don't believe for one second, and I don't believe anyone with rational thought would think that these projects can endure hurricanes like this. We haven't gotten them. We've been very lucky. But we could get one. It could be 10 years, it could be 15 years, or it could be next year; but I don't see how these cables will sustain the volume with these mats that you put on the bottom. The cables are going to be all over the place, and in a hurricane like 1938 where Rhode Island was 20 feet under water? I'm sorry. You've 70-foot seas out there? It's over. This project will be done.
NB-17-1	What size category [hurricane] can they withstand?
NB-17-2	How did you do your COP plan before it [ability to withstand hurricane] was analyzed?
NB-19-1	Do you have any regulatory guidelines or goals for economic impact with these projects, or is that specifically in the hands of gentlemen like this who are making a personal commitment however you can't guarantee that the other companies that are coming from Europe that are participating in this project are not bringing their own employees? What kind of goals do we have to protect our mariners, our fishermen, and our local maritime companies?
NB-25-1	So it's riprap that they use to protect some of the pilings. Can that be laid in between the voids?
NB-29-2	And while there can be some co-existence, our biggest fears right now is the rate of build-out and the rate of those projects that we have before we actually test these facilities on a large scale
NB-29-3	I mean, this one project isn't going to ruin any full industry. There might be a couple of lobstermen with small operations in the area, but it's everything being built out all at once; and everything has a 20-year life span. So I'd like to see everything slow down a little bit more.
NB-29-5	there's a great document put out by BOEM about mitigation techniques between fishing groups and offshore environments, but it is not legally required that any of the wind developers follow it. We have tried to sit down and talk to a lot of wind developers. I have engaged with Martha's Vineyard. I have engaged with Bay State and Deepwater Wind, and what they love to do is say how many times they've met with us; but they've done very little action to document our concerns.
NB-32-1	Would you mind tying the decommissioning to the purchaser of the electric power? That way we can be assured there will be enough money for the decommissioning in the future?
NB-34-1	at the end of its economic life, these turbines, the wind farms, what is the plan? Are you going to take it apart at the water level? Are you going to take it apart at the sea level? Or are you going to take it apart piece by piece? Or are you going to blow it up?
NB-35-1	How many years will it operate?
NB-36-1	The people making these decisions -- so in 25 years we're going to learn from this experiment. How many people can honestly say that are making these decisions from BOEM and Vineyard Power are going to be here in 25 years to address the repercussions? I really feel that the people making the decisions don't see the long-term because they honestly aren't going to be here.
NB-37-3	it's real scary for me that a simple category hurricane question, all these resources, all these smart people in this room don't know if it's going to survive a Category 4 hurricane?
NT-01-1	did you say that Vineyard Wind -- the 1600-megawatt tender from the state could power 11 percent of the state? What would the percentage be of the entire base load of the state of Massachusetts if the entire resource area were developed

Comment ID	Comment Text
NT-02-2	But the map that shows where the cable's gonna come up through Muskeget Channel -- and I realize there's some hard bottom there, and you'll be using mattresses through that area. When it goes over -- when are they gonna come ashore with Lewis Bay -- is that where they're gonna come -- one of the proposals? So on that map were the other two preexisting cables drawn out? So this cable, it's gonna come ashore there. Is that gonna come to the western of the ones that are already there? And more of a soft bottom, rather than a hard bottom?
NT-05-1	What are the bases of these towers? What's the circumstance or the diameter of them? So around the base -- the mono one is just a jack. Is that the one that goes straight in, just one? Did they say there was gonna be rock around the base of those to prevent scouring? 4-inch?
NT-06-1	being that that area is definitely the number one spawning area for these longfin squid, and any -- again, dredging of the cable, I would say, would have to be done outside of the parameter when they're there. And you're talking about doing this whole thing in one year. So even if they were gonna put these -- say, this whole section in, I would say that in the summer, when all that stuff's inshore, that I would prefer the construction start offshore in the deeper water, and then work, you know, in the shallower water when that event isn't happening
VH-01-1	I used to work for Dominion Resources Services, now Dominion Energy. Very concerned on terrorist attacks on the power stations...The last EIS oversight was four documents about 3 inches thick stacking up to your knees. Yes. Having looked at I'm looking at I'm looking at a bowling alley. I'm getting a visual of a bowling alley, a plane just flying into it. Are you looking at that? Is that going to be in the EIS?
VH-02-2	And a second, if for some reason you find that after the operation is up and running that there is a negative environmental or marine impact, have you built into the plan a willingness to change or to remove some or all of the windmills?
VH-02-3	have you any experience or any knowledge of other wind farm operations where something did go wrong and what took place as a result of that?
VH-04-1	that there's been real outreach to the fishing community in addressing concerns such as micrositing, transit lanes, things like that, so we appreciate the open air.
VH-05-1	the installation sound issue, is there also possibly a resonance that is created when all of these turbines from all of these different lease areas go online all, you know, spinning in a particular speed creating a particular resonance frequency?
VH-06-1	the state mandated this is a 1600 megawatt project? And would this wind farm, would it empower oil burning and electric companies to burn less oil; or are they going to be able to burn more oil because they have this green energy?
VH-08-1	Navy has done a number of studies on echo location with sonar, et cetera. That data may already exist. On the Caltrans grade bridge retrofit, the pile driving, what we weren't expecting and we mentioned this in New Bedford was a fish kill; and it scared the bejeebers out of us. It ruptured swim bladders, ruptured hearing. That was a big concern. But the harbor seals were like oh, a feeding frenzy. We used the gunderboom, the air bubble curtain, and NOAA attenuation. Gunderboom, the only problem we had with the gunderboom was that the current swept under it so the noise was able to get under it, and so I would suggest looking at the gunderboom with your air bubble curtain.
VH-09-1	I've fished out of every port on the island. That designated area has been my backyard. I have major concerns. I have permits in that area. You can draw out all your charts and can show where everything is going, but I don't see any fisheries management closures or any division of areas that you even show on your charts, which is frustrating to me. I have an Area Two permit right smack dab in the middle of where all these turbines are going. I am going to be affected. How do us as fishermen we as fishermen get coverage for this?
VH-10-2	is each tower responsible for its own AIS signal? Or is it a just a general field AIS?
VH-12-1	So just to take into consideration, you can certainly look at engineering to look at those other installations. In the case of Rhode Island, just keep an eye on it. I mean, granted, the roll out here is you're not going to start construction full blown for three years from now. So you would have three years of history on those windmills in Rhode Island. Could you or do you plan to make a report on those at some point two years from now so that we have some kind of understanding or feel for how that is going?

Comment ID	Comment Text
VH-15-2	Second point is Block Island. I propose to do an oversight for that one. That has 5 turbines. You are proposing 106 turbines. Please consider the significant impact of 5 versus 106.

PUBLIC INFRASTRUCTURE AND SERVICES

Comment ID	Comment Text
36-5	The project has created a $15 million fund to help build a sustainable offshore wind industry in Massachusetts that would bolster development of supply chain, businesses, and infrastructure. It also would pay for partnerships with community colleges and vocational schools to provide job training programs for local workers.
46-6	Another major concern is after the cables are laid, in the water, they will be tearing up the road including in front of the boat ramp at Englewood Beach, again making it very difficult for me to earn an income for my family.
82-12	an independent study [is recommended] documenting the potential effects of the transmission lines on the ability for future development/installation of other utilities, as well as those already installed, such as water, sewer, electric lines, roads, sidewalks?
86-2	Financing the Cape's wastewater infrastructure is becoming a regional challenge. While my town does not face the same degradation as areas on the mid-cape from wastewater pollution, Vineyard Wind can offer solutions to those communities whose nutrient loading problems will ultimately result in expensive solutions.
87-15	BOEM must also analyze potential impacts of shorebased or nearshore infrastructure needed to transfer power to shore.
96-3	Once the cables make landfall, they will follow a very disruptive path to residents. They will tear up Berry Avenue and Higgins Crowell Road, blocking access to our only police station, a middle school and an elementary school.
96-4	The cables installation will then move up the road interfering with residential and commercial ingress and egress. Then, they will move through a sensitive well water shed area, under a 4-lane highway (the major route to our central hospital, commercial district and airport), and under railroad tracks (requiring significant permitting issues). They then propose the cables will be brought underground through protected conservation land with restricted covenants. Then the propose to pull the cables through community known as Cummaquid Heights. This land is owned by adjacent homeowners who have not been properly noticed by VW of their proposals.
96-5	Next, the cables will be brought up Mary Dunn Road directly past two very large water towers supplying a large portion of Cummaquid Village and be brought into a proposed high-powered switching station directly abutting a brand new affordable housing project, home to hundreds of new residents who could be potentially endangered by this added power handling in addition to what currently exists there.
102-1	A danger to our well field in Hyannis, MA and danger to our roads. There has been construction on 28 and Bearses Way for over two years construction on Strawberry Hill Rd and 28 RT just finished. "ENOUGH!"
137-15	Vineyard Wind emergency plans should be thoroughly reviewed by experts made up largely of local responders. Every type of emergency should be studied and responses planned out. If Vineyard Wind is to fund and staff the full response capacity, it should so state and the ROD should so reflect. If locals are to be relied upon, Vineyard Wind should so state and the scoping should require a detailed plan that identifies the training and equipment necessary for locals to respond to every type of emergency. Costs for that training and equipment simply must be part of Vineyard Wind's budget and must be paid to the local municipalities long before the project becomes operational, and annually thereafter.

Comment ID	Comment Text
147-30	The COP identifies the New Bedford Marine Commerce Terminal in New Bedford Massachusetts as the priority port to support the construction and operation of the proposed project. Several other areas in Massachusetts are identified as potential ports for where onshore infrastructure improvements and quay reinforcements are proposed. CZM recommends that the EIS present specific information regarding the work that would be required for these improvements and the impacts that would be caused by this work. The analysis should also describe how these impacts could be avoided or minimized. Impacts to existing marine operations should also be described.
HY-03-16	and the COP indicated that there was going to be a very heavy reliance indeed on the locals for emergency response. We haven't seen details of what's proposed for response from the Vineyard, but having in mind that's at least 15 miles away and probably an hour and a half, two hours away, it has direct relevance to oil spill response and other hazardous materials response.
HY-03-6	the site for the proposed substation is directly upstream at about seven days away from a spill reaching our town wellheads, and those wellheads service the Cape Cod Hospital, the entire economic part of the Cape, and about 15,000 residents(…). If you had a catastrophic spill at the substation, the result would be rendering undrinkable 1 billion -- 100 billion gallons of water
HY-16-1	we've seen many problems, nitrogen loading because we don't have a sewer system. Now, eventually we're going to have a sewer system, but one part is we run the cables up Berry Ave. We're not gonna be able to get a sewer system in there.
KI-18-7	And I also see -- on the third leg of that triangle, I see absolutely no science to prove no harm -- no harmful effects on the local fishermen, ports, or infrastructure. (Indiscernible) I feel is merely checking off boxes in a rush to get steel in water.

PURPOSE AND NEED

Comment ID	Comment Text
3-2	The clean electricity is urgently needed in our area.
4-5	Offshore wind should become an important source of renewable energy.
5-1	Vineyard Wind will help reduce CO2 emissions by approximately 1,680,000 tons per year. This is a step towards helping Massachusetts become a leader in the offshore wind industry and reducing our greenhouse gas emissions.
6-1	In Massachusetts and the entire Northeast U.S., offshore wind energy has the ultimate ability to provide ALL electricity for future needs (including increased usage in transportation and housing).
13-1	Cape Cod and Massachusetts need clean power and the Vineyard Wind project (as well as two other similar projects) should be approved + permitted by BOEM.
14-1	Developing wind energy in the ocean off of Martha's Vineyard and linking the power onshore here on Cape Cod would be much better economically and pose fewer environmental threats than oil/gas drilling.
15-1	This project is a critical step in the global effort to reduce CO2 emissions …
15-2	The construction of these this project will roughly replace the energy currently supplied by the recently retired coal-fired plant near Fall River, or the soon to be retired (and very troubled) Pilgrim nuclear facility.
16-1	The Vineyard Wind offshore wind project promises great environmental benefits, as a first demonstration of the potential of offshore wind energy in New England waters to reduce reliance on fossil fuels and slow climate change.
16-2	The Massachusetts coast is part of the windiest portion of the US coastline, which makes it the best place in the country to begin the establishment of a US offshore wind industry.
16-3	Vineyard Wind's 800 MW project will reduce CO2 emissions in the region by about 1.7 million tons a year.
16-4	It will also stabilize energy prices for local residents, protecting them against rising rates as fossil fuels become increasingly expensive.

Comment ID	Comment Text
16-5	Vineyard Wind is poised to get the project up and running quickly, which will demonstrate the feasibility of wind power in the region and encourage other projects to take advantage of the unmatched wind resource.
17-1	Vineyard Winds 800 MW offshore wind project will reduce CO2 emissions from the ISO New England system by approximately 1,680,000 tons per year. This will be a very important step in meeting our renewable energy and greenhouse gas reduction goals.
17-2	The project is responsive to the [Massachusetts] Legislatures August 2016 energy legislation
19-1	The clean, renewable energy from the Project will replace over 1.5 million tons of carbon dioxide emissions.
21-1	The clean, renewable energy from the Project will replace over 1.5 million tons of carbon dioxide emissions.
23-1	Please approve this important carbon emission offsetting project
24-1	We must do what is necessary to protect our climate. Offshore wind farms is a major step in the right direction.
25-6	We need this project in our state; it is a clear-win-win economically and environmentally.
29-1	I would like to express my ardent support for the Vineyard Wind project. I have kept close tabs on the EIS process for Cape Wind and have kept abreast of the environmental impacts of the offshore wind industry over the years in Europe and I believe that the multifaceted benefits to our region far outweigh any perceived risks.
29-2	I know that the Commonwealth of MA's Global Warming Solutions Act requires us to reduce our greenhouse gas emissions and do so in short order. With climate disruption, ocean acidification and numerous other negative impacts to our region and nation, we need to move ahead with offshore wind.
29-3	We need the electricity, we need it to be clean and we need to move forward now.
29-4	They are committed to doing things right and bringing addition assets to the communities to encourage greater energy and climate resiliency.
31-2	This effort by Vineyard Wind will be a major step in protecting our climate...it will be the start of cleaner air for all animals and birds to breath
32-1	Our climate is in peril. It is imperative that we move away from polluting fossil fuels to more sustainable energy sources. Wind turbines and solar voltaic panels are logical sources.
32-2	Wind turbine farms on land take up too much space in our densely crowded east coast. The logical place for them is offshore where they can take advantage of stronger and more consistent wind in open spaces
33-1	The primary benefits of wind power are clean and renewable energy
35-1	The United States lags behind Europe in exploiting offshore wind as an energy source that can lower electricity prices, deliver substantial economic benefit, and tackle climate change. The Vineyard Wind project, in particular, has the potential to realize the many benefits of offshore wind.
36-1	the Cape Cod Chamber of Commerce has worked to strengthen and promote the economic viability, cultural richness, environmental sensitivity and the social needs of Cape Cod. The Cape Cod region is grounded in a Blue Economy – one where its water resources drive economic prosperity. This acknowledgement forces recognition that the environment is our economy, and that balancing both is critical to our region's health and wellness. Massachusetts' investment in sound energy policy is a critical component to the region's health and prosperity. Vineyard Wind represents an opportunity to end our long-held designation as the terminus of the energy supply pipeline in the United States.
36-2	This represents an important opportunity for improved resiliency and emergency planning in the region's historically unreliable electric grid and the addition of new storage capacity through distributed projects on the Cape Cod, Martha's Vineyard and Nantucket.
36-6	Climate change is having profound effects on life both above and below the water. Mitigating human contributions are important in minimizing factors such as ocean warming and acidification that are already affecting the health of the marine environment. Vineyard Wind represents an opportunity to offset CO2 emissions more than 1.68 million tons per year and NOx emissions by 1,030 tons per year, and SO2 emissions by 880 tons per year.

Comment ID	Comment Text
36-8	Deliberate movement toward an energy future focused on clean sources that provide the power we need as a society, that minimize impacts on the natural environment and global climate are critical for our nation. With projects like Vineyard Wind, offshore wind is poised to become a major supplier of clean energy and launch a major economic sector in the Northeast.
37-1	The obvious benefit is the long term solution to move away from fossil fuels and towards renewable energies.
39-1	As a resident of Cape Cod which has so much coast line and near-sea-level private property and public infrastructure, I am concerned about the impacts of global warming. If we want to maintain our way of life and perhaps our lives themselves, we must move away from fossil fuels and towards alternative energy such as wind.
39-2	If we want to maintain our way of life and perhaps our lives themselves, we must move away from fossil fuels and towards alternative energy such as wind.
39-3	But wind is an abundant resource offshore, and I believe we would fail to take advantage of a critical opportunity if we did not go ahead with the Vineyard Wind Project
40-1	EPA acknowledges the importance of the Vineyard Wind project to diversify the energy mix in Massachusetts and provide additional reliability to the system at a time when a number of regional power plants are scheduled for retirement. The Vineyard Wind Project (and other competing wind energy projects located in adjacent lease areas) has responded to the Commonwealth of Massachusetts' recent Request for Proposals for Long-Term Contracts for Offshore Wind Energy Projects in response to an effort by the Commonwealth to promote energy diversity. The project is also consistent with the Commonwealth's goals to reduce emissions from the power generation sector and is expected to reduce C02 emissions from the ISO New England power grid by approximately 1,680,000 tons per year, nitrogen oxide by 1,030 tons per year and sulfur dioxide by 880 tons per year.
40-30	Vineyard Wind proposes to install a transmission cable through Muskeget Channel en route to Cape Cod. Musgeket Channel has been identified in the past as a promising location for tidal power projects due to strong tidal currents. It would be helpful if the EIS can explain whether the presence of the Vineyard Wind transmission cable will likely prevent the use of the channel for future tidal energy projects or whether these projects could co-exist.
40-6	EPA recommends that the EIS describe how the project may advance the Commonwealth's goals to reduce emissions from the power generation sector and how the project advances progress towards meeting Massachusetts' renewable portfolio standards. This discussion can reference how the Vineyard Wind Project (and other competing wind energy projects located in adjacent lease areas) responded to the Commonwealth of Massachusetts' recent Request for Proposals for Long-Term Contracts for Offshore Wind Energy Projects, part of an effort by the Commonwealth to promote energy diversity.
41-1	Mass Audubon’s review of, comments on, and conditional support for offshore wind energy are conducted within the context of the threat of rapid climate change, oil spills, strip mining, air pollution, and the push for nuclear power as a clean energy source.
42-1	As a supporter of Massachusetts’ landmark legislation to promote a homegrown offshore wind industry fourteen miles south of Martha’s Vineyard, I am pleased to support the procurement of economically and environmentally sound utility-scale offshore wind projects here in the Commonwealth.
42-2	I am confident that Vineyard Wind’s project will demonstrate the wisdom of the legislature’s commitment to procure up to 1,600 MW of offshore wind over the next decade, and will yield significant new, clean, reliable and cost-effective generation resources needed to replace the growing number of power plant retirements across the region.
42-4	With world-class academic and training institutions, a skilled and highly motivated workforce, and modern infrastructure - all in close proximity to the project area - Massachusetts is ideally situated to host this emergent clean energy industry.
42-5	While there is no greater issue facing my generation or our children's generation than climate change, it is also important to look carefully at the environmental impacts associated with these projects and address concerns on the possible adverse effects.

Comment ID	Comment Text
42-6	Massachusetts has long been a leader in clean energy production and this project will help put us on a path towards 100% renewable energy.
45-1	Vineyard Winds 800 MW offshore wind project will reduce carbon dioxide emissions by approximately 1,680,000 tons per year.
53-1	The EIS for the proposed project should clearly describe the project purpose and need. A clearly defined project purpose is essential to the formulation and evaluation of project alternatives, as required by NEPA.
59-4	Establishing a clear purpose and need and specifying an appropriate range of alternatives are central to developing a high quality EIS that will inform decision makers and the public. Specifically, we ask that BOEM consider a robust range of alternatives related to turbine spacing and arrangement. A clear assessment of the costs and benefits associated with various layouts is critically important, as the set up of the array is fundamental to the ability of fishing activities to continue within the wind farm.
67-1	Recreational anglers believe offshore wind power can benefit fishing. Currently, pollution from traditional power plants harms fishing by contributing to mercury contamination of certain fish, acidifying our oceans and threatening shellfish, and is contributing to climate change.
70-1	I'm writing to offer my support the permitting of Vineyard Winds application to build an offshore wind energy facility, and to bring their clean power into the Massachusetts grid. We need new sources of electricity, we need clean power
70-3	Our region is long overdue in expanding the use of clean sources for our electricity. With the closure of several important sources of electricity for southern New England, we need to begin to look for other sources of energy.
71-1	...Global warming and sea level rise is very much true and because of this I believe that sustainable power generated from off-shore wind is critically important. As a resident of Yarmouth with a livelihood based on the tourist industry and a little chunk of oceanfront land, I welcome what I've learned of Vineyard Winds plan.
71-2	Sea level rise is a reality that Cape Cod can no longer avoid and if Yarmouth can play a role, lets be leaders
73-1	We need to limit our use of fossil fuels and concentrate on a healthy mix of renewable energy sources. The location is good and the time is right
74-1	We need more clean energy solutions and the area where this project is proposed has a fantastic wind resource.
75-1	Wind power is uniquely appropriate for our climate: and that our Northerly and easterly location provides wind
78-1	Wind energy will help stabilize our electricity rates in the long-term, by reducing our reliance on natural gas, which experiences steep price increases during frigid (and windy) winter months
78-2	Offshore wind also brings a rare economic opportunity: to cement the Bay State as a global leader in renewable energy, with southeastern Massachusetts as a hub of offshore wind development. All three offshore wind proposals offer economic benefits, and Vineyard Wind has pledged to commit millions on regional workforce and supply chain development, providing an excellent model for building and sustaining a local offshore wind industry.
78-3	Of course, our urgent pursuit of renewable energy is not just economic: our region faces extreme risks from the rising tides and chaotic weather brought on by climate change, which we've experienced first-hand recently. Intense warming of the North Atlantic threatens the health of our most precious species, from valuable fisheries to endangered marine mammals.
81-1	The risk will expand as the sea levels rise. It's time to face up to the problems that we elders have created and support the alternative energies that are essential for stabilizing the environment along with security measures to mitigate the impacts of climate change. Wind energy is the most efficient alternative energy process.
83-1	Our nation's heavy reliance on fossil fuels has come at a great cost, exacerbating climate change, polluting air and water resources, and significantly impacting public health and wildlife, among other impacts. To ensure a safe, secure, and sustainable energy future, we must begin the transition to a clean energy economy. Responsibly developing offshore wind resources is a necessary and positive step in that direction.

Comment ID	Comment Text
85-1	To begin, any significant decrease in our reliance on fossil fuels must necessarily involve wind energy, and offshore siting of such is not only advisable but inevitable.
85-2	The gains of energy security and reliability, the reduction of greenhouse gas emissions (up to 1.68 metric tons of carbon dioxide annually) will be achieved under the strict and vigilant oversight of federal, state, and local agencies charged with safeguarding natural resources and threatened and endangered species, as well as fisheries in general.
86-1	My town of Truro, the outer cape in general and Cape Cod as a whole, is watching our coastline fall away at an unprecedented rate. Our only chance is to build clean energy infrastructure now. And Vineyard Wind is the Cape's best chance at becoming part of the solution.
86-4	Our need for electricity reliability is more clear than ever: connecting Cape Cod to the outer continental shelf for our energy will mean that we have an indigenous source of power, instead of relying on a few lines extending across the canal or the dirty power plant at the base of the Cape.
87-1	The Surfrider Foundation recognizes the growing demand for energy worldwide and that offshore wind power generation provides important benefits as a renewable source of energy that will reduce emissions of greenhouse gases (GHG) to the atmosphere. Reduction of GHG emissions is critical if we are to avoid the dangerous impacts from climate change.
90-1	We support the development of offshore wind for its environmental and economic benefits, including access to a secure and sustainable energy source and mitigating the effects of climate change. The availability of offshore wind energy will facilitate our country's move away from outdated fossil fuels that have caused devastating and ongoing damage to the environment and to public health. We believe that offshore wind power projects can and should be developed in an economically and environmentally responsible manner.
94-1	They [The Commercial Fisheries Center] have supported the idea of renewable energy and its promise to reduce emissions associated with global climate change. That being said, they also bear the brunt of and, unfairly shoulder the blame for depleted stocks in fisheries impacted by climate change, and/or by the constant barrage of newly permitted offshore activities. The continued imposition of burdensome regulations and quotas, established by government agencies to compensate for the effects that the many ocean uses and climate change are having on fisheries, make it harder and harder for the fishing industry every day.
95-1	Given the urgency of the climate crisis, we need to immediately begin a rapid and just transition away from all fossil fuels . Since we are a small and densely populated state with a lot of coastline, offshore wind will likely be a very important part of Rhode Island's renewable energy mix.
97-1	As an island community, most vulnerable to the effects of climate change and rising sea levels, the Town of Nantucket supports viable, renewable energy projects-assessed to be competitive and reasonable, which supply long-term price stability with the least economic impacts for local ratepayers.
98-4	Lastly, does this entire project even make any sense? Please refer to the recent Block Island Wind generation project. Those wind turbines are costing a half a million dollars each!!! How many billions in government subsidies paid for the Block Island project? Will your state agency force the applicant to provide an actual pro forma, truly disclosing to hard working taxpayers / consumers - what this project as a whole - will really be costing them in government subsidies & higher electricity rates….????
100-1	The importance of bringing renewable energy to New England, and the opportunity for our Town to be a part of the solution of bringing Wind energy in, very much outweighs any inconvenience caused by burying the cable.
101-1	As an environmental activist and "citizen scientist," and also as a former Conservation Commissioner for the town of Barnstable, I see a lot to approve of here. The proposed wind farm is far enough offshore to take full advantage of continuous ocean wind patterns and also to avoid coastal environmental threats.
109-1	Wind energy is inefficient and unreliable
110-1	All forms of energy production have impact. Wind energy has the fewest negative impact.

Comment ID	Comment Text
116-1	Climate change is the most dire event for our planet. Reducing CO2 emissions is essential to our survival. I support completely the Vineyard offshore wind energy project and feel that the excellent team going forward will safegaurd and mitigate the project as goes forward.
117-1	I support this project, which makes an important contribution to Massachusetts and global renewable energy Full build-out of the Vineyard Wind project will cut CO2 emissions by almost a million tons of CO2 per year.
118-1	Being a resident of Martha's Vineyard I am especially concerned about climate change and sea level rise
119-1	We know the wind in this area is strong a reliable. Need good clean energy & plenty of it [since old, antiquated nuclear plant soon to be decommissioned].
119-2	Wind turbines (off shore) have proven reliable and affordable (especially if the price of carbon pollution is factored into other forms of electricity production) in Europe
120-1	I think climate change is the biggest threat to our way of life in Cape Cod
120-2	Climate change is scary and I want to have my daughter have a place to live on the coast.
129-1	We need this windpower for us and the environment overall
130-1	The project has many important positive benefits to our region and our planet. It can significantly reduce greenhouse gas emissions.
130-5	Another important advantage to the vineyard wind project is the capacity factor of offshore wind. Whereas on land you might get 35% in this area southwest of my home on Nantucket you can get a capacity factor of closer to 45-50% or more. The Vineyard Wind Site is by far the windiest site in New England and I know first hand how much the wind blows here.
130-6	New Bedford MA is poised to use the marine commerce terminal to stage and deploy components for large offshore wind farms. The MA resource area has enough wind potential to provide electricity to the entire state. Large offshore units use direct drive to reduce parts and cut down on maintenance costs.
132-1	This project will be revolutionary and bring many jobs to the Vineyard
133-1	As a 20 year resident of MV w/ 2 young children I think this is a fantastic opportunity to help our community and the region. Environmental benefits seem to be vast and the local employment opportunities for local residents also seems to be great. I fully support.
140-1	Time is short to make this required transition to renewables which numerous delaying tactics (in the form of political, legal, utility-related, economic, siting, etc.) have prevented from moving forward in Massachusetts, New England and over much of the USA. Greater than fifteen years were lost in fighting against the Cape Wind project; and over ten years of relative inactivity in moving to implement Massachusetts 2008 Global Warming Solutions Act which mandates huge reductions of GHG (25% by 2020 and finally, by 2050 an 80% reduction from those of 1990). Near coastal Massachusetts has the wind resource (the "Saudi Arabia of wind"), has the appropriate near shore siting locations and the support facilities (blade testing center, deep water port and University of Massachusetts Renewable Energy Research Laboratory) to make this happen. But it has to start now and aggressively proceed as it will take some 13 to 16 similar scale projects to produce 40 to 48% of the state's estimated electric demand in 2050.
145-5	Such a project stands to make a major contribution to lowering greenhouse gas emissions and other pollutants from electricity generation, and to creating an entire new industry in Massachusetts and on the New England and mid-Atlantic coasts. Moreover, the contribution of a project with a high winter capacity factor is clear given concerns about the competition during the winter between the use of natural gas for electricity and heating.
KI-02-1	So the question is, how do we get into the environmental impact statement and statements about what the implications are of not building these wind farms, of continuing on the path that we're on: Burning fossil fuels, putting more global greenhouse gases into the air, acidifying the ocean, which, in particular, is important for fish -- for the fishing industry that we were talking about?
KI-13-1	I do consume electricity, and it concerns me that -- our nation seems to be against everything(…) . And we need electricity. And there's gonna be impacts no matter what. There's been impacts from oil spills on fisheries. There's absolutely going to be impacts if climate change becomes a serious issue.

Comment ID	Comment Text
KI-13-2	we have to look at the big picture of how, on a national basis, we're going to provide electricity in a clean, safe, and environmentally sensible way(…) offshore wind is probably the cleanest, the safest, the best way to produce electricity with no environmental impact -- with minimal environmental impact.
KI-14-1	Because of the tremendous opportunity for offshore wind to provide electricity in a low-impact environmentally friendly way and because of the tremendous opportunity for economic development the offshore wind industry development here represents, my organization strongly supports not only this project but all of the projects that are envisioned for the coast.
KI-21-2	So when we're talking about the energy impacts of this, there are other impacts from choices of not doing projects like this... There are impacts from every project. As Fred said earlier, this is the least impactful in what we're doing.
KI-23-1	I think it's pretty clear that this is the best way to generate more energy, and this can be a way that we can start to phase out more of our fossil fuel infrastructure, which we have to do as rapidly as possible.
NB-15-1	We firmly believe that climate change stands as the single greatest threat to wildlife and habitat and that we absolutely must advance large-scale clean energy solutions, particularly here in the northeast where we are -- our energy options are offshore; we believe that we can and must find a path forward that can allow for wildlife to thrive and further protection of wildlife and habitat communities from the already present and worsening impacts of climate change.
NB-29-4	For us to go out and displace an industry that we argue are most affected by climate change, we can see it out there, is a huge detriment to us, so all of our nation's, you know, greenhouse gas-producing addictions are kind of outsourced onto us as an industry; and now we're being asked also to take the brunt of having to correct that too, which is scary for us
NT-03-1	And Nantucket is a historic -- is registered as a historic place with the federal government, a federal historic site; however, I personally believe that building Vineyard Wind and building out the resource area would help protect that historic site, Nantucket Island, from the effects of climate change. If we reduce greenhouse gas emissions, carbon dioxide, by millions of tons building these wind farms, that helps Nantucket in the long run and the short run by reducing greenhouse gas, which has been proven to cause rising sea levels, more powerful storms and coastal flooding.
NT-03-2	adaptation to climate change is going to cost us billions, and we need to start this continuing shift to -- from fossil fuels and nuclear to renewables. It's happening all over the globe. Renewables are accelerating at a geometric rate, so let's get this done. Let's build this thing. But let's have a good honest talk about it, and let's learn about it, because it's really worth doing.
VH-06-1	the state mandated this is a 1600 megawatt project? And would this wind farm, would it empower oil burning and electric companies to burn less oil; or are they going to be able to burn more oil because they have this green energy?
VH-13-1	I would like to see this process speed up. I understand there are concerns with the fishermen. I don't argue with any of their concerns, and I hope they can all be answered to their satisfaction; and if there are changes that need to be made, they should be made. But we live on an island. We just experienced six or seven weeks of ridiculous weather, and I don't know how much smaller the island is now than it was seven weeks ago; but I would love to know that because it's substantially smaller because it's washed away. Global warming climate change is a huge, huge, huge, huge issue. It's going to cost us billions of dollars to deal with it, so anything we can do to reduce our carbon footprint needs to be done as quickly as possible.
VH-17-1	I so firmly believe that we need to make a meaningful transition to a renewable future.

RECREATION AND TOURISM

Comment ID	Comment Text
4-1	We do not oppose the proposed wind farm but specifically Vineyard Winds preferred undersea cable route that will travel through the middle of Lewis Bay, an important resident and tourist attraction.
4-4	The high voltage electric cables will pass through invaluable quahog, scallop and oyster beds with boating and swimming just above.
4-7	Vineyard Wind's proposal fails to recognize Lewis Bay as a major tourist asset and the gateway to Nantucket Sound from busy Hyannis Harbor.
18-3	the two mainstays of the Cape economy, fishing and tourism, will both be coming under threat due to the effects of climate change...there will be new daunting challenges that threaten the livelihood of the fishing industry. A livelihood that could actually be protected by reducing our carbon emissions and switching to renewable energy.
20-1	Laying cable through this extremely shallow and fragile bay [Lewis Bay] could do irreparable damage to the bay, which is used by swimmers, recreational boaters, fishermen, and is the site of quahog and scallop harvesting and a commercial oyster farm. The bay was healthier when it was being routinely dredged. At the last public meeting, I was told that dredging would no longer be possible.
20-2	If the health of the bay is jeopardized, the impact on tourism and the local economy would be extensive.
30-1	The RFA is a proponent of green energy but not to the detriment of our resource as well as when it proves to be economically feasible using only private equity, not rate payers or public funding sources.
30-3	Our ongoing concerns are associated with the subsurface cable lines and associated EMF and noise generated from hundreds of wind turbine units and detrimental impact if any associated with such;
30-9	A scientific credible study assessing the adequate and safe distance to land pelagics is lacking and is absolutely necessary, reasonable and appropriate in order to sight the units.
31-1	Tourism is the life blood for Cape Cod. As a Cape Cod resident, I look forward to taking a day boat cruise to see the country's first large scale offshore wind farm...The Cape needs more tourists
43-11	the review should also include assessment of the impact of the cables on commercial and recreational fishing and navigation…
50-3	The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed here when there are significantly more appropriate alternatives, especially Brayton Point.
51-3	The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed in Lewis Bay when there are significantly more appropriate alternatives, especially Brayton Point.
52-3	The Bay is a huge recreational and economic resource to both Yarmouth and Barnstable. These cables should not be placed in this area. Please look at the alternatives.
53-16	In addition to focused evaluations on protected species, fish, invertebrates, and habitats, the "Environmental Consequences" section of the EIS should include a subsection evaluating impacts to commercial and recreational fisheries. The EIS should discuss the economic impacts caused by the permanent loss of bottom habitat, impacts of any temporary exclusion zones during construction, and potential impacts to commercial and recreational fishing activities from project operation. This evaluation should also include any potential displacement of fishing activities and resulting increased fishing pressure in other locations.
53-40	Species important to both commercial and recreational interests are found within the WEA and WDA...While catch of or derived revenue from certain species may not be high within these areas, because both the species and associated EFH are found within these areas, it is important for the COP and the subsequent EIS to accurately characterize and present additional analysis of species distribution and abundance within the project area to provide a complete description of the affected environment for this action.

Comment ID	Comment Text
53-45	The EIS should provide a detailed analysis of how the presence of the project and turbine spacing would affect fishing gear operation, including the ability for vessels to maintain maneuverability and minimize risk of fouling gear with other gear or with the turbines. The draft COP assumes that vessels can continue to operate within the WDA, even stating that two vessels can operate between turbines; however, information to support this assumption was not provided. Specifications of all gear types operating in the project area should be compiled and incorporated into this analysis. This analysis should consider both fishing vessels and survey vessels, including state and Federal fisheries surveys.
53-5	Commercial and recreational fishing are essential components of the existing landscape that must be preserved in the development of the project. Alternatives for turbine layout, location, and spacing, particularly related to impacts on fishing operations and transit, are important considerations for the alternatives analysis in the EIS. Operation of ongoing scientific surveys should also be considered, including our science center surveys, the Northeast Area Monitoring Assessment Program (NEAMAP), and state surveys.
53-7	It is also important to consider the proposed layout and spacing of adjacent wind farm proposals as you develop project layout alternatives. Given the proximity of adjacent projects proposed by multiple developers, the layout of turbine foundations is a critical factor that requires coordination through the Federal process to minimize cumulative impacts to commercial and recreational fishing operations. We recommend you work closely with the commercial and recreational fishing communities and the U.S. Coast Guard to determine the most appropriate spacing and orientation of the turbines.
58-4	Vineyard Wind project not only has an obligation but is required to ensure the safety of the community and as such appropriate consideration should be given to assessing the potential impacts to all alternatives. Clearly due to the high volume of use, both from a commercial and recreation perspective in Lewis bay makes this a HIGH RISH, HIGH IMPACT area.
66-1	Dredging in Horseshoe Shoals for transmission is likely to impact whelk, a significant resource for Vineyard fishermen. EMF impacts during transmission operations need to be addressed. Impacts to the whelk resource of the proposed dredging should be thoroughly explored in the DEIS.
66-4	The DEIS should include much more on Martha's Vineyard fishing. Gillnets, lobster pots and squid trawls are all pre-existing uses of the lease area. Martha's Vineyard's economy depends upon the vacation industry, which depends on maintaining the picturesque fishing fleet of small boats. The iconic small boat fishermen and fisherwomen of Martha's Vineyard need assurance of coexistence and/or appropriate mitigation. The DEIS should include much more data and should thoroughly explore impacts, possible avoidance of conflict, and a mitigation plan of substance.
66-8	The Martha's Vineyard fishing fleet consists mostly of small boats, often manned by a single operator with no crew. In order for fishing to continue within the development, there needs to be assurance that a small boat with an individual operator will be able to continue as before the development. A statement from USCG that the boats may still use the area, as long as they carry crew, would not help. Will these small boat owners be able to safely continue to ply their trade? Will they be able to purchase insurance for the extra liability? Impacts and mitigation need to be thoroughly addressed in the DEIS.
68-1	NO to Vineyard Wind landing at either Lewis Bay or Covell's Beach! Unreasonable impacts on Lewis Bay which is environmentally fragile. Covell's Beach is a horrible choice since it is an extremely popular beach for both locals and tourists. Brayton Point is preferred alternative.
69-16	A large increase in vessel and vehicle use will affect harbors that this project will utilize. A thorough assessment of the potential conflicts with existing harbor users, including commercial and recreational fishermen, is needed for both construction phase activities and operations.
69-33	The EIS should address the commercial and recreational value of these species [horseshoe crabs, Jona crabs], the potential impacts to those activities, as well as the vulnerability of these species and their habitats to the proposed activities.
69-42	The EIS should consider potential gear conflicts from increased recreational fishing effort as a result of installing WTGs that can act as fish aggregating devices.

Comment ID	Comment Text
69-49	The EIS should consider whether the potential increase in angler activity in the WDA would require new or additional fishery management measures and potential socioeconomic impacts of those measures.
69-6	Cumulative impact concerns include changes to the spatial distribution of species including but not limited to scallops, surf clams, black sea bass, flatfish, marine mammals, and highly migratory species. There are also several socioeconomic cumulative impact concerns that need to be identified and scoped out, including but not limited to changes in fixed and mobile gear fisheries and commercial and recreational fisheries.
76-2	Along with being an area for recreational swimming, boating, kite boarding, wind surfing for its residents, boaters and vacationers from around the country and world.
87-20	The Vineyard Wind LLC's proposed wind energy facility may cause significant impacts to a broad range of ocean and coastal recreation uses. As part of the EIS, BOEM should analyze potential impacts to these activities, as well as resulting socioeconomic impacts. Such activities include but are not limited to: beach going, swimming, surfing, sailing, pleasure boating, diving, bird watching, whale watching, and other wildlife viewing. Scenic enjoyment of the undeveloped marine environment is a valued aspect of many of these activities, as well as a recognized recreational use itself.
87-21	Impacts to recreational and commercial fishing must also be assessed, including possible economic, cultural, and safety concerns.
87-22	Turbines could potentially create dangerous situations for fishermen, as well as other ocean users such as pleasure boaters and divers. BOEM must evaluate Vineyard Wind's emergency response plans for any turbine safety issues.
91-3	Further, cables will impede remedial efforts to clean up the bay, will impact moorings and recreational boating, and introduce into the shallow bay waters unresolved issues associated with electro-magnetic fields
96-1	The Preferred Route for their multiple high voltage cables will enter Lewis Bay, an important water resource supporting tourism, shell fishing, recreational fishing, commercial ferry traffic, recreational and commercial boating activities, and swimming, and from there come ashore at New Hampshire Ave
96-6	the issues with landing in Lewis Bay include: 1. Unreasonable impacts on the Bay2. There are reasonable alternatives, at either Covell's Beach or Brayton Point3. The Bay is environmentally fragile and needs protection with no impediments to future actions we may want to take, such as dredging.4. The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed here when there are significantly more appropriate alternatives, especially Brayton Point.
107-2	This proposed placement will affect the environmental and economic life of the bay, which is significant recreational tourist and fishing site.
108-2	Besides them, other parties, like commercial shipping and recreational fishermen have specific concerns but they along with any other interested parties can and must be heard before any approval is given for any power company to go forward
109-3	Above the water fisherman, recreational boaters, and birds especially sea birds will be affected not to mention commercial shipping.
147-27	The Northeast Ocean Data Portal also contains mapped marine vessel use data representing several coastal use sectors that could potentially be affected by the Vineyard Wind project. The EIS should discuss potential impacts and avoidance measures to these sectors: - Commercial marine transportation traffic: maps show high densities of passenger vessels and Tug/Tow transiting from Massachusetts ports through the project area; - Recreational boating: maps depict high density use from Massachusetts ports within the project area; - Aquaculture: there is a mussel culture area and a kelp culture area near or potentially within the project area.

Comment ID	Comment Text
147-3	It [the EIS] should also include an evaluation of water-dependent uses in state and federal waters, such as commercial and recreational fishing, shipping, and marine transportation. CZM requests that data on potential effects on resource areas and water dependent uses caused by the construction and operation of the project in both state and federal waters be presented in the EIS.
HY-10-1	we do not see any earthly reason why you would place the cables through Lewis Bay(…)Lewis Bay in Hyannis, in particular, is a serious, serious recreational and economic driver of the towns of both Barnstable and Yarmouth. It is the ferry service that you used tonight to go out to get to a meeting on Nantucket, and it is a vital -- 1 it's fisheries. It's tourism. It's everything else. And as such, it does not belong there. These cables belong out in open ocean landing somewhere.
KI-10-2	Our fishing in this area will be all done and over, and then it'll be too late.(…) . So now we've lost this historical area, and it's become a charter boat tourist destination, and that's what they want to do. They want to go out, and they want to see the wind towers. They want to fish around them. Well, for them to come out, they're only allowed to catch eight fish per person per day, and, to them, they think that's great. Now, we're operating on a cheaper fish, where we have to catch 3,000 to 5,000 pounds per day. So if you take -- and where we haul three strings of gillnets. If we only produce 500 pounds out of each string, where we used to produce 3,000 pounds out of each string, we're operating at a loss. And we can't operate at a loss because crew is gonna go work somewhere else.
KI-22-2	I think that if you look at the way Block Island was constructed -- I think that was the second design alternative that the gentleman from Vineyard Wind mentioned -- that would certainly have impact during construction but less than driving this one monopile. In addition, one of the positive things that we see from the Block Island wind farm is the structure that is placed in the water. So now that structure has become filled with marine organisms. We have a whole community of fish which has developed in that structure. I think that's a secondary reason that the multiple leg design is positive, because it will give more habitat for development of young fish in those areas than a monopile would. So I think those are a couple reasons that I would lean toward the multiple legs rather than monopile.
NB-13-2	Lewis Bay is basically the only small, sort of shallow bay in Yarmouth; and it is a shared bay with Barnstable, and as a consequence, it is both a significant economic and recreational area for both communities. It is where the ferry boats to Martha's Vineyard and Nantucket come in. It's where the tour boats, the other sightseeing things where the yacht clubs are all located, where sailing programs are, and where numbers and numbers of moorings are placed.

SEA TURTLES

Comment ID	Comment Text
38-3	BOEM and the wind contractors might have to support some of the aerial and acoustical surveys required to address large whale and sea turtle distributions in relationship to wind farm construction and operation
38-4	Given the shifting environmental baseline in the ocean in Nantucket Sound and likely increased importance of the microbial food web (which lengthens food chain and increases respiration leading to lower growth and reproduction of Protected Resources), the EIS monitoring program [needs] to locate some reference to compare with MA WEA region
41-23	The EIS also needs to carefully evaluate potential impacts to marine life, notably marine mammals and sea turtles. The program must not further endanger already endangered species such as the North Atlantic Right Whale and federally-listed sea turtles...We are particularly concerned about the dire status of the North Atlantic Right Whale, with less than 450 individuals remaining in the population.
41-4	Marine mammals and sea turtle studies also need to continue, with a special focus on ensuring that offshore wind energy projects do not further threaten the already seriously endangered North Atlantic Right Whale (Eubalaena glacialis).
43-12	potential impacts to endangered species, including piping plovers, roseate terns, and the North Atlantic right whale

Comment ID	Comment Text
43-4	The scope of the review should include a detailed and comprehensive assessment of impacts to wildlife, marine species, and fisheries
53-10	This [Affected Environment] section should also include information on the seasonal abundance and distribution of marine mammals, sea turtles, fish and invertebrates throughout the area that may be directly or indirectly impacted by the project. It is important that the EIS discuss seasonal changes in the environment of the project area and how that influences the distribution and abundance of marine resources.
53-18	This [Cumulative Effects] analysis should include a broad view of reasonably foreseeable projects, including development projects that are only in the proposed leasing or site assessment phase. Specifically, the cumulative effects analysis should consider other existing, proposed or planned energy infrastructure projects in the vicinity of the project including, but not limited to, Bay State Wind Project, South Fork Project, Revolution Wind, and the potential for development of the two Massachusetts Wind Energy Areas that have not yet been leased. Proposed wind development projects in the mid-Atlantic region should also be included in the analysis of cumulative effects on marine resources. This is particularly important for migrating species, such as marine mammals, sea turtles, fish and invertebrates that may use or transit multiple proposed project areas. The potential cumulative impacts on these species resulting from changes to benthic and pelagic habitats and potential food sources due to the presence of multiple projects should be evaluated in the cumulative effects analysis.
53-19	The EIS should evaluate in detail, the cumulative impacts on protected species and fisheries resources associated with overlapping construction activity of adjacent projects, including elevated noise levels and increased vessel traffic. Specific information related to the timing of the activity and the expected number of proposed construction seasons is important, particularly for evaluating cumulative impacts to marine mammals, sea turtles, and spawning activity of fish and invertebrates.
53-23	The following listed species may be found in the Vineyard Wind project area: Endangered North Atlantic right (Eubalaena glacialis), fin (Balaenoptera physalus), sei (Balaenoptera borealis), and sperm (Physeter macrocephalus) whales; endangered Kemp's ridley (Lepidochelys kempii) and leather back (Dermochelys coriacea) sea turtles; threatened North Atlantic distinct population segment (DPS) of green (Chelonia mydas) sea turtles and Northwest Atlantic DPS of loggerhead (Caretta caretta) sea turtles; and have DPSs of Atlantic sturgeon (Acipenser oxyrinchus oxyrinchus). Sea turtles are only present in the project area seasonally, with occurrence largely limited to May - November. More information on these species is available on our Greater Atlantic Regional Fisheries Office (GARFO) website...Right whale sightings are available at our Northeast Fisheries Science Center webpage. There is no designated critical habitat that overlaps with the project area.
53-24	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include: Potential for an increased risk of vessel strike due to increases in vessel traffic and/or shifts in vessel traffic patterns due to the placement of structures.
53-38	There are also a number of species within the project area that do not have management plans through the Councils or Commission, but may be managed through the State of Massachusetts and/or play an important ecosystem role, including bay scallop, razor clams, channeled whelk, knobbed whelk, and blue mussels. Additionally, NOAA manages numerous protected species in the project area under the Endangered Species Act and/or the Marine Mammal Protection Act, including large whales, sea turtles and sturgeon. Information on these protected resources can be found on our GARFO protected resources website...We anticipate that all of these species will be included in your impact assessments, both in its consultation document(s) and in its NEPA document (some of which may be concurrent). We also expect the assessment to include impacts to the recreational and commercial fishing communities that rely on these species.
53-47	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include:...impacts of elevated underwater noise during any geophysical and geotechnical surveys, pile driving, and other activities;

Comment ID	Comment Text
53-48	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include...any activities which may displace individuals from preferred habitats, alter movements or feeding behaviors, increase stress and/or result in temporary or permanent injury or mortality; disruption of benthic habitats during construction-related barge anchorage, infrastructure placement, pile driving, or cable route development that may increase the risk of entanglement or change of migratory behavior, alter prey assemblages or result in the displacement of individuals
77-1	We request that biological assessment studies be conducted by third-party groups before, during, and after the wind energy project in both the Wind Development Area (WDA) and the Offshore Export Cable Corridor (OECC). If detrimental impacts are determined, we request a clear plan to mitigate or cease current impacts and to prevent future ecological impacts from other offshore wind projects.
83-9	Sea turtles are expected to be vulnerable during both the construction and operation periods of offshore wind development. Sea turtles may experience: (i) behavioral changes and displacement from noise and other disturbances produced by construction vessels, geophysical surveys, foundation installation, cable laying, and operational wind energy projects; (ii) increased risk of collision with construction and service vessels; (iii) attraction to bright lighting during construction and cable laying; (iv) orientation and navigational issues during migration due to electromagnetic fields emitted by cables; and (v) long-term alteration of the prey base at the wind energy site... we urge BOEM to undertake careful consideration of these potential impacts and carry out research and monitoring required to better understand potential impacts, and effective mitigation measures, for sea turtles off the U.S. East Coast.
87-12	BOEM must analyze impacts from electromagnetic fields (EMFs) created by power cords connecting turbines to each other and to land. Many ocean species can detect EMFs, and some have been shown to change their behavior because of EMFs, including fish, sharks, turtles, and marine mammals.
87-17	Mitigation options to address seasonal movements of marine species must be assessed.
87-6	Many marine species, which rely heavily on sound for survival, are critically sensitive to noise impacts [including noise pollution during surveying, construction, maintenance, and operation of turbines]. These include species throughout the food chain, from plankton to fish to marine mammals.
88-3	There is scientific evidence that ambient noise is detrimental to all forms marine life, throughout the entire food chain, as sound is magnified underwater.
88-4	All marine life has an adaptation to located food and reproduction through the sense of sound Will the constant noise of pile driving and jettison of electric cables damage the auditory functions of marine life? (i.e. damage eardrums of cetaceans?)Will the constant noise of pile driving and jettison of electric cables disrupt communication with marine life? Searching for food, socializing, procreating? Will the constant noise of pile driving and jettison of electric cables prevent species from this habitat?
88-5	Will there be a detrimental effect in the marine foodchain if several species avoid this area? Will this ambient noise disrupt the migration of birds? Nomans Island is a bird sanctuary.
88-6	There will be an enormous electrical grid surrounding Martha's Vineyard. With all the electrical cables connecting hundreds of turbines together, it will resemble an electric blanket on the seabed. How will this effect species that live on the ocean floor?
88-7	There will be cables surrounding the west and east coasts of the Vineyard as they head to the mainland. Will this effect the natural migrations of birds and aquatic life? Nature has build in homing systems that could be deviated with electrical interference.

Comment ID	Comment Text
90-8	This data [Northeast Ocean Data Portal, the Massachusetts Ocean Resource Information System, maps and data that informed the Rhode Island Ocean SAMP, Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles, and Abundance and Distribution of Seabirds off Southeastern Massachusetts, 2011-2015] should be supplemented by any of the project proponent's own data collected through site assessment and characterization. Any relevant data gaps should be identified. In addition, proposals should specify, where relevant, how they satisfy the Massachusetts Ocean Plan requirement that any state-issued permits are consistent with the Plan.
108-3	The other major concern we have is for wildlife. Those living in the ocean and those flying above, that can potentially be impacted by the work to install and maintain the towers and turbines, laying and maintaining of power lines, as well as the turbine field that is going to occupy the air space above that area of ocean, must be seriously and fully vetted before the final approval is made
109-2	In the ocean the infrasound produced by these massive machines will be disruptive to sea life in all forms
135-2	The presence of the North Atlantic right whale and sea turtles appear to be of great concern but areas of sighting have been largely avoided. Sonic study information potentially impacting these creatures during operation appears to have been addressed to protect these grand creatures.
147-14	The following data should be evaluated, any potential impacts should be identified, and measures and practices to avoid and minimize adverse effects [to marine mammals, sea turtles, and sea birds] should be detailed in the EIS, including but certainly not limited to time of year restrictions, soft-starts for pile driving, and real-time detection capabilities. - Area of high density of North Atlantic right whale sightings adjacent to the project footprint south of Muskeget Channel; - High density observations for leatherback turtles in Muskeget Channel, and loggerhead turtles observations within the project footprint; - High density observations for Common Tern, Long-tailed Duck, Northern Gannet, Razorbill, Roseate Tern, two loon species, and three species of scoters in Muskeget Channel; and - Habitat for fulmars, Northern Gannet, Razorbill, several species of shearwater, and Wilson's Storm Petrel in the Vineyard Wind lease area.
KI-01-6	But the Europeans...have...a lot more turbines in their waters than we do,...They're having massive problems with whale migrations, dolphin migrations...But in the 2011 study from BOEM it was highly probably that there were gonna be navigational problems during migration of whales, dolphins and turtle.
KI-18-4	We have two of the worlds' biggest hammers coming to drive 40-foot wide nails in the ocean. 160 of them here -- 106 over here. 165 of them in the project just to the north of me. Tell me that's not gonna make a big ...problem for every species within 40 to 50 miles of that area.
KI-18-6	We have done absolutely no science to prove potential impacts to fish species -- commercially important -- nor marine animals, such as whales, turtles, and particularly great whales. Only the fishermen on the issues are going to be held accountable because we're held accountable on ESA and the Magnuson-Stevens Act.
NB-11-6	You're the one drilling access lines to the Vineyard. Why don't they land the...cable (Indiscernible) and give the island a second power line, right, and then they wouldn't have to run it up through Muskeget Channel, which is -- I don't even want to say it, but it's some of the most productive sea turtle (Indiscernible.) ground on the East Coast.
VH-03-2	and I as a fishermen representative, we have a lot of concern. There's some well documented evidence that a lot of different species from hummingbirds to leatherback turtles to yellowfin tuna utilize electromagnetic spatial recognition for their migration. The ospreys have just showed up back on the Vineyard. Most of them fly from Venezuela though fog in the night without visual cues. They don't use smell, and it is poorly understood now what the effects are of what a large amount of electromagnetic energy does to migration.

Comment ID	Comment Text
VH-09-2	We talked about the ducks and migration. That happens this time of year. I've seen it. It's quite an amazing site. I'd like to see it protected. The whales. This is a tough one for me. The turtles. Years ago I did offshore drift netting for swordfish.(...) we can't keep these whales or sustain the population they have if they don't have the smaller species they feed on which migrate through this route. I'd like to see this process slowed down. I'd like to see more research done, and I am scared.

SOCIOECONOMICS

Comment ID	Comment Text
5-2	Vineyard Wind will make a significant commitment to Massachusetts and Martha's Vineyard by both providing green energy and jobs. They have pledged $2 million for a Wind Workforce initiative that will recruit, mentor, and train local residents for high skilled jobs.
7-1	It will not only negatively impact Lewis Bay, but the entire Hyannis Harbor. And it will ...negatively impact the people that live on and use this body of water, as well as the value of people's property and homes that live in and around this area!
14-2	Use of...wind power could help Cape Cod move towards a more sustainable future, while creating new economic opportunities in our blue economy.
15-3	It can become a platform for job development, and more importantly occupational retraining, as we redirect heavy industrial skills
15-4	Vineyard Wind Operations and Maintenance facility will add approximately 40 full time jobs, expected to last the next 20-30 years. A study by UMass-Dartmouth predicts that the secondary economic impact of adding those jobs will equal about the same as adding another 40-50 full time equivalent jobs
16-6	The project is projected to generate employment opportunities and economic growth in southeastern Massachusetts, further enhancing the strength of the established maritime industry in Massachusetts ports and yielding up to $17 million per year in new state and local tax revenue beginning in 2021.
17-3	Vineyard Wind has committed to a $2 million Wind Workforce initiative that will recruit, mentor, and train local residents for high-skills careers. The program will be undertaken in partnership with vocational schools, community colleges and other local organizations.
18-1	Offshore wind represents the best economic opportunity that the Cape has seen, outside of tourism and fishing of course. It will create jobs for construction workers, welders, electricians, engineers, mechanics, programmers, scientists, surveyors, bookkeepers, metal workers, mariners, and so on.
18-2	In a multi-state report prepared by Massachusetts, New York and Rhode Island, offshore wind is one of the biggest economic opportunities we will see as it has the ability to create up to 500,000 jobs by 2050. Vineyard Wind is offering 3,600 local full time jobs over the life of the project once it starts construction.
18-3	the two mainstays of the Cape economy, fishing and tourism, will both be coming under threat due to the effects of climate change...there will be new daunting challenges that threaten the livelihood of the fishing industry. A livelihood that could actually be protected by reducing our carbon emissions and switching to renewable energy.
19-3	There is a Letter of Intent to use the New Bedford Terminal for construction of the Project. A new, multi-million dollar Operations and Maintenance facility is proposed for Vineyard Haven.
19-4	Engagement with the communities has been extensive and will continue going forward, including $2 million to help train local residents for the high-skilled jobs that the Project will create and a $1 million per year for 15 years Resiliency and Affordability Fund to provide benefits to low-income residents and communities hosting the Project.
19-5	Local and state tax revenue generated by the Project is estimated at $17 million annually according to the Public Policy Center at UMass Dartmouth.
19-6	Martha's Vineyard...depends on a seasonal economy, and while many affluent people vacation here, the residents tend to be relatively poor compared to the rest of the state. The O&M facility in Vineyard Haven will create 40 or more year-round, high-skill, good-paying jobs.

Comment ID	Comment Text
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22-9	Our fear is that once these large scale wind farms are realized and constructed it will be too late to undue the negative impacts to the ecosystem and will cause economic hardships on the commercial fishing fleet in Southern New England.
25-4	The benefits to Massachusetts are enormous with the surge of increased local clean energy jobs and with that - improved air quality which will lower the numbers of people suffering from respiratory problems
25-5	There are four huge funds or programs that Massachusetts will receive as well which are the: Offshore Wind Acceleration Fund $10M to develop this industry, Resiliency & Affordability Fund $15M to support low-income households & demonstrate effective use of distributed battery energy storage, Windward Workforce Program $2M to recruit, mentor and train residents for careers in the industry, and Whales & Wind Fund $3M to develop innovative methods and technologies to enhance protections for marine mammals.
29-3	We need the electricity, we need it to be clean and we need to move forward now.
30-1	The RFA is a proponent of green energy but not to the detriment of our resource as well as when it proves to be economically feasible using only private equity, not rate payers or public funding sources.
32-2	Wind turbine farms on land take up too much space in our densely crowded east coast. The logical place for them is offshore where they can take advantage of stronger and more consistent wind in open spaces
33-2	Such energy is also nearby our densely populated metropolitan areas stretching from New England to North Carolina. New England will benefit from being at the front of the energy pipeline rather than at the hind end.
35-2	Vineyard Wind has opened a main office in New Bedford and has signed a letter of intent to use the New Bedford Marine Commerce Terminal for construction and operations support.
36-1	the Cape Cod Chamber of Commerce has worked to strengthen and promote the economic viability, cultural richness, environmental sensitivity and the social needs of Cape Cod. The Cape Cod region is grounded in a Blue Economy – one where its water resources drive economic prosperity. This acknowledgement forces recognition that the environment is our economy, and that balancing both is critical to our region's health and wellness. Massachusetts' investment in sound energy policy is a critical component to the region's health and prosperity. Vineyard Wind represents an opportunity to end our long-held designation as the terminus of the energy supply pipeline in the United States.
36-2	This represents an important opportunity for improved resiliency and emergency planning in the region's historically unreliable electric grid and the addition of new storage capacity through distributed projects on the Cape Cod, Martha's Vineyard and Nantucket.
36-3	In term of economic development, Vineyard Wind's represents $1.87 billion in direct economic benefits to Massachusetts including 3,600 new jobs – the majority of which will be located locally.
36-4	They are working with local companies for construction of tower, foundation, and substation components and have announced plans to open an operations and maintenance facility on Martha's Vineyard.

Comment ID	Comment Text
36-5	The project has created a $15 million fund to help build a sustainable offshore wind industry in Massachusetts that would bolster development of supply chain, businesses, and infrastructure. It also would pay for partnerships with community colleges and vocational schools to provide job training programs for local workers.
36-6	Climate change is having profound effects on life both above and below the water. Mitigating human contributions are important in minimizing factors such as ocean warming and acidification that are already affecting the health of the marine environment. Vineyard Wind represents an opportunity to offset CO2 emissions more than 1.68 million tons per year and NOx emissions by 1,030 tons per year, and SO2 emissions by 880 tons per year.
36-8	Deliberate movement toward an energy future focused on clean sources that provide the power we need as a society, that minimize impacts on the natural environment and global climate are critical for our nation. With projects like Vineyard Wind, offshore wind is poised to become a major supplier of clean energy and launch a major economic sector in the Northeast.
37-2	The local region should benefit from many long-term, sustainable, year-round jobs at various skill levels, which is much needed in a seasonal service-based economy.
37-3	The partnership with Vineyard Power, creating a community benefit agreement, is another added bonus that will help local communities have some control over their energy
37-4	In addition to the environmental and financial benefits locally, Vineyard Wind and its partner Vineyard power will team up with the MV high school and ACE MV to offer skills training in the wind industry.
37-5	expectation is about $17 Million annually in tax revenue for the commonwealth. As a year-round Vineyard resident with two small children, I support this project
40-16	Onshore construction and associated project operations within port areas may cause community impacts that should be considered in the Environmental Justice analysis in the EIS.
40-17	Based on these results [of EPA's EJ analysis], we recommend that the EIS include a discussion of whether wind farm related construction/operations activities at the ports will result in disproportionate impacts related to traffic, air pollution, or noise in and around the port areas supporting the project. The analysis should also describe whether the increased port activity will result in benefits to the adjacent communities.
40-18	EPA recommends that BOEM supplement the Vineyard Wind EJ analysis to develop, as necessary, an EIS consistent with the CEQ guidance and the letter and spirit of E.O. 12898. The NEPA analysis should consider the direct, indirect and cumulative impacts of the proposed project.
40-19	Because minority populations near the project ports may already be subject to disproportionate environmental burdens, an examination of cumulative impacts that add to the existing burden is a particularly important part of the environmental justice analysis.
40-20	We also support efforts by BOEM and Vineyard Wind to consider recommendations in the CEQ guidance in developing an outreach program. We recommend close coordination with potentially affected communities and translation of project summaries to improve understanding of the proposed action and its potential impacts. Ultimately, identification and outreach to minority and low-income populations should heighten agency attention to alternatives including alternative sites, mitigation strategies, monitoring needs and preferences expressed by the affected populations.
40-21	We recommend that the EIS discuss whether adequate onshore infrastructure and space exist at the ports under consideration to support the proposed project. The analysis should explain what work will be necessary and the likely impacts from upgrades/modifications to the ports to support construction and operation phases of the Vineyard Wind project. The discussion should also include whether the project will require chemical storage in the port areas and whether the construction period operations will generate displacement of existing maritime businesses and operations (through a loss of dock space, etc.).
40-23	In addition to the analysis of the work necessary to make each port functional for wind power development (as requested above) the analysis should also present a comprehensive discussion of how present-day port operations (and resulting impacts to the environment and surrounding communities) are likely to change with the introduction of wind sector specific work.

Comment ID	Comment Text
42-1	As a supporter of Massachusetts' landmark legislation to promote a homegrown offshore wind industry fourteen miles south of Martha's Vineyard, I am pleased to support the procurement of economically and environmentally sound utility-scale offshore wind projects here in the Commonwealth.
42-2	I am confident that Vineyard Wind's project will demonstrate the wisdom of the legislature's commitment to procure up to 1,600 MW of offshore wind over the next decade, and will yield significant new, clean, reliable and cost-effective generation resources needed to replace the growing number of power plant retirements across the region.
42-3	I am particularly enthusiastic about the opportunities presented by Vineyard Wind to spur new economic activity in Massachusetts.
42-4	With world-class academic and training institutions, a skilled and highly motivated workforce, and modern infrastructure - all in close proximity to the project area - Massachusetts is ideally situated to host this emergent clean energy industry.
42-5	While there is no greater issue facing my generation or our children's generation than climate change, it is also important to look carefully at the environmental impacts associated with these projects and address concerns on the possible adverse effects.
42-7	We look forward to working with the offshore wind industry to advance sustainable energy and community benefits, such as those put forward by Vineyard Wind, that help the residents of our district by making investments in our local communities.
43-7	The scope should also include economic impacts, especially given the high cost of offshore wind generation.
44-1	At each of our meetings with Vineyard Wind we shared our concerns about the construction and operation of a wind farm in such fertile fishing grounds especially for squid… and whiting
44-8	As a small mesh fishery, we can't simply move and fish else where because of closed areas and mesh restrictions. This area south of the Massachusetts Islands has been the fleet's fishing ground for decades. These projects truly threaten our lively hood and the conflicts in developing this area have not been adequately addressed or resolved. In a perfect would, this process would be slowed down, appropriate surveys and studies would be conducted prior, during, and post construction and this process would only be approved for ONE major wind farm, so we can study the effects of this revolutionary technology in our waters. We are asking for this process to be done right.
45-2	According to a study conducted by the Public Policy Center at the University of Massachusetts Dartmouth, the Vineyard Wind project will create over 1,000 jobs during the planning and construction phase, 80+ permanent, high-skilled jobs, and generate up to $17 million per year in new state and local tax revenue beginning in 2021.
45-3	The company has opened a main office in New Bedford and a satellite office in Boston. Vineyard Wind has also signed a letter of intent to use the New Bedford Marine Commerce Terminal for construction and operations support. Vineyard Wind has also proposed an offshore wind Operation & Maintenance facility located on the working waterfront in Vineyard Haven on the island of Martha's Vineyard
45-5	Vineyard Wind has committed to a $2 million Wind Workforce initiative that will recruit, mentor, and train local residents for high-skills careers. The program will be undertaken in partnership with vocational schools, community colleges and other local organizations.
45-6	Vineyard Wind has committed to a Resiliency and Affordability Fund, in partnership with their local partner Vineyard Power and Citizens Energy Corporation, that will contribute $1 million in annual funding for 15 years to provide substantial and self-sustaining low-income and community benefits to towns that host the off-shore wind project.
50-3	The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed here when there are significantly more appropriate alternatives, especially Brayton Point.
51-3	The Bay is a significant recreational and economic resource to both Yarmouth and Barnstable. Therefore, the cables should not be placed in Lewis Bay when there are significantly more appropriate alternatives, especially Brayton Point.

Comment ID	Comment Text
52-3	The Bay is a huge recreational and economic resource to both Yarmouth and Barnstable. These cables should not be placed in this area. Please look at the alternatives.
53-12	Due to the significance of commercial and recreational fisheries issues associated with this project, we recommend that "Fisheries Resources" be addressed as a separate section within the "Affected Environment" section. This section should include all of the biological, cultural, and socioeconomic issues related to fisheries resources. Specifically, this section should include an assessment of managed species, their status, and habitat requirements; landings and value of landings and recreational effort; fishery participants including vessels, gear types, and ports; and potential impacts beyond the vessel owner level (processors, distributors etc.). This evaluation should cover the immediate project area and adjacent locations.
53-17	Measures to minimize impacts such as soft start procedures, construction timing, anchoring plans, or micrositing should be discussed in detail...While the project should be planned to avoid and minimize adverse effects to the marine environment to the greatest extent practicable, compensatory mitigation should be proposed to offset permanent and temporary impacts. Social and economic losses as well as ecological losses should be considered, particularly any loss of fisheries revenue resulting from the construction and operation of the project. Measures to compensate for potential economic losses should be discussed in the EIS.
53-43	...information on fishing communities within New Jersey and New York must be included in the affected environment section, as vessels hailing from these states participate in fisheries within affected areas. Quantitative analysis of the potential costs associated with reduced fishing revenues as a result of short-or long-term effort displacement, reduced catch rates, changes to species composition, negative effects on spawning/recruitment, and permanent or short-term changes to EFH during construction, operational, and decommissioning phases of this project must be included in the COP and subsequent EIS. Opportunity costs such as revenue lost by fishing effort that is displaced into less productive areas, including vessels displaced out of the project area and those already fishing in an area into which displaced vessels move, and the potential for poor recruitment resulting from construction activities should be assessed. Similarly, analysis of the affiliated non-market social impacts of such activities needs to be included in the EIS.
58-3	The Bay is a significant recreational, commercial and economic resource to both Yarmouth and Barnstable, and to the state. And any impact could result in wide spread impact to the community.
58-4	Vineyard Wind project not only has an obligation but is required to ensure the safety of the community and as such appropriate consideration should be given to assessing the potential impacts to all alternatives. Clearly due to the high volume of use, both from a commercial and recreation perspective in Lewis bay makes this a HIGH RISH, HIGH IMPACT area.
66-4	The DEIS should include much more on Martha’s Vineyard fishing. Gillnets, lobster pots and squid trawls are all pre-existing uses of the lease area. Martha’s Vineyard’s economy depends upon the vacation industry, which depends on maintaining the picturesque fishing fleet of small boats. The iconic small boat fishermen and fisherwomen of Martha’s Vineyard need assurance of coexistence and/or appropriate mitigation. The DEIS should include much more data and should thoroughly explore impacts, possible avoidance of conflict, and a mitigation plan of substance.
66-5	Construction impacts will restrict navigation in some fishing grounds short-term. This short-term conflict may result in loss of income, boats or homes by those boat owners. There should be a mitigation plan with substance.
66-8	The Martha’s Vineyard fishing fleet consists mostly of small boats, often manned by a single operator with no crew. In order for fishing to continue within the development, there needs to be assurance that a small boat with an individual operator will be able to continue as before the development. A statement from USCG that the boats may still use the area, as long as they carry crew, would not help. Will these small boat owners be able to safely continue to ply their trade? Will they be able to purchase insurance for the extra liability? Impacts and mitigation need to be thoroughly addressed in the DEIS.

Comment ID	Comment Text
69-1	MA DMF remains concerned that the assumption that the area will be open to fishing is an oversimplification. We would like to see an assessment of the mechanisms by which fishing could be restricted (e.g. New England Fisheries Management Council action, actions by the Coast Guard associated with construction, insurance restrictions). The socioeconomic analysis in the EIS should assess alternatives that include the impact of no mobile gear fishing in the WDA.
69-45	The EIS should examine all potential reasons for vessel exclusion from the WDA resulting from installation of the project (e.g., increased insurance costs, feasibility of towing mobile gears around WTGs).
69-49	The EIS should consider whether the potential increase in angler activity in the WDA would require new or additional fishery management measures and potential socioeconomic impacts of those measures.
70-2	We need the jobs, especially in southeastern Massachusetts, which lags in median income behind other parts of the state
70-4	Seeing the economic numbers associated with building and operating the wind farm, by building local electricity, we can capture some of our electricity costs locally, instead of sending our dollars to other parts of the country or the world, we will support local employment, which will provide economic activity and tax revenue.
71-1	...Global warming and sea level rise is very much true and because of this I believe that sustainable power generated from off-shore wind is critically important. As a resident of Yarmouth with a livelihood based on the tourist industry and a little chunk of oceanfront land, I welcome what I've learned of Vineyard Winds plan.
75-2	What's more having a vendor from the community as Vineyard wind is will benefit our local economy and make sure the community is engaged and participates and all matters related to offshore wind.
78-2	Offshore wind also brings a rare economic opportunity: to cement the Bay State as a global leader in renewable energy, with southeastern Massachusetts as a hub of offshore wind development. All three offshore wind proposals offer economic benefits, and Vineyard Wind has pledged to commit millions on regional workforce and supply chain development, providing an excellent model for building and sustaining a local offshore wind industry.
78-5	Offshore wind is our chance to combine our maritime traditions and our history of environmental stewardship to create thousands of good-paying jobs, while becoming a global leader in renewable energy.
82-10	an independent study [is recommended] documenting the potential effects (monetary, inconvenience, health, and property value) on property owners directly affected by the transmission cable layout and installation.
83-31	In discussing the “No Action Alternative,” the Draft EIS should identify and discuss the positive environmental impacts of offshore wind, including the climate, environmental and public health benefits of offshore wind in backing out existing fossil fuel power plants and the associated public health, climate pollution, other air pollution and water pollution impacts associated with fossil fuel generation. BOEM has also catalogued other potential environmental, public health and socio-economic benefits of offshore wind (including electricity system benefits and jobs benefits) that should be identified and discussed in the environmental review process.
86-2	Financing the Cape’s wastewater infrastructure is becoming a regional challenge. While my town does not face the same degradation as areas on the mid-cape from wastewater pollution, Vineyard Wind can offer solutions to those communities whose nutrient loading problems will ultimately result in expensive solutions.
86-3	The Cape, and Truro especially, face an unsettling decline in the population of young people, and stagnant job opportunities. While we may be located far from the proposed wind lease areas south of the Islands, our children on the outer cape are active in the marine trades, and that connection to marine commerce stands to benefit young people on the outer cape and beyond...
87-2	Offshore wind power generation may also provide economic development opportunities for coastal communities.

Comment ID	Comment Text
87-20	The Vineyard Wind LLC's proposed wind energy facility may cause significant impacts to a broad range of ocean and coastal recreation uses. As part of the EIS, BOEM should analyze potential impacts to these activities, as well as resulting socioeconomic impacts. Such activities include but are not limited to: beach going, swimming, surfing, sailing, pleasure boating, diving, bird watching, whale watching, and other wildlife viewing. Scenic enjoyment of the undeveloped marine environment is a valued aspect of many of these activities, as well as a recognized recreational use itself.
89-21	BOEM must also do research on the costs of the trawl nets and gear used in the area, approximate labor costs and vessel down time, and require that a compensation fund contain more than enough funds to fully compensate vessel owners, captains, crew, and fish houses for lost gear, lost income/fishing opportunity, and lost product.
89-7	BOEM must work with NMFS, the Fishery Management Councils, and the fishing industry to gather detailed fisheries activity and socioeconomic information that can be used for financial compensation for every vessel that will be operationally excluded, should the Project go forward. This information must be included in an EIS, and direct financial compensation to individual vessels for the life of the Project made a requirement of COP approval
99-7	Adding another requirement to protect the fishermen would add to the cost per kilowatt hour and would make the arrays already sky-high cost go a little higher.
101-2	The impact of the cable installation, both underwater and onshore, appears to be minimal. Unlike previous would-be developers, Vineyard Wind would actually create local jobs and benefit local citizens. The company's proposed funds for jobs training and assistance to low-income households are unique and highly commendable.
107-2	This proposed placement will affect the environmental and economic life of the bay, which is significant recreational tourist and fishing site.
118-2	I whole heartedly support Vineyard Winds proposal to provide local jobs and other direct benefits.
121-1	We specialize in transportation and security are concern is the potential or lack of hiring local business/ companies?
124-1	I speak on behalf of the 1500+ men and women Pile Drivers and marine construction workers in the New England Division. We already have a 4 year training program to meet the needs of the existing offshore construction industry. We would like to know what additional training is required to make our workforce ready for this project.
126-2	The communities around should benefit, not in terms of development/jobs but in terms of money to states and towns.
130-2	It can create many good paying construction jobs and jumpstart an offshore wind industry in the United States.
130-4	During preparation and construction of offshore wind farms a supply chain can be developed creating millions of dollars of investment and thousands of good paying jobs
130-6	New Bedford MA is poised to use the marine commerce terminal to stage and deploy components for large offshore wind farms. The MA resource area has enough wind potential to provide electricity to the entire state. Large offshore units use direct drive to reduce parts and cut down on maintenance costs.
132-1	This project will be revolutionary and bring many jobs to the Vineyard
133-1	As a 20 year resident of MV w/ 2 young children I think this is a fantastic opportunity to help our community and the region. Environmental benefits seem to be vast and the local employment opportunities for local residents also seems to be great. I fully support.
137-15	Vineyard Wind emergency plans should be thoroughly reviewed by experts made up largely of local responders. Every type of emergency should be studied and responses planned out. If Vineyard Wind is to fund and staff the full response capacity, it should so state and the ROD should so reflect. If locals are to be relied upon, Vineyard Wind should so state and the scoping should require a detailed plan that identifies the training and equipment necessary for locals to respond to every type of emergency. Costs for that training and equipment simply must be part of Vineyard Wind's budget and must be paid to the local municipalities long before the project becomes operational, and annually thereafter.

Comment ID	Comment Text
137-2	The preferred location for the Vineyard Wind electrical-substation that will connect VW' s output to the regional grid sits atop the sole source aquifer which is the sole source of drinking water for Hyannis, a village in the Town. Hyannis is the economic center of Cape Cod as well as its medical center. It also is home to 15,000 residents who make up the Cape's most challenged economic population...Catastrophic failure of a single transformer could contaminate up to 50 BILLION gallons of drinking water and would require that the entire Hyannis water system be shut down indefinitely, if not permanently.
137-5	Because the risk of a release is ever-present and because the consequences of a worst-case scenario release would shut down the Hyannis water system indefinitely, the only way deemed feasible to protect the water system is to move the wellheads and treatment plant up-gradient from the proposed substation. The cost to do so is conservatively estimated at $32,000,000 in 2018 dollars. This outcome must be ordered by BOEM as a condition of approving the siting of the sub-station on Barnstable land.
137-7	Because of the threat posed to Barnstable's drinking water supplies as noted above, it would obviously be safer for Vineyard Wind to run its cables to Brayton Point and a very viable alternative. However, in a presentation before the Commonwealth's energy Facilities Siting Board on Tuesday, April 24, 2018, Vineyard Wind representatives conceded that they did not study the Brayton Point alternative because it was "less economic". The accuracy of the economics analysis is very much in doubt but, more relevantly, a solution that would eliminate such a dramatic risk to the Town's water supply should not be rejected out of hand in order to save a sum of money that represents a rounding error, given the capital costs and projected income to be derived from the Vineyard Wind project.
142-4	Another concern of the [Shellfish] Lease Holders is not being able to remove their gear in November and December for the winter because of congestion from Vineyard Winds equipment blocking the boat ramp at Englewood Beach. One solution would be installing a temporary boat ramp at Bayview or Baxter Ave until the project is completed or leave it in for future use.
145-1	Martha’s Vineyard sorely needs jobs, which Vineyard Wind will bring to the island and to other southeastern Massachusetts communities. Through execution of a Community Benefits Agreement and a commitment to a Resiliency and Affordability Fund, Host Community Agreements, and a Wind Workforce Initiative, Vineyard Wind has demonstrated its profound commitment to the local communities.
145-3	The Project is already in discussions with UMass Dartmouth, Bristol County Community College, Mass Maritime, and other southeastern Massachusetts educational institutions to ensure that area residents can be trained for the job opportunities the Project will create.
HY-01-1	what additional training for the marine construction workforce that's here is going to be required?
HY-04-1	We're a local climate change organization, and -- so that's -- I was very impressed with the segment of the presentation that was about community engagement, particularly with fishermen. The fishing community is the lifeblood of Cape Cod.
HY-04-3	We all want healthy oceans. My question is, when you're taking input from the public, how is -- how are the opinions of laypeople weighted -- I'm not going to say against -- but along with the fishermen -- the fishing community? There are so many people who live on the 1 Cape who are impacted by, you know, warming oceans, rising seas, more ferocious storms, and we see wind energy as, you know, what we need and fast, and we really don't want to see this project or any part of it to be laid unnecessarily because of objections that may -- some voices may be heard louder than others, than laypeople. So that's my question.
HY-09-2	The benefits that all of the -- all the components are offering unions, like the training for the labor unions, how is that enforced? These are not a material part of the application. So what is the enforcement mechanism so that whoever wins, whatever they promised to the communities, how can these citizens be assured that they're going to get what they're being promised?
HY-10-1	we do not see any earthly reason why you would place the cables through Lewis Bay(…)Lewis Bay in Hyannis, in particular, is a serious, serious recreational and economic driver of the towns of both Barnstable and Yarmouth. It is the ferry service that you used tonight to go out to get to a meeting on Nantucket, and it is a vital -- 1 it's fisheries. It's tourism. It's everything else. And as such, it does not belong there. These cables belong out in open ocean landing somewhere.

Comment ID	Comment Text
HY-11-1	we were just wondering about jobs for people on the Cape and Massachusetts in general.
KI-06-1	is this gonna be a commercial enterprise? And I was wondering if there was any revenue going to the, like, bordering communities or the state.
KI-10-2	Our fishing in this area will be all done and over, and then it'll be too late.(…) . So now we've lost this historical area, and it's become a charter boat tourist destination, and that's what they want to do. They want to go out, and they want to see the wind towers. They want to fish around them. Well, for them to come out, they're only allowed to catch eight fish per person per day, and, to them, they think that's great. Now, we're operating on a cheaper fish, where we have to catch 3,000 to 5,000 pounds per day. So if you take -- and where we haul three strings of gillnets. If we only produce 500 pounds out of each string, where we used to produce 3,000 pounds out of each string, we're operating at a loss. And we can't operate at a loss because crew is gonna go work somewhere else.
KI-10-3	...and these squid fishermen, they're gonna be in serious trouble. They're gonna be scratching their heads three years from now and say, "What happened?" And if it gets done during the spawning season, these percussion rings will kill the squids that are trying to lay eggs, and then the ones that do get the eggs laid, when these eggs hatch and still growing on, they're gonna kill them. So now there's gonna be whole generation of fish that are killed off. So two years from now, they're all gonna be down there waiting, and there's gonna be boats checking each week to see when they're showing up, and they're not gonna show up, and -- so now you're talking 200, 300 boats with four crew members on each boat, and that's the economy.
KI-11-1	I'm also a retired commercial fisherman for 40 years, spent decades here in these grounds (…) . Rhode Island harvests 60 percent of all the squid cost on the East Coast. So you can see it's a primary species for Rhode Island, and it is a huge economic factor. I'm concerned that if all of these grounds have turbines in them, we're not going to be able to tow in and amongst these. The grid pattern that you have for Vineyard Hav- -- for Vineyard Sou- -- for Vineyard Wind is not compatible to towing, you know. (...) So all of these grounds are going to be lost. We'll be displaced. And that's a grave concern, because when you lose these grounds, that means you change the effort and you put the effort somewhere else. And so that causes economic hardship for other fishermen in other grounds.
KI-11-3	So this, I think, is a viable solution. Now, they're not staggered. I didn't do this so that they're staggered because you had mentioned that it was important that they didn't steal the wind. So in order to optimize the wind, I've staggered these things so that they're a mile, a mile, and a mile, and the ones below it are in between that, and then you go back to the ones again that are a mile and a mile and a mile. So this is the layout that we have. The other thing I don't see are corridors. How do vessels that need to go to the south -- this would probably be better here -- that need to go to the south get through this maze? I mean, we're talking here -- from here to there, 40, 45 miles. So what do I have to do? I'm certainly not inclined to have my crew members steam, especially if it's foggy out, which it is most of the time in the summer when we're there, steam through this maze of wind turbines. I mean, it's suicide. So I have to steam 40 miles to go south, or I have to come back 40, 45 miles to go south? We're talking maybe one transit lane here by where Bay State is. One transit lane. So that means I still have to go 25 miles or 20 miles one way or the other, causing another expense, just so that I can go to the southern, so I can get below this maze of turbines to continue to fish. It's a problem, and it's something that needs to be addressed
KI-12-3	And I think that's particularly important, given the fact that there seem to be a number of assumptions that have been made in the COP, particularly with respect to revenue and impacts to the commercial fishery industry that are not accurate.
KI-13-1	I do consume electricity, and it concerns me that -- our nation seems to be against everything(…) . And we need electricity. And there's gonna be impacts no matter what. There's been impacts from oil spills on fisheries. There's absolutely going to be impacts if climate change becomes a serious issue.
KI-14-1	Because of the tremendous opportunity for offshore wind to provide electricity in a low-impact environmentally friendly way and because of the tremendous opportunity for economic development the offshore wind industry development here represents, my organization strongly supports not only this project but all of the projects that are envisioned for the coast.

Comment ID	Comment Text
NB-06-1	I'm the regional director for offshore wind for the Utilities Workers Union of America; and our union is responsible for installing, maintaining, and operating all the utilities on the Cape, New Bedford, Plymouth, Martha's Vineyard, Nantucket. I'm just wondering if anybody from Vineyard Wind has contacted anyone in our union to determine who is going to put those cables in and who is going to do the operations and maintenance on Martha's Vineyard, because I haven't heard anything.
NB-13-2	Lewis Bay is basically the only small, sort of shallow bay in Yarmouth; and it is a shared bay with Barnstable, and as a consequence, it is both a significant economic and recreational area for both communities. It is where the ferry boats to Martha's Vineyard and Nantucket come in. It's where the tour boats, the other sightseeing things where the yacht clubs are all located, where sailing programs are, and where numbers and numbers of moorings are placed.
NB-18-1	No one has said one word on how it's going to economically impact any of the small businesses in this area, what kind of goals you're going to have to utilize local businesses, how are you going to subsidize some of the people who lose their jobs fishing and other maritime industries.
NB-18-2	I never hear you guys talk about this and what we're going to do with the local community. These are the people we're going to train...How does somebody who is going to be losing their job in the fishing industry know how they're going to be re-trained in the offshore wind industry? When are we going to hear that BOEM is proposing to spend "X" amount of dollars retraining our fishing industry?
NB-18-3	When are you going to hear they're going to hire small businesses locally? When are we going to hear that we've got an opportunity to participate in the next biggest industry that this country is proposing?
NB-19-1	Do you have any regulatory guidelines or goals for economic impact with these projects, or is that specifically in the hands of gentlemen like this who are making a personal commitment however you can't guarantee that the other companies that are coming from Europe that are participating in this project are not bringing their own employees? What kind of goals do we have to protect our mariners, our fishermen, and our local maritime companies?
NB-21-1	And at the end of 2021, vineyard Wind will support 1500 ... marine-skilled employment positions; and that it goes 78- to $85,000... We're going to have Europeans coming in. The experts in wind farms are Europeans. Who is going to have those 1500 jobs. The Europeans... we're going to lose our historic jobs to be outsourced to Europeans. ... A BCC graduate does not get jobs at $80,000. ... Who is the skilled marine workers that know about wind farms? Europeans.
NB-21-2	And then another thing is they're all European-built boats doing the research. Not a single American boat. And that just blows my mind. And how we can use European-built fishing boats and how the American companies either outsource their work to European vessels and they're operating again through the Jones Act...
NB-23-1	But there's not a single European fishing vessel that fishes out of New Bedford, but there's going to be European wind building vessels.
NB-26-1	The problem is there isn't enough skilled workers. I'm in the union... We can get them trained. Right? I'm telling you we're not going to have Europeans overrunning our country, our city, our state...We can support skilled workers. And if we can't do it, we'll learn. We'll train our workers... Anything that you can do to help the local fisheries and help the local fishermen out, you know, let's get it done...
NB-27-1	I had the pleasure of working on the Block Island project. I was actually a captain of the U.S. transit vessel which was built in Warren, Rhode Island. I know a lot of Europeans worked on the project, and I can speak to the key technicians that work on the project now. They created a lot of specialty jobs. There are guys that got jobs.
NB-27-2	True, the Jones Act doesn't protect against everything, but it does a great job on transfer vessels. Those guys are out there working on the project doing the cable runs. They're a New Jersey based company. American crews; American captain. So I think that a lot of effort has gone into using U.S. Flagged vessels, and the Jones Act protects that.

Comment ID	Comment Text
NB-28-1	Anyway, one of the biggest concerns they had is in the Environmental Impact Statement, they made promises. Jobs, education, et cetera and so on. The biggest concern I heard from the community is they had made a whole lot of promises and we don't think they're going to keep them. My biggest concern to you, BOEM ... is keep your promises to the community to create these jobs.
NB-30-1	So after the build-out, after this infrastructure project is done, how many full-time jobs will be left in the wake of the build-out after the build-out is done? Can I add on to that? How much will my electric bill go up or down after this project's done?
NB-30-2	Full-time jobs and electric bills. How does that balance out compared to what we could potentially lose, and you know they lost fishing jobs on the projects over in Europe,
NB-30-3	You've got a crystal ball that seems to be working pretty good from your point of view. It should also be able to tell you what the cost to the consumer will be, and then you'll be able to compare that to the economic loss; right? Because you're saying the jobs in this wind business are going to be more than the displacement of commercial fisheries; right? And I'm saying you don't know these numbers because you're talking about $2 million for training. Of the 20 boats that fish down there, I know 2 of them. Only 2 of the guys that I talk to, and they're stocking over a million dollars a year. And that's 2 boats stocking a million dollars apiece, and all that money is coming back into this city; right? You're talking about one shot, $2 million trade. So if you're going to come in here and talk to us about economic impact, right, and we're going to mitigate this and we're going to figure that out, you can't really be telling me that you don't know what the power is going to cost and you don't know if the savings is going to be greater than the economic impact to the fisheries; right
NB-31-1	These jobs in New Bedford can create full-time jobs on Martha's Vineyard?
NB-31-2	So when this -- the full-size project is implemented, you know, Vineyard Wind, Deepwater Wind, it will eliminate the summer squid fishing. The summer squid fishing is 50 boats. These boats have four people. That's 200 full-time jobs.
NB-37-4	You know, we're going to create 1500 jobs. Well, what if a Category 4 hurricane comes and knocks them out for five years? How do you know if it's going to survive a Category 4 hurricane? And that box is -- you're not going through it. It's going to be a wasteland. There's going to be no more fishing in it. We're going to lose our historic jobs. It's as simple as that.
VH-02-1	I'm on the Energy Committee in town. So two questions for you. First off, how will this impact the cost of electricity for a typical family on the Vineyard?
VH-09-1	I've fished out of every port on the island. That designated area has been my backyard. I have major concerns. I have permits in that area. You can draw out all your charts and can show where everything is going, but I don't see any fisheries management closures or any division of areas that you even show on your charts, which is frustrating to me. I have an Area Two permit right smack dab in the middle of where all these turbines are going. I am going to be affected. How do us as fishermen we as fishermen get coverage for this?
VH-14-1	I have a question about the job creations. I think that's a giant selling point. I've heard over in New Bedford it's going to be thousands of jobs and here on the Vineyard thousands of jobs, but they don't go into specifics about what kind of jobs. Do you need to have a degree, do you need to be an electrical engineer, or can you have a GED and get a decent job. So can someone answer me about the specific types of jobs that will be available?

TERRESTRIAL PLANTS AND ANIMALS

Comment ID	Comment Text
40-9	The EIS should provide a description of wetlands, streams and other waters of the United States that may potentially be directly or indirectly affected by the proposed infrastructure or activities associated with the project. We recommend that the discussion include the range of design/construction measures that can be implemented to avoid and minimize impacts of transmission cables as they transition to shore from the marine environment.
40-10	Where fill is proposed or the alternatives will otherwise impact wetlands or other waters of the United States, the EIS should explain how the activity will comply with EPA's Clean Water Act regulations issued under Section 404 (b)(l), referred to as "EPA's 404 (b)(l) Guidelines." The ElS should include an evaluation of ways in which each alternative can be designed to avoid, or where unavoidable, minimize direct and indirect impacts to wetlands and other waters. The evaluation of direct and indirect impacts should fully consider both temporary and permanent impacts. The evaluation of indirect impacts should include any clearing impacts for the proposed terrestrial construction activities resulting in a change (either permanent or temporary) of cover type within a wetland (e.g., converting a forested wetland to an emergent or scrub/shrub wetland). In addition, construction related indirect impacts, including water quality impacts and erosion or sedimentation impacts to wetlands or waterbodies should be analyzed.
40-11	All construction practices which will be utilized to avoid and minimize impacts to wetlands and waters should be documented in the EIS. Specifically, standard conditions to protect wetlands and waters should be documented in addition to steps which may be taken to reduce impacts to particularly sensitive areas, such as vernal pools. The EIS should also include a conceptual discussion of anticipated compensatory mitigation for unavoidable direct and indirect impacts to wetlands and other waters, including cover type conversions from construction and operation of the project. The mitigation analysis should also identify measures to address potential impacts to state and federally listed endangered and threatened species.
82-9	an independent study [is recommended] documenting the potential environmental effects of the land based lines and connections in Yarmouth and Barnstable

VISUAL IMPACTS

Comment ID	Comment Text
87-20	The Vineyard Wind LLC's proposed wind energy facility may cause significant impacts to a broad range of ocean and coastal recreation uses. As part of the EIS, BOEM should analyze potential impacts to these activities, as well as resulting socioeconomic impacts. Such activities include but are not limited to: beach going, swimming, surfing, sailing, pleasure boating, diving, bird watching, whale watching, and other wildlife viewing. Scenic enjoyment of the undeveloped marine environment is a valued aspect of many of these activities, as well as a recognized recreational use itself.
97-5	Reduce the development footprint by moving the first rows of turbines further from Nantucket's shore [see figure in submission]. In referencing the map of the "Wind Development Area for COP Review," we strongly advocate for the developer to relocate the closest thirteen WTGS from the first three rows, to the rear of the development area (see enclosed map markings). This design modification of essentially "pushing back" the closest, most visible WTGs from Nantucket, would minimize the local visual impact, without reducing the power output potential of the lease area.
97-6	Defer development of the closest WTGs to allow technological advancements that could lessen the visual impacts. Based on public feedback of the visual simulations, we understand that that the most negative reactions to the WTG visuals are primarily associated with the number of turbines visible from the coastline, and not necessarily the size of the turbines. With the prospect of larger turbines (10-12MW) being available to developers in the near future, a lesser number of turbines will soon be required in order to achieve the same power output.

Comment ID	Comment Text
97-4	Nantucket's economy is seasonal in nature and tourism driven. Not only are visitors attracted to the Island's preservation of historic buildings, places, and districts, but also to its world-class, public beaches. We are therefore sensitive to any potential visual impacts to the ocean horizon and sunset views, especially from the Island's southern coastline: from Madaket Beach in the west to Sconset Beach in the east.
99-5	The Governors also learned from Cape Wind that no one wants to see wind turbines in front of the multimillion-dollar vacation homes. Therefore, they (the Governors of NY,MD, VA, and other states) drive the arrays offshore into the fishing grounds. This is a shame because they could get less expensive power if the arrays were within state waters or near shore where the construction would be less expensive and the cable runs would be much shorter.
97-2	In order to preserve and protect Nantucket's nighttime environment and our heritage of dark skies, we strongly urge the use of FAA-approved "Aircraft Detection Light Systems" (ADLS), as the most environmentally-responsible lighting option.

WATER QUALITY

Comment ID	Comment Text
3-1	I attended a meeting whereby a representative from Vineyard Wind spoke about the level of attention that will be paid to the environmental impacts while building this and installing the cable. If they do what they say they will do, the Lewis Bay area will be in better condition when they're finished.
4-2	We note a dramatic increase in recreational boating and commercial traffic...This boating use impacts Lewis Bay by kicking up sand, causing a noticeable decease in depth due to the displacement of water disturbing the bay bottom by larger ferry boats and high speed ferry craft. Shoaling is a continuing and significant issue in Lewis Bay aggravated by a lack of dredging.
14-6	This EFH in Lewis Bay is being impacted by eutrophication (Nitrogen enrichment from septic systems) and climate change (warming waters and ocean acidity) which would negate any short term changes from installing submerged power lines from the offshore wind farms.
22-4	The MLA is extremely concerned about any negative impact to the resources from the EMF and jet plowing
40-29	In addition to providing air pollutant reduction benefits, the project and others like it, may supplant traditional power plants in the region which are often cooled by water withdrawals from nearby waters. EPA recommends that the EIS discuss these environmental benefits, including any improvements to fish habitat, and related spawning and survival rates that may flow from the reduction in water cooled plants.
40-7	...we recommend that the EIS describe the activities requiring authorization for any stormwater discharges...Based on information provided in the COP and discussions with BOEM and the applicant, it appears that offshore construction and operation activities will not likely result in discharges requiring NPDES authorization. It would be helpful if the EIS contains specific information to specifically determine whether the project will result in discharges of pollutants to waters of the United States. If discharges will occur, they should be described in the EIS and Vineyard Wind should plan to submit applications to EPA in support of NPDES individual permits as soon as possible in the process.
40-8	Additional details should be provided in the EIS to explain how vessel operations will prevent the discharge of pollutants from routine releases, as well as potential releases of non-native marine organisms through the discharge of ballast water originating from foreign ports if such vessels will be used during the construction or maintenance of the project. It would also be helpful if the EIS describes how the project will be consistent with state requirements related to vessel discharges.

Comment ID	Comment Text
41-30	The potential land-based routes for routing between landfall and grid interconnections are located primarily within roadways, road edges, existing utility rights-of-way, or other previously disturbed corridors. Nonetheless, detailed plans and procedures need to be identified to minimize impacts to habitat, soils, and surface and ground water. Any impacts to Article 97 lands should be avoided if possible, and if it is determined to be unavoidable, then full compliance with the Article 97 policy and procedures should be demonstrated in the EIS.
43-5	The review should also evaluate impacts to benthos, sediment, and aquatic vegetation.
43-8	With respect to Vineyard Wind's proposed transmission line routes and interconnection plan, the Alliance is aware of concerns, including impacts to groundwater resources that have been expressed by the Town of Barnstable.
43-9	neighborhood associations in the Hyannis and Yarmouth areas are opposed to constructing cables through the entrance to Hyannis Harbor and Lewis Bay because of potential impacts to fragile natural resources.
46-1	They have proposed laying three cables in Lewis Bay less than a quarter of a mile from my [oyster] farm. These trenches will be approximately six feet wide and six feet deep. They have provided no proof that the silt from these trenches will not end up moving on top of my farm and covering, and smothering my oysters.
46-2	My concerns regarding the silting also extend to the quahog population for the Town of Yarmouth. If the quahogs also get smothered by the silt it would eliminate another portion of my income. They have also given me no proof that the scallop population will not end up in the trenches, again getting smothered.
46-3	They also want to do the work of laying the cables right in the middle of scallop season. They claim that each cable should take approximately a week. This would mean that for three or more weeks that [I] will not be able to work. This would also be a huge hit to my income as well as many others.
49-1	Our ground water is very precious... if there is a leak from the tubing coming down the road... Our aquifer would be in danger if the chemicals from the leaked tubing gets into our ground water.
53-13	All activities included in construction of the project should be considered, including the deposition of fill material, dredging, water withdrawals, pile driving, increased vessel traffic, anchoring, and transmission cable installation.
53-15	Potential impacts to marine resources associated with construction and operation of the project, such as elevated noise levels, increased vessel traffic, electromagnetic fields (EMF), and localized changes in currents should be evaluated.
53-49	Potential effects of offshore wind energy development on listed species that should be considered by you when making any determinations about construction and operation in the Vineyard Wind project area include:...any impacts to water quality.
53-9	The "Affected Environment" section of the EIS should cover a sufficient geographic area to fully examine the impacts of the proposed project and support an analysis of the cumulative effects. Within this section, the EIS should include results of on-site surveys, and site specific habitat information including the physical oceanography (temperature, salinity, depth, and dissolved oxygen), plankton and larval distribution, chlorophyll a, and characterization of benthic communities. Additional details should be provided related to sensitive habitats in the project area.
63-2	We currently face intense eutrophication in Lewis Bay requiring a near-term solution for the health of the Bay and this fragile ecosystem. Placing a further burden on this waterway with underground cabling making landfall, has the potential to further degrade our ecosystem and place critical restraints on our ability to improve the water quality going forward.
68-2	Extraordinarily serious potential toxic impact on Cape Cod water table!
69-17	Clarification of how fishermen will be notified in the event of an oil spill, and the process for oil spill reparations, is needed.
69-20	The EIS should include a clear description of how eelgrass and winter flounder impacts from turbidity would be avoided, as well as minimization of impact to horseshoe crab, quahog and bay scallop resources and fishing activities [at the New Hampshire Avenue Landfall Site].

Comment ID	Comment Text
69-22	Impacts to marine habitat associated with the New Hampshire Avenue Landfall Site using the open cut trench method are characterized as “short-term and highly localized.” (p. 6-86). This statement requires supporting information on expected turbidity plumes and benthic habitat characteristics pre- and post-trenching.
69-40	Turbid water created by the jet plow or other dredging technique may hinder the horseshoe crab’s ability to find mates, as vision plays a large role in the ability of males to find females (Barlow Jr. et al. 1982, Saunders et al. 2010). Minimizing this type of impact can be addressed in project sequencing.
77-8	More research on the impacts these projects may incur on the physical oceanography of the area (i.e. currents, sedimentation), impacts from electromagnetic fields on fish and invertebrate migration and behavior, and acoustic impacts on piling driving on fish and invertebrates, should be prioritized prior to the start of the construction and operation phase.
82-11	an independent study [is recommended] documenting the potential effects of all materials of any form, or soluble materials, used in the installation and/or operation of the transmission lines or connections in Yarmouth or Barnstable. Alternatives, remediation and containment for the prevention of contamination of the environment and ground water should be emphasized.
87-13	BOEM must also analyze impacts to air and water quality from construction and maintenance vehicles, including pollutant emissions and chemical leachates.
87-16	For each of the environmental impacts listed above, BOEM must analyze them seasonally, as different species have varied sensitivities at different times of the year.
87-9	During installation of the turbine foundations and power cords, sediment will become suspended and impact the marine environment, especially if the sediment contains any toxic materials from historical offshore dumping. Careful analysis of turbine siting should be conducted to minimize the impact from such pollution during construction. Impacts from any fluids released from turbines during operation, such as lubricating oils, must be examined and mitigated.
88-1	What will be the impact of the silt and sediment throughout the water column when the turbines are constructed by pile driving and the miles of electric cable jettisoned into the seabed? Will the oceans warm due to more sediment in the water? Will the ocean currents distribute the silt/sediment in other locations, changing the ecosystem?
96-4	The cables installation will then move up the road interfering with residential and commercial ingress and egress. Then, they will move through a sensitive well water shed area, under a 4-lane highway (the major route to our central hospital, commercial district and airport), and under railroad tracks (requiring significant permitting issues). They then propose the cables will be brought underground through protected conservation land with restricted covenants. Then the propose to pull the cables through community known as Cummaquid Heights. This land is owned by adjacent homeowners who have not been properly noticed by VW of their proposals.
96-5	Next, the cables will be brought up Mary Dunn Road directly past two very large water towers supplying a large portion of Cummaquid Village and be brought into a proposed high-powered switching station directly abutting a brand new affordable housing project, home to hundreds of new residents who could be potentially endangered by this added power handling in addition to what currently exists there.
102-1	A danger to our well field in Hyannis, MA and danger to our roads. There has been construction on 28 and Bearses Way for over two years construction on Strawberry Hill Rd and 28 RT just finished. "ENOUGH!"
137-10	It is critical to a competent review that a full review of the towers and ESP's assure BOEM that these structures can withstand the assault of Category and higher hurricanes and of increasingly ferocious winter storms. This is especially important because, as discussed below, these structures will house 123,000 gallons or more of dielectric cooling fluids. Because of this massive volume and the inherent threat to the marine environment, whales, and sea life, robust containment that will withstand the sheering collapse of a tower or ESP is simply paramount.
137-12	...[if the ESPs collapsed or sank]...some 615 BILLION gallons of seawater would be contaminated to a level beyond which, if were drinking water, could not be consumed by humans. Surely this level of contamination would be disastrous for sea life, including potentially the endangered Right Whales which have been seen in the area.

Comment ID	Comment Text
137-13	The currents at Muskeget flow at a high of about 4.4 knots which is as strong as the notorious Hell's Gate in New York City's East River. If there is a release of hazardous fluids and those are blown to the north and northeast, they will quickly be sucked into the Muskeget "vacuum" and deposited in Nantucket Sound. Within hours of that event, the hazardous fluids could easily be on the beaches and marches of Martha's Vineyard, Nantucket, and Cape Cod while poisoning everything in between. The magnitude of these risks mandate a thorough study of the worst case scenario to better understand reaction and containment strategies that may be available.
137-14	For the same reasons, a comprehensive oil spill response plan is vital. The on-site and remote equipment needed to contain a spill at sea must be evaluated. Response time from the yet-to-be-identified Vineyard Wind Operations Center must be calculated in worst case weather conditions. Personnel assignments must be realistic. Outside contractors' response time and equipment must be evaluated in worst-case road traffic conditions, given transit from Boston, Providence, or other remote locations. Again, for on-shore response, the same parameters must be evaluated. Alarms, containment, personnel, chemical composition, solubility, soil composition, etc. are vital to protecting the aquifer. None of these matters have apparently been examined and no ROD should issue until all of these absolutely critical elements are studied, understood, and factored into real-life response scenarios.
137-17	It is undisputed that Lewis Bay is experiencing ecological degradation. At least one solution will incorporate extensive dredging to facility better water flow into and out of the Bay. It is critical, therefore, that cables be sunk to a depth that would allow dredging to take place throughout the Bay, unhindered by a shallow cable. Woods Hole Oceanographic or other eminently qualified consultants should review such contingencies and their approval of final plans should be a prerequisite to a ROD...the cable should be set at sufficient depth and distance from the channel edge to allow for proper sloping of the sides of a deeper channel [to accommodate deeper dredging for larger draft vessels in the future.
137-19	The allowable concentrations [in fire-fighting foam on ESPs] are in trace amounts so it is vital that BOEM mandate extensive disclosure of what foams, if any, will be allowed. It is also important to understand how thee foams will be contained and recovered once discharged.
137-2	The preferred location for the Vineyard Wind electrical-substation that will connect VW' s output to the regional grid sits atop the sole source aquifer which is the sole source of drinking water for Hyannis, a village in the Town. Hyannis is the economic center of Cape Cod as well as its medical center. It also is home to 15,000 residents who make up the Cape's most challenged economic population...Catastrophic failure of a single transformer could contaminate up to 50 BILLION gallons of drinking water and would require that the entire Hyannis water system be shut down indefinitely, if not permanently.
137-4	We also know that groundwater is about 50' below the proposed substation. Any release could be in the groundwater in as little as two days and would then flow to nearby public wells in as little as 7 days. See preliminary opinion of Environmental Partners, attached as Exhibit 3. The ground beneath the proposed substation will need to be extensively tested to determine permeability. Fluids will need to be tested for viscosity and real-life testing will be necessary to determine rate of percolation in the subject soils. Trace testing will be necessary to determine how quickly these fluids would travel to the wellheads. With that information in hand, the risk can be more readily quantified.
137-5	Because the risk of a release is ever-present and because the consequences of a worst-case scenario release would shut down the Hyannis water system indefinitely, the only way deemed feasible to protect the water system is to move the wellheads and treatment plant up-gradient from the proposed substation. The cost to do so is conservatively estimated at $32,000,000 in 2018 dollars. This outcome must be ordered by BOEM as a condition of approving the siting of the sub-station on Barnstable land.

Comment ID	Comment Text
137-6	..interim steps must be implemented to provide temporary protection to the Hyannis well system. This would come in the form of robust containment vessels under the proposed substation as well as retro-fitting the adjacent Eversource sub-station and the Eversource substation in West Barnstable. Curiously, from day one, Vineyard Wind has, to its credit, offered to install such containment but there is no discussion whatsoever in their COP. Detailed, state-of-the-art plans will need to be developed and approved by Town Engineers. The on-shore cannot proceed without such containment.
141-3	There are many known problems with such a heavily used bay with a very narrow access at its mouth. They include the nitrogen loading issue for which the Town of Yarmouth is seeking multi-town long-term solutions; and shifting sand, sediment movement, island expansion and harbor entrance narrowing issues that required/will require additional dredging and have already been discussed at other hearings by residents with historical documentation/maps. Yarmouth and Barnstable need to have the ability to plan and implement remediation that will not be compromised by obstruction from these cables.
142-1	First, I suggest that Catastrophe Insurance or Bond be put in place in case of any catastrophic accidents that are located in Lewis Bay; associated with the Vineyard Wind Project. Some of the monies the Town of Yarmouth receives from Vineyard Wind Project should go into a dedicated fund for Lewis Bay not the General Fund. This would allow money for monitoring the water quality, monitoring the viability of the established shellfish population located in Lewis Bay and the overall health of the Bay, along with money available for future seeding of shellfish in Lewis Bay for years to come.
142-3	...when jet plowing the (3) three cables into the bottom at a depth of (6) six feet, the plow might stir up something toxic that's been buried for hundreds of years in the bottom of Lewis Bay which will mix into the overlying waters of the Bay, where it could be consumed by the shellfish. One answer to this problem is to jet plow the cable when the water temperature of Lewis Bay is at or below 45 degrees F, so the shellfish will not be pumping much water as their metabolisms will be shut down for the winter.
147-13	Installation of the WTGs, ESPs, and offshore cables will have potential water quality impacts caused by both dredging and jetplow activities, including increases in total suspended solids. The impacts should be quantified, evaluated and presented in the EIS, along with measures to be taken to minimized and avoided.
147-28	EIS should include the following information relating to the offshore structures and facilities: - The differences between the three proposed foundation types should be assessed, particularly the environmental impacts of each type; - More information should be presented regarding the potential scour protection to be employed for each type of foundation and the potential for habitat conversion, with a focus on the protective characteristics and beneficial uses (marine and fish habitat) from different rock sizes; - Potential effects on wind velocities and wave heights impacting the south coasts of Martha's Vineyard, Nantucket and Cape Cod, particularly in light of the modeling presented in the recently released BOEM study entitled Use of Finite-Volume Modeling and the Northeast Coastal Ocean Forecast System in Offshore Wind Energy Resource Planning (BOEM 2016-050). - An analysis of the impacts caused by an array of turbines should be presented and discussed in the EIS, including effects on currents and water flow and the resulting potential changes to the distribution and abundance of fish and invertebrate eggs and larvae, with a focus on commercially and ecologically important species.
147-32	… the EIS should describe how all vessels associated with the project will be equipped, and how all captains and contractor will comply with no discharge regulations.
HY-03-11	really thorough comprehensive examination of the effect of vessel collisions with the ESPs and the monopiles(…) We're going to need to understand what's in there by way of potentially hazardous fluids and so forth in the monopiles up in the transform- -- up in the generating units. But certainly at the ESPs, we really need to know how those facilities 1 will handle a collision with a good-sized vessel because what we don't want to see is the whole ESP collapse into the water.

Comment ID	Comment Text
HY-03-12	with the increasing veracity that we've seen up here on the Cape just in the last 12 months of storms and frequency of storms, that -- the very real possibility that Category 3, 4 or, God forbid, 5 storms, hurricanes might hit us, and we need to know definitively, again in terms of the cumulative effects -- not only for this project but cumulatively -- how much of this dielectric fluid is going to be sitting out on ESPs south of the Vineyard, and are all of those projects going to be built to stand -- to withstand this type of potential impact
HY-03-17	I don't know what's being proposed for containment out there, but given the high toxicity of this -- of these fluids, if we're going to be out there, we've got to have on-site robust containment capacity to launch immediately to -- I just don't know what the effect of the fisheries will be if you have that because this stuff creates such sensitivity to the water, and I don't know what the effect would be of a spill of that category, if you lost an ESP because of some 1 catastrophic event.
HY-03-5	the way that the industry cools that off is with so-called dielectric fluids that regulate temperatures. Massachusetts has what we call the Massachusetts Contingency Plan, which is administered by the DE- -- state DEP. And when you generically go through that Mass. Contingency Plan, from what we learned in the Cape Wind case and the makeup or the chemical makeup of these dielectric fluids, the math is such that more than 1 gallon of -- or a gallon of -- I should say a gallon of dielectric fluid would pollute and make undrinkable 5 million gallons of groundwater.
HY-03-6	the site for the proposed substation is directly upstream at about seven days away from a spill reaching our town wellheads, and those wellheads service the Cape Cod Hospital, the entire economic part of the Cape, and about 15,000 residents(…). If you had a catastrophic spill at the substation, the result would be rendering undrinkable 1 billion -- 100 billion gallons of water
HY-03-7	and if there's a catastrophic release out there, you can do the math and see that this could have a critical impact to the environment out there
HY-03-8	so I think it's incumbent that we all understand -- and particularly led by BOEM and your scientists -- understand fully and with real specificity what dielectric fluids are going to be used at the site, number one, and, two, what their chemical content is and 1 what their viscosity is(...)
HY-03-9	The standard of review, both federally and at the state level, is that it isn't the question of whether or not there is a chance that a -- a small chance that a project might go awry and, in this case, that might be a release of these fluids. It isn't the small chance that one needs to focus at as one scopes a project. The question is, in scoping, if that one chance materializes, that small chance materializes, your obligation, both at the state level and also the federal level, is to plan for that worst-case contingency.
HY-16-2	Another thing is that when you're running these cables through the bay, it is the dredging. We have to have tidal flushing in there, and we're so shallow in places now we're not getting enough tidal flushing through the bay. So once that comes to fruition, there wouldn't be any chance to dredge. You can't dredge under it. You can't dredge over it because, if you expose it, it can't be left that way. It becomes a danger.
KI-07-3	let's think about the environment. Everyone says green environment, but as Tina spoke out, all the stuff inside them is not good. I mean, they make oil spills, the water heat up, and the electronic mag- -- the field, I think, in my eyes, has hurt the fishing, personally
KI-07-4	I mean, I was fishing right there when they pile drive them in. And days they were pile driving, all the fish in our nets were dead. They were completely dead. In the silt, the water was completely disgusting, and no fish would want to be in there while it's getting it done. And they're trying to say it doesn't affect the fish, but they have somebody out looking for any marine mammals. (...) , that's just what I'm nervous about [with Vineyard Wind]
NB-01-3	Are you using mitigation to prevent silt, sand redistribution? What kind of dredging are you using to get that cable buried?
NT-02-1	But I'm sure you guys looked at the Block Island project with a sharp eye. What issues, if any, do they have down there, as far as did they, you know, do preliminary surveys -- bird, mammals, benthic community -- during the construction? Were they, you know, totally monitoring the amount of turbidity in there, the reaction with animals? What -- so I'm curious of what things you might have found down there that would be watched up here with a good eye.

WETLANDS

Comment ID	Comment Text
40-9	The EIS should provide a description of wetlands, streams and other waters of the United States that may potentially be directly or indirectly affected by the proposed infrastructure or activities associated with the project. We recommend that the discussion include the range of design/construction measures that can be implemented to avoid and minimize impacts of transmission cables as they transition to shore from the marine environment.
40-10	Where fill is proposed or the alternatives will otherwise impact wetlands or other waters of the United States, the EIS should explain how the activity will comply with EPA's Clean Water Act regulations issued under Section 404 (b)(l), referred to as "EPA's 404 (b)(l) Guidelines." The ElS should include an evaluation of ways in which each alternative can be designed to avoid, or where unavoidable, minimize direct and indirect impacts to wetlands and other waters. The evaluation of direct and indirect impacts should fully consider both temporary and permanent impacts. The evaluation of indirect impacts should include any clearing impacts for the proposed terrestrial construction activities resulting in a change (either permanent or temporary) of cover type within a wetland (e.g., converting a forested wetland to an emergent or scrub/shrub wetland). In addition, construction related indirect impacts, including water quality impacts and erosion or sedimentation impacts to wetlands or waterbodies should be analyzed.
40-11	All construction practices which will be utilized to avoid and minimize impacts to wetlands and waters should be documented in the EIS. Specifically, standard conditions to protect wetlands and waters should be documented in addition to steps which may be taken to reduce impacts to particularly sensitive areas, such as vernal pools. The EIS should also include a conceptual discussion of anticipated compensatory mitigation for unavoidable direct and indirect impacts to wetlands and other waters, including cover type conversions from construction and operation of the project. The mitigation analysis should also identify measures to address potential impacts to state and federally listed endangered and threatened species.