

Information Requests for the Port Ambrose Deepwater Port Application

Information Request Number	Resource	Application Volume	Application Section	Agency	Information Request	Applicant Response
1	Air Quality	II	9 (Air)	Tetra Tech	Please provide a copy of the full PSD permit application submitted to USEPA.	
2	Air Quality	II	9 (Air)	Tetra Tech	Please provide a copy of the modeling protocol that was submitted to USEPA Region 2 and NYSDEC in May 2012.	
3	Air Quality	II	9.2.3	Tetra Tech	Section 9.2.3: On p. 9-6, it states that a single regas engine at 68% load is sufficient for annual average sendout of 400 MMscf/day. But on p. 9-7 it states that with a single engine the maximum sendout is limited to 341 MMscf/day, at an engine load of 85%. Please address the discrepancy.	
4	Air Quality	II	9.2.7	Tetra Tech	Section 9.2.7: Please confirm that the regas boilers can maintain the required SCR operating temperature at only 15% load for the low sendout case.	
5	Air Quality	II	9.2.7	Tetra Tech	Section 9.2.7 anticipates up to 45 shutdowns and startups per year for both a second boiler and a second engine. It does not appear that startups were addressed in the 1-hour modeling. Please comment on the decision not to model startup emissions.	
6	Air Quality	II	9.2.9	Tetra Tech	Section 9.2.9: It is stated that Table 9-12 presents hourly emission rates per LNGRV at average sendout, no-sendout, and low-sendout loads. However, Table 9-12 only appears to present the average sendout case. Please address the discrepancy.	
7	Air Quality	II	9.4.5.1	Tetra Tech	Section 9.4.5.1 states that because PM2.5 is a nonattainment pollutant, it is not subject to PSD, and that because PM2.5 emissions are below the NNSR threshold, the SIL is not applicable. Please provide documentation of EPA concurrence with this position.	
8	Air Quality	II	9.6.1	Tetra Tech	Section 9.6.1 states: "Operational emissions subject to Conformity rules need to be quantified; however, further consultation with USEPA on this matter is required to determine the exempted activities." Please provide operational emissions and the operational Conformity analysis subject to General Conformity when they become available.	
9	Air Quality	II	9.6.2	Tetra Tech	Section 9.6.2: Please provide some discussion of the availability and potential sources of required offsets during construction and any determined to be required for operation.	
10	Air Quality	II	9.8.1	Tetra Tech	Section 9.8.1 states: "Fugitive emissions of CH4 are not quantified but will be minimal due to the leak detection and repair procedures that are necessary to ensure safe operation of the LNGRVs." Please quantify fugitive CH4 emissions from the LNGRVs while moored to the port.	
11	Air Quality	II	9.8.1	USCG	Sections 9.8.1 and 9.8.2 – Breakdown Greenhouse gases for Operations and Construction and Decommissioning.	
12	Alternatives	II	2.11.1.7	BOEM	There is a significant OCS sand/ borrow area approximately 0.7 mile (1.1 km) near the main pipeline (between MP 19.3 and MP 16). This needs to be included on a plan view map somewhere in the environmental report.	
13	Alternatives	II	2.2	BOEM	The second bullet screening criteria in the Alternatives section (Avoid or minimize potential adverse effects) should be removed as it is too general. There is a CEQ requirement to look at this for any alternative, but no requirement to adopt it.	Editorial comment to be addressed in EIS by USCG.
14	Alternatives	II	2.3	BOEM	The No Action description talks about natural gas demand for the region, but the region is not defined as other times NYC, New York area markets, downstate New York, or even the Atlantic East Coast may be meant. The Region that is going to be served by the proposed project should be clearly defined early and consistently. Impacts of No Action should not be discussed in the description of No Action. The No Action description states that "Several natural gas transmission companies have recently, are currently, or in the near future are planning expansions of their regional transmission pipeline systems to help accommodate current demand." Therefore the need for further expansion appears to be only for forecast future demand and not the current situation. This should be made clear in the need section.	
15	Alternatives	II	2.4.1	BOEM	The Conservation Alternative is dismissed in cursory fashion with no apparent attempt at quantification of the amount (e.g. 1 percent or 5 percent) that might be saved. This would seem to be a critical number that can be compared to the future demand number before dismissing the conservation alternative.	
16	Alternatives	II	2.4.2.1	BOEM	Why is fossil fuel carbon emissions suddenly appear in the Alternatives section? These are impacts and would be attributed to natural gas as well. Impact discussion does not belong in the description of alternatives including the proposed action except as a comparative impacts analysis of alternatives including No Action and Proposed Action.	Editorial comment to be addressed in EIS by USCG.
17	Alternatives	II	2.9.2	Tetra Tech	Section 2.9.2 states "...permitting a port site in Study Area B was not feasible due to regulatory concerns." Provide further details regarding the specific regulatory issues that were determined to be fatal flaws for this alternative port area.	
18	Alternatives	II	2.7	USCG	Section 2.7 – Add Bienville Deepwater Port - Hi-Load to port design analysis	
19	Alternatives	II	2.8	USCG	Section 2.8 – A more robust analysis of Vaporization Process Alternatives. (Please see Bienville Deepwater Port FEIS as an example)	
20	Alternatives	II	2	USCG	Figures should be modified to show ALL alternative port and pipeline locations. Include port and pipeline locations from the Liberty Deepwater Port Application.	

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21	Alternatives	II	2	NMFS	We recommend that the applicant provide additional information on alternatives. Although Port Ambrose LNG proposes to construct and to operate a LNG deepwater port facility to serve as a delivery point for the importation of natural gas supplies to New York, the application does not fully discuss alternative methods of natural gas importation or the expansion of existing natural gas facilities or pipelines in the region. Additionally, a robust discussion of alternate locations for the proposed project and alternative alignments for the subsea pipeline is lacking. Some of these discussions are in the information provided for our preliminary review; however, there are numerous sections which do not adequately justify stated claims or otherwise fail to present a robust analysis. An evaluation of reasonable alternatives is required for the NEPA analysis. See 40 C.F.R. §§ 1502.14. We specifically note that the alternatives analysis should include a discussion of practicable alternatives that are less damaging to the environment. We also recommend that sequencing of avoidance, minimization, and mitigation of impacts be incorporated into the proposed project timeline and rollout plan and included in the alternatives analysis. These steps are essential to ensuring that impacts on the aquatic environment have been avoided and minimized to the extent practicable. Because the application does not contain sufficient information on these issues, we recommend that a full and complete analysis of alternatives be included in the NEPA document for this project. We suggest that these issues be coordinated jointly with the involved Federal and State regulatory agencies to ensure that any refinements to this application and its accompanying documents will suffice for all project evaluation needs.	
22	Alternatives	II	2	NMFS	We recommend that the applicant provide additional information on commercial and recreational fishing at the proposed site and pipeline locations. The proposed DWP is located approximately 18.5-19 miles offshore of Jones Beach, New York, and 31 miles offshore of the entrance to New York Harbor. Under the current preferred alternative, an appurtenant 19.3 mile long pipeline would extend from the new DWP facilities and interconnect into the existing Transco pipeline in New York State waters. Topic Report Two –Alternatives Analysis does not clearly identify and discuss the criteria used to select the DWP location or pipeline routes or why other locations within the New York Bight were unsuitable. In addition, the application appears to use siting criteria for the DWP and pipeline that does not fully account for our trust resources. While the application discusses criteria addressing some potential effects to resources of concern to us, including proximity to designated fishing grounds, spawning areas, and critical habitats for protected resources or EFH, additional information regarding commercial and recreational fishing should be utilized in the site selection analysis. Further, we specifically caution that the selection of this site prior to identifying ichthyoplankton and other life stages of aquatic resources present within the project area may result in incomplete analyses and incorrect conclusions in the eventual EFH assessment and other natural resource documentation.	
23	Biological Resources	#	4.1.5.1	BOEM	Section 4.1.5.1. Ballast water is not the only mean of introduction. Non-natives can also be introduced by attachment to ships and equipment. So may want to add to sentence something like “ Therefore, ballast water will not be vector for non-native species introductions.”	Editorial comment to be addressed in EIS by USCG.
24	Biological Resources	II	4.2.5	BOEM	Seasonal primary production estimates should be mentioned if available.	
25	Biological Resources	#	4.2.8	BOEM	Reviewed the bird and bat sections of biological resources and notice that there wasn’t anything on red knots. This is a species that occurs in NY and is ESA candidate species. There are numerous sighting of these birds reported by birders in eBird along NY beaches. I suggest they include this species because it is a species that BOEM will have to include in a BA of the area for renewables.	USCG to respond to comment
26	Biological Resources	II	4.2.8.1	BOEM	The statistics that are referenced concerning the status of shorebirds are generally 15 years old. Aren’t there more recent statistics?	
27	Biological Resources	#	4.2.11	BOEM	Define invasive species using the Federal Executive Order. (see http://www.invasivespeciesinfo.gov/laws/execorder.shtml)	Editorial comment to be addressed in EIS by USCG.
28	Biological Resources	#	4.3.1.5	BOEM	Noise impacts on marine life are also dependent on how important sound is for inter and intra-species communication.	Duplicate to comment number 29
29	Biological Resources	II	4.3.1.5	BOEM	Noise impacts on marine life are also dependent on how important sound is for inter and intra-species communication. Noise impacts to species other than marine mammals (fish/turtles/shellfish/birds).	
30	Biological Resources	#	4.3.1.8	BOEM	Add seabirds to the list of animals that are vulnerable to ingestion of marine debris.	Duplicate to comment number 34.

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31	Biological Resources	II	4.3.2	BOEM	Natural gas at high enough concentrations can be toxic. According to Patin 1999, acute fish poisoning and lethal damage occur at concentrations of gas hydrocarbons over 1 mg/l. Primary behavioral responses are observed at levels as low as 0.02-0.1 mg/l. (See Patin, Stanislav. 1999. Environmental Impact of the Offshore Oil and Gas Industry. EcoMonitor Publishing, East Northport, New York, 425 pp.	
32	Biological Resources	II	4.3.2.4	BOEM	Section 4.3.2.4. States what will not be affected (larger, mobile organisms). Should also state what will be affected. (fish eggs, larvae, small invertebrates, small fish).	
33	Biological Resources	II	4.3.2.5	BOEM	Section 4.3.2.5. Suggests that due to the small number of vessels associated with the port that the additional noise won't be significant. But are the kinds, size and noise production comparable or unique as compared to other vessels?	
34	Biological Resources	II	4.3.2.8	BOEM	Add "seabirds" to species groups that can be adversely affected by marine debris. In Section 4.3.2.8	
35	Biological Resources	II	4.3.2.12	BOEM	Provide a reference to reinforce statement that LNG is non-toxic and would dissipate quickly in Section 4.3.2.12.	
36	Biological Resources	II	4.3.3.1	BOEM	Add reference concerning rate of recolonization in Section 4.3.3.1.	
37	Biological Resources	II	4.3.3.3	BOEM	Section 4.3.3.3. Time of year will be very important to determine which fish eggs may be affected. Not all species will be affected equally.	USCG to respond to comment
38	Biological Resources	II	4.3.4.1	BOEM	To include shellfish might want to make heading "Marine Fishery Resources" instead of Marine Fish Resources"	Editorial comment to be addressed in EIS by USCG.
39	Biological Resources	II	4.3.4.1	BOEM	In Section 4.3.4.1, add "adult" before fish. Not true for eggs, larvae and most shellfish.	USCG to respond to comment
40	Biological Resources	II	4.3.4.1	BOEM	On page 4-74 add reference to support lower densities of fish entrainment/impingement.	
41	Biological Resources	II	4.3.4.1	BOEM	Which species are most likely to be affected based on location of intakes, time of year and densities of fish offshore?	
42	Biological Resources	II	4.3.4.1	BOEM	Another effect on fish is interference with communication. A number of fish communicate using sound. Also noise can cause generalized stress (See the above referenced synthesis for more details and references).	
43	Biological Resources	II	4.3.4.1	BOEM	Much is unknown about the effects of noise on invertebrates but there have been some studies concerning their hearing capabilities and impacts of sound. (Again see the Synthesis). Cephalopods might be especially affected.	
44	Biological Resources	II	4.3.4.1	BOEM	On page 4-76, add after "Marine fisheries" "that are sufficiently motile"	Editorial comment to be addressed in EIS by USCG.
45	Biological Resources	II	4.3.4.1	BOEM	How large and how hot is the thermal plume expected to be?	
46	Biological Resources	II	4.3.4.1	BOEM	Larval densities are estimated from a 2001 publication (which probably means the data was from earlier years). With climate change Atlantic fish have been changing their ranges, adding uncertainty. Some species have been moving north and some have been moving further offshore. I also note that the American eel is a species which might be affected, a species whose status under ESA is being reviewed.	
47	Biological Resources	II	4.3.4.2	BOEM	Section 4.3.4.2 states that the only invertebrates that will have measurable impacts from the Project will be benthic invertebrates. Are we certain there will be no effects on squid, and other water column invertebrates?	
48	Biological Resources	II	4.3.4.2	BOEM	On page 4-84 change "could" entrain to "will likely"	Editorial comment to be addressed in EIS by USCG.
49	Biological Resources	II	4.3.4.2	BOEM	On page 4-84 add concept of loss of artificial reef with the removal of piles?	
50	Biological Resources	II	4.6.2	BOEM	Could include monitoring to see how effective mitigation measures are to avoid entrainment, which size/species are entrained and how that might vary by season, water temperature, time of day. Compare to models.	Editorial comment to be addressed in EIS by USCG.
51	Biological Resources	II	4.6.8	BOEM	To protect birds may want to include language something like—Will project comply with FAA and USCG requirements while using light technologies (e.g., low-intensity strobe lights) that minimize impacts to avian species.	
52	Biological Resources	II	4.6	BOEM	Specifically include solid waste management training to avoid impacts to wildlife.	
53	Biological Resources	II	4.3.2	Tetra Tech	No section on alteration of prey species abundance and distribution is included for Disturbances Related to Operations, Section 4.3.2. Liberty needs to take into consideration when activities at the port occur and how this will affect the removal of the plankton community and thus, potentially impact foraging whales in the area. Any analysis should take into account the long term impacts of water removal on the plankton community and the effects of this removal on listed species of whales (i.e., abandonment of the affected area) during the lifetime of the project.	

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54	Biological Resources	II	4.3.4.5	Tetra Tech	Referencing Section 4.3.4.5, no assessment is provided on the affect the removal of plankton and potential impact on foraging whales in the area during construction. Water removal rates of construction vessels needs to be detailed and assessed in terms of what this means to potential food-web issues.	
55	Biological Resources	II	4.3.4.5	Tetra Tech	No actual assessment is provided on the affect the removal of plankton and potential impact on foraging whales in the area during operation as discussed in Section 4.3.4.5. Water removal rates of LNGRVs needs to be detailed and assessed in terms of what this means to potential food-web issues.	
56	Biological Resources	II	4.3.4.5	Tetra Tech	Impacts to marine mammals from maintenance and repair are not discussed in Section 4.3.4.5. Provide details on whether particular repairs will generate underwater noise levels in association with those produced by the vessel involved in the repair/maintenance with a similar analysis on the extent of the 120/160/180 dB threshold (e.g., what is involved with the annual inspection of the pipeline , replacement of components, or annual inspections of the port etc...). As maintenance/repair vessels will be present at the port, what is the acoustic footprint of these operations? Maintenance and repair should consider "major" repair/maintenance as well as "minor" repair/maintenance. Number of vessel transits by these vessels should also be estimated for potential impacts from vessel strike.	
57	Biological Resources	II	4.3.4.5	Tetra Tech	Referencing Section 4.3.4.5, impact analysis of vessel strike should include the total number of vessel transits occurring for construction, LNGRVs, and maintenance/repair vessels in appropriate sections. Currently, the sections are vague on how small the increase in vessel activity actually is.	
58	Biological Resources	II	4, Appendix B	Tetra Tech	Section 5.1.9 – Atlantic Highly Migratory Species Fishery Management Plan. Include albacore tuna, scalloped hammerhead shark, and smooth dogfish within this Fishery Management Plan and associated tables.	
59	Biological Resources	II	4, Appendix D	Tetra Tech	Confirm that the representative species for ichthyoplankton discussed in Section 2 are appropriate considering the depth of withdrawal (20 feet and 32 feet below surface).	
60	Biological Resources	II	4, Appendix D	Tetra Tech	Referencing Section 5, confirm that using data collected from a 333 micron mesh would sufficiently characterize eggs of the representative species, with respect to egg diameters.	
61	Biological Resources	II	4, Appendix D	Tetra Tech	The approach for estimating potential entrainment based on existing data should be sufficient. However, site-specific data will likely be needed prior to and during facility construction/operation, particularly when considering (as stated in the text); "species totals in the MARMAP/ECOMON data may underestimate the densities."	
26	Biological Resources	II	4.2.4.2	USCG	Section 4.2.4.2 – Provide results from videographic surveys of Mainline.	
63	Biological Resources	II	4.3.4	USCG	Section 4.3.4 – Provide NOAA spill model output to defend the statement "...the release of diesel fuel...the spill would be small...so impact to fish and prey resources would be local."	
64	Biological Resources	II	4	USACE	Page 4-17 contains out-of-date information regarding Atlantic sturgeon.	Duplicate to comment number 129.
65	Biological Resources	II	4.2.4 Appendix C	NMFS	We recommend that the applicant provide additional site specific information regarding the benthic resources in the proposed project area. Site-specific benthic sampling data are necessary to reach conclusions regarding the impacts of the project on the benthic communities and the fish species for which the benthos is a primary food source. We recommend that the applicant develop and implement a comprehensive benthic sampling program for both the deepwater port site and the entire pipeline alignment. We specifically recommend that all benthic profiling be prepared and transmitted in color-enhanced format and that all methods and results of studies are presented clearly. It is advisable that any references used also are provided in their entirety in an appendix so that they may be consulted in subsequent stages of project review. This will improve your ability to analyze fully the proposed project's impacts on benthic resources and the forage base for federal and non-federal fishery resources.	

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66	Biological Resources	II	4.2.5 Appendix D	NMFS	<p>We recommend that the applicant provide site-specific data regarding ichthyoplankton. Past phytoplankton surveys of the New York Bight show that ichthyoplankton distributions are not uniform, suggesting the likelihood that some areas of the Bight are more important than others or at the very least that occurrence is spatially and/or temporally patchy. Further, the "Ichthyoplankton Entrainment Assessment" included as Appendix D of Topic Report Four – Biological Resources cannot be considered a valid assessment of the potential entrainment effects of the proposed project due to the data used in the assessment. According to the document, the larval density data were obtained from studies within Great South Bay, New York. The STL Buoys proposed by the applicant will be approximately 18 miles offshore in water depths of approximately of 100 to 120 feet. The estuarine data are taken from an environment that is not representative of the conditions, habitat, and larval densities that may be found at the DWP site or along the pipeline alignment. Project-specific fishery resources data are necessary in order to allow for a full analysis of impacts that the project may have on federal and non-federal fishery resources. Further, any ichthyoplankton entrainment assessment done for this project should be comprehensive enough to evaluate the effects on various guilds of species that may be represented at the project site including pelagic, demersal, and forage species.</p>	
67	Biological Resources	II	4.6	NMFS	<p>We recommend that the applicant provide more information on a potential fisheries monitoring plan. The need for a monitoring plan will likely be dependent on the degree of impact on ichthyoplankton and other marine resources, which (as stated in the above comments) would be aided by a more complete presentation of such data in the project application. Here, we may recommend that a monitoring plan be developed to ascertain the effect of seawater intake and LNG operations on marine fishery resources. Such a biological monitoring plan would be designed to determine the distribution and abundance of marine fishery resources at the project site (by species and life stage and including early life stages) and quantify the impacts on those species and the fishery from impingement, entrainment, and properties (e.g., temperature, salinity, and biocide concentration) of the discharge plume. The monitoring plan would also be linked to a plan for adaptive management of the LNG facility to allow operational or mechanical modifications to prevent or minimize adverse impact to the marine environment. We also are concerned with the potential for persistent or chronic benthic disturbances in the proposed pipeline alignment as well as with the various mooring gear and interconnections. The monitoring plan should also include pre and post construction monitoring of the pipeline alignment to ensure proper burial of the pipeline and benthic community recovery. We strongly encourage color-enhanced profile charts for this purpose. We look forward to coordinating with you and the applicant on the development of such a monitoring plan.</p>	
68	Biological Resources	II	4.6	NMFS	<p>We recommend the applicant include a discussion of compensatory mitigation for impacts resulting from the construction and operation of the pipeline and the deepwater port. While we note that the applicant must prevent or minimize adverse effects to the marine environment, compensatory mitigation may be required to offset permanent and temporary impacts on fish habitats. Construction of the pipeline will result in impacts on the benthic community along the pipeline alignment that may result in permanent or temporary changes in the community structure. Temporary loss of functions and values – from the time of initial impact to the time of full recovery – are typically mitigated. We recommend that the applicant analyze the anticipated effects and anticipated recovery times for marine fishery habitats within the environmental evaluation. For impacts that cannot be avoided, compensatory mitigation for impacts should be proposed within the application.</p>	

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69	Biological Resources	II	4.3.4.5	NMFS	<p>Construction, support, and carrier vessels associated with the construction and operation of the LNG port have the potential to affect marine mammal species due to an increase in the frequency of vessel transits, movement along vessel traffic patterns, and the speed of vessel traffic. The applicant has indicated that, overall, the event of a vessel collision with marine mammal species throughout this project is unlikely.</p> <p>Vessel collisions are one of the primary sources of human-caused mortality to the North Atlantic right whale (<i>Eubalaena glacialis</i>), with many vessel strike events not being recognized or reported. Based on the status of this population, we have implemented ship speed reduction and reporting requirements along the U.S. East Coast to reduce vessel collisions with right whales in critical feeding, calving, and migratory areas (50 CFR 224.105). The applicant has predicted that the construction, operation, including maintenance and repair of the proposed LNG port, and decommissioning of Port Ambrose would contribute a minimal increase in risk for vessel collisions with right and other listed species of whales since the area in which the project is proposed is already subject to high levels of vessel traffic. During the operational phase of the project, LNG carrier vessels are predicted to approach the port using pre-existing shipping lanes at average speeds of 20 knots. Vessel speeds are expected to decrease to about 3 knots within 500 meters of the port. As cited in the proposal, the risk of striking a marine mammal increases greatly as vessel speeds exceed 14 knots. We recommend that the applicant provide a more robust evaluation of potential marine mammal/vessel interactions associated with the proposed project and how suggested vessel strike avoidance measures will mitigate for these potential interactions. An appropriate risk analysis should include a "Before and After Control Impact Analysis." This analysis should take into account the increase in vessel traffic before and after port construction and whether this increase, based on species density in the area, will cause a significant risk of vessel collision.</p>	
70	Biological Resources	II	4.3.4	NMFS	<p>Sea turtles, Atlantic sturgeon, and whales can interact with construction (e.g., plows, jetting devices) and operational equipment (e.g., mooring lines, cable sweep). The document does not address such interactions. The types of construction activities and equipment that sea turtles, Atlantic sturgeon, and whales may come into contact with and the potential effect of such an interaction should be fully assessed. The document should contain an analysis of whether such activities have the potential to adversely affect listed species and whether these effects are likely to jeopardize the continued existence of the species or whether the effects of such activities are insignificant or discountable.</p>	
71	Biological Resources	II	4.3	NMFS	<p>The proposed Port Ambrose and pipeline will result in the alteration of the physical environment within the New York Bight. Alteration of the physical marine environment will include not only the destruction and alteration of the benthic community and habitat but will also include noise pollution, release of marine debris, discharges (i.e., heated water), and changes in water quality and/or temperature resulting from fuel spills, turbidity during construction, and wastewater discharges. We believe that additional analyses of the effects of these alterations, both short term (i.e., construction phase) and long term (i.e., operation of the port), are necessary in order to assess potential impacts to listed species. For instance, the potential for the construction and operation of Port Ambrose to destroy benthic habitat/communities as well as produce increased levels of suspended sediment (i.e., turbidity) within the project site must be evaluated further. The report does not sufficiently address the alteration of the benthic community (e.g., amount removed, recovery time) or turbidity plumes produced by each construction activity (e.g., concentration levels, distance the plume extends, and period of time plume remains within the area) and the associated impacts on listed species. Analyses of such impacts are needed as such effects could potentially alter sea turtle, Atlantic sturgeon, and marine mammal foraging success, health, or result in temporary abandonment of the affected area.</p>	

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72	Biological Resources	II	4.3	NMFS	<p>The report does not sufficiently address the impacts of underwater noise produced during construction and operation of the LNG DWP/pipeline on sea turtles, Atlantic sturgeon, and marine mammals. Throughout construction, operation (including maintenance and repair) and decommissioning of the deepwater port and pipeline, underwater noise will be generated. Pile driving; jetting; and vessel presence (i.e., use of DP thrusters) will also generate elevated noise levels that may adversely affect listed species of whales, Atlantic sturgeon, and sea turtles. More information on and a detailed description of the source levels produced by all construction and operation activities as well as information on the distance at which noise levels will be below injury/disturbance/harassment thresholds established by us for marine mammals, sea turtles, and Atlantic sturgeon for underwater noise, must be provided (Atlantic sturgeon: Injury: 206 dB re 1 µPa Peak and 187 dB accumulated sound exposure level [dBcSEL; re: 1µPa2*sec] [183 dB accumulated SEL for fish less than 2 grams]; Behavior harassment: 150 dB re 1 µPa RMS. Listed species of Whales: Mortality: 180 dB re 1 µPa RMS; Behavioral Disturbance/Harassment (non-continuous noise): 160 dB re 1 µPa RMS; Behavioral Disturbance/Harassment (continuous noise): 120 dB re 1 µPa RMS. Listed species of sea turtles: Injury/Behavioral modification: >166 dB re 1 µPa RMS). If exact underwater noise levels cannot be ascertained, then modeling to estimate the acoustic impact of these construction/operation activities will be necessary in order for us to accurately evaluate and assess the impacts of these underwater noise levels on listed species. In addition, sufficient information on ambient noise levels is not provided. Ambient noise levels within the project area and the contribution of additional noise from DWP/pipeline construction and operations needs to be evaluated further. Any underwater noise levels produced during the construction and operations of the deepwater port that is above ambient for any period of time has the potential to cause behavioral and/or physiological changes in listed species and, thus, needs to be considered. Based on this evaluation, direct and indirect effects to listed species of whales, Atlantic sturgeon, and sea turtles will need to be fully addressed.</p>	
73	Biological Resources	II	4, Appendix D	NMFS	<p>The report does not sufficiently address the uptake of sea water throughout construction (i.e., hydrostatic testing of pipelines, commissioning of LNG vessel, support vessels) and operation (e.g., ballast water during safety and security checks and regasification) of the LNG terminal and its impacts on listed species of whales (i.e., the removal of phytoplankton, zooplankton, and ichthyoplankton, the primary food source of listed whale species). A more detailed analysis on the amount of sea water that will be taken up throughout each phase of construction, followed by a full evaluation of the effects of this water removal on the phytoplankton, zooplankton, and ichthyoplankton community (e.g., how much (biomass) is removed) within the project area and the effects this removal will have on listed species of whales (i.e., what percentage of plankton species will be removed from the whales diet) needs to be provided. Additionally, we will need a similar analysis to be conducted for the long term operation of the DWP and its impacts on the plankton community and the resultant effects on listed species of whales. We need both analyses in order to evaluate the short term and long term effects of the proposed action on listed species of whales.</p>	
74	Cultural Resources	II	5	BOEM	<p>Based on the results of the identification survey, potential cultural resources may be located within the APE. These potential historic properties may require avoidance or additional investigation.</p>	
75	Cultural Resources	III	A.7.1	BOEM	<p>As described in Volume II, Topic Report 1, the STL buoys will be moored by 8 pile driven anchors buried to a depth of 50-100 feet. Page 5 of the archaeology report however, only considers a maximum potential disturbance depth from the project to be 15 feet. Because of this discrepancy, the full potential impacts of the project within some portions of the port area may not have been considered.</p>	

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76	Cultural Resources	III	A.7.1	BOEM	<p>The archaeology analysis is based on the results of 2 phases of geophysical survey, described on page 43. Based on this description it appears that sufficient survey coverage of the pipeline corridor was completed during the second phase with instrumentation run at a 30-m line spacing along a 300-m wide corridor with tie lines at 150-m.</p> <p>However, it is not clear in the discussion on page 43 if the port area was subjected to this same survey strategy. The report states that during the second phase "no additional data were acquired along the alternate route option or in the Port study area", however, the survey track lines plotted on the attached figures seem to indicate that the port area was surveyed with a 30-m line spacing and the sonar mosaics seem to indicate 100% coverage of the port area.</p> <p>It should be clarified what remote sensing equipment was run at what line spacing in what particular areas in order to determine if sufficient survey coverage of the port area was completed. As the lead federal agency, USCG is responsible for determining if the level of effort is appropriate for the identification of historic properties as this may differ from BOEM's recommended guidance for renewable energy projects provided in the GGARCH.</p>	
77	Cultural Resources	III	A.7.1	BOEM	30-m survey lines will be needed to clear project areas.	Duplicate to comment number 76.
78	Cultural Resources	II	5	Tetra Tech	The numbers of targets noted in Topic Report 5 that were assessed as potential cultural resources do not match the numbers of targets described in each of the cultural resources reports of work performed in federal and state waters. The discrepancies between the reports and Topic Report 5 reports should be addressed and clarified.	
79	Cultural Resources	II	5.10	Tetra Tech	In Topic Report 5 there is reference to a staging area in Coeymans, NY. There is no information about this staging area within the cultural resources survey reports. When will cultural resources surveys be performed at this staging area and when will results be provided?	
80	Cultural Resources	II	5.10	Tetra Tech	Provide documentation that the staging area at Quonset Point, RI has been previously surveyed and reviewed by SHPO and FERC.	
81	Cultural Resources	II	5.9	USCG	Section 5.9 – Develop an Unanticipated Discoveries Plan before Draft EIS is completed.	
82	Cumulative Impacts	II	7.5	BOEM	There are no active oil or gas leases near the project area. Future offshore exploration for oil and gas needs to be addressed more specifically in relationship to the actual project location. Demonstrate why or why not oil and gas activities would need to be considered in a cumulative effects analysis.	
83	Cumulative Impacts	II	8.5.1	BOEM	As stated in the Cumulative Impact section (Section 8.5) there will be no construction-related cumulative impacts with the Port Ambrose Project concerning the NYPA project however one must keep in mind timelines change all the time and the NYPA project needs to be discussed in the cumulative section within the EIS.	
84	Cumulative Impacts	I	NA	BOEM OREP	Even though Liberty is aware that BOEM has been processing NYPA's application for over a year, Liberty has not approached BOEM to discuss its LNG proposal or to engage in fundamental conversations with our respective agencies concerning the compatibility of the two projects. Further, it is unclear from Liberty's application whether they have reached out to NYPA to discuss the compatibility of their different proposals. Liberty's application may have benefitted from early outreach or discussion on this topic. At a minimum, we find this section does not address potential conflicts that could exist between a LNG facility and a large wind power project operating in the same area.	

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85	Cumulative Impacts	I	NA	BOEM OREP	The area proposed by NYPA is 127 square miles (81,120 acres or 32,832 hectares). Liberty states that the LNG project footprint “only occupies 0.3 square miles for each buoy system, or less than 1% of NYPA’s total proposed area,” and that it believes its project is small enough to have minimal effect on NYPA’s proposed wind power project. BOEM believes a more thorough discussion needs to be included in the Liberty application on this point. For example, there is no doubt that large vessels traverse the area and that certain safety measures are needed to ensure that the risk of collisions with wind turbines are minimized. NYPA’s proposed lease area (and Liberty’s proposed LNG Port) is located between two Traffic Separation Schemes (TSS) for vessels transiting into and out of the Port of New York and New Jersey. Because of its close proximity to shipping lanes, the U.S. Coast Guard has initially recommended that a buffer zone—a minimum 1 nmi setback line from the adjacent TSS—be applied to the area for purposes of reducing the risk of allision of vessels with wind turbines. This buffer zone may be expanded in the future pending additional analysis. BOEM has worked closely with the USCG on marine safety and navigation issues, and takes the USCG’s recommendations seriously. Thus, Liberty’s statement that its LNG Port would have only a “minimal effect” on the proposed wind facility needs further consideration given that LNG vessels are up to 300 m in length and that such vessels themselves require special safety considerations, such as safety zones that are extended out to 1500+ meters (2.73 square miles per buoy) during offload procedures (which Liberty has indicated could take up to 17 days to complete, with 40+ deliveries occurring each year).	
86	Cumulative Impacts	II	2.9.2.8	Tetra Tech	Section 2.9.2.8 Use Conflicts. Describe the nature and extent of discussions that have been held between Liberty and the Collaborative and provide additional information regarding the Collaborative’s position regarding the Port Ambrose Project.	
87	Cumulative Impacts	NA	NA	NMFS	We recommend that the USCG’s environmental analysis include all direct, indirect, and cumulative impacts associated with the proposed project, including all of the DWP up to the interconnecting facility tie-in with the existing Transco pipeline. This analysis should include impacts resulting from construction, operation, repair and maintenance, as well as decommissioning. Doing so will allow all of us to better understand the scope of the analysis.	Editorial comment to be addressed in EIS by USCG.
88	Cumulative Impacts	II	4.5	NMFS	We recommend that the applicant more clearly describe the relationship between the project and other projects in the area. The applicant notes the lease application by the New York Power Authority to develop an offshore wind facility in close proximity to the proposed DWP location. While the applicant suggests the potential for compatible uses between the two facilities, the Port Ambrose project applicant should consider cumulative effects of the two projects on fish habitat, fishery resources and commercial and recreational fishing activities.	
89	EFH	#	4, Appendix B	BOEM	EFH Assessments often include a section on ESA listed, proposed, candidate species, and species of concern. Does help identify species at special risk.	Editorial comment to be addressed in EIS by USCG.
90	EFH	II	4, Appendix B	BOEM	In Section 5.2 certain species were discussed in greater depth. Not clear why they were selected.	
91	EFH	#	4, Appendix B	BOEM	Change “may entrain/impinge egg and larval life stages” to “will entrain” Section 7.1	Editorial comment to be addressed in EIS by USCG.
92	EFH	#	4, Appendix B	BOEM	Remove the word “recent”. Studies from 2004 and 2006 are not that recent. It suggests to the reader recycled language in Section 7.2.3.2.	Editorial comment to be addressed in EIS by USCG.
93	EFH	II	4, Appendix B	BOEM	Change “may include mortality” to a more definitive statement that the activities will include mortality in Section 7.2.3.2.	
94	EFH	II	4, Appendix B	BOEM	Table 13 - Entrainment/impingement is missing from the table of anticipated impacts to EFH.	
95	EFH	II	4.2.2.1	USCG	Section 4.2.2.1 – This section states two species with EFH are within the project area and have HAPC identified but only one species is discussed. What is the other species?	
96	General	I	NA	BOEM	Include the Bureau of Safety and Environmental Enforcement (BSEE) throughout the document, for example, in Acronyms and Abbreviations (ix) and under the Agency Review process and Opportunities for Stakeholder Participation (p.8)	Editorial comment to be addressed in EIS by USCG.
97	General	#	NA	BOEM	The environmental report notes that previous risk assessments of LNG deep water ports, have included analyses of a large LNG spills, including pool fires, flammable vapor clouds, cryogenic hazards, rapid phase transitions, ice formation, and their possible consequences. This information needs to be applied in detail to the proposed project location.	Editorial comment to be addressed in EIS by USCG.
98	General	NA	NA	USACE	Provide a completed copy of the USACE permit application. All comments provided in the letter from USACE dated October 18, 2012 should be addressed.	
99	Geological Resources	#	3	BOEM	The issue of scour caused by disturbance to the seafloor, primarily if scour protection will be implemented, was not addressed in the proposal.	USCG to respond to comment

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100	Geological Resources	II	7.2.5.1	Tetra Tech	Section 7.2.5.1 states that a not well understood fault line exists beneath a section of the proposed pipeline. This is also stated on figure 7.7. Liberty concludes that evidence of seismic activity has not taken place in recent times (Quaternary)...for these reasons ...the corridor is at minimum risk. Quantify reason suggesting minimum risk, other than the fact that no earthquakes have occurred there. Describe/define 'minimal' other than stating 4-6% risk of a quake.	
101	Geological Resources	II	7.2.5	Tetra Tech	Provide discussion on procedures in the event of the discovery of unknown geologic conditions that could affect portions of the pipeline. Conditions such as hardpan over a rift or sediments hiding other features not picked up by survey work may pose additional risk or scheduling issues. Provide a plan to address safety/construction/schedule/equipment changes etc.	
102	Land Use	II	8.1	Tetra Tech	Section 8.1 – Regulatory Environment. Discuss local regulations and planning efforts that may be applicable to the Project, such as the New York City Department of City Planning Waterfront Revitalization Program.	
103	Land Use	II	8.3	NMFS	We recommend that the applicant provide additional information on the project's landside impacts so that the appropriate analysis of impacts can be completed. The applicant has stated that no onshore facilities will be constructed for this project; however, the application notes that upland areas will be necessary for fabrication, laydown and staging of construction materials for the proposed pipeline assembly. In order to evaluate the direct, indirect, individual, and cumulative effects of the proposed DWP, we recommend that a full and complete discussion of the landside impacts be included in the deepwater port application.	
104	Noise	II	9.9.4 9.9.5	Tetra Tech	<p>The only discussions of noise impacts are qualitative and include a comparative analysis to the underwater noise impacts associated with noise modeling efforts conducted for the Neptune LNG Deepwater Port Project by LGL and JASCO from 2005 to 2009. All statements are under the assumption that the construction, operation, maintenance and decommissioning of the Neptune Project in relation to noise quality would provide an approximate level of the noise impacts expected for the Port Ambrose Project.</p> <p>The analyses indicate that there are differences in site conditions between the Neptune and the Port Ambrose Project that will affect the level of noise received at sensitive receptors; however, these differences are never stated. For instance, the Port Ambrose project is proposed within a location approximately 19 mi (30 km) from the shore in water approximately 100 ft (30 m) deep. In comparison, the Neptune project was constructed offshore of Gloucester, Massachusetts in waters approximately 240 ft (73 m) deep. Received sound levels could not only vary based on differences in bottom depth but also factors such as sound power, source dimensions, construction method, pile diameter, etc.</p> <p>Underwater construction pile driving noise, dynamic positioning (DP) vessel noise, pipeline trenching noise, LNGRV transiting, maneuvering, and operating noise should be considered in a more detailed and quantitative manner with respect to site-specific conditions. Specific identification of the potential for impacts from noise to specific marine mammal and fish species should be assessed from the noise modeling.</p>	
105	Noise	II	9.9.4	Tetra Tech	<p>Provide additional information on the sound profile and duration of sound generation from vessels that will be used during Project construction and operation such as:</p> <ul style="list-style-type: none"> • Dynamically Positioned Dive Support Vessel; • Dynamically Positioned Pipelay Vessel; • Heavy Lift Vessel; and • Other vessels used for construction, maintenance, and/or repair activities. <p>Where applicable analyze sound associated with thrusters. Information should be provided for each class of vessel that would service the Project.</p>	

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106	Noise	II	9 (Noise)	Tetra Tech	<p>There are several places where the following statement is included in the acoustic analysis:</p> <p>“Expected noise levels are anticipated to be negligible compared to existing background noise in the New York Bight and is expected to have insignificant impacts.”</p> <p>There is no supporting data to verify this statement so it is difficult to determine how this conclusion was reached. The underwater analysis indicates that calculations for expected noise level will be approximately 55 dBA for equipment that “might operate on typical LNGRVs” (as of 2006-2009). This level is at the upper bound of the ambient range is 50-55 dBA so it’s possible that for slight variations due to such factors as variations in equipment types actually employed, more recent equipment and sound power information (i.e., since 2009), and dependent site-specific conditions (i.e., weather, cumulative effects) that the expected noise level may be >55dBA. Provide additional analyses or documentation to support the claims regarding insignificant impacts.</p>	
107	Noise	II	9.9.5.1	Tetra Tech	<p>In Section 9.9.5.1 it is written “The number of trips by support vessel is not statistically significant in comparison to existing vessel traffic and therefore will not result in a significant increase in ambient noise levels.” There is no supporting data to verify this statement so it is difficult to determine how this conclusion was reached. Provide additional analyses or documentation to support this statement.</p>	
108	Noise	II	9 (Noise)	Tetra Tech	<p>The underwater analysis includes the following statement:</p> <p>“Depending on the season and receiver depth, the distance the 120-dB received level contour (Level B harassment for continuous sound levels) could travel from a single transiting LNG vessel is approximately 1.5 to 1.7 mi (2.4 to 2.8 km) from a transiting LNG vessel with a support vessel (Table 9-31). A species close to the ship could be exposed to this noise level for approximately 30 minutes. Furthermore, due to the short duration of each episode and their infrequent occurrence (LNG arrival/departure every 5-16 days), there will be little long-term effect on the individual animals and no effects on populations (USCG 2006a).”</p> <p>Provide a site-specific quantitative acoustic analysis that would support this statement. Document expected received sound levels by receiver depth or by species type.</p>	
109	Noise	II	9 (Noise)	Tetra Tech	<p>In Topic Report 4 – Biological Resources the following conclusion is made with reference to potential impacts on marine mammals from construction pile driving:</p> <p>“Therefore, it is anticipated that impacts on marine mammals resulting from construction activities will be short-term and consist of minimal to negligible behavioral harassment effects. Impacts on marine mammals from noise and acoustic shock during construction are expected to be insignificant and temporary.”</p> <p>Provide additional data and analysis results to justify these statements regarding impacts to marine mammals.</p>	
110	Noise	II	9 (Noise)	Tetra Tech	<p>The STL Buoy System will be located approximately 19 miles (30 km) off Jones Beach, New York; therefore, airborne noise impacts are expected to be low; however, the pipeline interconnect location is only 2.2 miles (3.5 km) from the nearest point on the New York coastline. Identify the noise-generating construction activities that will be occurring at the interconnect location and assess impacts at those nearest coastline receptors as appropriate.</p>	
111	Noise	II	9.9.4.2	USCG	<p>Section 9.9.4.2 – Impact of the alternative anchoring systems (fluke anchors and grouted piles).</p>	
112	Project Description	II	1.6	BOEM	<p>From a NEPA perspective, the total project should be discussed. The onshore facilities that will support construction activities and those that will support the O&M component are addressed minimally. For example, the location(s) of support facilities have not been determined and/or discussed. While the report states that the onshore facility(s) will be selected based upon contractor input (for construction?) - given the controversial nature of LNG projects, additional information on the onshore impacts and/or benefits seem appropriate.</p>	
113	Project Description	II	1.3	BOEM	<p>Is there a need for future pipelines/infrastructure to support added product?</p>	

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114	Project Description	II	1.4	BOEM	The Major Deepwater Port components are identified and explained in some detail such as the STL Buoy system. It appears the STL buoys will be lowered to a landing pad on the sea floor and maintain that position until retrieved by an LNGV. One would assume there is potential for impacts therefore one must understand, examine and mitigate the potential impacts if necessary along with the timeframe of this potential impact.	
115	Project Description	II	1.4.1.2	BOEM	One must assume a decision will be made sooner than later whether to drive pile anchors or the alternative such as the fluke anchors or grouted piles. The less impact procedure would be the best option.	
116	Project Description	II	1.4.1.2	USCG	Section 1.4.1.2 – “Define “noise and time” in the “brief periods of stern thruster use under certain metocean conditions to prevent cargo tank sloshing.”	
117	Project Description	#	1.6.2	USCG	Section 1.6.2 – Provide NEPA analysis for “Shore-based Office and Warehouse Space for Construction”	Duplicate to comment number 112.
118	Project Description	#	1.6.3	USCG	Section 1.6.3 Provide NEPA analysis for “Shore-based Office and Warehouse Space for Operation”	Duplicate to comment number 112.
119	Project Description	II	1.7.3.2	USACE	Note that for buried utility lines, USACE requires a minimum bottom cover of 4 feet below the existing bottom. Specific burial requirements for the proposed project will be determined after submittal of a complete permit application for Liberty Natural Gas to USACE.	
120	Purpose and Need	II	1.2	BOEM	In volume 1 there is a claim that NG prices in NYC are at a premium. Compared to the rest of the USA that may be true, but NG prices in the USA are very low at present and are expected to stay low for the foreseeable future. This seems to be ignored in this ICF report or the ICF report is mischaracterized as it seems to be focused only on increasing demand and lessening supply. The most recent EIA report indicates there is considerable export of USA NG via LNG and there is talk of exporting more of USA NG via LNG. In Volume 2 a better job is done of focusing on the need, for example the statement “lower natural gas prices and lower price volatility, as well as increase the reliability, flexibility, and diversity of natural gas supply for the New York area markets” However, the need is really about adequate distribution links of NG to a this particular area, not the overall supply or cost of NG although the document claims the ICF report says Port Ambrose will increase the overall supply. Unless this supply is coming from overseas (which is not indicated until much later), this is a misstatement. Port Ambrose is incorrectly depicted as a new supply (the distinction is not made as to local vs. national) when it is actually a new point in the distribution system. The overall supply is coming from the ground throughout the USA and Port Ambrose will not increase that overall supply unless overseas LNG is brought in to Port Ambrose, which is apparently the case although not stated as such until the end of Section 2.5.	
121	Socioeconomics	II	1.3/6.3	BOEM	The discussion notes that O&M staff will be small; will existing businesses and industrial support come from the local community, and is there a long term economic/ jobs benefit? Please also add discussion to address this in Topic Report 6.	
122	Socioeconomics	II	6.4.2 Table 6-13	BOEM	“The minority population percentage in Queens and Kings Counties are lower than 50 percent and lower than the percentage in the State of New York (Table 6-13). In Kings County, the population describing themselves as “white alone” represents approximately 36 percent of the population, and in Queens County, only 27.6 percent of the population is “white alone.” These two counties (Kings, NY and Queens, NY) are considered to have significant minority populations.” However, the stated criteria is 50% and above is a minority population. These explanations do not make sense.	
123	Socioeconomics	II	Table 6-13	BOEM	These numbers don’t add up or show relationship. Recommend using the chart from the census bureau. Cannot find, “white alone.”	
124	Socioeconomics	II	6.4.2	BOEM	“Since launching the Project, Liberty and its representatives have meet with members of the public, community organizations, area businesses and business associations, and local, state, and federal government officials to present the Project proposal and receive feedback from potential stakeholders. Stakeholder outreach continues to this day, and will continue throughout the administrative review of the Project, including during the various public hearings that will be held as set forth in the DWPA.” But how has the EJ review been incorporated into these hearings? When were the hearings? How often do the hearings occur? The need for EJ is stated repeatedly, but the actual explanation of how it was incorporated lacks those important details.	

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125	Socioeconomics	II	6.3.2.1	Tetra Tech	Provide more information for all nonlocal workers required for the Project as discussed in Section 6.3.2.1, including why nonlocal workers are required (i.e., Liberty Natural Gas, LCC employees or specialized labor) and where these workers would be from.	
126	Socioeconomics	II	6.3.2.2	USCG	Section 6.3.2.2 – What are the impacts of having onshore staging area for urea and mercaptan tanks to resupply LNGRVs? What is the storage volume for these agents?	
127	Socioeconomics	II	6.3.2.2	USCG	Section 6.3.2.2 - What is the impact of mooring a dedicated Support Vessel at the shore-side facility?	
128	Socioeconomics	II	6.3.1.2	NMFS	<p>We recommend that the applicant provide additional fisheries information, including information on the economic impacts of a potential fisheries exclusion zone, as the applicant seeks authorization for an exclusion zone of 500 meters around each buoy, as well as a 1000 meter no anchor zone. It is important to use current and accurate data and information in determining the potential impacts on historical, current and future fishing activities. The proposed DWP site is in area known as Cholera Bank. This area and the adjacent Middle Ground, Angler Bank, East of Cholera and Mussel grounds are all important recreational and commercial fishing grounds. The applicant should discuss the economic impacts caused by the creation of an exclusion zone that would preclude commercial and recreational fishing activity in the area. We recommend that a discussion of ecological effects to fishery resources as a result of the exclusion of commercial fishing operations be included. For example, issues such as displacement of existing commercial fisheries into other areas resulting in increased fishing pressure to other locations need to be addressed.</p> <p>We also recommend that you include in the NEPA document a comprehensive discussion of the socio-economic impacts resulting from the potential exclusion of commercial and recreational fishing operations within the vicinity of the DWP area. The NEPA document should also evaluate the regional impacts on fishing ports resulting from the potential closure of these fishing grounds due to LNG operations.</p>	
129	T&E	II	4.2.2.3	BOEM	Need to update regulatory information concerning the Atlantic sturgeon. Its status has changed from proposed to listed. (See http://www.nmfs.noaa.gov/pr/species/fish/atlanticsturgeon.htm). Also the EFH Assessment includes Atlantic salmon adults in the project area. They are not mentioned in the Biological Resources Section of the Environmental Evaluation.	
130	T&E	II	4.2.2.3	BOEM	May also want to mention the status of the American eel which is undergoing a status review after a may be warranted petition finding (http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E0AG) In addition the alewife and the blueback herring are undergoing a status review with a 12-month finding to list or not list due soon. They are found in the area of the proposed project.	
131	T&E	II	4.2.8.1	BOEM	Include references associated with “one quarter of the piping plover population” and “one quarter of the least tern population” statistics.	
132	T&E	II	4.2.8.1	BOEM	Only the Great Lakes population of the piping plover is federally listed as “endangered”. Other populations are “threatened”. (See http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B079)	Editorial comment to be addressed in EIS by USCG.
133	T&E	II	4.2.2.3	USCG	Section 4.2.2.3 – Update Atlantic Sturgeon ESA status.	Duplicate to comment number 129.
134	T&E	II	4.3.4.5	NMFS	Although listed species of whales, Atlantic sturgeon, and sea turtles were identified and briefly described in the document, potential effects to these species from the proposed construction, operation, including maintenance and repair, and decommissioning of the LNG terminal were not fully identified or assessed. We recommend a detailed and complete analysis of potential impacts on each of the endangered and threatened species and marine mammals.	

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135	T&E	II	4.3	NMFS	<p>The applicant needs to provide a more robust assessment of the direct and indirect effects on listed species of maintenance and repair activities that will occur throughout the life of the LNG terminal. A similar assessment is also needed for decommissioning operations. Stating that the effects to listed species of these phases of port operations will be similar to or no worse than the construction phase of the port is not sufficient, and, thus, we request a full and thorough analysis of effects to whales, sea turtles, and Atlantic sturgeon of maintenance and repair and decommissioning activities.</p> <p>Because the construction, operation, and decommissioning of Port Ambrose has the potential to affect listed species, a Section 7 consultation under the ESA must be conducted. However, in order to conduct Section 7 consultation, additional information is needed by us before consultation can be initiated as the present document is inadequate to serve as the basis for a biological assessment for the purposes of Section 7 consultation. We believe that this additional information will assist us in evaluating the potential impacts of the proposed DWP on endangered and threatened species.</p>	
136	Water Resources	II	3.2.2.1	BOEM	Section 3.2.2.1. "Coastal runoff also impacts nearshore seawater temperatures." How so? Do these effects extend into the proposed project area?	
137	Water Resources	II	3.2.2.4	BOEM	Proposal mentions turbidity conditions generally but, since a USACE 2008 report is cited in Turbidity section, it would be helpful to know more about the minimum/maximum or a turbidity range encountered with depth and the type of turbidity measurements made.	
138	Water Resources	II	3.2.2.5	BOEM	Section 3.2.2.5. "In general, water quality in the vicinity of the Port is expected to be better (i.e., lower trace element and contaminant concentrations) than that observed in the HARS or coastal areas." Could use a brief sentence explaining why... open ocean... miles from HARS or coastal areas.	
139	Water Resources	II	3.3.2.1	BOEM	Section 3.3.2.1. "Accordingly, water quality impacts associated with pipeline installation, lowering and backfilling operations are expected to be localized, short-term, and minor." Curious if this has been monitored or shown in previous pipeline construction work. A citation for this would be helpful.	
140	Water Resources	II	3.3.2.3	BOEM	Section 3.3.2.1. "Turbidity impacts associated with submersible pumping will be marginally greater than hand jetting impacts." Neither of which impacts are estimated here. I assume they would both be greater than the plowing and backfilling impacts. Please address.	
141	Water Resources	II	3.3.2.3	BOEM	Section 3.3.2.3. "Due to the sandy characteristics of the bottom sediments and the limited duration and intensity of the bottom disturbance, the turbidity plume resulting from movement of flexible risers and anchor cable will be minor in magnitude, extent, and duration, and associated impacts on water quality and the environment are expected to be minor." While I don't disagree with the impact assessment if this has been monitored elsewhere a citation would be helpful.	
142	Water Resources	II	3.3.2.3	BOEM	Accidental Releases of Petroleum Products, LNG, and/or Other Chemicals – General comment. Multiple negligible effects decisions are made without any citation to a study examining the dissipation of LNG in the water and the chemical reactions that result following a spill.	
143	Water Resources	II	4.3.1.7	BOEM	Proposal needs some kind of estimate of the general size of vessels to be used during construction.	
144	Water Resources	II	3.2.2.1	Tetra Tech	Section 3.2.2.1 Temperature. Reference is made to summer season stratification but the CTD data were collected during the January/February 2012 timeframe. Provide data that support that summer stratification does occur within the water column at the proposed buoy location.	
145	Water Resources	II	3.2.2.2	Tetra Tech	Section 3.2.2.2 Salinity. Provide reference or data for the statement that "Surface salinity can be expected to be less than salinity at depth throughout the year, especially during periods when thermal stratification is prevalent."	
146	Water Resources	II	3.2.2.3	Tetra Tech	Provide percent saturation values for DO in the water column to support the statement in Section 3.2.2.3 that "the well mixed conditions allowed DO to approach saturation throughout the water column."	
147	Water Resources	II	3.2.2.3	Tetra Tech	Section 3.2.2.3 states that profile data were collected during winter 2012; provide reference or data for the statement that these data are representative for the fall season as well.	
148	Water Resources	II	3.2.2.3	Tetra Tech	Provide the distance and water depths from those areas where sewerage disposal has occurred relative to the proposed project location as discussed in Section 3.2.2.3.	

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149	Water Resources	II	3.2.2.3	Tetra Tech	Provide current or historic data that support the trend in seasonal dissolved oxygen levels described at or near the project location as discussed in Section 3.2.2.3.	
150	Water Resources	II	3.2.2.3	Tetra Tech	Provide concentration data that support the declines in oxygen levels to levels that are 10-30 % below surface concentrations in the summer months as discussed in Section 3.2.2.3.	
151	Water Resources	II	3.2.2.3	Tetra Tech	Provide seasonal water column profile data for temperature and dissolved oxygen at the buoy location as discussed in Section 3.2.2.3.	
152	Water Resources	II	3.2.2.5	Tetra Tech	Provide water depths where historic water sample data were collected from "bottom" depths as referenced in Section 3.2.2.5.	
153	Water Resources	II	3.2.2.5	Tetra Tech	Provide assessment if any of the observed concentrations of trace metals discussed in Section 3.2.2.5 are in excess of ambient water quality criteria for the area.	
154	Water Resources	II	3.2.3	Tetra Tech	In Section 3.2.3, the discussion of PAH data is limited to Phenathrene and Pyrene. Are other PAH data available or are total PAH data available from Mecray et al. (2003) for the project area such as data provided in Ambrose et al. (2003)?	
155	Water Resources	II	Table 3-6	Tetra Tech	Provide reference for ERL/ERM values used in Table 3-6 and include applicable NYSDEC sediment quality values for comparison.	
156	Water Resources	II	3.2.2.5	Tetra Tech	Dioxins are addressed in the surface water characterization; provide additional information or data that addresses if dioxins are a concern in the sediments at the project location.	
157	Water Resources	II	3	Tetra Tech	Define the area of impact associated with increases in turbidity from water jetting and submersible pumping operations as discussed in Section 3.3.2.1.	Duplicate to comment number 140.
158	Water Resources	II	3.3.2.1	Tetra Tech	Given that ambient turbidity readings are not available as stated in Section 3.3.2.1, how will turbidity impacts be assessed and mitigated for during installation?	
159	Water Resources	II	3.3.2.1	Tetra Tech	Define impacts that are local, short-term and minor in relation to turbidity impacts for water jetting and submersible pumping operations discussed in Section 3.3.2.1.	Duplicate to comment number 140.
160	Water Resources	II	3.3.2.2	Tetra Tech	Provide a detailed water balance model and table summarizing the LNGRV operation needs including all intakes and discharge ports and consumptive losses as discussed in Section 3.3.2.2.	
161	Water Resources	II	3.3.2.2	Tetra Tech	Provide the cooling water intake and discharges for the ballast cooling water system and the operation of the LNGRV during withdrawal of seawater to meet cooling needs as referenced in Section 3.3.2.2. Provide percentage scenarios for each mode of operation based on the proposed cooling water discharges detailed in the DRAFT NPDES permit application.	
162	Water Resources	II	3.3.2.2	Tetra Tech	Provide a thermal balance of water used in the cooling water system during the ballast water and seawater withdrawal modes of operation described in Section 3.3.2.2.	
163	Water Resources	II	3.3.2.2	Tetra Tech	Referencing Section 3.3.2.2, provide the (i.e., CORMIX) thermal plume modeling of the vertical cooling water discharge for the LNGRV into the surrounding water and the corresponding plume dimensions relative to thermal compliance with water quality standards or requirements.	
164	Water Resources	II	3.3.2.2	Tetra Tech	Provide the mixing zone and vertical and horizontal thermal compliance points relative to applicable water quality standards or requirements as discussed in Section 3.3.2.2.	
165	Water Resources	II	3.3.2.2	Tetra Tech	Provide an assessment of any thermal discharge relative to its influence (i.e., temperature gradient and depth of plume influence) on thermal stratification during the summer and winter months relating to discussion in Section 3.3.2.2.	
166	Water Resources	II	3.3.2.2	Tetra Tech	Assess the impact of current speed on thermal plume horizontal elongation and dissipation discussed in Section 3.3.2.2.	
167	Water Resources	II	3.3.2.2	Tetra Tech	A detailed description of the overall water use at the port by an LNGRV during LNG delivery and the length of time particular volumes of water will be used is needed (e.g., on day one, over 8 hours, X MGD of water will be used, during initiation of regasification process X MGD of water will be used for X hrs for X days). In general, we need to understand the overall water use as well as the amount of heated water discharged during port operations and throughout the life of the port. Please provide water tables that include all sources of discharge as well.	
168	Water Resources	II	4.3.1.3	Tetra Tech	More detail will be needed to understand suspended solids and dispersion from the disturbed area from jet plowing discussed in Section 4.3. Sediment dispersion models should be conducted to determine dispersion and settlement, as well as vertical dispersion of the plume into the water column.	
169	Water Resources	II	3.3.2.4	USCG	Section 3.3.2.4 – Impact of annual ROV inspection of entire pipeline.	Duplicate to comment numbers 56 and 135.
170	Water Resources	II	3.3.2.4	USCG	Section 3.3.2.4 – Include "Unplanned and Emergency Maintenance" section with impacts.	
171	Water Resources	II	4.1.5	USCG	Section 4.1.5 – Briefly discuss EPA's Vessel General Permit.	

Information Requests for the Port Ambrose Deepwater Port Application

Information Request Number	Resource	Application Volume	Application Section	Agency	Information Request	Applicant Response
172	Water Resources	I	Appendix C, 1.3	USEPA, Region 2	The discharge water treatment plan/process found in the project overview should be included in detail in the application for a National Pollutant Discharge Elimination System (NPDES) Permit.	
173	Water Resources	I	Appendix C, 1.3	USEPA, Region 2	As stormwater from the Liquid Natural Gas Regasification Vessel is being collected, a stormwater permit will be required for the discharge.	
174	Water Resources	I	Appendix C, 1.3	USEPA, Region 2	What will be the discharge rate of cooling water discharge?	
175	Water Resources	II	3.3.2.3	USEPA, Region 2	In previous projects, the temperature of the natural gas riser is 120° to 130°F and maintains that temperature from the top of the riser to its insertion point in the subsea pipeline. This should be discussed and modeled to determine any thermal impacts to water quality around the riser.	
176	Water Resources	II	4.2.5 Appendix D	NMFS	<p>We recommend that the applicant include data that are more representative of the project site. Although the application includes an ichthyoplankton entrainment assessment, the data used to develop this model were not representative of the conditions of the project site. As discussed above, the habitat conditions at the nearshore ichthyoplankton sampling locations do not correlate to the conditions found at the proposed DWP site, and, therefore, cannot be used to evaluate the potential impacts of the proposed project as a result of operation of the DWP. We recommend the applicant include an analysis of site-specific impacts on ichthyoplankton resulting from the operation of the deepwater port.</p> <p>A clear and detailed discussion of the project components is necessary to better assess project impacts. Here, the application lacks a clear description of the water intakes and discharges that will be required for the construction and operation of the DWP. Several sections of the document appear to contain pieces of the information needed to assess the water withdrawal and discharge needs of the LNGRVs, but the information is scattered in various locations in the document. We recommend that all of the project's water intake and discharge needs be clearly identified and discussed in one section of the document. This section should also provide a more detailed discussion of the operation of the buoy system and the LNGRVs.</p> <p>From the information found in the application, it appears that the Port Ambrose LNG project proposes to use up to 1.93 million gallons of seawater per day, per LNGRV for ballast water as the natural gas is off-loaded from the vessel into the pipeline. The intake of seawater has the potential to entrain and impinge fishery resources during operation of the deepwater port. In addition, approximately 3.5 million gallons of seawater will be needed to flood and test the trunk line and offshore lateral transmission line and approximately 8.2 million gallons of water will be utilized for DWP commissioning. We recommend the applicant use site-specific ichthyoplankton data in order to evaluate impacts resulting from these aspects of the proposed project.</p>	
177	Water Resources	II	3.3.2	NMFS	We recommend that the applicant include a discussion of the construction and operational discharges into federal waters. Based on experiences with other LNG projects in the Northeast, the discharge water may be as high as 10 degrees Celsius above ambient. It is unclear from the document what other discharges may occur from this project. We recommend that a clear discussion of all of the discharges associated with the operation of the proposed DWP be provided. Further, an analysis of impacts on fishery resources and habitats should be included within the environmental evaluation.	