Summary of Scoping Comments

In order to develop the scope of study for the MMS Draft Environmental Impact Statement, MMS requested comments on the proposed Project via a public notice in the Federal Register on May 30, 2006 (71 FR 30693). MMS extended the time limit for the comment period from July 14, 2006, to July 28, 2006 at the request of commenters to allow extra time for development and submittal of scoping comments. The following is a summary of the comments that were received.

In addition, the Project had previously undergone a partial NEPA review with the U.S. Army Corps of Engineers (ACOE) as the lead agency. During the ACOE review process, a Draft Environmental Impact Statement (DEIS) was issued, and the ACOE received approximately 5000 comment letters and email comments on the ACOE DEIS. Although NEPA review of the Project has since been transferred to the MMS (Section 388 of the Energy Policy Act of 2005 gives MMS responsibility for reviewing renewable energy projects in offshore waters), MMS has decided to incorporate all the previous comments originally made on the ACOE DEIS as scoping comments for the new MMS DEIS. MMS is also taking into account in the scoping process, over 500 comments that were made at ACOE public hearings held in Yarmouth, Martha's Vineyard, Cambridge, and Nantucket, Massachusetts. As a result, this DEIS has an extensive number of comments, which have been used to develop the content or "scope" of the DEIS.

The following is a general summary of all the comments combined from both the MMS and ACOE process. This DEIS will address these comments to the extent they are applicable and necessary to reach conclusions as to the scope and extent of Project impacts. The comments are summarized below in the following categories.

- Regulatory Process
- Alternatives Analysis
- Construction, Operations, Decommissioning
- Geology and Sediments
- Oceanography
- Water Quality
- Air and Climate
- Noise
- Electric Magnetic Fields
- Avian and Bat Resources
- Freshwater and Coastal Wetlands
- Wildlife
- Fisheries – Socio-economic Impacts to Commercial and Recreational Fishing
- Fisheries – Environmental Impacts
- Benthos and Eel Grass
- T&E Species
- Socioeconomics
- Transportation

- Communications
- Cultural Resources
- Aesthetic/Landscape/Visual
- Transmission Interconnection

Regulatory Process

Comments with respect to the regulatory process generally fell into the following subtopics: 1) public trust issues; 2) objectivity concerns/conflicts; 3) request for further review/information/data in the new DEIS; 4) homeland security; 5) need for national Policy for use of Ocean Resources; 6) the Ocean Sanctuary Act; 7) state boundary issues; 8) Marine Mammal Protection Act; 9) compensatory mitigation; 10) ACOE jurisdiction; and 11) inclusion of agency comments.

Many commenters were concerned with the private use of public land. Some stated that Cape Wind Associates, as a private developer, does not have the right to exploit public lands. Most of these comments also stated that there should be a fee and/or leasing agreement for developers to use public land. Others suggested that there should be competitive bidding for the public land so that the public can benefit from its use.

Several comments addressed the concern that the EIS was not written objectively enough. Some believed the language in the ACOE DEIS favors the Project which raises question of the objectivity of the conclusions. Independent studies and third party verification in order to confirm objectivity were requested by several commenters.

Many comments discussed the need for additional information and data to be included in the new DEIS. Some of those data requests included: a more detailed economic benefits discussion, accurate predictions of Wind Farm power production, leasing conditions, effects of construction, operation and maintenance, mitigation measures, and more detail on negative impacts of the Project.

Some commenters were concerned with the security of the Project. Commenters questioned how the wind farm will be guarded and the potential threat of terrorism/crime.

Numerous commenters addressed the need of a National Policy for the use of ocean resources.

Commenters addressed concerns of the Project being located within a marine sanctuary, since the Massachusetts Ocean Sanctuary Act specifically prohibits construction or operation of offshore floating electrical generating stations.

Several comments questioned the Project in relation to its location within the state boundaries. Commenters noted that the Massachusetts boundary had been expanded and are concerned that the Project does not consider the true state boundaries.

Commenters expressed concerns that the Project would be in violation of the Marine Mammal Protection Act and/or needs to obtain a permit under the Act.

Several commenters requested that a more detailed compensatory mitigation section be included in the DEIS for both temporary and permanent impacts. More specifically, comments recommended that funds should be established for impacts on avian and marine life/resources, and that a more thoughtful depiction of the impacts and mitigation on cultural resources be included as well.

Some comments requested that the relevant agency comment letters be included and specifically addressed in the new DEIS. Some comments also stressed concerns that some agency recommendations, especially from Peer Review comments, have been ignored.

Alternatives Analysis

Comments with respect to the types of alternatives considered generally fell under the following six categories: 1) on land; 2) further offshore/deeper water and other offshore locations; 3) smaller scale and/or phased; 4) alternative technologies, 5) alternate configurations, and 6) energy conservation. The comments received on the types of alternatives are discussed in more detail below.

Several comments were received requesting the wind turbine generators be moved on land. On land locations included the Massachusetts Military Reservation (MMR) encompassing Otis Air Force Base and Camp Edwards, the former Fort Devens Reserve Forces Training Area near Ayer, military sites in general, the Route 6 median or rights-of-way, the median along highways, Route 28, existing utility easements such as transmission line rights-of-way, the Blue Hills Reservation, the Pilgrim Nuclear Power Plant in Plymouth, the Canal Electrical Plant in Sandwich, New Bedford, Fall River, Westover, the Elizabeth Islands, Muskeget, central Massachusetts, the outer islands of Boston Harbor, Nomans Land southwest of Martha's Vineyard, Monomoy island, existing waste disposal sites/dumps/landfills including the Barnstable landfill, lighthouse properties, industrial areas, municipal sites, on the top of hills or mountains, on the top of high rise buildings, a remote open area, golf courses, private property and land out west at existing wind farms.

In addition to the above recommended locations, commenters included arguments for locating the wind turbines on land. These arguments included the fact that on land sites would be less costly to build, less costly to maintain, better access, easier to connect to the electrical grid, and closer to public safety resources such as police and fire. Other concerns were that land is a less destructive environment than salt water, and has less potential impacts on navigation, sediment transport, fish and avian mortality, commercial and recreational fishing, recreation, tourism, noise, aesthetics, real estate, the economy, etc. Other concerns that prompted land based recommendations as opposed to locating the wind turbine generators in the water, were scour control, stabilization, and fish mortality during construction.

Numerous comments were received with respect to locating the wind turbine generators further offshore or in deeper water. Specific further offshore locations identified by commenters include: further off the coast of Chatham; east of Cape Cod; south and east of Nantucket Island; South of Tuckernuck Island; South of Martha's Vineyard; South of Nantucket and East of Monomoy; and the area near Rose and Crown Shoals. Other offshore and deeper water suggestions included locating the wind turbine generators 12 plus miles offshore, 30 to 80 miles offshore, further offshore until the wind turbines are no longer visible, the outer Atlantic shelf, and in water up to 100 feet deep.

In addition to the suggested further offshore and deepwater locations, commenters requested additional information on further offshore and deeper water locations to support the alternatives analysis. Information requests included greater detail with respect to engineering, design and environmental resources as well as descriptions of further offshore and deepwater alternatives considered. Reasons for these requests are to allow for a better comparison of shallow water and deeper water alternatives.

Other offshore locations were also provided by commenters, however, the following recommended offshore locations are not necessarily "further" offshore: Boston Harbor; off the coast of Maine; off industrial/commercial shorelines; Barnstable Harbor on Cape Cod Bay; Buzzards Bay; Nantucket Shoals; and the center of Nantucket Sound.

Arguments provided by commenters for locating the wind turbine generators offshore, further offshore and in deepwater locations centered around visual impacts, the ability to produce more energy further offshore (better wind class/velocity), avoidance out of migratory pathways and feeding areas, away from air and shipping lanes (hazards to navigation), outside of marine sanctuary waters, and the creation of artificial reefs.

A third category of comments received with respect to alternatives was the implementation of a smaller scale project. Comments received with regard to the analysis of a smaller scale project included: evaluating the minimum size project practicable at Horseshoe Shoals in Nantucket Sound; a 200 megawatt (MW) project; decreasing the project by a factor of 10 to 20; installing 10 wind turbines; the general comment to reduce the number of wind turbine generators; and a smaller electrical services platform. The primary reason provided for implementing a smaller scale project was the ability to understand the potential impacts of the project.

Similarly, other commenters suggested a phased project. Phased project comments include a project with the first phase large enough to be economically feasible and small enough to have a limited impact, a pilot project or the installation of a test unit, installation of 4 or 5 wind turbines, installing the project in three to four phases with enough time between each phase to study and evaluate impacts, and using the same phasing as the Arklow Bank Project off the coast of Ireland.

The fourth category of comments addressed alternative technologies. Alternative technologies to be considered included: hydro; solar; current; existing electrical plant

upgrades and improvements to existing technologies/plants; tidal; wave; new nuclear facilities; an equivalent sized fossil fuel plant; coal facilities; other types of wind turbines; biomass; Wind Amplifier Rotor Platform (WARP) windpower technology; OWEC Ocean Wave Energy Converter; and the Underwater Electric Kite® (uekus.com/index.html). Besides the recommendations for individual alternative technologies, a few commenters recommended the installation of a portfolio of technologies.

In addition to the different types of alternative technologies suggested, several comments were received on the ACOE DEIS alternative technology section. Several requested that more accurate and extensive analyses be carried out on each of the different types of alternative technologies analyzed. Other comments received requested that dangers of other technologies be considered and analyzed such as the danger of a gas explosion compared to oil spill impacts from the wind turbines and electrical services (ES) platform.

The fifth category of comments received included alternative wind turbine generator configurations (array and different sizes of turbines). Specific comments received with respect to configuration are the proposal for shorter towers, shorter towers on the outside with taller towers on the inside of the wind turbine array, a mix of turbine sizes, a more compact array of towers, a denser configuration based on the density of the Horns Rev facility off the coast of Denmark, a split facility alternative with two or more arrays that total 454 MW within Nantucket Sound, a straight grid, and a double elliptical grid. Commenters proposed the different wind turbine generator configurations to specifically address visual impacts and to minimize potential environmental damages.

The final category of comments received are associated with energy conservation. Commenters recommended the implementation of energy conservation measures such as a reduction in fossil fuel consumption, using smaller vehicles, improving car fuel efficiencies, using hybrid vehicles, and fuel cells. Other commenters stated that money should be spent teaching and encouraging people to use less energy including implementing a comprehensive plan of policies to conserve energy. Multiple requests were also received to evaluate energy efficiency programs and energy conservation measures as an alternative to the Cape Wind Project. Others suggested supplementing energy development with conservation.

Some commenters combined the categories and recommended locating individual wind turbines or a smaller number of wind turbines in different, dispersed or decentralized locations on land (multiple smaller scale land based projects).

Other comments received on the alternatives analysis focused on the adequacy or sufficiency of the ACOE DEIS alternatives analysis and the appropriateness of commercial/utility scale as defined in the purpose and need section of the ACOE DEIS.

Numerous other comments were received that stated that the ACOE DEIS was inadequate because there were a lack of alternatives addressed (including the no action

alternative), and that the findings in the alternatives section lacked detail and sufficient technical support.

Construction, Operations, Decommissioning

Comments pertaining to Construction, operation, and maintenance of the Project generally fell into the following subtopics: 1) Decommissioning; 2) Oil Spill Response Plan; 3) Design, performance, stability and maintenance; 4) Public safety; 5) Pollution prevention; 6) Grid integration problems; 7) Inaccurate wind production numbers/ production capacity of Project; 8) Construction issues; 9) Taxes and insurance certificates; 10) Monitoring before, during, and after construction; and 11) Onshore construction concerns/ Storm Water Pollution Prevention Plan.

Numerous commenters were concerned with the decommissioning process. Many questioned who would be financially responsible and if Cape Wind could guarantee that adequate funding would be available for decommissioning. Other comments addressed the methods of removal. There were requests for a more specific explanation of the decommissioning procedure. Some commenters also noted that the new DEIS should include a discussion of the impacts, both environmental and financial, of removing the wind farm.

Commenters noted that the ACOE DEIS did not include a description of the fluids that will be contained in the wind turbines and electrical service platform. Those commenters request that the characteristics and quantities of these fluids be included in the new DEIS. Comments also requested an explanation of the likelihood of an oil spill, required oil spill handling and containment equipment, and the biological impacts of an oil spill. Some requested an oil spill trajectory map as well.

Commenters were concerned with the design features of the Project, especially the foundation system of WTGs. Numerous comments questioned the weathering and corrosion of the WTGs and requested specific detail on what will be done to minimize the effects of weather and waves and to predict the reliability/stability of the turbines when facing harsh conditions. Several comments also addressed issues with the deployment of scour mats.

Public safety comments addressed concerns with ice buildup on WTG blades, emergency response restrictions (both helicopter and vessel access) within the Wind Farm, fire protection, worker safety, and security risks.

Commenters noted that the containment and impacts of trash and debris produced by the project was not addressed in the ACOE DEIS. Others suggested that the likelihood of impacts of diesel spills from vessels during construction, operation and maintenance should be discussed. Some commenters requested that a more detailed description of pollution prevention for all components of the Project be provided.

Grid integration concerns were addressed in several comments. Most questioned how the grid could be affected by inconsistent wind speeds and/or WTG malfunction, and if the introduction of an unpredictable energy source would cause more problems than benefits.

Some commenters questioned the accuracy of the predicted electricity production of the Project. Other comments address concerns that the wind predictions have been overestimated and are not sufficient enough to provide effective use of the WTGs. The commenters were concerned with the cost, access restrictions to the Project area during construction, construction equipment, noise, and the length of time and schedule of the construction process.

Commenters questioned who would be insuring the Project and, therefore, who would be liable for any losses. Others questioned whether the facility would be taxed and, if so, who would benefit.

Numerous comments addressed the need for additional monitoring before, during and after construction. Many requested that more rigorous avian and mammal monitoring and an acoustic monitoring of impacts be implemented, especially during construction to minimize risk of injury to marine species. Comments also suggest that a more thorough and lengthy post-construction (during operation) monitoring and adaptive management plan be provided.

Several commenters request that a Stormwater Pollution Prevention Plan be provided. Others addressed concerns with the transmission line and suggested it should only go through previously developed land and/or existing transmission lines. A few commenters requested a discussion of the potential hazardous material in the land-based equipment as well as the management of those materials.

Geology and Sediments

The comments submitted for the geology section can be generally characterized in the following seven categories: 1) Impact to sand waves around tower foundations; 2) sedimentation impacts; 3) scour; 4) sediment characterization with limited coring locations; 5) sediment transport modeling; 6) impact of fixed structures on a shoal; and, 7) impacts from a seismic event, including tsunami.

Comments on sand waves centered on the impact fixed structures would have on sand wave movement and the impact to sedimentation. Some commented on the impact on existing sedimentation in the project area: would the sedimentation dynamic change; and will shipping channels be impacted. An in-depth, quantitative assessment on sedimentation transport pathways was requested.

Several comments centered around scour and scour mats. Many were concerned with the viability of the scour mat design. Several commenters were in favor of a riprap or similar design and many were concerned about the lack of proven scour mat design. One commenter questioned if stabilization agents will be used, such as bentonite or caustic

soda and the potential negative environmental impacts from their use. Many commenters questioned the limited number of sediment coring samples for the large project area.

One agency requested more analysis on the effect on sediment transport from the project to better evaluate potential impacts and requested an oceanographic modeling study be undertaken to better understand sediment transport pathways for all of the options in the alternative analysis, as well as Nantucket Sound. An Evaluation of Nantucket Sound and South of Tuckernuck sites was requested with respect to different magnitude storms, fair weather, and tidal and wind-driven conditions.

One commenter questioned the logic of placing fixed structures on a dynamic shoal.

Other comments were regarding the seismic setting and the impact a seismic event and/or tsunami would have on the structures. One commenter described a catastrophic failure during such an event, leading to related tower debris washing up on beaches.

Most of the comments with respect to sediments involved general sediment movements and how they would differ after the project was completed. Other commenters wanted to know where the sediment would settle and how long it would take for the benthic community to recover. Other commenters were concerned about the sediments clogging the estuaries and the effects this would have on areas that are already subject to frequent maintenance dredging. A concern voiced often was the sediment's affect on the shipping channels and the possibility through accretion/erosion of creating uncharted shoals. A request for more precise mapping and description of surficial sediment conditions was made.

Oceanography

The comments submitted for the oceanography section can be characterized in the following eleven categories: 1) water flow around WTGs; 2) current velocity and patterns; 3) sea ice movement; 4) scouring; 5) data for scour mats; 6) turbidity; 7) jet plowing data; 8) possibility of cable being uncovered; 9) waves measurements; 10) sedimentation; and 11) alternative sites.

The comments involving water flow around the WTGs were concerned with the distance between the towers not being sufficient and that changes in water flow will occur as a result. These changes could trigger other changes such as sediment transport and sea ice flow. The main concern with water flow was how, if changed, it would affect the shoals in the area. More importantly, were questions on how the changes in flow and therefore the shoals would affect boating, both commercial and recreational. A general request for more recent circulation models was also made.

Current velocity and patterns were concerns mainly because of the lack of data. Commenters stated that the ACOE DEIS only used models to discuss these issues. Commenters wanted to know what affects the turbine platforms would have on the

currents and will the changes flatten the seabed. Actual data was requested instead of models in order for other areas of concern to be remedied (i.e. turbidity, spills).

Commenters were concerned about sea ice movement and build up during the winter months. There was a request for a discussion on the impacts and possible accretion from ice drifting out of the harbor area to the north of the wind farm. Also, there were concerns about ice build up on the pile-ons and turbine blades and whether this would affect the WTG's stability.

There were some concerns about scouring and its affects. A discussion on the size, shape, depth, and persistence of the "small depression" was requested. Other comments were related to how different sediment types would correct the scouring in the trench and around the foundation of the WTGs. An "extreme" scour projection was requested for the inner-array of the cables as well.

Many comments dealt with the scour mats. Most felt that there was insufficient data in general to back the claims about how effective the mats were. In general, more data was requested on the scour mats. Regarding resedimentation on the mats, people were concerned that a finer grain of sediment would settle there and that these sediment changes will alter the benthic community and associated demersal fish. Also, there were concerns on how the mats would impact the oceanographic process and what the pattern of deployment and contingency plan would be, if they failed. There were also questions on how the mats would be anchored down given the natural 15 foot variation in bottom depth. Other concerns about the scour mats involved their lasting ability.

Comments involving turbidity began by claiming that the SSFATE model to predict the turbidity plume in Lewis Bay based on three core samples was speculative. Other comments pertained to general questions such as how much turbidity will occur, what would be the size of the turbidity plume, how long will it last, and will it be localized.

There was skepticism expressed about the use of the jet plow method. A general request for more data was made along with comments that mathematical models for sediment transport and relocation are insufficient. Proof was requested that the jet plow method is the best method of trenching. A commenter claimed that the conclusion reached in the ACOE DEIS that jet plowing is the better method is contradictory to the conclusion reached on the HubLine project. Justification and basis that there will be no impacts on an eelgrass bed within 21 meters of the jet plow was asked for as well. Another comment requested that the new DEIS articulate why jet plow re-deposits are not regulated discharges under Sections 401, 403, and 404 of the CWA.

Comments regarding the transmission cables varied. The main concern was if they would stay covered given the sand waves, undulations, and extreme sediment transport in the region. There was a request for a contingency plan in the event that the cables would become uncovered and also in the event that fishing gear interacted with the cables. A general impact report was requested for the anchor line sweep and a request that Cape Wind reduce the disturbance estimate to one significant figure was made by MMS. Other

comments involved the size of each anchor sweep area, the size of the anchor chain, and whether repeated plowing would be needed. A description of the differences in installation methodology in different strata was requested as well.

There was a general request for a sufficient assessment on the effects of waves on the WTGs. Also, wave measurements were requested for each of the alternative sites.

The last issue in the comments dealt with alternate sites. The comments were regarding more updated circulation models and request for wave measurements. In general, a better evaluation of sites from an oceanography standpoint was requested.

Water Quality

The comments made on water quality can be characterized into the following three categories: Suspended sediments; Spills; and Waste Handling. They are further discussed below.

The comments on suspended sediments mainly requested more data on how much sediment would be suspended, for how long, and what the area would be. Other comments were concerning the effects the suspended sediments would have on the species in the area, specifically eelgrass. Comments included concerns about resuspension and redistribution of sediments, especially due to the affects from propeller-driven construction traffic. There was also a data request for a hydrodynamic model to determine the extent and direction of the suspended sand and silt.

There was concern for the potential of spills from construction and operation of the WTGs. Requests were made for the characterization of all the lubricating fluids, oil, and diesel fuel on each of the vessels and WTGs as well as the amounts stored and routine discharge amounts. A request was made to characterize the oil spill containment kits. Other requests were for an Oil Spill Response Plan (OSRP) and a Stormwater Pollution Prevention Plan (SPPP). People commented on the need for a lifetime monitoring plan and some sort of bonding in case a spill does occur. Also, in the case of a spill, requests were made for an oil trajectory analysis as well as the risks of a spill and predictive modeling.

The last grouping of water quality comments pertained to waste handling. A discussion on the regulation regarding solid and hazardous was asked for. Also, quantities and capabilities were requested for the waste handling systems.

Air and Climate

Comments with respect to air and climate generally fell under the following five subtopics: 1) Global Warming; 2) Public Health Effects and Emission Reductions; 3) Local Air Quality Impacts; 4) Visibility Improvement; and 5) Local Meteorological Data Summary.

The majority of the comments expressed in the comments were with respect to the Project's potential impact on global warming and climate change. Some of the comments requested a more quantitative assessment of the actual reductions in carbon dioxide (CO_2) emissions due to the Project and a comparison to the CO_2 emissions on a regional, state, and global basis. Others asked that the potential impacts of global warming and climate change and the current federal and state global warming policies be discussed in further detail in the EIS. There were also some comments that questioned if the Project would result in any reduction in CO_2 emissions; and therefore, provide any benefits towards the global warming and climate change issue.

Comments on public health dealt primarily with the estimated emission reductions of nitrogen oxides (NO_x), sulfur dioxide (SO_2), mercury (Hg), and particulate matter (PM) from fossil fuel plants due to the Project. Some commented that the potential health effects of each pollutant should be addressed. A few comments requested quantitative estimates of these emission reductions and a comparison of these emission reductions to the estimated total emissions from the region, state, and upwind states. Others suggested that the estimated emission reductions should be revisited to consider whether the pollutants are included in a cap and trade program or not, while some of the comments stated that the emission reductions were overestimated.

Local air quality benefits were a concern for some of the commenters, especially with regards to the potential emission reductions from the existing fossil fuel-fired plants. Comments requested that potential local air quality benefits to the Cape area and the surrounding islands be discussed further in the EIS.

Some of the comments were regarding the potential improvements to visibility, both locally and in the Arcadia National Park. Visibility impairment is a function of air pollution, thus this issue is directly linked to the estimated emission reductions, which were commented upon by others.

Information regarding the local meteorological conditions, which were recorded in Nantucket Sound, was also requested by the commenters.

Noise

Comments with respect to noise generally fell into the following subtopics: 1) effects on marine life; 2) monitoring systems; 3) utilizing references from other underwater construction projects; 4) mitigation plan for high noise levels; 5) analysis of ultrasonic and infrasonic sounds; 6) focusing on impacts to marine life by species' sensitivities and, 7) utilizing better modeling techniques for underwater sound.

Several commenters noted that while the analysis revealed that effects at onshore locations to humans would not be significant, they expressed concern that the noise analysis focused too much on effects on humans and required a much more detailed analysis on marine life, in particular marine mammals and sea turtles. They requested

that the analysis should not be dominated by approaches to human hearing and that it should avoid human perceptual terms. In particular, it was noted by some commenters that the analysis should evaluate the hearing characteristics of different species of marine life, and the potential that sounds of varying frequencies and intensities could impact different types of marine life. Comments were made that these species should be grouped by their sensitivity to sound frequency.

Commenters noted that while it appeared unlikely that physiological damage would occur to marine life, the potential for "acoustical harassment" was more likely. It was noted that marine life such as great whales are more sensitive to very low frequencies (infrasound), while dolphins are more sensitive to ultrasonic sound. Effects on game and protected species should also be evaluated. Comments were made that an underwater monitoring system should be employed throughout the lifetime of the project, including construction, operation and decommissioning. The monitoring system should be capable of measuring sounds from infrasound to ultrasonic sounds. Comments were made that the monitoring system should incorporate a mitigation plan that would be used to stop construction or other activity if levels exceeded thresholds.

Several commenters requested that the currently proposed surveillance system for marine life within the safety radius be enhanced to include additional spotters for marine mammals and sea turtles during construction, and that construction should be avoided during periods of peak abundance of any endangered species.

Some comments requested that the new DEIS utilize studies done at other underwater construction projects. According to commenters, some of these other studies indicated higher underwater sound levels from pile driving than those presented in the ACOE DEIS. Commenters also noted that pile driving noise levels underwater should be provided for distances closer than 500 meters.

Several commenters noted that the ACOE DEIS analyses conducted for the alternative sites were very general and did not include noise measurements or modeling.

Comments were made that there are much better modeling techniques available for studying the propagation of sound underwater, and that these techniques should be utilized in the new DEIS. The effects of refraction through the water should also be evaluated. One commenter noted that additional discussion of the reported 180 dB underwater safety threshold for marine life should be provided, including its source, and how it is applied to the range of marine life.

Several comments were made requesting that more detail regarding the potential effects of noise on bats should be provided. In particular, the comments noted that bats are

sensitive to ultrasonic sound, and that the new DEIS should evaluate whether the WTGs generate any ultrasonic sound that could interfere with bats' sonar systems.

One commenter noted that the analysis should be conducted by a firm which is a member of the National Council of Acoustical Consultants and that members conducting the analysis should be board certified members of the Institute of Noise Control Engineering.

In additional to total noise levels, commenters requested that a discussion of the response of game species to both acute and chronic noise impacts be provided. It was suggested that nighttime baseline for ambient noise levels should be collected and used as bench mark for measuring incremental increases and total ambient noise levels during construction and operation.

Electric and Magnetic Fields (EMF)

Comments with respect to electromagnetic fields (EMF) generally fell under the following three subtopics: 1) adequacy of EMF impact studies on finfish, squid, sea turtles and aquatic mammals 2) ; adequacy of DC fields impact assessment; and 3) West Yarmouth neighborhood EMF impacts. These are discussed in more detail below.

The majority of the concerns expressed in comment letters focused on the concern of the possible electromagnetic impacts on different aquatic life forms. Life forms specifically identified included sea turtles, finfish, squid, elasmobranch fish, and mammals. A majority of the comments claimed that the research provided on EMF impacts is insufficient to make proper determination of influence on these creatures. One commenter stated that the electromagnetic disruption that will likely occur has the potential to alter migratory patterns of fish and a second commenter recommended that the final EIS include the magnitude and frequency spectrum of the electric fields near the buried cables.

One commenter requested that the EIS add information on the level of DC electric fields created by the towers and cables to permit a better assessment of the impacts on aquatic life. A second commenter cited concerns about the level of magnetic radiation hazards which may result in the West Yarmouth neighborhoods where the cable makes land fall.

Avian and Bat Resources

Comments with respect to avian and bat issues generally addressed five categories of issues: 1) concerns about data collected during bird surveys; 2) the need for expanded discussion of mitigation measures and monitoring approach; 3) potential, positive indirect impacts for birds; 4) the need for additional analysis of alternatives; and 5) the need for expanded discussion of the risk to bats.

Most of the comments were directed towards the accuracy and/or validity of conclusions made from surveys conducted for the project. Many stated that three years of surveys should be conducted to ensure adequate data are collected about piping plovers, terns,

migrating songbirds, waterfowl, especially seaducks, and bats. Some comments stated that more extensive radar surveys were necessary, particularly during winter and inclement weather and at night, and that radar surveys should be accompanied by ground-truthing activities. Some commented on the limitations of aerial and boat surveys to accurately assess flight heights or population densities. Some comments raised questions about the methods used to calculate the population viability of, and risk to, piping plovers and roseate terns. Other comments suggested that seasonal variation was not adequately addressed; multi-year comparisons were necessary; and comparisons with inland survey sites and terrestrial wind farms may be inappropriate. Other comments suggested that some data should be recalculated to address inconsistent methods in calculating species density and risk of mortality.

Some comments suggested that the new DEIS should elaborate on planned mitigation measures and the post-construction monitoring approach. In particular, an explanation was requested about why the lighting system differs from the USFWS guidelines and how the bird deterrent system will operate. Other comments suggested that an independent scientific advisory team should be responsible for monitoring, and an adaptive management plan should be adopted.

Some reviewers commented on the potential positive impact on birds, suggesting that the project will reduce avian mortalities associated with oil spills or sea level rise.

A few comments stated that the alternative scenarios were not adequately evaluated with respect to the avian resources present at each alternative site. These reviewers suggested that an expanded discussion of the potential avian issues at these sites would be appropriate.

There were a several requests that the new DEIS include additional information about potential risk for bats, especially during migration.

Freshwater and Coastal Wetlands

The comments submitted for this section were small in number and fall under the following four categories: 1) construction BMPs; 2) reptile and amphibian usage of the wetlands; 3) short and long term effects on filling of the wetlands; 4) pointing out that the installation of the cable leading to the substation will fall under local jurisdiction.

One of the main concerns from the commenters was protection of the wetlands during the construction phase. The dewatering and use of coffer dams were the main concerns in regards to draining the wetlands; and concern over unclean water (from the landfill) discharging into ground water and wetlands.

There was a comment made about the possible effects on the reptile and amphibian population using the wetlands and ponds in the area. This was mainly concerning the migration of these animals across the roads and the work site. The comments stated that there was no discussion on the subject in the ACOE DEIS.

There was a comment made about the possible long term and short term effects on the wetlands being filled. Stating that the ACOE DEIS is failing to making factual determinations regarding potential short and long term effects of the proposed discharge and fails to consider other alternatives.

Wildlife

The comments submitted for this section fall under the following five categories: 1) need for individual assessment of seals; 2) Need for more accurate base data on seals and harbor porpoises; 3) More details on life history; 4) monitoring plan for wildlife; 5) concerns of harming wildlife not species specific.

One of the main concerns from the commenters expressed the need for individual assessments of harbor seals and grey seals. The breeding habits of the two species were a topic of concern. Information was requested on the southern extent of the grey seal. There were also concerns that the DEIS did not address the seasonal movements of harbor seals.

Commenters stated that there was insufficient data and or outdated data in the DEIS regarding the Harbor Porpoise and Seals. There were numerous comments about the age of the reports cited.

There was a comment calling for more detailed life history of the cetacean species.

There were numerous comments calling for more monitoring plans for the wildlife in the area. Commenters said that NMFS should monitor construction of the Project including: 1) placing observers on supply vessels that transit the sound, 2) conducting systematic aerial surveys around adjacent seal haul out sites, and 3) using satellite tags.

There were a number of comments stating that the project would be harmful to wildlife (non-species specific) and calling for additional studies on wildlife impacts.

Fisheries – Socio-economic Impacts to Commercial and Recreational Fishing

Regarding commercial and recreational fisheries, commenters expressed concern about the quality of the data presented and absence of data on private recreational fishing activity and its contribution to the economy. Commenters noted that total catch figures can understate actual catches and expressed concern that the DIES/DEIR equated reported landings with relative abundance. Commenters noted that due to many gear types in use in Nantucket Sound, landings data should be analyzed *in toto* for a given species for an accurate harvest estimate. Commenters pointed out that landings data have limitations in that fisherman working in Nantucket Sound might land their catch in ports outside the Sound.

Commenters recommended a fuller characterization of the current level of fishing (including finfish, squid and shellfish) in the proposed project area using methods proven as accurate assessments of existing uses, description of potential impacts, and proposed actions to minimize/mitigate unavoidable impacts. Some commenters suggested

assessing fishing methods used (mobile gear, stationary gear and hook and line) to allow a better understanding of impacts caused by turbine structures and any associated use exclusion zones.

Commenters noted that information on activity from federally permitted vessels needs to take into consideration that not all fishing trips are reported by latitude and longitude. Therefore, numbers obtained are really a large sub-sample of all trips (numbers reflect the relative – not absolute – amount of fishing activity by gear in areas).

The comment was made that the comparison of fishing activity and landings at alternative sites has deficiencies such as incomplete and conflicting data, absence of data on private recreational fishing activity and contribution to economy. In addition, characterization of recreational fisheries in the Nantucket Sound underestimate the amount of effort expended and fails to characterize financial contribution made to economics of Cape Cod, Nantucket and Martha's Vineyard by these fishermen. Also comments noted that reporting of raw data from NMFS' MRFSS database and that obtained from directed telephone surveys may be inappropriate. Further, these data may represent a fraction of the total effort. Commenters pointed out that the data do not provide any estimates of number of passengers carried by commercial party and charter boats or geographic distribution of vessels surveyed.

Commenters suggested that directed and broader studies of commercial and recreational fishing activity in the preferred and alternative project areas are required to evaluate potential impacts from construction and operation of facility. Further comments indicated that studies of fishing activity should be developed with DMF, NMFS, and Massachusetts Marine Fisheries Advisory Commission to quantify effort and landings by area and season in areas of interest. Also landings data reported by DMF and NMFS should be integrated into a unified format allowing comprehensive analysis of data by species and gear type. Others indicated that any studies should involve various state and local contacts (DMF, harbormasters, shellfish officers, tackle shops and others).

Commenters were concerned about the potential for post-construction exclusion of fishermen from the project site – access restricted for security reasons; restricted maneuverability and potential hangs; handling of boats in strong eddies; difficulties with rescue activities. Commenters suggested identifying provisions in the event target depths are not met or maintained – re cable burial depth. A commenter was concerned since the burial depth of the cable is the primary mitigative method of avoiding conflicts with commercial fishing activities. A commenter suggested some form of contingency planning should be addressed

Commenters also noted that the proposed project has potential to adversely affect fishing activities within the wind park due to uncovering of cables. It was noted that cables could become exposed due to natural events such as hurricanes and there is potential for fishing gear interactions with cables possibly excluding fishing activities from the 24-square mile project area. Commenters suggested there should be an analysis of extreme scour projections for the inner-array of cables.

Commenters suggested an assessment of fishing gears utilized in the area, lengths of nets and lines, and anticipated tow speeds to determine any adverse impacts to commercial fishing navigation.

Commenters expressed concern that reliance on Massachusetts Division of Marine Fisheries (DMF) research trawl data is an inappropriate method to assess shellfish abundance. Others commented that the assessment of commercial and recreational shellfisheries does not provide sufficient detail to access impacts associated with project construction. Further comments requested that a shellfish survey that accurately characterizes the resource should be developed in coordination with DMF and then conducted. A comment stated that the bay scallop fishery is a highly valuable resource but varies from year to year. The resource is important to the economies of Nantucket and Martha's Vineyard. There was a request for an example of the type of mitigation for impacts to recreational shellfish beds.

Fisheries – Environmental Impacts

Comments with respect to fisheries generally fell under the following subtopics: 1) data limitations of evaluation of finfish resources; 2) data limitations of evaluations of commercial and recreational fisheries; 3) shellfish resources; 4) alternatives evaluation; 5) vertical hard substrate – fish attracting devices; 6) Essential Fish Habitat (EFH) assessment; 7) interconnection of resources; 8) predator-prey evaluation; 9) construction and operation impacts; 10) construction timing; 11) sandy shoal environment change; 12) cable exposure; 13) gear usage; 14) noise; 15) Electro-magnetic Field (EMF); 16) scour mats; 17) monitoring, restoration, and mitigation; 18) permitting recommendations; and 19) decommissioning. These are discussed in more detail below.

With respect to data limitations, one commenter noted near total dependence on existing data sets from DMF and NMFS resource surveys and reported landings. The commenter expressed concern that no effort was made to obtain comprehensive, representative, site specific resource or habitat data. The commenter suggested directed resource surveys be conducted to characterize marine resources inhabiting the preferred and alternative project sites as well as habitat functions and values. The commenter went on to indicate that these studies should be comprehensive in order to characterize use of areas by all life stages of relevant commercial and recreationally important species and those that serve as forage. The commenter noted that data from the directed studies should be integrated with existing data sets, landings data and physical/oceanographic characteristics to present characterization of diversity and abundance of finfish resources in the Sound.

Commenters requested development of an environmental baseline for purposes of measuring the project's impacts and developing mitigation and monitoring plan. It was suggested that monitoring should include water quality testing to detect the leakage of toxic fluids into the water that could be entering the food chain.

With respect to shellfish, some comments noted that potential impacts to shellfish have not been adequately described and that a more thorough characterization of the shellfish resource in the project area and the level of shellfishing effort are necessary to evaluate the proposed project's impacts on the resource and use.

A commenter noted that there is no description of NMFS survey data used to describe the finfish resources for the alternative site south of Tuckernuck Island. A commenter further noted that information on comparison of fisheries resources between potential sites do not present the same level of data for each site and are not presented in a uniform manner.

A commenter requested that additional analysis be conducted to ascertain effects of introduced communities in the project area. It was suggested that effects of such alterations on migratory fish stocks such as striped bass and bluefish should be explored. It was further suggested that these obstructions could change water circulation and thus impact migration, spawning, egg and larval transport and feeding habitats of fisheries resources in the project area. A commenter requested an evaluation of the possibility that availability of prey species and material on and around WTG could initiate cascade effects on higher trophic levels including game fish and other predators and whether there would be resulting changes in activities of commercial and recreational fishermen.

A comment was made that there was not concurrence with ACOE DEIS conclusion that increasing the distance between monopiles would minimize effects of attracting colonizing and transient organisms, such as fish, or invasive species. It was noted that this spacing is more likely to increase the area of change and spread this effect over a greater area of Nantucket Sound. Commenters expressed concern about the assessment of the potential of the monopile structures to act as fish aggregating devices and suggested that reference be made to MMS publications and other information developed as "Rigs to Reefs" to substantiate that monopiles are likely to become Fish Attracting Devices. Commenters suggested that the degradation to these resources that would result when monopiles are removed on decommissioning should be discussed.

Commenters requested that the potential for turbines and/or associated lighting to increase fish at project site needs to be assessed along with potential impacts on fishery resources from vibration, noise, electromagnetic fields, and heat output from transmission cables. Some commenters pointed out that new habitat would primarily be transient use habitat whereas benthic habitat it would replace has year round function. A commenter noted that these changes would benefit certain fisheries and have adverse impact on others.

Comments were made that the Essential Fish Habitat Assessment (EFHA) does not tie in EFH designation from the literature to actual occurrence and relative abundance of species documented by survey data and landings. A commenter requested this information be provided. A commenter recommended that more information should be presented on striped bass, bluefish and fluke and their contribution to high species diversity and ecology of the Sound. Comments noted that the EFHA does not discuss impacts to fisheries from temporary impacts during construction. Commenters suggested

that the habitat impact assessment focus on ability of the area to continue providing essential ecological services necessary for spawning, breeding, feeding, or growth to maturity.

Some comments stated that the interconnection between benthic, fisheries and avian resources should be addressed. Commenters expressed concern that predator-prey investigations were not conducted to establish a baseline that could be used to predict and monitor impacts on marine life associated with disturbance, displacement, and habitat loss effects.

Commenters suggested that analysis of potential impacts on fisheries resources, habitat, and harvesting activities must include consideration of on-going and proposed construction activities (e.g. cable installation, dredging and sand mining). Some comments indicated that jet plowing should be timed and located to avoid winter flounder spawning and that other appropriate time-of-year restrictions be considered. Other comments encouraged the applicant to arrange the project schedule to avoid in water work within Lewis Bay between January 15 – May 31 of any year in order to protect sensitive life stages of winter flounder.

Comments expressed concern that possible electromagnetic disruption may occur at the project site and have the potential to alter migratory patterns of fish sensitive to such changes and affect various life history stages of marine species in the project area. It was suggested that additional data be provided to demonstrate that Electro-magnetic Field (EMF) emissions have no effect on behavior or navigation of shark species and others sensitive to EMFs. Commenter noted studies in Europe seem to indicate such species will be able to detect EMF fields similar to those associated with the project but resulting effects on behavior are uncertain.

Some commenters wanted an independent fund established and independent consultants hired to conduct construction and post-construction monitoring. Some wanted post-construction monitoring to be paid for from proceeds of energy sales and an independent scientific expert review panel to be established.

Benthos and Eel Grass

Comments with respect to benthos generally fell under the following subtopics: 1) baseline data limitations; 2) benthic habitat mapping; 3) construction and post-construction monitoring; 4) anticipated impact and recovery rate; 5) compensatory mitigation; 6) vertical hard surface habitat – "reef effect"; 7) commercial and recreational shellfisheries; 8) dynamic components related to productivity and ecosystem functioning; 9) interconnection between benthic, fisheries and avian resources; 10) characterization of rocky substrate; 11) bay scallop fishery; 12) shellfish bed and aquaculture contamination; 13) alteration of accretion /erosion rates; 14) effects of pile driving; 15) effects of scour mats and impacts to eel grass. These are discussed in more detail below.

Several comments expressed concern that characterization of benthic resources and habitat lacked comprehensive data and consistent analysis. Some commented that results

of limited benthic surveys indicate a need for more intensive sampling to better define habitats, associated flora and fauna and descriptions of their functions and values as well as to evaluate environmental impacts, characterize alternatives or facilitate siting decisions. Further comments were that supplemental study design and analyses should be coordinated with appropriate state and federal agencies.

Comments were made that the scale and frequency of benthic sampling should be such that microhabitats could be more accurately identified and mapped within the study area (including alternative sites). Some commented that the benthic habitat mapping could be used in conjunction with a sediment transport model to assess indirect impacts of the project on benthic habitat.

Some comments advised that detailed construction and post-construction monitoring be performed to assess impact on benthic communities. Some wanted an independent fund established and independent consultants hired to conduct construction and post-construction monitoring. Some wanted post-construction monitoring to be paid for from proceeds of energy sales and an independent scientific expert review panel to be established.

Some comments were directed at the discussion of temporary and localized impacts to the benthic habitat during construction. Some noted that there was little discussion of the magnitude of anticipated impact and anticipated recovery rate and that this should be addressed. Further, commenters stated that proposed temporary impacts from jet-plowing/cable laying and anchor chain sweeps can adversely affect the sand wave habitat. Comments were made that it is important to understand the lost function and value of this habitat from initial impact to time of full recovery to pre-construction contours.

Comments were made that there should be compensatory mitigation for permanent impacts to the benthic substrate from the wind towers and associated scour mats.

Commenters expressed concerns about the introduction of vertical hard surface habitats (with installation of monopiles) that do not currently exist – addition of a new artificial habitat - "reef effect." Comments noted that potentially significant changes in distribution and abundance of marine species as a result of introduction of a vertical hard surface substrate are not described. Commenters expressed concern over the potential colonization of these areas by colonizing and transient organisms and also potentially by invasive species. Commenters requested a discussion of possible changes from this habitat change based on current literature to assess impacts and possible avoidance or mitigation of these impacts. Concern was expressed that more information is necessary as to whether this "effect" is diminished because of spacing of the WTG or whether this serves to increase the area of biological change and spread the effect over a greater area.

Comments were directed at benthic resource impact analyses and indicated that these analyses did not consider dynamic components related to productivity and ecosystem functioning. Some comments stated that rocky substrate was not adequately

characterized. Comments requested a more accurate and comprehensive estimate of the amount of existing rocky habitat. Benthic resource comments noted that the presence of *Crepidula* spp. suggests a more widespread amount of stable habitat such as cobbles and rocks.

Commenters expressed concern that toxic dielectric transformer cooling oil could contaminate shellfish beds in Harwich and kill large numbers of fauna and flora. Some comments expressed concern about possible introduction of uncontrolled contaminants that could affect aquaculture efforts.

Some comments noted a need for assessment of whether the wind farm will alter accretion/erosion rates on adjacent islands and sand shoals and thus may affect benthic communities.

Some commenters were concerned about impacts to eelgrass beds. Commenters requested a survey of eel grass beds in the area, information on if and where eel grass would be affected, and mitigation if eel grass were to be impacted.

T&E Species

The comments submitted for this section fall under the following seven categories: 1) vessel strikes; 2) noise; 3) forage/food sources; 4) data; 5) additional species; 6) monitoring plan; and 7) mitigation plan.

One of the main concerns from the commenters addressed vessel strikes. The addition of shipping lanes and increased traffic due to maintenance trips was a concern as whales and sea turtles are more at risk of being injured or killed by vessels. Another concern was the speed the vessels would be traveling. A request for more recent and informative data was made for vessel strike mortality.

There was a lot of skepticism about the noise that would be created from the construction and operation of the WTGs. Requests for more data was made, including graphics on levels in relation to the construction zone. The comments regarded the effects of the noise on the marine mammals and sea turtles. One comment mentioned that the noise section was insufficient and inaccurate. There were also concerns regarding the "soft start" approach and whether or not this technique would work. There was a concern that the mating call of gray seals would be masked by the frequency from operation of the turbines and that this would hinder reproduction. The last concern was whether or not the acoustic harassment would cause habitat exclusion.

There were some comments that suggested suspended sediments would not allow sea turtles and any other species relying on sight to find food. Also, the loss of shoals could affect the species that forage in the sandy bottom habitats. Another concern was that small fish species could use the monopiles as aggregating areas creating a "fouling community" and that this may entice marine mammals and sea turtles that prey on these small fish to follow them into the project area.

There were numerous comments about insufficient data and outdated data. There were requests for more species data for each of the T&E species. Much of the data has since been re-published to include the most recent encounters of various species in Nantucket Sound. There was a request for a baseline survey to be conducted in order to assess the risk. Without this data accurate risk assessments cannot be made. This survey needs to include species by species occurrences in the project area and scheduling for construction should be based on the data. Corrections to the gray seal data, including breeding habits also need to be made.

There were requests that more species be added to the discussions on impacts. Namely, it was suggested that green turtles, minke whales, spotted dolphins, Risso's dolphins, and Kogia dolphins be added to the list. Also, it was noted that all whale species and sea turtle species do occur in Nantucket Sound.

Comments about the lack of a monitoring plan were made. Commenters wanted a monitoring protocol to be established. Any sea turtles occurring in the project area should be tagged and monitored during and after construction processes. Also, a monitoring plan to assess the effect of electrical and magnetic fields on marine mammals and sea turtles was requested.

Mitigation comments requested avoidance devices on ships to minimize vessel strikes. Also, requests were made to move the safety zone from 500 to 1000 meters. In general, comments suggested that the mitigation plan needed to be more robust. There was one request that a fund be set up for a sea turtle stranding recovery program.

There was a comment that an incidental harassment authorization was needed from the Secretary of Commerce under the MMPA Section 101 (a) (5).

Socioeconomics

Comments with respect to socioeconomics generally fell under the following thirteen subtopics: 1) tourism; 2) dependency on foreign oil; 3) reduction in energy costs; 4) economic opportunities; 5) impacts to property values and other negative economic impacts; 6) Project economically infeasible without subsidies; 7) costs versus benefits;8) no need for additional electricity; 9) natural gas issues; 10) who benefits from the Project; 9) environmental justice; 10) health benefits; 11) general operational issues with New England Power grid; 12) Renewable Portfolio Standards; and 13) commercial fishing impacts. These are discussed in more detail below.

Several comments requested that the EIS add discussions on tourism benefits based on other established wind farms. However, there were also people who believe the wind farm could potentially diminish tourism on the Cape and Islands. Some claim that the conclusion of "no adverse impacts" is not supported by enough data and that the actual impacts should be reviewed and updated with relevant studies and comparable existing wind farm data.

Several comments with respect to foreign fossil fuel reliance requested more quantitative data and to address and evaluate the fact that wind is not constant and requires a "back-up" energy source. There were concerns about the cost of backup power and how much the wind farm could actually reduce fossil fuel production within the region.

Some comments supported the project, foreseeing the ultimate reduction in electricity costs, while other comments requested more evidence of how and how much energy costs will, in fact, be affected. Others commented that the wind farm will cost more to operate and maintain than it will save for consumers.

Some comments were directed at more accurately depicting and quantifying economic benefits and specifying what types of jobs will be created. Some concerns were raised in regard to the loss of jobs, as well. Some stated that if the wind farm will produce a certain percentage of the regions energy, then jobs will be lost at alternative power plants.

Comments expressed the concern that the EIS conclusion of "no adverse effect on property value" is not accurate. Some state that this conclusion was based on flawed studies. Commenters requested that the assessment of impacts to property and real estate be redone and supported by more adequate studies.

Commenters expressed concerns that the project could only be economically viable with reliance on government subsidies. Others stated the required subsidies are excessive and go beyond what serves the public good.

Several requested that more accurate and extensive economic analyses be carried out given the change in energy costs from the time the studies were first conducted. Some stated that the limited amount of energy that the turbines will produce does not outweigh the magnitude of impacts and disturbance of the project. Other commenters voiced that the ACOE DEIS failed to objectively address costs and benefits and have requested a more realistic assessment of economic and cultural impacts.

Comments with respect to energy needs stated that there is no shortage of power in New England as the region has a thirty percent excess generating capacity. Many commenters felt as though New England is not an efficient location for the farm since the region already has excess electricity. Other commenters said the Project and others like it are needed.

Some comments stated that money could be better spent expanding the natural gas service and supply. Others said the Project has the potential to reduce natural gas prices and wanted updated estimates on consumer benefits to be included in the new DEIS.

Several comments addressed the issue of who the power from the Project actually benefits. Many wanted to know how much it will directly benefit the Cape and islands and some stated that the Cape should absolutely reap the benefits rather than the entire

"grid". There were also requests to include a factual discussion on where the energy produced by the wind farm would actually be consumed.

There were some requests that the new DEIS address environmental justice.

Some comments advised that the calculated public health benefits should be considered indicative rather than precisely predictive. Others said that these calculations were not supported by enough explanation and the discussion should be expanded. A specific request with respect to the public health benefits of the Project was to address the annual reduction of mercury emissions and the significance of this reduction to the project.

Some comments stated that the emission reduction was overestimated because the back-up operation of alternative plants was not factored in. Others wanted an explanation of the impact of turbine failure on stability of the grid and what would happened if promised power was not delivered.

Several comments addressed the need for the Cape Wind farm in order to meet the requirements of New England's Renewable Portfolio Standards (RPS). Others voiced that the project would lift pressure off of REC prices and reduce rate payer exposure to Alternative Compliance payments.

Socio-economic comments with respect to fishing raised concerns that dragging may not be feasible or allowed in the project area. Other concerns were whether commercial fisherman would be compensated for any damage the farm has on fisheries. Some requested that the new DEIS address future shell fishing impacts and all commercial fishing impacts more thoroughly.

Transportation

Comments with respect to transportation generally fell under the following seven subtopics: 1) Navigation hazards, including ice; 2) Aviation hazards; 3) Minimal or no navigational hazards expected; 4) Marine and air radar effects; 5) Restrictions on Navigation and Public access; 6) Wind turbine towers may serve as a navigation aid and 7) Requests for additional navigational studies.

The majority of the concerns expressed in the comment letters were with respect to navigational hazards, including ice, waterway congestion, collisions with turbines, danger to recreational and commercial boating, as well as interference with search and rescue missions. Some commented that the aerial and surface navigation lighting on the towers will interfere with existing guides, while others thought the turbine structures could help serve as an aid to navigation and did not foresee navigation problems. Others expressed concern that the "proximity" of the wind farm to heavily traveled waterways is close enough to put boaters at risk of collision with one another as well as with the towers. Some commenting requested further navigational impacts and studies, including, but not limited to, ice flow within the sound, potential for fuel barges and other marine vessels to collide with wind towers, and the delays the wind turbine towers could cause to search

and rescue missions. Some commenting said that the project would restrict or prohibit navigation and use of the waterway as a result of security concerns.

The main comments with respect to aviation had to do with the required safety lighting of the turbines, safety concerns regarding local airlines and private aircrafts, and impacts the Project would have on search and rescue operations. Radar interference was also a concern. Questions arose about whether the electric magnetic fields produced by turbines would influence aircraft radar, and several comment letters requested that the EIS refer to existing wind farms for radar interference data.

Communications

Some commenters were concerned about FAA/DOD radar impact leading to aircraft safety issues and the impact to other aircraft navigational services such as ILS, GPS and VOR.

According to the respondents, there are 400,000 flights per day in the Cape area that could be adversely affected by the proposed wind turbines. Comments were received urging that the FAA project approval granted four years ago to be rescinded. The commenters stated that revisiting the previous FAA approval is justified by the following new information: 1) the Publishing of the UK CAA Policy Guidelines on Wind Turbines and 2) the "Great Risk to Aircraft" associated with possible interference to radar, ILS, and other navigation aids. This possible interference is divided into the following modes:

a. Receiver swamping
b. Defeat of target processing
c. Obstruction
d. SSR reflections (false target)

In addition to re-visiting the FAA approval, commenters urged that the project be placed upon "indefinite hold" to: 1) provide an opportunity for national standards to be developed, and for the "cumulative effects of multiple turbines" to be studied more exhaustively; 2) address presently unknown effects that may arise in the future; 3) avoid restricting the future expansion options of the local airports, and possibly the local economy as well.

Other commenters stated that detailed information on electric fields, magnetic fields, and possible communications interference seemed to be lacking.

Cultural Resources

Comments with respect to cultural resources generally fell under the three main subtopics: 1) General need for Section 106 of the National Historic Preservation Act compliance; 2) inadequacy of previous ACOE DEIS for identifying historic properties potentially affected by the Project; and 3) concerns about adverse affects on historic properties.

The majority of concerns dealt with the need for MMS to ensure a thorough and open Section 106 process, referring to Section 106 of the National Historic Preservation Act, as implemented through 36 CRF 800. Some comments emphasized the need for MMS to identify and invite consulting parties to participate in the Section 106 process, and to carefully assess how adverse affects to historic properties can be avoided, minimized, or mitigated. The need to analyze a reasonable range of alternatives to the Project also was noted.

Related to the Section 106 process, some comments noted that the ACOE determined (through prior studies) that some historic properties will be adversely affected by the project, including two National Historic Landmarks, but stated the belief that the ACOE's effort to identify historic properties was inadequate. Concern was expressed that the ACOE DEIS conducted by the ACOE only considered historic properties that were already determined eligible for listing or already listed on the NRHP, to the exclusion of properties that are eligible but have not been formally determined eligible. MMS was encouraged to ensure that all eligible properties be considered under the Section 106 process.

Finally, some comments indicated specific concerns about adverse effects to historic properties (i.e., properties eligible for or listed on the National Register of Historic Places). Most of these concerns were related to how the visual and audible settings of historic properties would be impacted, although potential effects on submerged historic cultural resources also were mentioned.

Aesthetic/Landscape/Visual

The comments with respect to aesthetic impacts generally fall into the following subtopics: 1) the Project has positive or no impacts to aesthetics; 2) the Project has negative impacts to aesthetics; 3) visibility of lighting; 4) recreational impacts; 5) showing electrical service platforms (ESPs) in visuals; and 6) providing visuals from other locations/distances to other locations/other comparisons/re-evaluation of view sheds.

Some commenters expressed that they believe the Wind Farm would have a positive affect on aesthetics. They state that wind turbines are not a visual nuisance and that the turbine array could actually enhance the horizon. On the other hand, some comments addressed concerns with the negative visual impacts of the Project. Some believe that the turbines will disrupt the beauty of Nantucket Sound, permanently change the horizon and adversely affect the aesthetic value of the Sound. Others are concerned that the Project would detrimentally affect the view from historical sites, tourist sites and public and private beaches.

Several commenters noted that visual simulations were only done for the daytime and request that simulations be produced for night time as well in order to show the lighting on the WTGs. Others are concerned with the light pollution and suggest/question if

anything can be done to minimize it. Some commenters are also concerned that the lighting would confuse recreational boaters.

Comments were submitted noting that the simulations did not include the ESPs and request that they do so.

Several comments request a more thorough evaluation of visual impacts and that the EIS explain in more detail the methodology of assessing those impacts. Some specifically suggest including all elements that influence aesthetic evaluation, including but not limited to, height, distance to shore, atmospheric conditions, elevation of the viewer, and perception. A few commenters request that a more quantitative explanation of visual impacts be provided, such as mileage/percentage of ocean-facing shoreline located within view of the Project. Lastly, some comments address that the EIS should include visual simulations from additional locations, such as Craigsville, Hyannisport, Cotuit, and Osterville.

Comments Considered Out of Scope

Opinion Letters

A large portion of the comment letters were simple opinions such as “I don’t want the project”, or I like the Project and want it approved”. Opinion letters such as these were not evaluated in determining the scope of the MMS EIS since they do not really provide input on what should be the content of the EIS or how the project should be evaluated. Rather MMS considered comments that are substantative and either provided information on what should be included in the EIS or required an action such as evaluation of a specific type of potential environmental impact.

In addition, we note that some of the comments summarized under the regulatory heading are no longer applicable to review under the MMS jurisdiction. For instance, many comments were made that the ACOE was not the appropriate review agency, and as MMS is now reviewing the Project, this is no longer applicable. Similarly, concerns regarding objectivity of the preparer are also no longer applicable, as MMS, a public regulatory agency is preparing the new DEIS using the services of an independent third-party contractor.