Alliance for a Living Ocean · American Littoral Society · Anglers Conservation Network · Atlantic Surfing Federation · Bellmore Merrick Democratic Club · Berks Gas Truth · Biltmore Shore Civic Association · Bradley Beach Environmental Commission · Broad Channel Civic Association · Catskills Citizens for Safe Energy · Catskill Mountainkeeper · Cetacean Society International · Clean Air Council · Clean Water Action · Clean Ocean Action · Coalition Against the Rockaway Pipeline · Coalition of Nassau Civic Associations · Concerned Citizens of Montauk · CWA Jersey Shore Local 1075 · Environmental Action · Environment New Jersey · Fishermens Dock Cooperative, Point Pleasant · Food and Water Watch · Grassroots Environmental Education · Hackensack Riverkeeper · Harbor Green Civic Association · Humane Society of Canada · Jamaica Bay Ecowatchers · Jersey Coast Anglers Association · Natural Resources Protective Association · New Jersey Beach Buggy Association · New Jersey Sierra Club · New Jersey State Industrial Union Council · New York City Audubon · Norgate Civic Association · North and Central Merrick Civic Association · Northside Civic Association · NY 4 Whales · NYC Friends of Clearwater · Old Lindenmere Civic Association · Poets' Corner Neighborhood Association · Renewable Energy Long Island · Sane Energy Project · Save Barnegat Bay · Seafood Harbor Civic Association · Sierra Club, Long Island Group · Surfers Environmental Alliance · Surfrider Foundation · Terrace Manor Civic Association · United For Action · WATERSPIRT · Wharfside Condominium Association

March 16, 2015

Mr. Roddy Bachman
Deepwater Ports Standards Division (CG-OES-4)
U.S. Coast Guard Headquarters (Room 1210)
2100 Second Street, SW
Washington, DC 20593
202–372–1451
Roddy.C.Bachman@uscg.mil

Ms. Yvette Fields
Maritime Administration
Office of Deepwater Ports and Offshore Activities
1200 New Jersey Avenue SE, W23-323 (MAR-530)
Washington, DC 20590
202–366–0321
Yvette.Fields@dot.gov

SUBMITTED ELECTRONICALLY VIA *WWW.REGULATIONS.GOV*
Department of Transportation,
Docket Management Facility,
West Building, Ground Floor, Room W12-140,
1200 New Jersey Avenue SE., Washington, DC 20590-0001.

RE: Comments on Liberty LNG's Port Ambrose Deepwater Port License Application Draft Environmental Impact Statement; Federal Docket #USCG-2013-0363

Dear Sir or Madam:

On behalf of the undersigned organizations, Clean Ocean Action ("COA")[1] submits the following comments in response to the U.S. Maritime Administration ("MARAD") and U.S. Coast Guard's ("USCG") request for comments on the draft environmental impact statement ("Draft EIS" or "DEIS") for the **Liberty Natural Gas ("Liberty LNG" or "Liberty") Port Ambrose Deepwater Port License Application** (Docket #USCG-2013–0363).[2]

Liberty Natural Gas proposes to build an offshore natural gas deepwater port facility that would be located approximately 17 nautical miles southeast of Jones Beach, New York, 24 nautical miles east of Long Branch, New Jersey, and about 27 nautical miles from the entrance to the New York Harbor in a water depth of approximately 103 feet.[3] LNG tankers that would call upon the Port are up to 1600 feet in length, which is as long as the new World Trade Center Tower is tall.[4]

These comments to the DEIS for the proposed deepwater port are to be considered in addition to those already given by representatives of a few of the undersigned organizations at the hearings held on January 7 and 8, 2015, in Queens, NY, and Eatontown, NJ, as well as in other written submissions made to the federal docket.

TABLE OF CONTENTS

[1] Clean Ocean Action is a regional, broad-based coalition of 125 conservation, environmental, fishing, boating, diving, student, surfing, women's, business, civic and community groups with a mission to improve the degraded water quality of the marine waters off the New Jersey/New York coast (www.cleanoceanaction.org).
[2] Notice of Availability, 79 FR 74808 (Tuesday, December 16, 2014) (hereafter "DEIS Notice").
[3] Ibid.
[4] Shell Prelude Floating Liquefied Natural Gas Facility at http://www.largestshipintheworld.com/largest_ships_in_the_world/shell-prelude-floating.php (last visited March 16, 2015).

INTRODUCTORY COMMENTS

The primary purpose of an Environmental Impact Statement is to "provide full and fair discussion of significant environmental impacts and inform decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts."[5] Here, the DEIS does not provide a full discussion of the impacts, nor a fair portrayal of the application, the applicant, or the impacts. As such, it is procedurally and substantively flawed.

First, the Draft EIS is incomplete, inconsistent, contradictory, and misleading. The document distorts information to fabricate and inflate a need for natural gas supply where none exists, minimizes potential impacts to marine life, and air quality, underestimates security threats and catastrophic events, and falsely and wrongfully represents the "no action alternative" skewing the analysis document. The DEIS fails to discuss the true magnitude and extent the port will be in use. By only providing that the port "expects 45 deliveries of LNG per year,"[6] there is no meaningful description of how many days the port will be in operation. This is particularly vexing since the stated purpose of the need for the project is to meet peak energy demand in the winter and summer,[7] which at most constitutes a few days. Understanding the qualitative anticipated use in days, hours, weeks, of this port is essential for the evaluation of the impacts and threats from hurricanes and security, but also to the harm to marine life. Perhaps most egregiously, the DEIS ignores the concerns and information submitted by the public during the scoping process.

Second, it is unacceptable that Liberty remains an unknown entity. A reasonable expectation of an EIS is to understand and consider "who" is proposing the activity. The ownership remains hidden in a bank account within the Cayman Islands, which fails to allow for evaluation and consideration of the company's legality, liabilities, and veracity. Liberty's ownership and intentions are clearly a vital element to be considered, particularly because numerous concerns regarding impact significance are considered as addressed by promises made by Liberty. To give a shell company with no ties to the United States complete deference with respect to community, economic, public safety, and environmental risks is dangerous and poor public policy.

Third, Liberty's first application for a deepwater LNG port in the NY/NJ region was soundly rejected by concerned citizens and communities and was vetoed by Governor Chris Christie in a letter dated February 2011,[8] which veto was affirmed by the New Jersey Attorney General in 2012.[9] There has been no record submitted by Liberty, or included in the DEIS, showing how the concerns of the State of New Jersey have been addressed. The location of the proposed port has not significantly changed (except by name), and certainly not in a way that ameliorates or avoids many, if not most, of the impacts cited by the Governor – especially the concerns related to public safety, lack of need, national security, first responder burdens and fisheries impacts.

---

[5] 40 CFR 1502.

[6] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-108

[7] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 1.0 Introduction, at 1-3.

[8] New Jersey Governor Chris Christie License Issuance Disapproval Letter, Liberty Deepwater Port Docket # USCG-2010-0993-0038.

[9] State of New Jersey - Office of the Attorney General, Liberty Deepwater Port Docket # USCG-2010-0993-0114.

As described in detail below, the DEIS lacks a full and fair discussion of significant environmental impacts threatened by this project. Moreover, there is no demonstrated need to import natural gas to the region. For all of the above reasons, the DEIS fails to conduct a full and fair discussion of significant environmental impacts threatened by Port Ambrose, as required. The signatories urge that a *true No Action Alternative* be selected, which will avoid these extensive harms and threats to the region.

COMMENTS ON DRAFT EIS BY SECTION

1.0 INTRODUCTION.

1.1 Purpose and Need.

The needs assessment in the DEIS misleads the public and mischaracterizes the state of existing LNG energy markets. "Need" is a vital element of NEPA review. The needs assessment included in the DEIS is misleading and outdated. According to DPA regulations, "MARAD may issue a license to construct a deepwater port under the Act, with or without conditions, if certain specified conditions are met."[10] The first enumerated consideration requires that "[c]onstruction and operation of the deepwater port [must] be in the national interest."[11] While Liberty LNG attempts to argue that a need for "new and diverse natural gas supplies in New York" exists, the evidence and data on actual natural gas trends prove otherwise.[12]

A. The Port Ambrose facility would not meet the stated "Purpose and Need"

The DEIS maintains that accomplishing the "Purpose and Need" for Port Ambrose would require

> *"construction of appropriate facilities for receiving the LNG … would distribute the natural gas into the downstate New York City and Long Island markets to meet existing and future demand requirements, particularly during periods of peak winter and summer demand."*[13]

There is no compelling national interest for the proposed project. Given the sharp increase in the domestic production of natural gas, imported LNG is relatively expensive. Because the price of imported LNG reflects at least an additional cost of $2 to $4 per million British thermal units more than pipeline-delivered natural gas,[14] it is usually not competitive with domestic natural gas[15]. Depending on market conditions, such as the trend over the last few years,[16] the price discrepancy between imported LNG and pipeline-delivered natural gas can be even greater. In extreme instances, such as during the "Polar

---

[10] 33 C.F.R. § 148.710(a).
[11] 33 C.F.R. § 148.710(a)(1).
[12] Liberty LNG Application for the Port Ambrose Project Deepwater Port, Volume II, Report 2, at 2-1.
[13] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 1.0 Introduction, at 1-3.
[14] FERC, Energy Primer, July 2012, available at http://www.ferc.gov/market-oversight/guide/energy-primer.pdf
[15] FERC, Energy Primer, July 2012, available at http://www.ferc.gov/market-oversight/guide/energy-primer.pdf ("The cost of the LNG process is $2-$4 per million British thermal units (MMBtu), depending on the costs of natural gas production and liquefaction and the distance over which the LNG is shipped.").
[16] Natural Gas Prices, U.S. Energy Information Administration, 2015, available at http://www.eia.gov/dnav/ng/ng_pri_sum_dcu_nus_m.htm (last visited March 16, 2015).

Vortex" of 2014, the price of domestic natural gas in the downstate New York City and Long Island markets may experience a short-term spike in cost. However, even in such limited instances, it is speculative to suggest that the proposed project is needed to provide (or would provide) price relief. [17] First alternatives such as adequate natural gas storage, expanded pipeline capacity, and decreased natural gas demand through energy efficiency measures could also meet this need.[18]

Furthermore, the claim that an offshore LNG import facility would alleviate pipeline capacity in the New York City and Long Island markets is not adequately supported by the DEIS or by the realities of existing natural gas pipeline infrastructure. The DEIS states that two submerged turret loading buoys would be the receiving connection for the natural gas unloaded from the LNG regasification vessels and delivered to the proposed Mainline, which will then connect to Transco's Lower New York Bay Lateral for delivery to shore.[19] Since the imported natural gas will be delivered to an existing pipeline that currently transports natural gas to NYC and Long Island, the LNG facility would **not** be providing a new "delivery point."[20] Rather, Port Ambrose would provide additional supply to an existing pipeline that already has capacity restraints.

B. The DEIS relies on an outdated New York State Energy Plan from 2009 and incorrectly cites to the 2014 Draft New York State Energy Plan

A significant portion of the "Purpose and Need" section of the DEIS discusses the Natural Gas Outlook for New York. [21] In this section, the DEIS makes several conclusions based upon information and data cited as being from the Draft New York State Energy Plan that was released in 2014 ("NYSEP 2014").[22] Incredibly, however,the assertions made in the DEIS are nowhere to be found in the 2014 Draft New York State Energy Plan. Indeed, the 2014 Draft New York State Energy Plan provides information that contradicts the DEIS's analysis of demand for natural gas:

> *"Another source of the U.S. natural gas supply is from imported LNG. However in 2012, U.S. LNG imports continued to decline with only 175 Bcf received. This is 23 percent of the 2007 levels which were at 771 Bcf. The 2012 annual LNG imports represent less than 1 percent of*

[17] Polar Vortex Sends Natural Gas Prices on Rollercoaster, Time, 2014, available at http://science.time.com/2014/01/07/polar-vortex-sends-natural-gas-prices-on-rollercoaster/ (last visited March 16, 2015).

[18] The DEIS, at 2-54, 2-55, recognizes that the Transco Rockaway Delivery Point Project and the Iroquois Eastern Long Island Project are expected to deliver additional natural gas to meet market need and location. See also http://www.ferc.gov/market-oversight/reports-analyses/mkt-views/2014/10-16-14-A-3.pdf ("The Transco Rockaway Delivery Project will enable Transco to deliver an additional 647 MMcfd into the New York City distribution system, which is fully contracted by local distribution companies. The project will work directly with Transco's 100-MMcfd Northeast Connector Project adding capacity from the mainline at Station 195 near the Pennsylvania-Maryland border to delivery points at Long Island.");
http://www.nyc.gov/html/om/pdf/2012/icf_natural_gas_study.pdf ("Spectra and Williams expansions into Transco Zone 6-NY, which also interconnect with New York City LDCs, will alleviate gas pipeline constraints and reduce gas prices in the region relative to Henry Hub").

[19] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 2.0 Description of the Proposed Action and Alternatives, at 2-1.

[20] See Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 1.0 Introduction, at 1-6 (claiming that "[n]ew delivery points at New York City market locations would relieve existing capacity constraints and increase the reliability of the gas system.")

[21] Ibid at 1-6, 1-8.

[22] Ibid. (citing "Draft New York State Energy Plan (NYSEP 2014)").

total U.S. natural gas requirements. The principal reasons for the decline include low domestic natural gas prices that made it difficult to attract LNG cargo to the U.S. Of 12 active U.S. terminals, only Everett LNG in Massachusetts and Elba Island in Georgia received regular LNG cargo throughout the year, albeit with lower frequency than in past years. Both have long-term contracts. Figure 24 illustrates LNG price variations around the world."

"The U.S. domestic production in the lower 48 states has increased with the development of new supply basins, so the need for substantial increased volumes of imported LNG has diminished for the near term. It is anticipated that if natural gas production from Shale basins outstrips demand in the U.S., LNG may be exported from the continental U.S. to Asia or Europe. This could cause price volatility in the future and should be monitored."[23]

Clearly, the 2014 Draft New York State Energy Plan does not support the notion that imported LNG is needed by the State of New York.

The information and data used to support the needs assessment is actually outdated information from the ***2009*** New York State Energy Plan.[24] Regardless of whether this outdated information was presented and inaccurately cited purposefully or accidentally, the fact remains that the DEIS uses the wrong data gathered at a time when the energy market was nearly the opposite of what it is today. As such, the DEIS fails to portray the need, the market or other relevant conditions that exist today. Indeed, as the actual 2014 New York State Energy Plan makes clear, there is substantial evidence that shows the need for imported LNG has diminished and the current trend is for LNG to be exported from the United States.[25] Thus, the DEIS and, indeed, the agency record is fatally flawed. We submit that it is highly "arbitrary and capricious" to knowingly use outdated, incorrect, inapplicable data when one knows there is updated, reliable, and applicable data readily available. Moreover, commenters raised this during the scoping process, and this egregious error was still not corrected.

C. Marketplace Shift to Exports

Liberty LNG submitted with their application a report titled "Needs Assessment for Port Ambrose" written on July 12, 2012. The DEIS cites to this report in its "Natural Gas Outlook" section of the DEIS.[26] In the report, Liberty claims it uses a nation-wide natural gas demand model to suggest that demand will be rising in the future, and that Liberty LNG should therefore build an import port to supply the NYC and Long Island markets. At the crux of their analysis is this assertion: "New York prices will decline $0.25 to $6.00 per MMBtu compared to prices without Port Ambrose."[27] Liberty claims, based on data which (as we describe below) is flawed, that imports from Port Ambrose will save New Yorkers money.

The needs analysis is further deficient because (1) impacts to the price of natural gas in New Jersey from either imports or exports are not assessed, (2) the use of nationwide models for local extrapolation is

[23] 2014 Draft New York State Energy Plan. Volume 2: Sources, page 79-80, available at http://energyplan.ny.gov/Plans/2014.aspx.
[24] 2009 Draft New York State Energy Plan. Available at http://energyplan.ny.gov/Plans/2009.aspx.
[25] 2014 Draft New York State Energy Plan. Volume 2: Sources, page 79-80, available at http://energyplan.ny.gov/Plans/2014.aspx.
[26] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 1.0 Introduction, at 1-6, 1-8.
[27] Liberty LNG Application, Volume IVb, at 2.

improper (as noted by federal agencies reviewing this assertion), and (3) the low end of the estimated savings is slightly more than 4% the top end (a 24-fold range in price that begs the question "how is this reliable energy forecasting").

The underlying data used to show there is a "need" are all wrong. Among the many examples of erroneously used data are the following:

First, Liberty claims that "[w]hile there is an abundant domestic gas resource base, [costs of production are high], and that is likely to translate into higher gas prices."[28] In truth, gas prices and costs of production are low, and have been declining for almost five years.

Second, Liberty uses an entirely disproven forecast of LNG import demand (nationwide). According to the applicant, "[b]y 2035, U.S. [LNG] imports are projected to reach 0.66 Tcf per year, a little less than twice the volume of imports in 2010."[29] While ICF delivered this report to Liberty LNG in 2012, they used data from many years earlier. According to a report by the Energy Information Administration (EIA), also published in 2012, "[i]n the face of unprecedented levels of domestic natural gas production, net imports of natural gas into the United States *fell 23 percent in 2011*," and 2012 "LNG imports decreased by 50 percent from the 2011 level to 175 Bcf, *the lowest level since 1999."*[30] Liberty LNG's consultant should have updated their report to reflect the most recent data – certainly in the two intervening years. Moreover, commenters raised this inaccuracy in Scoping, and the USCG – shockingly - has failed to change the Liberty-submitted projections to reflect the known state of energy markets as presented in dozens of EIA energy outlooks and energy reports issued over the past few years.

More recent data demonstrates that net imports of natural gas fell even further in 2013, "continuing a decline that began in 2007."[31] As the EIA concludes, "[r]obust natural gas production in the United States likely displaced imports…and helped maintain a high price differential between domestic and foreign markets outside of North America, increasing interest in the potential export of U.S. liquefied natural gas (LNG)."[32] Indeed, natural gas net imports fell by 14% to 1,311 Bcf in 2013, the lowest level since 1989.[33]

The 2014 EIA Annual Energy Outlook projections show that LNG imports are actually expected to bottom out at 0.15 Tcf per year – a little less than a third of the 0.45 Tcf imported in 2010.[34] Additionally, the EIA forecasts net natural gas imports to decline to zero by 2018.[35] This is backed up in the February 2015 "Short Term" energy update which concludes that LNG imports "have fallen over the past five years because higher prices in Europe and Asia are more attractive to LNG exporters than the relatively low

---

[28] Ibid. at 7.
[29] Liberty LNG Application, Volume IVb, at 10 (emphasis added).
[30] U.S. Natural Gas Imports & Exports 2012, available at http://www.eia.gov/naturalgas/importsexports/annual/archives/2013/ (last visited February 26, 2015).
[31] U.S. Natural Gas Imports & Exports 2013, available at http://www.eia.gov/naturalgas/importsexports/annual/ (last visited February 26, 2015).
[32] Id.
[33] Id.
[34] EIA, Annual Energy Outlook 2014, Natural Gas Imports and Exports Table, available at http://www.eia.gov/oiaf/aeo/tablebrowser/#release=AEO2014&subject=8-AEO2014&table=76-AEO2014&region=0-0&cases=ref2014-d102413a (last visited February 26, 2015).
[35] EIA, Market Trends, Natural Gas, 2014, available at http://www.eia.gov/forecasts/aeo/mt_naturalgas.cfm (last visited March 16,2015).

prices in the United States."[36] The energy update further provides, "[f]orecast LNG gross imports average 0.2 Bcf/d in both 2015 and 2016."[37]

In its 2012 application, Liberty LNG claimed that "[n]ot including Port Ambrose, ICF forecasts U.S. LNG imports to grow from approximately 0.5 Tcf in 2010 to 0.7 Tcf by 2035."[38] Given that the EIA's estimates from 2011 project LNG imports to shrink to 0.14 Tcf by 2028 and remain at low levels, Liberty LNG's baseline rationale to support its claim that there is a need for imported LNG was **off the mark by approximately 500%**.[39] This is particularly worrisome because the DEIS cites the Liberty report for concluding "that there will be substantial growth in natural gas demand throughout North America and that increased supplies are required to meet growing demand."[40]

This is all to say that the Liberty LNG report is wrong. The USCG wrongly decided to not conduct its own analysis of the veracity of these claims. Taken together, there was arbitrary and capricious agency inaction here. The entire basis of need shown by the applicant (that there's a strong and growing need for LNG imports that are in the national interest) is a clearly disproven fact – LNG imports are weak and growing weaker, with no long-term independently demonstrated national need for import capacity. In fact, the EIA Annual Energy Outlook 2014 also predicts that net natural gas imports will be zero by 2018.[41] As such the DEIS is deeply and fatally flawed.

Third, in developing its projection that Port Ambrose will lead to a $0.25 to $6.00 price savings for New York consumers, Liberty LNG relies on yet another set of outdated data. The Liberty report projects that Henry Hub gas prices "will decline to under $4.00 per MMBtu (in 2010 constant dollars) in 2012 and increasing to $6.00 per MMBtu by 2020 and almost $7.50 per MMBtu by 2025."[42] In reality, the EIA reports that:

> *"In 2012, the United States experienced its warmest year on record in the lower 48 states, high natural gas storage inventories, and high natural gas production that put significant downward pressure on domestic natural gas prices. These factors contributed to a decrease in natural gas prices at the Henry Hub to about $2.75 per thousand cubic feet (Mcf) on average in 2012, the lowest level since 1999."*[43]

The Bureau of Ocean Energy Management (BOEM), in reviewing Liberty LNG's application for completeness, discussed the issue of "need" at length. In the data gaps comments prepared by the Office of Renewable Energy Programs, the agency noted:

---

[36] EIA, Short Term Energy Update, at 8, available at http://www.eia.gov/forecasts/steo/pdf/steo_full.pdf (last visited February 26, 2015).
[37] Id.
[38] Liberty LNG Application, Volume IVb, at 2.
[39] EIA, Market Trends, Natural Gas, 2014, available at http://www.eia.gov/forecasts/aeo/mt_naturalgas.cfm (last visited March 16,2015).
[40] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 1.0 Introduction, at 1-8.
[41] Annual Energy Outlook, U.S. Energy Information Administration, 2014, available at http://www.eia.gov/forecasts/aeo/mt_naturalgas.cfm (last visited March 16, 2015).
[42] Liberty LNG Application, Volume IVb, at 11.
[43] U.S. Natural Gas Imports & Exports 2012, available at http://www.eia.gov/naturalgas/importsexports/annual/archives/2013/ (last visited February 26, 2015).

"[Natural gas] 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 [natural gas] via LNG and there is talk of exporting more of USA [natural gas] via LNG."[44]

In sum, the data contained in the DEIS use to support the alleged need for LNG imports are significantly outdated. It is undisputed that:

- Where Liberty says something goes up, it has gone down (production, supply, demand);
- Liberty's estimates of long-term LNG import need are off by 500%; and
- Prices of natural gas are not, contrary to Liberty LNG's assertions, reaching record highs, they are reaching record lows.

Given that this information was generally readily available at the time Liberty LNG applied for this deepwater port license, this needs assessment should never have been deemed acceptable by the UCSG or MARAD or relied upon in the DEIS. The Final EIS developed for this Port must reexamine the "need" of LNG imports by entirely reanalyzing the LNG marketplace. Without a rational basis in fact, approving this DEIS would be arbitrary and capricious agency action by the USCG. With evidence at hand that clearly shows that the facts supplied are entirely inaccurate, approval of the DEIS would be egregiously arbitrary and capricious agency action.

D. Updated data analyzed by Liberty's own consultant yields different conclusions

On May 15, 2013, Liberty LNG's consultant for its needs assessment, ICF International, released a report prepared for another client, the American Petroleum Institute, containing entirely different conclusions about the future of LNG imports/exports are made.[45] According to ICF, there are some key differences in the trajectory of this market which we contend (and contended in the scoping process) should have been incorporated into the DEIS "needs" analysis, the baseline "status quo" alternative, and the socioeconomic impact assessment.

First, in the report for Liberty LNG, ICF claims the U.S. needs imports, and that continued expansion of nationwide LNG imports will reduce the price of natural gas by $0.20. For the API, on the other hand, ICF concludes that the U.S. needs exports, and that expansion of export capacity will lead to an increase in the cost of natural gas by up to $1.02.[46] By relying on a flawed "need" assessment (which likely influenced the alternatives reviewed and baselines for many of the economic reviews), the DEIS failed to take a hard look at the information supplied by ICF and Liberty LNG.

Second, for Liberty LNG, ICF noted that LNG imports would double by 2035 (noted above as being a projection off the mark by 500%). This data gap (or "mischaracterization" as BOEM described it) was directly contradicted by the ICF in the API report when it noted the fact that "U.S. [import] demand grew

[44] Data Gaps, item 120, Docket # USCG-2013-0363-0013.
[45] ICF International, U.S. LNG Exports: Impacts on Energy Markets and the Economy. Available at http://www.api.org/~/media/Files/Policy/LNG-Exports/API-LNG-Export-Report-by-ICF.pdf (last visited August 1, 2013) (hereinafter "API Report").
[46] Ibid. at 2.

slightly through 2007 before declining as a result of the shale gas revolution."[47] Clearly, the natural gas consultant for Liberty LNG is aware of this 5-year-long decline in LNG import demand now; it should have also been aware of this market trend in mid-2012, four years into this stated decline.

Third, this API report developed by ICF paints a gruesome economic picture of what exports will lead to:

> *"…for each of the three export cases, the majority of the incremental LNG exports (79%-88%) is expected to be derived from increased domestic natural gas production. Another 21% to 27% stems from consumer demand response (i.e., price increases lead to a certain decrease in domestic gas demand). In addition, 7% to 8% of the remaining rebalancing supply is from changes to net imports (primarily Canadian gas imports and some reduction in exports to Mexico)."*[48]

That means that for each unit of LNG sent overseas, over three-quarters will likely come from new drilling. Another quarter comes from people, businesses, and industries cutting back on gas use due to cost increases. These impacts from exports should have been considered in the DEIS and should, at the very least, be taken into consideration in the environmental, socioeconomic, and economic reviews included in the Final EIS.

For the above reasons, updated data analyzed by Liberty's own consultant demonstrates that there is no need for the proposed LNG import facility.

E. Exports have displaced import need, numerous export facilities have been proposed, and many import facilities remain underutilized

To further underscore the inaccuracy of the needs assessment presented in the DEIS, we note that presently, LNG exports have displaced import need, numerous export facilities have been proposed, and many import facilities remain underutilized.

Fourteen onshore LNG export facilities are currently proposed[49] with an additional thirteen potential export terminal sites identified.[50] Four export facilities have already received FERC approval.[51] One of these approved export facilities is the Dominion Cove Point LNG Terminal, which was originally an import facility ***but then switched to an export facility***.[52] A deepwater port applicant, Freeport-McMoRan Energy (Main Pass Energy Hub), has joined with United LNG to secure a license for LNG exports from their offshore deepwater port – and has already received Department of Energy authorization for such

---

[47] Ibid. at 60.
[48] Ibid. at 71.
[49] FERC, North American LNG Export Terminals Proposed, 2015, available at http://www.ferc.gov/industries/gas/indus-act/lng/lng-export-proposed.pdf (last visited, March 16, 2015).
[50] Ibid.
[51] Feds Approve Fourth LNG Export Terminal Amid Growing Pressure to Cash In On US Energy Boom, International Business Times, 2014, available at http://www.ibtimes.com/feds-approve-fourth-lng-export-terminal-amid-growing-pressure-cash-us-energy-boom-1697255 (last visited March 16, 2015).
[52] Dominion Cove Point LNG Terminal Wins Federal Approval, BloombergBusiness, 2014, available at http://www.bloomberg.com/news/articles/2014-09-30/dominion-cove-point-lng-terminal-wins-federal-approval (last visited March 16, 2015).

exports.[53] The fact that facilities for importing LNG are switching to exports highlights concerns regarding the accuracy of Liberty LNG's needs assessment.

In addition to the clear trend of increased export facilities, several LNG import facilities have either decommissioned or have not been utilized in recent years. In a notice posted to the Federal Register on August 14, 2013, the final decommissioning of the Gulf Gateway Deepwater Port was announced. MARAD stated that "Excelerate's decision to decommission the Gulf Gateway Deepwater Port was due primarily to declining pipeline capacity issues, significant operational challenges, and changes in the global natural gas market."[54]

Just a month earlier, on July 16, 2013, the Neptune Deepwater Port offshore of Boston, Massachusetts, petitioned for a license amendment (which was granted) to shut down operations for five years. The stated reason for this shut down was, according to MARAD, that

> *"…recent conditions within the Northeast region's natural gas market had significantly impacted the Neptune Port's operational status and its ability to receive a consistent supply of natural gas imports. As a result, the Neptune Port has remained inactive over the past several years and will likely remain inactive for the foreseeable future. For these reasons, Neptune requested MarAd's authorization to suspend port operations for a period of five years."*[55]

Another deepwater port, Excelerate Energy's Northeast Gateway, only received one shipment this winter (December 2014), and this was the first shipment since the facility's 2010 commissioning season.[56]

The needs assessment contained in the DEIS simply does not reflect the realities of the LNG market today. With increased domestic production, there is simply no need for the proposed import facility.

F. Specific Comments Regarding Section 1.1, Purpose and Need

Comment 1. Page 1-6, Paragraph 1: "The U.S. Department of Energy (DOE), Energy Information Administration (EIA) estimates that total energy consumption in the United States will increase by 0.3 percent per year, to 107.6 quadrillion British thermal units (Btu) from 2011 to 2040 (EIA 2013a)." *The DEIS references a 2013 report completed by the Energy Information Agency. However, this report is only a Short Term Energy and Winter Fuels Outlook Report. Therefore, there are no projections*

---

[53] U.S. DOE, Freeport-McMoRan Energy LLC – FE Dkt. No. 13-26-LNG, available at http://www.fossil.energy.gov/programs/gasregulation/authorizations/2013_applications/Freeport-McMoRan_Energy_LLC_-_13-26-LNG.html

[54] 78 F.R. 49603 (Wednesday, August 14, 2013).

[55] 78 F.R. 42587 (Tuesday, July 16, 2013).

[56] http://www.bostonglobe.com/business/2015/02/25/wholesale-electric-prices-lower-that-expected-but-residential-rates-remain-high/MNwQJa1oERLXr1qJxBxVDO/story.html ("Excelerate Energy of Texas is finally using its $350 million offshore floating buoy system, which receives natural gas from LNG ships anchored about 13 miles off the coast of Gloucester and transports it via underwater pipelines into the land-based pipeline system. Excelerate's Northeast Gateway Deepwater Port, as the buoy system is known, hadn't been used since 2010; this year it has received one shipment of LNG.").

for total energy consumption in the United States. The EIS preparer must utilize proper citations for the sake of full transparency and disclosure.

Comment 2. Page 1-6, Paragraph 1: "Natural gas use in the industrial sector increased by 16 percent, from 6.8 trillion cubic feet (tcf) per year in 2011 to 7.8 tcf per year in 2025 (EIA 2013a)." *The referenced report makes no mention of natural gas use in the industrial sector. However, Volume 2 of the 2014 New York State Energy Plan (page 91) indicates that natural gas demand in the industrial sector has decreased by 10 percent over the last decade. Hence, the DEIS should be updated to reflect the industrial sector's actual natural gas demand.*

Comment 3. Page 1-6, Paragraph 1: "In addition, the natural gas share of electricity generation is expected to grow to approximately 39 percent, potentially reaching 14.8 tcf by 2040 (EIA 2013a)." *The referenced report makes no mention of natural gas's share of electricity generation. However, Volume 2 of the 2014 New York State Energy Plan (page 93) indicates that natural gas grows from a 24 percent share or 7.5 Tcf in 2011 to a share of only 27 percent or 9.0 Tcf in 2035. Hence, the DEIS should be updated to reflect the actual share projections for natural gas electricity generation.*

Comment 4. Page 1-6, Paragraph 3: "New delivery points at New York City market locations would relieve existing capacity constraints and increase the reliability of the gas system. In addition, these would also reduce both the volatility of downstate market gas prices and the delivered price of natural gas. New supplies increase gas market reliability and minimize price volatility by providing other sources of supply that are available when other supplies, such as those from the Gulf of Mexico, are disrupted as a result of hurricanes or other factors."

According to the 2014 New York State Energy Plan (page 115) "The combination of increased availability of shale gas and improved take away capacity from this supply basin has led to a general reduction in price volatility. As such, the claim that the proposed project would reduce downstate market gas prices is unfounded. Furthermore, the DEIS indicates the need for the proposed project due to potential weather events, such as hurricanes, which would disrupt supply routes from the Gulf of Mexico. However, according to an EIA report entitled Natural Gas Explained, LNG imports only accounted for 0.4% of natural gas consumption in 2013. Moreover, the majority of U.S. LNG imports are currently from Norway, Qatar, Trinidad and Tobago and Yemen, accounting for 97% of total imports. Further, the EIA report suggests that LNG originally imported to the U.S. is re-exported to other destinations where prices are higher. Hence, operation of the proposed project as an import facility appears untenable, financially. Therefore, there appears no need for the proposed project and the true No Action Alternative should be implemented.

Comment 5. Page 1-8, Paragraph 1: "In addition, the PlaNYC introduces Energy Initiative 13, which encourages the development of clean distributed generation. These initiatives were codified in New York City regulations that require all new heating systems to burn only No. 2 oil, natural gas, or the equivalent in terms of emissions beginning May 2011, with a conversion of all No. 4 or No. 6 oil systems by 2030 (NYCDEP 2011). Without additional natural gas capacity, New York City utilities 'will be unable to respond to growing demand for new service as customers pursue clean distributed generation and conversions from dirty heating oil' (NYCDEP 2011)."

The DEIS reference, "NYDCEP, 2011" refers to a May 23, 2011 press release from the New York City Department of Environmental Protection entitled, "Department of Environmental Protection and Department of Buildings Unveil New Program to Streamline Approval Process For Upgrading Boilers." The press release does mention a new regulation that will eventually require all boilers in New York City to only burn Number 2 oil, natural gas, or any fuel that is cleaner. However, the press release makes no mention of New York City's ability to respond to a "growing demand for new service." Furthermore, the DEIS in this case is basing its conclusion on a report prepared for New York City Mayor's Office of Long-Term Planning and Sustainability entitled, "Assessment of New York City Natural Gas Market Fundamentals and Life Cycle Fuel Emissions." The report concludes a need for new facilities to transport natural gas if ALL new boiler in New York City solely utilize natural gas in lieu of Number 2 oil or cleaner sources. As it is impossible to determine what type of fuel every future boiler will utilize, the conclusions of this report, based on an improbable scenario, are unfounded.

Comment 7. Page 1-8, Paragraph 2: "Given the established need for new supply, the Applicant commissioned a study (the ICF Report) by ICF International (ICF 2012), the firm hired by the State of New York to assist in the preparation of the NYSEP. The ICF Report concluded that there will be substantial growth in natural gas demand throughout North America and that increased supplies are required to meet growing demand in the Northeast United States, particularly in New York City, which accounts for approximately 20 percent of the total gas demand in the Northeast."

It is hereby requested that the Applicant make the ICF 2012 report available for public review, pursuant to the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), and the Department of Energy's NEPA Implementing Procedures (10 CFR Part 1021).

Overall, based on projections that call for price stabilization coupled with trends that indicate that the country is looking for more opportunities to export LNG rather than import it, the proposed project would essentially be obsolete.

G. Conclusions Regarding Stated Purpose and Need

Because of the global increase in LNG import and export capacity, and because of the historic lows of domestic U.S. natural gas price, including either imports or exports into the energy network of New York City may actually drive up prices – not save consumers money. An adequate analysis requires the Final EIS to adequately assess the need for an LNG import facility by considering price impacts from the following: (1) contracting practices (whether the LNG would be purchased on the spot market or through long-term supply contracts); (2) the effect of increasing domestic gas production; (3) declining natural gas demand due to energy efficiency programs; and (4) declining demand for natural gas-powered electricity due to displacement of natural gas with renewables. The Final EIS developed for Port Ambrose must take a hard look at all of these considerations and publicly, openly, and thoroughly appraise the actual economics of LNG imports and exports in this new marketplace.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES.

The DEIS contains a distorted evaluation of the No Action Alternative.[57] The DEIS states that the "development of an onshore LNG terminal is not considered a true alternative to the proposed Project."[58] The DEIS inappropriately provides "an analysis of onshore LNG terminal siting alternatives"[59] anyway because of the assumed need for an additional energy source. As stated above, the EIA's Annual Energy Outlook 2014 estimates that net gas imports will shrink to zero by 2018.[60]

A reasonable analysis of the no action alternative (i.e., *status quo*) would be based upon the premise that no facility is constructed and the license is not awarded. The DEIS contains no such analysis. Instead, the no alternative analysis contained in the DEIS erroneously includes the building of a land-based LNG terminal, which as the DEIS states, has no place in the no action analysis. Indeed, the DEIS affirms that by saying the "…development of an onshore LNG terminal is not considered a true alternative to the proposed Project".[61] Thus, this assessment of a land-based LNG terminal should have been limited to section 2.2.1.1. In fact, "[t]he No Action Alternative would avoid the potential for environmental impacts associated with proposed Project construction and operation."[62] This is a gross distortion of a fair evaluation of the requirement for a "no action" assessment. While such an assessment could include a review of some conceivable or plausible result, the building of an onshore facility is arbitrary and unreasonable, serving only to skew the outcome. Therefore, the DEIS, at its core, is deficient.

It is further noted that the proposed project would prevent the construction and operation of a wind power farm. Yet, the creation of an offshore wind farm was not reviewed in the DEIS as an alternative to the proposed project. This was a significant oversight. According to the 2014 New York State Energy Plan, estimates of offshore wind power potential total more than 38,000 MW.[63] When combined with onshore potential (25,000 MW), wind power could provide more than 1.6 million GWh/year, which is eight times greater than all of New York's projected electric consumption for 2030. The proposed project may significantly impair New York's capacity for wind power and therefore it should have been reviewed in the DEIS as an alternative to the proposed LNG project.

Importantly, the DEIS also fails to be clear and specific about how often, and the length of time tankers will be in operation—docked and active at the port. Liberty claims to be importing LNG to "meet existing and future demand requirements particularly during peak winter and summer demand."[64] What is stated is that the port expects 45 deliveries of LNG per year.[65]

---

[57] Liberty LNG Draft Environmental Impact Statement, Section 2 at 2-50
[58] Ibid. at 2-50
[59] Ibid. at 2-50
[60] EIA, Market Trends, Natural Gas, 2014, available at http://www.eia.gov/forecasts/aeo/mt_naturalgas.cfm (last visited March 16, 2015).
[61] Ibid. at 2-50
[62] Ibid. at 2-50
[63] 2014 Draft New York State Energy Plan. Volume 3: page 88, available at http://energyplan.ny.gov/Plans/2014.aspx.
[64] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. 1.0 Introduction, at 1-3.
[65] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-108

Based on an assessment conducted by Clean Ocean Action, if the tankers were unloaded continuously, the proposed size tanker could take approximately 4 to 8 days to vaporize and offload a full LNG tanker cargo. At such rates, it would appear that ***an LNG tanker would be attached to a Port Ambrose buoy not for 45 days a year but rather up to 345 days.*** . Nowhere in the DEIS is such an intensive use of Port Ambrose mentioned or considered. Accordingly, the DEIS fails to fully and fairly describe the number of hours, days, weeks or months that the port will be in use, and its impacts upon the human and marine environment. Assessments of maximum and minimum use must be provided for evaluation.

3.0 AFFECTED ENVIRONMENT.

Note: Our comments pertaining to many of the topics in this section appear in our comments to corresponding topics in section 4.0 ("Environmental Consequences of the Proposed Action and Alternatives")

3.7.1.9 Renewable Energy Projects

The proposed Port Ambrose project is not, of course, a renewable energy project. In fact, it is the antithesis of clean, renewable energy. Natural gas is a dirty fossil fuel, a finite resource that our country, our region and our government should be discouraging for numerous reasons, including air pollution. This section will highlight the reasons why our ocean resources should not be used for a fossil fuel project.

A. The Future is Renewables. Renewable sources of energy have much less impact on the environment; conservation and efficiency have even less of an impact on the environment. Sources like sun and wind, as one would surmise, "do not produce any harmful air emissions, such as nitrogen oxides, sulfur oxides, or particulate matter, commonly associated with fossil fuel energy production."[66] There is a clear environmental and public health benefit to utilizing renewable sources of energy as opposed to using the natural gas that the DEIS would provide.

By definition, renewable forms of energy are sustainable. The supply of "renewable energy from the sun and wind is inexhaustible" which makes "the ability to harness these resources vital to the United States' future, especially as the nation's population and energy needs continue to grow."[67] Investing in renewable forms of energy such as wind means investing in energy sources (and the technologies) that will continue to return dividends.

The renewable energy sector is rapidly expanding. Renewable power (excluding large hydropower) has continued to account for an increasing share of the overall generation capacity added worldwide. In 2004, just 10% of the new capacity came from renewable sources.[68] Six years later that proportion more than tripled to 34%, and just a year later it rose to 44%.[69] In 2004, only 4.3% of the world's total

[66] The Potential Environmental and Economic Benefits of Renewable Energy Development in the U.S.-Mexico Border Region, Good Neighbor Environmental Board, http://www.epa.gov/ofacmo/gneb/gneb14threport/English-GNEB-14th-Report.pdf (last visited August 15, 2013).
[67] Ibid.
[68] Global Trends in Renewable Energy Investment 2012, Frankfurt School-UNEP Collaborating Center for Climate & Sustainable Energy Finance, http://fs-unep-centre.org/sites/default/files/publications/globaltrendsreport2012.pdf (last visited August 15, 2013).
[69] Ibid.

generating capacity came from renewable energy (excluding large hydro).[70] Seven years later, 9.2% of the total world generating capacity came from renewable sources- more than double the capacity just 7 years prior.[71]

As energy capacity increases within the renewable energy sector, the cost of production declines. For example, solar photovoltaic technology has an annual growth rate of 80-100% per year.[72] The price of solar panels has fallen from $5 per watt in 2005 to just over $1 per watt in 2009.[73] Wind energy production has grown worldwide, with an annual growth rate of 25%.[74] From 2011 to 2012 there was a significant drop in the cost of generating a MWh of power from onshore wind (down 9%).[75] The cost of energy from fossil-fuel sources, however, was little changed over the same period of time. Coal-fired generation costs were down just 1%.[76] Offshore wind prices are expected to fall a great deal in the next few years as competition within the industry increases and more efficient technology is produced.[77]

A new study from Stanford University found that it is technically and economically feasible for New York State to convert its all-purpose energy infrastructure to one powered by wind, water and sunlight. The plan, usually referred to as the "Jacobson Study" for its author, is hailed as an inexpensive, reliable energy plan which would create local jobs and save the state billions of dollars in pollution-related costs.[78] The Jacobson Study calls for the creation of 12,770 offshore 5-megawatt wind turbines and the development of the offshore wind farms alone is estimated to create 320,000 full-time jobs and more than $21.4 billion in earnings during construction and 7,140 annual full-time jobs and $514 million in annual earnings post-construction.[79] Proponents of the Jacobson Study estimates that $33 billion in health related costs could be saved each year and that savings alone would pay for the new power infrastructure needed within about 17 years.[80] In addition to the economic benefits, this study finds that air-pollution related death would decline by about 4,000 annually in New York State.[81]

Liberty Natural Gas would only provide dirty fossil fuel energy to the New York region. Liberty only estimates that about 600 jobs would be created during the construction of Port Ambrose and only 5 permanent jobs would be created post-construction.[82] New York State has the potential to rely completely on renewable energy, creating far more jobs in the process. This study demonstrates that

---

[70] Ibid.
[71] Ibid.
[72] A Global Green New Deal for Climate, Energy, and Development, United Nations Department of Economic and Social Affairs, http://www.un.org/esa/dsd/resources/res_pdfs/publications/sdt_cc/cc_global_green_new_deal.pdf (last visited August 15, 2013).
[73] Ibid.
[74] Ibid.
[75] Global Trends in Renewable Energy Investment 2012, Frankfurt School-UNEP Collaborating Center for Climate & Sustainable Energy Finance, http://fs-unep-centre.org/sites/default/files/publications/globaltrendsreport2012.pdf (last visited August 15, 2013).
[76] Ibid.
[77] Ibid.
[78] Jacobson, Mark Z., *et al.*, 2013. Examining the feasibility of converting New York State's all-purpose energy infrastructure to one using wind, water, and sunlight, Energy Policy, 57: 585-601.
[79] Ibid.
[80] Ibid.
[81] Ibid.
[82] Liberty LNG Port Ambrose, Draft Environmental Impact Statement, Section 4, page 4-122-123.

there is no need for Port Ambrose as renewable energy sources are more than capable of meeting New York's energy demand.

Deficiencies in Liberty LNG's energy analysis must be remedied in the DEIS. In the application, Liberty makes baseless claims that dismiss the benefits of renewable energy and conservation. While there is mention of alternative energy options, there is no data that explains what these alternative energy sources are capable of producing, and what their environmental impact would be in comparison to the Port Ambrose facility.

The DEIS must disclose the metrics used to compare the different environmental impacts of Port Ambrose to the environmental impacts of renewable energy sources. Liberty's application does not review the socioeconomic impacts that renewable energy sources and conservation and efficiency methods. As previously stated, renewable energy investment produces more jobs than natural gas investment.

The long-term estimates of the application are not in the best interests of the public when compared to the long-term benefits of renewable energy and efficiency measures. The DEIS must thoroughly investigate the socioeconomics of renewable energy sources and conservation.

According to Liberty, while renewable energy sources are an important and growing part of the region's energy portfolio, they will not be sufficient to meet the growing energy need. This is a completely baseless claim, as certain studies suggest that New York State's energy sector could be completely based on renewables.

B. The Dirty Face of Natural Gas. Liberty's Port Ambrose project is just another example of the energy sector in the United States moving in the wrong direction. Natural gas is a fossil-fuel and produces an excess of carbon emissions that ultimately lead to climate change. It is imperative for the nation to make a clear shift towards investing in and relying on renewable energy sources, for both environmental and economic reasons. Port Ambrose would provide New York with a dirty fossil fuel and discourage the city from investing in sustainable energy sources, conservation, and efficiency.

Natural gas is often referred to by Liberty LNG as a "cleaner" fossil fuel - there is nothing, however, clean about it. The process of obtaining natural gas alone has vast detrimental impacts to human health and the environment including the contamination of drinking water, marring forests and landscapes, degrading roads and highways, and releasing dangerous gasses that contribute to global warming.[83]

Over the lifecycle of natural gas (mining, transport, and use for electric power) it produces a great deal of harmful pollutants that "results in at least 60-80 times more carbon-equivalent emissions and air pollution mortality per unit of electric power generated than does wind energy over a 100-year time frame."[84] Over a 10 to 30 year timeframe "natural gas is a greater warming agent relative to all [wind,

[83] Who Pays the Cost of Fracking?, PennEnvironment Research & Policy Center, http://pennenvironmentcenter.org/sites/environment/files/reports/Who%20Pays%20the%20Cost%20of%20Fracking.pdf (last visited August 15, 2013).

[84] Jacobson, Mark Z., *et al.*, 2013. Examining the feasibility of converting New York State's all-purpose energy infrastructure to one using wind, water, and sunlight, Energy Policy, 57: 585-601.

water, and sunlight] technologies and a danger to the Arctic sea ice due to its leaked methane and black carbon flaring emissions."[85]

As an import facility, transport and liquefaction further add to the deleterious environmental and social effects of natural gas. If the facility were to be used for exports, the impacts will drastically increase – especially when coupled with land-based impacts exacerbated by the availability of a gateway for domestic U.S. natural gas to be sent to foreign markets. These impacts must be clearly assessed in the Draft EIS.

Natural gas is a fossil-fuel, and as such is not a sustainable form of energy. "Fossil fuels form so slowly in comparison to our rate of energy use that we are essentially mining finite, nonrenewable resources and will eventually exhaust quality supplies."[86] Investing in nonrenewable resources such as natural gas means investing in a resource that will not be available one day.

Perhaps most critically, Port Ambrose is dependent on a limited natural resource – the history of fossil fuels is one of boom and bust, and it is inevitable that this current gas boom will eventually bust. When supplies of natural gas become too costly, too rare, or too dirty, Port Ambrose will be rendered useless and unnecessary – the technology will have been of little to no long-term use while the pollution will have caused significant long-term damage.

C. The Potential for Renewable Energy: Offshore Wind. Port Ambrose is not only the wrong project at the wrong time and in the wrong place, but conflicts with proposals for offshore wind. According to BOEM,

> *"The study [BOEM's Identification of Outer Continental Shelf Renewable Energy Space-Use Conflicts and Analysis of Potential Mitigation Measures] concludes that submarine gas pipelines are potential issues for offshore renewable energy because the pipelines can suffer damage from construction, maintenance, and repair activities. These issues could result in potential impacts, including costly rerouting of the pipe and pollution if a pipeline were damaged by renewable energy project activity."*[87]

It would also conflict with Governor Christie's Energy Master Plan of producing 3,000 MW of energy from off-shore wind, and his own Off-Shore Wind Economic Development Act, which calls for 1,100 MW of energy by 2020 shows the tremendous conflict posed by a project like Port Ambrose. Indeed, Governor Christie's 2011 veto of this Liberty LNG project, he expressed his concern that this port would harm New Jersey's sustainable energy sector:

> *"New Jersey has invested much time, energy, and resources into encouraging renewable energy, a commitment that has made the state a national leader. This project could stifle investment in renewable energy technologies by increasing our reliance on foreign sources,*

[85] Ibid.
[86] A Global Green New Deal for Climate, Energy, and Development, United Nations Department of Economic and Social Affairs, http://www.un.org/esa/dsd/resources/res_pdfs/publications/sdt_cc/cc_global_green_new_deal.pdf (last visited August 15, 2013).
[87] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-109

which would undermine progress made by New Jersey and this nation to promote sustainable energy".[88]

However, the DEIS does little to acknowledge the incompatibility. The DEIS must report on what the energy capacity of the wind area would be, and how that specifically compares to the energy capacity of Port Ambrose. DEIS should address, in detail, the possible complications that could arise from building an LNG facility in the middle of an offshore wind facility. The DEIS is clearly slanted in favor of only type of energy – natural gas – and needs to be remedied to acknowledge offshore wind.

The NYS2100 Report also emphasized the importance of investing in renewable energy in recommendations to improve the strength and resiliency of New York State's energy infrastructure:

"Fuels such as coal, natural gas, heating oil, gasoline, and diesel, most of which are imported into New York State, contribute to climate change and make the State's system dependent on various delivery systems that themselves are vulnerable to climate change and other disasters. By diversifying our energy supply to include renewable energy sources … the State will be more energy secure and reduce its contribution to climate change".[89]

D. Economic Impacts of Renewable Energy. Investing in renewable energy leads to the creation of many jobs. In 2011, wind and solar power alone accounted for an estimated 1.2 million full-time jobs worldwide.[90] According to the Wisconsin Energy Bureau, "Investment in locally available renewable energy generates more jobs, greater earnings, and higher output ... than a continued reliance on imported fossil fuels."[91] Overall, the Bureau estimates that renewable energy creates three times as many jobs as the same level of spending on fossil fuels.[92]

A 2009 report found similar numbers for wind energy alone; for every $1,000,000 invested in energy, oil and natural gas sources produce 5.2 jobs, whereas wind sources produce 13.3 jobs.[93] These economic impacts are maximized when indigenous resources can replace imported fossil fuels at a reasonable price, and when a large percentage of the inputs can be purchased within the state.[94]

---

[88] New Jersey Governor Chris Christie License Issuance Disapproval Letter, Liberty Deepwater Port Docket # USCG-2010-0993-0038.

[89] Recommendations to Improve the Strength and Resilience of the Empire State's Infrastructure, NYS 2100 Commission, http://www.governor.ny.gov/assets/documents/NYS2100.pdf (last visited March 16, 2015).

[90] Global Trends in Renewable Energy Investment 2012, Frankfurt School-UNEP Collaborating Center for Climate & Sustainable Energy Finance, http://fs-unep-centre.org/sites/default/files/publications/globaltrendsreport2012.pdf (last visited March 16, 2015).

[91] 100% Renewable Energy and Beyond for Cities, HafenCity University Hamburg and World Future Council Foundation, http://www.worldfuturecouncil.org/fileadmin/user_upload/PDF/100__renewable_energy_for_citys-for_web.pdf (last visited March 16, 2015).

[92] Ibid.

[93] The Economic Benefits of Investing in Clean Energy, Department of Economics and Political Economy Research Institute (PERI) University of Massachusetts, Amherst, http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/green_economics/economic_benefits/economic_benefits.PDF (last visited March 16, 2015).

[94] Dollars from Sense- The Economic Benefits of Renewable Energy, U.S. Department of Energy- National Renewable Energy Laboratory, http://www.nrel.gov/docs/legosti/fy97/20505.pdf (last visited March 16, 2015).

Port Ambrose would not create nearly as many jobs as energy projects from renewable resources would. The port would only produce 5 permanent, fulltime jobs.[95] Utilizing local renewable power allows money to remain in the community or region, thus boosting the local economy.[96] Utilizing imported fossil fuels sends that money to entirely different countries. Once it has left the region, that money is not available to foster additional economic activity. This means that every dollar spent on importing energy is a dollar lost from the local economy, which is a detriment to local businesses in terms of income and jobs.[97]

Liberty is currently applying for Port Ambrose to be an import facility. The natural gas that comes into the facility will be from foreign nations, and the money that is paid for that gas will go back to those nations. Renewable energy is inherently local energy, meaning money that is invested into it will remain in the local economy.

Investing in renewable energy is a more economically sound option than importing fossil fuels. In 2008, the United Nations Environmental Programme (UNEP) stressed that investing heavily in green energy can significantly repair the economic problems associated with the global financial crash for cities.[98] If renewable energy can help repair an economy, then it can certainly help it to grow. From an economic standpoint, renewable energy technologies have two advantages over conventional electricity generation technologies: (1) they are labor-intensive which means they generally create more jobs per dollar invested, and (2) they use primarily indigenous resources, so most of the energy dollars stay local.[99]

3.8. Socioeconomics

The applicant proposes two possible locations as a base of construction operations. One is in Rhode Island, the other in Coeymans, New York. These facilities are over one hundred miles from the proposed port locations, dramatically increasing the environmental cost of the project due to the carbon footprint. Furthermore, it is inappropriate to characterize these activities as "local" to the proposed project location.

See also Section 4.8.
DEIS Excerpt: "Richmond, Kings, Queens, Nassau, and Suffolk counties would likely be utilized for onshore construction and operation support and would also be expected to be the primary source of the workforce to the extent feasible. Although other counties in New York and along the Northeast coast may be impacted due to labor force needs and material purchases, impacts are expected to be concentrated in the five counties listed above. This section provides a baseline description of population

[95] Liberty LNG Port Ambrose, Draft Environmental Impact Statement, Section 4, page 4-123.
[96] Recommendations to Improve the Strength and Resilience of the Empire State's Infrastructure, NYS 2100 Commission, http://www.governor.ny.gov/assets/documents/NYS2100.pdf (last visited March 16, 2015).
[97] Dollars from Sense- The Economic Benefits of Renewable Energy, U.S. Department of Energy- National Renewable Energy Laboratory, http://www.nrel.gov/docs/legosti/fy97/20505.pdf (last visited March 16, 2015).
[98] 100% Renewable Energy and Beyond for Cities, HafenCity University Hamburg and World Future Council Foundation, http://www.worldfuturecouncil.org/fileadmin/user_upload/PDF/100__renewable_energy_for_citys-for_web.pdf (last visited March 16, 2015).
[99] Dollars from Sense- The Economic Benefits of Renewable Energy, U.S. Department of Energy- National Renewable Energy Laboratory, http://www.nrel.gov/docs/legosti/fy97/20505.pdf (last visited March 16, 2015).

and demographics, housing, employment and income, and recreation and tourism in the counties identified within the ROI."[100]

Comment 1: *The DEIS methodology of studying potential impacts at the county level precludes the analysis of potential localized impacts. The entire section should be updated such that more localized and specific geographic areas, such as Census Tracts or Block Groups, are analyzed. This process will allow the public and decision makers to determine if specific areas proximate to the proposed project would be disproportionately impacted and allow for the development of mitigation measures to avoid and/or minimize potential impacts.*

3.9 Environmental Justice

DEIS Excerpt: "Environmental justice concerns are inherently incorporated in the public meetings open houses, meetings with community groups, etc., since public participation is a key tenet of EO 12898, as well as other guidance related to environmental justice. The goal of the public meetings and open houses is to engage all people that would potentially be affected by the proposed Project regardless of race or income status. Open houses were held by Liberty in conjunction with public scoping meetings held by the Maritime Administration (MARAD) and USCG on July 9 and July 10, 2013 in Long Beach, New York and Edison, New Jersey."[101]

Comment 1: *The DEIS should provide specific instances/statements of when Environmental Justice concerns were raised during the July 9 and 10, 2013 Public Meetings. The Applicant should also explain why neither meeting was held in an area with a high concentration of minority citizens who would be potentially affected by the proposed project. The Applicant should further disclose specific community groups the consulted with or, alternatively, provide an explanation as to why community groups that represent the interests of specific minority groups known to reside/work in the ROI were not consulted.*

Comment 2: *The Environmental Justice analysis includes major discrepancies that diminish its integrity. Rather than relying on an average of the five counties that make up the ROI, the DEIS must include an analysis of potential localized impacts. Impacts to minority citizens are typically local in nature; therefore, impacts should be analyzed at the Census Tract or Block Group level.*

Comment 3: *Table 3.9-1 does not include Hispanics in the aggregate for total minority population. Pursuant to EPA Region 2 Guidelines for Conducting Environmental Justice Analysis, EPA's office of Environmental Justice has defined the term "minority" for EJ purposes to include Hispanics, Asian-Americans and Pacific Islanders, African Americans, and American Indians and Alaskan Natives. As such, two of the counties referenced in Table 3.9-1(Kings County and Queens County) both have minority populations that warrant an analysis to determine if these populations would be disproportionately impacted by the proposed project. Moreover, while the EPA recommends a threshold of 51.51 percent of minorities for urban areas and 34.73 percent for rural areas, it is common practice to compare the minority population of a local geography (i.e. a Census Tract or Block Group) to a larger area (i.e. a county or city) since EJ impacts tend to be local in nature. If the minority population of a local geography is meaningfully greater than a larger area, an Environmental Justice analysis is warranted to determine if the given population would experience disproportionate impacts. As such, the DEIS should complete an EJ analysis for local geographies and compare them to larger areas.*

[100] Liberty LNG Draft Environmental Impact Statement, Section 3.8.2, page 3-77 ("Onshore Economic Conditions")
[101] Liberty LNG Draft Environmental Impact Statement, Section 3.9, page 3-81

4.0 ENVIRONMENTAL CONSEQUENCES OF PROPOSED ACTION AND ALTERNATIVES

4.1 Water Resources

This section outlines those impacts to water resources as they relate to the project construction, operation (including LNGRV anchoring), accidents, invasive and non-native species, and impacts during LNGRV port maintenance. As shown in the DEIS Chart[102] below, Port Ambrose will require vast amounts of seawater, and is a direct threat to the water resources of the NY Bight throughout construction, operation and decommissioning.

Table 2 – Annual Water Use for the Port Ambrose Facility over Project Life

Phase	Volume (M^3/year)	Intake / Discharge point	MARMAP/ECOMON data used
Construction	8,462,497	Mainline	Within 5 miles of Mainline
Operation	4,419,420	Port	Within 5 miles of Port
Emergency/Maintenance	86,688	Port	Within 5 miles of Port
Total Operation + Emergency/Maintenance	4,506,108	Port	Within 5 miles of Port
Decommissioning	494,653	Mainline	Within 5 miles of Mainline

In gallons, the water used annually for operations alone would equal 1,167,487,020.[103] To put this volume into perspective, it would fill an Olympic size pool 56 miles long every year.

In addition, of great concern are the impacts that this water abuse will have on marine life as discussed below.

A. Construction.

(1) Turbidity. Construction will cause re-suspension of sediments, which will adversely affect water quality. For instance, the DEIS states that the average annual water intake, as it relates to construction, is expected to be approximately 8,462,497 m^3/yr.[104] As that water is drawn into the proposed project, it will impact water quality by suspending sediments and increasing turbidity.

Seafloor disturbances and increases in turbidity negatively impact water quality in multiple ways. "Resuspended sediments may obstruct filter-feeding mechanisms and gills of fishes and sedentary invertebrates."[105]

---

[102] Ibid., Appendix J, page 6
[103] Ibid.
[104] Ibid.
[105] Brief Overview of Gulf of Mexico OCS Oil and Gas Pipelines: Installation, Potential Impacts, and Mitigation Measures OCS Report MMS 2001-067, Minerals Management Services, Department of the Interior, 2001, p. 14, at http://www.boem.gov/BOEM-Newsroom/Library/Publications/2001/2001-067.aspx (last visited March 16, 2015).

The expected trench excavation of 10 feet[106], required by the Army Corps of Engineers, for Port Ambrose would increase turbidity at larger distances. As a result, more material will be disturbed due to the use of a jet sled while excavating the deeper trench. Sediment plumes will increase in the water column because more sediment would be disturbed.[107]

The excavation is just one example in which Port Ambrose would create more turbidity. The anchor cables, for example, move continually, re-suspending sediments over a given area. The DEIS lacks the understanding of such impacts on the water resources of the NY Bight. The 'short-term' and 'adverse' impacts that would result are grossly underrated.

(2) Other Water Quality Impacts. The conclusion that "[c]onstruction, operation, and decommissioning of the proposed Project would have no significant impact on the physical oceanography within the ROI" is poorly supported and more information is needed.[108] "Construction support vessels alone would have varying quantities of fuel, other oil (hydraulic oil, lubricating oil, greases, etc.), and other chemicals stored and/or in use in support of construction. Accidental releases can happen, and are likely to have serious adversely direct impacts on local water quality."[109]

(3) Duration of Construction. The assessment of water quality impacts is, in part, dependent on the length of construction activity. However, the overall timeframe of construction activities is unclear within the DEIS. At some points, a nine-month period[110] is stated; at other points, a twelve-month period[111] is stated. An additional three months would allow for more significant impacts to water quality.

B. Operation. The DEIS states that the average annual water intake for operation of Port Ambrose is expected to be approximately 2,663,040 million cubic feet/yr.[112] The Support Vessel (SV) will also intake an average annual water volume of as much as 1,756,380 million cubic feet for cooling water and other purposes. This brings the operations water intake to an estimated total of 4,419,420 million cubic feet/yr.[113] For the proposed 25 year projected use, that would equate to a total of nearly 110,500,000 million cubic feet.[114]

Since the use of cubic meters understates the water use to the general U.S. public, it is more relevant and appropriate to present the water volume in gallons. The water used annually for operations alone would equal 1,167,487,020 gallons[115](4,506,108 x 264.172). To put this volume into perspective, it would fill an Olympic size pool 56 miles long every year.

This seawater is rich with life which will be harassed, maimed or killed. The section does not discuss these impacts to the broad impacts to all phyla of animal life, nor does phytoplankton.

---

[106] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-6
[107] Ibid.
[108] Ibid. at 4-2
[109] Ibid. at 4-3
[110] Ibid. at 4-1
[111] Ibid., Appendix I, 1-2
[112] Ibid., Appendix J, page 6
[113] Ibid.
[114] Ibid., Executive Summary, ES-6
[115] Ibid.

Entrainment of sea-life including plants during extensive water uptake is another major harm associated with Port Ambrose that is overlooked within the DEIS. For operations, seawater is routinely pumped through metal mesh screens, entraining, impinging, and killing marine life. Marine life that is small enough to fit through the screens become entrained, flowing in with the seawater through the system. Larger marine creatures, such as squid, fish, seals, and turtles, can become impinged, colliding with the screen and becoming stuck, injured, or killed as a result. The DEIS focuses mainly on entrainment impacts.[116]

During entrainment, many organisms die due to fluctuations in environmental conditions, such as temperature and pulses of chlorine or other biocides. All organisms entrained during tanker ballast water intake are permanently removed from the local ecosystem, transported by the tanker, and released in distant waters during refueling. Since "[o]nly a small percentage of newly hatched eggs or larvae typically survive to adulthood,"[117] any impact to organisms can devastate local food webs when non-native species that survive are released into receiving waters from the ballast.

As mentioned in the above paragraph, entrained organisms will come in contact with biocides via hydrostatic testing of the Mainline and Laterals. These biocides will be neutralized with hydrogen peroxide,[118] but the DEIS does not specify if and how this mixture will be tested prior to discharge or describe its impact to water quality or marine life.

Additionally, the DEIS purports that "[i]mpingement impacts from the facility are not likely" because of the EPA standard intake velocity of 0.5 foot per second, which "allows most small fish to swim away from the intake."[119] However, no data (i.e. swimming velocities of specific fish species) to support this conclusion is provided within the DEIS.

The total amount of seawater intake/discharge over the life of the Project was calculated with the assumption that maintenance would occur only every 5 years.[120] More data is needed to support this conclusion since the "actual frequency of these 'as needed' activities is not certain."[121] If more maintenance is required, then more entrainment and impingement impacts could be seen.

(1) Port Ambrose's Water Use is not limited to a Closed-Loop System.

The DEIS purports that a closed-loop system will be used because it uses less water, however, Appendix H suggests that the use of the closed-loop system might not be adequate enough: "[d]ue to the limited operation of the regasification system, recirculation of ballast water may not always provide sufficient cooling to meet all of the vessel's cooling water needs."[122] This likelihood will come to fruition in the summer months, which is labeled in some sections of the DEIS as one of the two important seasons throughout the year that this port will be in use.[123] Further clarity and assessment of volumes of water anticipated to be used is needed to determine the impacts if recirculation of ballast water is determined

[116] Ibid., Appendix J, page 1
[117] Ibid., page 8
[118] Ibid., Section 4 at 4-5
[119] Ibid., Appendix J, page 1
[120] Ibid., page 7
[121] Ibid.
[122] Ibid., page 1-1
[123] Ibid.

not to be adequate. Additionally, impingement impacts should have been investigated based on the efficacy of the closed-loop system.[124]

Additionally, an evaluation of the discharge associated with the vessel's auxiliary steam dump condenser is also needed. While although the likelihood of requiring this condenser is "rare" according to the DEIS, the DEIS does mention that it could happen if "an upset condition…develops during the commissioning period."[125] If operating, the seawater intake/discharge rate "could increase to as much as 13,900 gpm."[126] The DEIS recognizes the possibility of use, but a "separate evaluation of the discharge at the higher rate associated with this rare upset condition has not been performed."[127]

Start-up activities will require millions of gallons of seawater for hydrostatic testing of pipelines and storage tanks and other start-up processes. Seawater is required for daily operations, and the proposed closed-loop heating systems will require seawater heated for use in these regasification systems.

Finally, daily LNG operations utilize seawater for engine cooling and ballast water, among other uses. Ballast water for LNG tankers results in the most seawater use – and it is vast. LNG tankers are now up to 1600 feet in length, which is longer than the new World Trade Center Tower is tall. As they unload their cargo, each needs to be filled with millions of gallons of seawater to refill ballasts to stabilize the ship.[128]

C. Accidents. More data is needed in order to conclusively state that impacts of accidental spills would be negligible. Some data suggests that accidents could increase dissolved gas levels in the water column during the sudden release of natural gas (methane) into the marine environment may raise to toxic levels."[129]

The LNGRVs and the support vessels, for example, will be harboring varying quantities of fuel, other oil (e.g., hydraulic oil, lubricating oil, greases, etc.), and other chemicals (e.g., aqueous urea, mercaptan, etc.) stored and/or in use in support of facility operations. If accidental release of these substances were to occur "the waters surrounding the proposed Project could cause potentially direct, adverse impacts on local water quality."[130]

D. Invasive and Non-Native Species. The Draft EIS fails to assess the increased risk of invasive species to the region and other ocean regions due to LNG operations and ballast water exchanges. LNG tankers will bring non-native species into the region and given the amount of time each tanker will remain at Port Ambrose, these species may have time to colonize in the region, possibly displacing native species. LNG tankers can transport invasive species during ballast water exchanges and by biofouling of hulls or anchor chains. The risk of support vessels transporting invasive or non-natives from LNGRV's to near shore areas where the vessels are docked needs to be assessed. Community

[124] Ibid. ("…the focus of this assessment is on entrainment impacts [only]")
[125] Ibid., Appendix H, page 1-2
[126] Ibid.
[127] Ibid.
[128] Shell Prelude Floating Liquefied Natural Gas Facility at http://www.largestshipintheworld.com/largest_ships_in_the_world/shell-prelude-floating.php (last visited March 16, 2015).
[129] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-10
[130] Ibid. at 4-9

changes to introduction of invasive or attraction of non-native species to the Port area and onshore facilities need to be assessed as well as the larger ecological impacts these changes will have.

E. Impacts During LNGRV Anchoring and Port Maintenance. The DEIS indicates that there will be "[p]ermanent impacts of the Project on benthic EFH are expected only at the footprint of each of the two landing pads (2,000 square feet each), buoy and tether assemblies, and anchoring, for a total impacted area of 4.0 acres."[131] This is in contrast to unsupported conclusions that impacts to the seafloor and increased turbidity will be minor and localized. It is also recognized that anchor chain movement on the seafloor could adversely impact fish eggs and larvae.[132] The area impacted is described as minimal (4 acres) which seems to be an underestimation, and it is not clear how this determination was made. [133] The loss of these benthic resources needs to be assessed in terms of the larger ecological impacts to fish populations and other sea life that depend on the benthos as a source of food. The biological impacts from turbidity and disturbance need to be assessed and quantified with site specific information.

It is critical that all potential maintenance needs, schedules, and activities are accurately identified and impacts assessed.

F. Conclusions Regarding Water Resources. The enormous volumes of marine water will be polluted and degraded in the process and then released back into the environment, negatively impacting the surrounding water quality. The proposed LNG facilities would further contribute to the recurrent dissolved oxygen depletion that typically occurs in the summer in the NY Bight, notably in the northern region near the proposed facility sites.[134,135] In addition, "spills, leaks, or accidental releases of fuels, lubricants, or other hazardous substances" can occur during construction and operations even with preventative measures in place.[136]

The NY Bight is an ecologically important area, which supports various industries, including, but not limited to, fishing, tourism, and boating. For example, the NY Bight supports one of the largest recreational fisheries in North America in addition to a substantial commercial shell fishing industry that harvests surf clams, quahogs, and sea scallops."[137]

Under the *true No Action alternative* defined above, none of these impacts would occur. Since there is no demonstrated need to the proposed project, Port Ambrose, this alternative must be selected.

4.2 Biological Resources.

According to the Environmental Protection Agency, habitat is defined as the "area which provides direct support for a given species, population, or community. It includes all environmental features that

[131] Ibid., Appendix E, page 25
[132] Ibid.
[133] Ibid.
[134] Glenn, *et al.*, Biochemical impact of summertime coastal upwelling on the New Jersey Shelf, *Journal of Geophysical Research*, 2004, 109 (C12S02): 1-15.
[135] Glenn, *et al.*, Wind-driven response of the Hudson River Plume and its effect on dissolved oxygen Concentrations, *Environmental Research, Engineering and Management*, 2007, 1 (39): 14-18.
[136] Broadwater Final Environmental Impact Statement, Federal Energy Regulatory Commission, Docket Nos. CP06-54-000, *et al*., p. 3-63 (Jan. 11, 2008).
[137] LNG: An UnAmerican Source – page 42

comprise an area such as air quality, water quality, vegetation and soil characteristics and water supply (including both surface and ground water)."[138] Port Ambrose directly impacts the ecosystem not just within the footprint of the facility, but beyond.

A habitat is the sum of all of its parts. The services associated with an ecosystem include "servicing as a store or sink for energy or materials, providing a pathway for nutrient support, acting as a buffer against chemical changes, and producing the natural resources…such as minerals, wood, food, water, and air."[139] Port Ambrose is directly impacting this ecological balance.

In contrast to the DEIS stating that "[c]onstruction, operation, and decommissioning of the proposed Project would have no significant impact on commercial, recreational, ecological, or scientific importance of any biological resource, nor is it expected to cause any measureable change in population size or distribution for any species in the ROI,"[140] there will be impacts. The port's impacts will not only be seen during construction due to pipeline alignment, but the benthic invertebrates, as well as pelagic species, will experience long-term impacts because of the STL Buoy structure affecting substrate.[141] .

The DEIS specifically states that there will be impacts to resources due to water use, sediment disturbance activities as well as turbidity.[142] In addition, "[w]hile in-place, the footprint of the proposed Project (e.g., PLEMS, STL Buoy landing pads, mooring piles) would not be a suitable habitat for benthic organisms; this habitat loss would persist throughout the duration of operation. A permanent loss of benthic habitat would also occur with the installation of mooring piles, even after decommissioning, in the event that suction anchors cannot be removed."[143] These "permanent loss[es]" should be considered a "measureable change."

Entrainment of sea-life including plants during extensive water uptake is another major harm associated with Port Ambrose that is overlooked within the DEIS. Entrainment impacts alone have the potential to affect eggs and larvae of fish during each phase of the project. For example, "estimated entrainment for the construction phase of the facility is 44,027,806 eggs and 5,075,044 larvae of fish. Estimated annual entrainment during operation, emergency and maintenance activities of the facility is 40,070,732 eggs and 5,986,906 larvae. Estimated annual entrainment during decommissioning of the facility is 2,573,528 eggs and 296,648 larvae."[144] These eggs and larvae would contribute to the ecosystem, are essential to supporting the food web, and threaten to undermine the fisheries industry. This annual loss of marine resources due to Port Ambrose is unacceptable and will cause significant cumulative impact to the loss of living marine resources in the region, especially when one multiplied the loss of fish eggs and larvae over the 25 year use of the port.

While, the destruction of these fish eggs is significant, the DEIS gravely underrepresents the eggs and larvae of all impacted phyla, including invertebrates which have commercial and recreational value.

---

[138] Habitat Evaluation: Guidance for the Review of Environmental Impact Assessment, Environmental Protection Agency, http://www.epa.gov/compliance/resources/policies/nepa/habitat-evaluation-pg.pdf (last visited February 24, 2015).
[139] Ibid.
[140] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-15
[141] Ibid., Appendix E, page 25
[142] Ibid., Section 4 at 4-15
[143] Ibid. at 4-15
[144] Ibid., Appendix J, page 38

Scallops, clams, lobsters, shrimp, squid, to name a few are critically important to the ecosystem, and are minimally assessed within this DEIS.

Moreover, the DEIS fails to assess and evaluate key species of concern in the Mid-Atlantic region, including the American eel, which "is at very high risk of extinction in the wild."[145] The International Union for Conservation of Nature (IUCN) added the eel to its Red List, where it joins the endangered Japanese eel and critically endangered European eel. [146] Nor does the DEIS adequately assess threats to the Atlantic Sturgeon, which is an endangered species.

The DEIS does not adequately assess impacts of Port Ambrose within each season. Biological resources within this region have varying activity for breeding, spawning and migration, throughout the year. The DEIS fails to assess the seasonality of the impacts from Port Ambrose.

The DEIS fails to assess the wide ranging impacts as they relate to the proximity of the Hudson Raritan Estuary. The construction, operation, and decommissioning activities are occurring at the entrance to the estuary system. Avoidance or elimination of these resources to the estuary ecosystem could have significant consequences.

In addition, the DEIS does not consider adequately the consequences to biological resources should a tanker(s) rupture or explode.

The following section outlines those impacts to biological resources as they relate to construction and operation.

A. Construction. Port Ambrose's construction activities that could impact biological resources, include, but is not limited to, the following: routine discharges, increased vessel traffic, noise, lighting, marine debris, bottom sediment disturbance, hydrostatic testing, and inadvertent spills."[147]

Sediment dispersion, as it relates to construction, is expected to take place during the months of January through October[148] as it relates to plowing, backfill plowing, supplemental lowering of the Mainline, supplemental lowering at utility crossings, and areal excavation.[149] All of the listed activities will "result in the disturbance of bottom sediments, generation of suspended plumes, and re-deposition of sediment in the vicinity of the construction footprint."[150] As a result of sediment disturbance, "…overturned, deeper sediments may be hypoxic, resulting in longer periods of recolonization."[151]

In addition to sediment disturbance, construction activities will also impact biological resources via noise. For example, "[s]hort-term, potentially moderate to potentially major, adverse impacts on non-threatened and non-endangered marine mammals during construction would result from marine noise from the proposed Mainline installation and STL Buoy anchoring."[152] In this context, it is not clear how

[145] American Eel Is in Danger of Extinction, Scientific American, 2014, available at http://www.scientificamerican.com/article/american-eel-is-in-danger-of-extinction/ (last visited March 16, 2015).
[146] Ibid.
[147] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-15
[148] Ibid., Appendix I, page 3-2
[149] Liberty LNG Draft Environmental Impact Statement, Appendix I at 5-1
[150] Liberty LNG Draft Environmental Impact Statement, Appendix I, page 5-1
[151] Ibid., Section 4 at 4-15
[152] Ibid.

"potentially" is defined, and given the significance of the substance of the above quote, it is critical that it be clearly defined .

Construction activities will also disturb habitat via construction of the PLEMs, which would permanently impact 3.0 acres of seafloor for the two STL Buoys and anchor chain arrays.[153] In addition, "soft-bottom habitat would be permanently displaced by the STL Buoy landing pad, PLEMs, flexible riser and tether systems, and movement of the anchor chain and wire mooring lines." [154]

The DEIS purports the impacts to biological resources as it relates to habitat disturbance would be localized and thus "long-term and moderate impacts" are negligible, but the EPA's definition of habitat is not limited by acreage.

Once again, we note that the assessment of biological impacts is dependent in part upon the length of construction activities, the DEIS does not consistently state the anticipated duration of construction. At some points, a nine-month period[155] is stated; at other points, a twelve-month period[156] is stated. An additional three months will lead to more significant impacts to biological resources.

Regardless of the acreage of impact throughout construction activities, the biological resources associated with the NY Bight are vital in sustaining a healthy ecosystem. Under the true No Action Alternative defined above, none of these impacts would occur. Since there is no demonstrated need to the proposed project, Port Ambrose, this alternative must be selected.

B. Operation. The life expectancy of Port Ambrose is 25 years[157], yet within that brief tenure, the centuries-old habitat of the NY Bight will continually be disturbed throughout operation activities. For example, as the DEIS recognizes, "[l]ong term, minor to moderate, adverse impacts on biological resources from increased vessel traffic, noise, lighting, marine debris, routine discharges, LNG spills, inadvertent spills, bottom sediment disturbance, marine facilities and proposed Mainline presence, and seawater intake (impingement and entrainment)."[158]

As in the construction phase, the DEIS mentions that permanent impacts would only impact a small subset of the project's footprint. Specifically, as it relates to operation, "[p]ermanent impacts from operation of the proposed Project would be limited to the movement of the mooring lines and anchor chain sweep and the approximate 3.0 acres of seafloor required for the PLEMs, STL Buoy landing pads and anchoring system."[159]

(1) Food Chain Disruption. The DEIS purports that the peak activity for operation of the Port is during the winter and summer months.[160] In the marine environment, each season has important biological activity for spawning and migration, particularly the summer months. The DEIS fails to assess the seasonal impacts of Port Ambrose.

---

[153] Ibid. at 4-16
[154] Ibid.
[155] Ibid. at 4-1
[156] Ibid., Appendix I, 1-2
[157] Ibid., Executive Summary, ES-6
[158] Ibid., Section 4 at 4-15
[159] Ibid. at 4-17
[160] Ibid. at 4-21

For example, as mentioned in the Threatened and Endangered Species section below, the copepod population will be greatly impacted by the operation of Port Ambrose, especially during the summer months.[161] Many species, such as North Atlantic Right Whales, rely on copepods as a food source. This direct impact to their population will indirectly impact other marine species, including E&T species.

In addition to the copepod population, other species can be gravely impacted by operation activities. For example, activities associated with re-suspension of sediments can cause negative impacts on the early life stages of demersal fish species.[162] In addition,

> *"Turbidity-related impacts may include reductions in growth and feeding rates, and the clogging of respiratory structures. Impacts on demersal fish species from excess suspended sediments from the proposed construction activities have the potential to result in four types of effects: 1) no effect; 2) behavioral effects (e.g., alarm reaction or avoidance response); 3) sub-lethal effects (e.g., reduction in feeding rate or feeding success); and 4) lethal effects (e.g., direct mortality from increased predation or significant degradation of habitat).*[163]

Fish species that readily rely on benthic resources, such as crab-eaters, amphipod, shrimp eaters, and benthivores, will be temporarily impacted, but "[i]f turbidity increase throughout the water column, though, all trophic guilds would be affected."[164]

The phytoplankton population will also suffer mortalities as a result of impingement and entrainment from LNGRV ballast water intake over the life of the proposed Project.[165] While although the DEIS projects these impacts will be "long-term" they are unacceptably considered "minor."[166]

(2) Noise. Similar to construction activities, operation of the port will add new noise sources to the NY Bight. How those new noise sources will impact biological resources, such as fish species, has yet to be quantified: "[h]earing capabilities of fish have been studied in less than 0.01 percent of fish species."[167]

Noise impacts on fish are highly variable, but "[p]otential impacts of continuous sounds on marine fish include temporary threshold shifts (TTS), physiological stress response, and behavioral response (e.g., startle, alarm, avoidance), physiological damage to hearing structures, or in more severe instances, hemorrhaging in the body cavity (permanent threshold shift or PTS)."[168]

More data is needed in order to make the assumption "…most adult fish would leave the construction area temporarily because of in-water disturbances, and the distance between the fish and the noise source would increase, thereby minimizing the change of injury."[169]

---

[161] Ibid.
[162] Ibid. at 4-26
[163] Ibid. at 4-26
[164] Ibid. at 4-26
[165] Ibid. at 4-22
[166] Ibid.
[167] Ibid. at 4-28
[168] Ibid.
[169] Ibid. at 4-29

(3) Vessel Strikes on Fish. In addition to increased noise being an indirect result of stationing a Port in the busiest port on the East Coast, increased vessel traffic will also result.[170] In contrast to the DEIS' assumption that a "slight increase in vessel traffic would be negligible in comparison to existing vessel traffic in the area,"[171] an increase in the number of vessels trafficking the port, increases the probability of vessel strikes in relation to marine species.

It has been documented that species such as sturgeon, whale sharks (*Rhincodon typus*), basking sharks (*Cetorhinus maximus*), ocean sunfish (*Mola* species), and manta rays (*Manta birostris*) have a history of being hit by vessels.[172] However, the DEIS suggests that "…the isolated areas of impact would not result in population-level effects to the benthic community, and thus fish populations, of the New York Bight."[173] Any impacts should raise concern.

C. Conclusion Regarding Biological Resources. Each of the biological resources mentioned above play an integral role in the NY Bight ecosystem. Any disturbance, even the slightest in terms of numbers, at any level, could be compounded throughout the ecosystem. The DEIS suggests that the impacts to biological resources associated with construction, operation, and decommissioning of the proposed Port would be negligible and only within the footprint of Port Ambrose. Sufficient data is lacking to support these conclusions. Furthermore, the DEIS analyzes impacts such as noise, turbidity and vessel strikes individually, the DEIS fails to evaluate such impacts collectively, and the collective impacts could pose an even greater threat to biological resources.

It is further noted that under the "Appropriate No Action" defined above, none of these impacts to biological resources would occur, individually or collectively.

4.3 Threatened and Endangered Marine Mammals, Sea Turtles, Fish and Birds

Many federally-listed endangered and threatened species live and migrate in the vicinity of the proposed offshore facilities, pipeline routes, and shipping lanes. The Port Ambrose proposal will significantly alter the physical environment within the NY Bight by disrupting the benthic community and habitat with "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."[174] Threatened and endangered species (T&E) will suffer from food chain and migration disruption along with intra and interspecies communication complications. Such disturbances to threatened and endangered species will have a negative economic impact on the NY Bight.

According to the Endangered Species Act, "…species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation."[175]

The Endangered Species Act defines an "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range,"[176] and "threatened species" as "any

---

[170] About the Port, Port Authority of New York and New Jersey, available at http://www.panynj.gov/port/about-port.html (last visited March 15, 2015).
[171] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-29
[172] Ibid.
[173] Ibid. at 4-31
[174] Data Gaps, item #13, Docket # USCG-2013-0363-0013.
[175] 16 U.S.C. § 1531 (a)(1).

species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."[177]

In a letter posted to the Federal Docket during the scoping period in the summer of 2013, the National Oceanic and Atmospheric Administration (NOAA), stated their concern regarding the potential effects to T&E species from proposed construction, operation (including maintenance and repair), and decommissioning of Port Ambrose.[178] Specifically, "these concerns include, but are not limited to, large whale ship strike/vessel collision; listed species interactions with project equipment, alteration of the physical environment and essential habitat; phytoplankton/zooplankton entrainment via seawater withdrawal; and acoustic disturbance that could result in injury or harassment to our listed species."[179] These concerns have not been adequately addressed in the DEIS.

The following section outlines impacts associated with T&E species as they relate to the following areas: North Atlantic Right Whale, construction/operation/decommissioning, sea turtles, Atlantic sturgeon, noise, habitat, and invasive species.

A. North Atlantic Right Whale. Throughout the DEIS, the North Atlantic Right Whale is labeled as a species of concern. Specifically, "[a]mong the species listed as threatened or endangered in the proposed Project area, the North Atlantic right whale is the only endangered species for which recent population modeling exercises by NOAA indicate that the loss of a single individual could have a negative effect on the survival of the species."[180]

With respect to the critically endangered North Atlantic right whale, the DEIS fails to take into account the best available science on population size, cumulative effects, or species presence in the proposed area. Because of the critically low population level (NOAA estimates that the western population of the North Atlantic right whale contains only about 400 individuals),[181] the DEIS has stated that "the death of even one individual is above the acceptable limit and, should it occur, would be considered a long-term and major adverse impact."[182] The DEIS mentions that "the North Atlantic right whale is particularly susceptible to vessel strikes;"[183] however, given the low population level and the DEIS' own prior statements, the taking of even one individual would constitute more than a negligible impact and would therefore violate the Marine Mammal Protection Act (MMPA).

The DEIS purports that the North Atlantic Right Whale is of most concern during the months of November to April; however, a recently published paper suggests their occurrence more readily in the area throughout the year. This study involved the use of passive acoustic monitoring at several locations off the New Jersey coast over the course of two years and found that "North Atlantic right whales are

---

[176] 16 U.S.C. § 1532 (6).
[177] 16 U.S.C. § 1531 (20).
[178] National Oceanic and Atmospheric Administration, Liberty Deepwater Port Docket # USCG-2013-0363-0521
[179] National Oceanic and Atmospheric Administration, Liberty Deepwater Port Docket # USCG-2013-0363-0521
[180] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-67
[181] North Atlantic Right Whale (Eubalaena glacialis), NOAA Fisheries, available at http://www.fisheries.noaa.gov/pr/species/mammals/whales/north-atlantic-right-whale.html (last visited March 16, 2015).
[182] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-67
[183] Ibid. at 4-68

present off New Jersey throughout the year and not only during 'typical' migratory periods."[184] The numbers of up-call detections per day were highest from March through June, which indicates that right whales communicate extensively during this time of year off the New Jersey coast.[185]

Since the proposed Project partially overlaps the Mid-Atlantic seasonal management area (SMA) for this protected marine mammal, Port Ambrose must comply with the Marine Mammal and Sea Turtle Vessel Strike Avoidance Plan that says "vessels 65 feet or longer must maintain speeds less than 10 knots within this area from 1 November to 30 April to reduce collision risk."[186] However, of particular concern is the most recent data, which demonstrates North Atlantic right whale presence off the New Jersey coast year-round, particularly in the spring and summer months, has not been incorporated into the DEIS. Inclusion of this information is critical to ensuring that the DEIS is based on the best available science.

While although the DEIS recognizes the importance of this species and the grave implications of even the slightest impacts which could negatively affect the survival of the species, the DEIS suggests that this proposal should still move forward. For this reason, a true, "Appropriate No Action" defined above, would be in the best interest for the continuation of the endangered North Atlantic right whale.

B. Construction, Operation and Decommissioning. In addition to the North Atlantic right whale, other T&E species will be impacted by the construction, operation and decommissioning of Port Ambrose. The DEIS reviews the impacts associated with each of the three phases of Port Ambrose, but inadequately purports that the effects will be negligible and thus overlooks the associated harm.

The DEIS puts forth conflicting messages regarding the implications. For example, the DEIS states that "[m]ost impacts are negligible, but others, such as noise and vessel traffic, may have long-term effects to different ESA-listed species."[187] However a few paragraphs later, the DEIS states that "ESA-listed marine mammals would not experience long-term or permanent impacts from the construction, operation, and decommissioning of the proposed Project." [188] Further clarification is needed.

We again note that the impacts from construction activities is variable based upon the duration and that the DEIS is inconsistent as to said duration.

(1) Vessel Traffic. Especially during construction, the NY Bight would experience an increase in vessel traffic. The two types of traffic will involve vessels that mobilize and demobilize once and crew boats that transit the site more frequently.[189]

The DEIS contains the admission that "each of the federally listed marine mammal species potentially occurring in the ROI would be susceptible to vessel strike during construction of the proposed Project, as there are recorded incidents of each of these species being involved in a vessel collision."[190]

---

[184] Whitt, A.D., Dudzinski, K., and Laliberte, J.R. 2013. North Atlantic right whale distribution and seasonal occurrence in nearshore waters off New Jersey, USA, and implications for management. *Endangered Species* Research 20: 59-69.
[185] Ibid.
[186] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-68
[187] Ibid. at 4-62
[188] Ibid. at 4-63
[189] Ibid. at 4-67
[190] Ibid.

The DEIS states, " [t]he short-term and minor increase in vessel traffic associated with construction activities may affect, but not likely to adversely affect ESA-listed mammals,"[191] but then states, "the proportional probability of that risk [increase in vessel traffic to increase risk of collision] associated with construction vessels cannot be quantified."[192] Further data and analysis is needed in order to insist that marine mammals, especially E&T species will not be harmed as a result of increased vessel traffic, especially since there have been known incidents.

Overall, the assumption that "[i]f one of these animals [threatened or endangered marine mammals] approaches the impacted area during construction, the animal would likely move away from the activity,"[193] must be analyzed.

The DEIS states that "…even if these [threatened or endangered marine mammals] animals do not vacate or avoid the disturbance, they are not expected to experience long-term negative effects,"[194] yet any type of disturbance to T&E species could greatly impact the continuation of the species (i.e. North Atlantic Right Whale).

The reason these species are endangered or threatened is because they are low in numbers, thus if even one animal comes in contact and is adversely impacted by Port Ambrose, breeding could be impacted and thus the continuation of the species.

C. Sea Turtles. The NY Bight is ecologically significant for sea turtles. The potential impacts are similar with those listed above, as well as artificial lighting. Artificial lighting has also been known to "…confuse turtles making their way to nesting habitat, or turtle hatchlings moving toward the water, possibly resulting in an increased risk of mortality."[195]

While although sea turtles' presence is seasonal (spring into early summer), they are still susceptible to stated impacts.

D. Atlantic Sturgeon. Atlantic Sturgeon is also a species of concern in the proposed port area. This species is the only ESA-listed species within the ROI.[196] According to NOAA, there is an estimated 870 adults spawning each year in the Hudson River.[197] In that same source, NOAA lists the following threats to the Atlantic sturgeon population: habitat degradation and vessel strikes.[198] Dredging, in particular, is singled out by NOAA as a threat to their habitat. "Dredging…can displace sturgeon while it is occurring and affect the quality of the habitat afterwards by changing the depth, sediment characteristics, and prey availability."[199] The dredging associated with Port Ambrose is only one way in

[191] Ibid. at 4-68
[192] Ibid. at 4-67
[193] Ibid. at 4-63
[194] Ibid.
[195] Ibid. at 4-69
[196] Ibid. at 4-94
[197] Atlantic Sturgeon on New York Bight Distinct Population Segment: Endangered, NOAA Fisheries Service, available at http://www.nmfs.noaa.gov/pr/pdfs/species/atlanticsturgeon_nybright_dps.pdf (last visited March 16, 2015).
[198] Ibid.
[199] Ibid.

which the Atlantic sturgeon population will be impacted. Entrainment and impingement also need to be evaluated.

Additionally, the DEIS underrepresents the noise impact Port Ambrose could have on Atlantic Sturgeon especially since there is no published underwater noise criteria available.[200] The DEIS isn't even able to estimate the 'harassment distance'[201] because there is "no data on behavioral shifts in Atlantic sturgeon due to noise from similar construction activity exists."[202] Without this data, the DEIS is gravely incomplete.

E. Coastal and Marine Birds

Coastal and marine birds, such as grebes, loons, and some sea ducks, are known to frequent the proposed area.[203] Indeed, the proposal is located within the Atlantic Flyway which is managed by the US Fish and Wildlife Service along with partner agencies, known as the Atlantic Flyway Council.[204] The DEIS fails to properly asses the impacts to T&E coastal and marine birds causing "direct habitat loss or change (direct effects) or through temporary displacement or disturbance during the construction and operation phase of the proposed Project."[205]

Non-threatened and non-endangered coastal and marine birds will be impacted during all phases of the proposed Project due to "changes to benthic foraging habitat, increases in water turbidity, changes to ambient noise levels, increased vessel traffic, changes to ambient lighting, vessel discharge and spills, ingestion of marine debris, and entanglement."[206] In addition to these, the 15 endangered species and 10 threatened species that occur in the NY Bight[207], could be exposed to and be adversely affected by these impacts.

A full and specific analysis of T&E coastal and marine species, incompliance with all state and federal regulations is needed in order to determine that there will be minimal impacts.

F. Noise. The current marine habitat associated with the NY Bight harbors pre-existing sounds that marine species have adapted to, however adaptation to extensive new noise can severely impact the species. The analysis of noise throughout the DEIS indicates that noise impacts to marine life in the NY Bight will be minimal due to pre-existing background noise already present. However, the specifics of the DEIS tell a different story.

The DEIS states," [a]mbient noise levels in the proposed Project area and surrounding waters are elevated and variable due to current levels of shipping, fishing and recreational vessel traffic. As a result, temporary increases due to construction vessel traffic would have a minimal contribution to that

---

[200] Liberty LNG Draft Environmental Impact Statement, Appendix M, page 5-5
[201] Ibid., page 5-3
[202] Ibid.
[203] Ibid., page 4-54
[204] Migratory Bird Flyways, U.S. Fish & Wildlife Service, available at http://www.fws.gov/migratorybirds/flyways.html (last visited March 16, 2015).
[205] Ibid., Section 4 at 4-54
[206] Ibid., Section 4 at 4-54
[207] Regional Species and Community Characterizations, U.S. Fish and Wildlife Services, available at http://nctc.fws.gov/resources/knowledge-resources/pubs5/web_link/text/esfed&st.htm (last visited March 16, 2015).

ambient noise."[208] However, Port Ambrose, by design and purpose, will increase vessel traffic in this already noisy environment throughout the year, and not just during to the construction period.

The DEIS states that "construction noise created by construction vessels could create masking effects among ESA-listed marine mammals in the same manner as for non-endangered marine species. Masking occurs when underwater noise interferes with an animal's ability to hear biologically relevant sounds."[209] Marine mammals rely heavily on inter/intra species communication for migration and foraging purposes. Any masking of such activities, even if temporary, could significantly harm the T&E species.

G. T&E Habitat. According to the Environmental Protection Agency, habitat is defined as the "area which provides direct support for a given species, population, or community. It includes all environmental features that comprise an area such as air quality, water quality, vegetation and soil characteristics and water supply (including both surface and ground water)."[210]

The Port Ambrose proposal will significantly alter the physical environment within the NY Bight by disrupting the benthic community and habitat with "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."[211] The DEIS continues to confirm that alteration. The DEIS purports that the events such as increase in turbidity, routine discharges, hydrostatic testing intake and discharge, etc. will not have any impact on the T&E species, but any impact could harm the continuation of the species.

The mere impact to the copepod population as outlined in the DEIS raises alarms as it relates to ESA-listed whales, which have been estimated to consume about "4 percent of their body weight per day [via copepod ingestion]."[212] Since summer is a "time of high copepod abundance" and the "peak activity at the proposed Port would occur in the…summer," the assumption that there will be little impacts to ESA-listed species as a result of pre species abundance and distribution is invalid.[213] The DEIS specifically states that "…other construction, operation, and decommissioning activities, would remove an estimated total of 1.4 to 57.6 billion copepods, depending on the season" after previously starting that "large whales can ingest up to 461 million copepods per day, totaling approximately 14 billion copepods per month."[214] Clearly, the numbers tell a different story relating to impact.

H. Invasive Species. The DEIS does not adequately analyze the impacts associated with invasive species and in particular, how it affects the Threatened and Endangered Species discussed above. Introduction of other species can also lead to habitat alteration. The LNG vessels that will be responsible for the movement of the liquefied natural gas from Port Ambrose represent a diverse environment that introduces new species into the NY Bight. These new species can greatly impact the local habitat for the threatened and endangered species because of food alteration and predator/prey

[208] Ibid., Section 4 at 4-66
[209] Ibid.
[210] Habitat Evaluation: Guidance for the Review of Environmental Impact Assessment, Environmental Protection Agency, http://www.epa.gov/compliance/resources/policies/nepa/habitat-evaluation-pg.pdf (last visited August 5, 2013).
[211] Data Gaps, item #13, Docket # USCG-2013-0363-0013.
[212] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-69
[213] Ibid.
[214] Ibid.

alteration. Liberty LNG states in the application that "several species have been introduced into the marine and estuarine environment by human actions, including ballast water exchange or boat hull fouling transference, as well as aquaculture and other means."[215] Liberty LNG adds that "these introduced species may pose a threat to endangered species and to biodiversity."[216] LNG tankers will bring non-native species into the region and given the amount of time each tanker will remain at Port Ambrose, these species may have time to colonize in the region. Port Ambrose will amplify the introduction and threat of new species into the environment, but the DEIS does not discuss this threat.

I. Conclusions Regarding Threatened and Endangered Species. Congress declared it to be a national policy that "all Federal departments and agencies shall seek to conserve endangered species and threatened species."[217] The DEIS reviews the various impacts Port Ambrose will have on threatened and endangered species, but specifically states that there will be little to no impact to the species. While sufficient data is lacking to support these conclusions, the impacts, such as noise, habitat destruction, and vessel strikes, are analyzed individually, but combined, could pose an even greater threat to threatened and endangered species. Cumulative impacts were not adequately assessed. The DEIS does not do an adequate job of analyzing the impacts, nor the potential devastating effects the proposed liquefied natural gas port will have on endangered and threatened species.[218]

The impacts discussed in the DEIS are underestimated as threats to these species, including the critically endangered Right Whale. Accidents do happen, LNG spills could happen, but the assessment of impacts is minimal and needs to include more data as it relates to threatened and endangered species.

4.4 Essential Fish Habitat

Essential Fish Habitat (EFH) is a federal designation that requires the National Oceanic and Atmospheric Administration (NOAA) to review fisheries operations and proposed federal projects in order to reduce impacts and protect these important habitats.[219] Federally managed fish species that depend on the NY Bight include Atlantic cod, whiting, red hake, flounders (5 species), ocean pout, Atlantic sea herring, monkfish, bluefish, scup, sea bass, king and Spanish mackerel, cobia, as well as various species of shark and tuna.[220] The NY Bight supports one of the largest recreational fisheries in North America,[221] in addition to a substantial commercial shell fishing industry that harvests surf clams, quahogs, and sea scallops.[222]

---

[215] Liberty LNG Application, Volume II, Report 4, at 4-58.
[216] Ibid.
[217] 16 U.S.C. § 1531 (c)(1).
[218] Data Gaps, item #134, Liberty LNG Docket # USCG-2013-0363-0013.
[219] Who is involved in conserving EFH and how does it work? Essential Fish Habitat, Office of Habitat Protection, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, at http://www.nmfs.noaa.gov/habitat/habitatprotection/efh/index_e.htm (last visited Aug. 4, 2008).
[220] Summary of Essential Fish Habitat Designations, National Oceanic and Atmospheric Administration, at http://www.nero.noaa.gov/hcd/STATES4/conn_li_ny/40207340.html (last visited Aug. 1, 2008).
[221] J.B. Pearce, The New York Bight, *Marine Pollution Bulletin*, 2000, 41 (1-6) p. 44-55.
[222] Ibid.

As recognized in the DEIS, "[t]here are micro-regions within the NY Bight with their own special features that attract and support a variety of important species, including the Cholera banks and the Mud Hole."[223] Port Ambrose, located near, Cholera Bank, threatens the livelihood of EFH.

Within the ROI, there are 38 federally managed marine species that have had EFH designation.[224] The DEIS purports that "[c]onstruction, operation, and decommissioning of the proposed Project would have no significant impact on a number of designated EFH species."[225] However, immediately thereafter suggests that "direct, temporary impacts from these activities are expected via displacement from the water column to the designated EFH species. In addition, direct and temporary to long-term impacts from construction, operation, and decommissioning have the potential to exist from the displacement of benthic habitat."[226] These statements are contradictory in nature.

The following section outlines those impacts to Essential Fish Habitat as they relate to construction and operation.

A. Construction. The construction of Port Ambrose will impact EFH in the following ways:

- Mud pump: "submersible pump that is capable of either sucking or blowing the seabed materials from the area being excavated and depositing those materials a short distance away from the site, pending completion of the installation processes."[227]

- Installation of the Mainline and port structures: responsible for impacts to 250 acres of seafloor."[228]

- Resuspension of sediments: has the "potential to negatively impact early lifestages of susceptible fish species whose egg or larval stages are demersal. Turbidity-related impacts often include reductions in growth and feeding rates, and the clogging of respiratory structures."[229]

- Dissolved Oxygen: "The DO may drop from ambient levels temporarily when bottom sediments are re-suspended in the water column…"[230]

- Dredging: "expected to have longer-term adverse impacts on the benthic infauna occupying the sediment to be dredged within the ROI…"[231]

- Trenching: "[w]hile the trenching would be expected to have long-term adverse impacts on the benthic infauna occupying the sediment to be dredged within the proposed Project area, the indirect effects of the loss of those prey resources for EFH species would not adversely affect those EFH species. Therefore, additional mitigation measures are not necessary."[232]

[223] Liberty LNG Application, Volume II, Report 4, at 4-58.
[224] Liberty LNG Draft Environmental Impact Statement, Appendix E, page 32.
[225] Ibid., Section 4 at 4-96
[226] Ibid.
[227] Ibid., Appendix E, page 24
[228] Ibid.
[229] Ibid., page 28
[230] Ibid.
[231] Ibid., page 29
[232] Ibid., Section 4 at 4-97

Specifically, when discussing dredging as it relates to EFH, the DEIS suggest that no additional mitigation measures are needed even though dredging is "expected to have longer-term adverse impacts on the benthic infauna occupying the sediment to be dredged within the ROI…"[233] The DEIS purports that "the indirect effects of the loss of those prey resources for EFH species would not adversely affect those EFH species."[234] However, this is not substantiated.

One of the most immediate and direct harms comes from offshore LNG terminals and their destruction of seafloor habitats. LNG port construction and pipeline installation smother seafloor (benthic) habitat, alter the seafloor substrate, and cause re-suspension of sediments.

Seafloor disturbances and increases in turbidity negatively impact water quality in multiple ways. "Resuspended sediments may obstruct filter-feeding mechanisms and gills of fishes and sedentary invertebrates."[235] Turbid conditions and resuspended sediments can also cause habitat avoidance by finfish, delay their development, and injure their surface membranes.[236] Resting cells and cysts of diatoms and dinoflagellates could also be resuspended and become active in the water column forming harmful algal blooms.[237] Also, sediment-bound contaminants and nutrients can be released, increasing the biological and chemical oxygen demands and depleting dissolved oxygen levels.[238]

The expected trench excavation of 10 feet for Port Ambrose, as per the request of the Army Corps of Engineers, "would create more turbidity at greater distances from the trench because more material would be disturbed and the deeper trench would require excavation using a jet sled, pushing sediment plumes higher into the water column because more sediment would be disturbed."[239]

Resuspension of sediments and turbidity alone can cause great harm to EFH. Some of the benthic community may be able to recolonize post-construction, however, the recolonization period could take months to years.[240] While although this may be considered "short-term," impacts could be seen throughout the food chain.

As stated above, the effects from construction activity are dependent upon duration and the DEIS does not, with any consistency, state the expected period of construction.

B. Operation. The operation of Port Ambrose will impact EFH in the following ways:

[233] Ibid., Appendix E, page 29
[234] Ibid.
[235] Brief Overview of Gulf of Mexico OCS Oil and Gas Pipelines: Installation, Potential Impacts, and Mitigation Measures OCS Report MMS 2001-067, Minerals Management Services, Department of the Interior, 2001, p. 14, at http://www.mms.gov/itd/pubs/2001/2001-067.pdf (last visited Aug. 26, 2008).
[236] Broadwater Final Environmental Impact Statement, Federal Energy Regulatory Commission, Docket Nos. CP06-54-000, *et al*., p. 3-87 (Jan. 11, 2008).
[237] Northeast Gateway Final Environmental Impact Statement, Docket No. USCG-2005-22219, p. 4-3 (Oct. 2006).
[238] Broadwater Final Environmental Impact Statement, Federal Energy Regulatory Commission, Docket Nos. CP06-54-000, *et al*., p.3-36 and 3-76 (Jan. 11, 2008).
[239] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-6
[240] Ibid., Appendix E, page 25

- Prey Removal: "An indirect effect on EFH would be the removal of prey resources via entrainment."[241]

- Displacement: "Direct temporary impacts are expected from displacement from the benthic habitat for the following EFH species: Atlantic cod, black sea bass, little skate, monkfish (adults), ocean pout, Pollock, red hake, scup, summer flounder, whiting/silver hake, windowpane flounder, winter flounder, winter skate, and yellowtail flounder."[242]

- Introduction of invasive species

Permanent impacts due to Port Ambrose do exist. For example, the Atlantic surfclam and ocean quahog, specifically, will experience loss of benthic habitat.[243] Additionally, permanent impacts will be seen at the footprint of each of the two landing pads, buoy and tether assemblies, and anchoring.[244]

3.5 Geological Resources

The following section outlines those impacts to Geological Resources as they relate to the following areas: New York Bight fault zone, pipeline impacts, and anchoring impacts.

A. New York Bight Fault Zone. The proposed pipeline crosses the New York Bight Fault Zone and more investigation of the safety of the pipeline in this area is needed. According to the DEIS, "this fault has not been active for at least 1.8 million years."[245] The DEIS does little to investigate this characteristic further. A study which examined earthquakes from 1677 through 2004 stated that "[t]he greatest activity … occurs in a belt about 35 km wide to the east and southeast of the Newark basin."[246]

The largest historic shock, mf 5.25 in 1884, occurred along that zone."[247] The 5.25 magnitude was determined over the area it was felt and sizable aftershocks occurred; oceanographic instrumentation was obviously not available at that time and the depth is not known. The epicenter of this quake is mapped in close proximity to where the pipeline connects to the Transco pipeline.[248] As of 2008, there are no seismic stations operating in the coastal plain area where the 1884 earthquake occurred; and "knowledge of which faults [in the region] are active is in its infancy."[249]

It is not clear how it was determined that faults in the area were inactive as claimed. The conclusion of risk must be validated by an independent expert. A more thorough analysis is needed.

---

[241] Ibid.
[242] Ibid., page 29
[243] Ibid.
[244] Ibid., page 25
[245] Ibid., Section 4 at 4-100
[246] Sykes, L.R., Armbruster, J.G. Won-Young Kim, W.Y., and L. Seeber 2008 "Observations and Tectonic Setting of Historic and Instrumentally Located Earthquakes in the Greater New York City–Philadelphia Area" Bulletin of the Seismological Society of America, Vol. 98, No. 4 pp. 1696–1719.
http://www.earth.columbia.edu/sitefiles/file/pressreleases/1696.pdf (Visited 8/1/13)
[247] Ibid.
[248] Ibid.
[249] Ibid.

B. Pipeline Impacts. Pipeline installation is disruptive to hundreds of acres of seafloor and causes re-suspension of sediments that negatively impacts water quality. Other shellfish, surf clams, ocean quahogs, shrimp, and sea scallops, may also be buried, injured or killed during trenching. Any dredging through gravel or rocky areas and blasting through exposed outcrops for pipeline installation will cause additional seafloor disruption and environmental harms.

C. Anchoring Impacts. Anchoring is needed during pipeline installation, LNG facility construction, and possibly by tankers during storm events. For constructing the two turret buoys for the Northeast Gateway LNG terminal off Boston, 16 suction-embedment anchors were installed, impacting 33 acres.[250] When LNG tankers connect to the turret buoys at the Northeast Gateway terminal, for example, their anchor chains move and drag across the seafloor repeatedly impacting up to 38 acres that result in "long-term reduction to benthic productivity."[251] Anchoring can destroy a wide swath of habitat if the anchor is dragged or the vessel swings at anchor, causing the anchor chain to drag the seafloor… Accidental anchor impacts, however, could be extensive, with recovery taking longer than 20 years, and they could be permanent, depending on the severity of the impact."[252] The DEIS specifically states that there will be permanent impacts to the benthic community as it related to anchoring.[253]

D. Conclusions Regarding Geological Resources. The geological resources of the NY Bight will clearly be impacted by the proposed project, thought the DEIS fails to adequately investigate some of those impacts, including those related to the New York Bight Fault Zone.

4.7 Ocean Uses, Land Uses, Recreation and Visual Resources

The NY Bight is an ecologically important area, which supports various industries, including, but not limited to, fishing, tourism, and boating. For example, the NY Bight supports one of the largest recreational fisheries in North America in addition to a substantial commercial shell fishing industry that harvests surf clams, quahogs, and sea scallops."[254] The health of these waters is the fundamental driving force behind sustaining these industries.

The following section outlines those impacts to the ocean uses, land uses, recreation and visual resources as they relate to the following areas: Port of New York and New Jersey, commercial and recreational fishing vessels, and other industries.

A. Port of New York and New Jersey. The Port of New York and New Jersey is the largest port on the East Coast and the third largest port in the nation.[255] It provides access to one of the economically viable regions in the nation. In 2014 alone, the Port of New York and New Jersey handled 3,342,286 cargo containers, a 5.4 percent increase in total container traffic from 2013.[256] The DEIS

---

[250] Northeast Gateway Final Environmental Impact Statement, Docket No. USCG-2005-22219, p. 4-2 and 4-3 (Oct. 2006).
[251] 73 Fed. Reg. 29489 (May 21, 2008).
[252] Brief Overview of Gulf of Mexico OCS Oil and Gas Pipelines: Installation, Potential Impacts, and Mitigation Measures OCS Report MMS 2001-067, Minerals Management Services, Department of the Interior, 2001, p. 14, at http://www.mms.gov/itd/pubs/2001/2001-067.pdf (last visited Aug. 26, 2008).
[253] Liberty LNG Draft Environmental Impact Statement, Appendix E, page 25
[254] LNG: An UnAmerican Source – page 42
[255] About the Port, Port of New York and New Jersey, available at http://www.panynj.gov/port/about-port.html (last visited March 16, 2015).
[256] Ibid.

purports that "the Port of New York and New Jersey would not experience direct impacts from the construction of the proposed Project."[257]

During the construction phase of Port Ambrose, the DEIS points out that "existing vessel traffic patterns would be temporarily affected from installation of the proposed Mainline, which would cross through the Ambrose to Nantucket Traffic Lane and the Hudson Canyon to Ambrose Traffic Lane,"[258] but continues to purport that there will be little to no impacts on the Port of New York and New Jersey.

During operation of Port Ambrose, the DEIS states that "[o]utside of these areas [Safety Zones], the proposed Project would not impact offshore transportation when not in use."[259] Additional details are needed to determine how often the Port will not be in use, especially since it expects 45 deliveries of LNG per year.[260]

The Port Authority of NY and NJ expressed their concern about the conflicts associated with Port Ambrose to the Federal Docket on July 29, 2013, stating that the "proposed location of the STL Buoys lies between two major Traffic Separation Schemes utilized by marine traffic entering and exiting the Ambrose Channel and the Port of New York and New Jersey."[261] The Port Authority additionally mentions "[t]he potential for conflicts between the needs of the maritime community and those of Port Ambrose Deepwater Port will become even more pronounced over time as ocean going vessels increase in size, mass and number, or as the number of STL Buoys increase."[262] Since the DEIS has shown that there will be an increase in the number of vessels as it relates to construction, operation and decommissioning of Port Ambrose, the concerns that the Port Authority mentions, are affirmed.

B. Commercial and Recreational Fishing Vessels. The proposed site is located approximately 10 nautical miles from the following commercial fishing grounds: Cholera Bank, Middle Ground, Angler Bank, Mussel Ridge, Atlantic Beach Reef and Hampstead Town Reef.[263] The impacts associated with the construction of Port Ambrose, according to the DEIS, are expected to be "short term, localized, and minor" as it relates to ocean uses, recreation and visual resources.[264] Commercial and recreational vessels, however, would experience "displacement of fishing activities in the proposed Project area" since they will be excluded from the construction area during the construction period.[265] While although the DEIS purports that the impacts seen by commercial and recreational fishing will be negligible, they fail to recognize the timeframe of construction. The overall timeframe of construction activities is unclear within the DEIS. At some points, a nine month[266] timeline is proposed whereas at other times, twelve months[267] is mentioned. If the latter is the case, a greater impact on commercial and recreational fishing will result in a greater loss of crop yield for that given year. The DEIS must

[257] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-107
[258] Ibid.
[259] Ibid. at 4-108
[260] Ibid.
[261] Port Authority of New York & New Jersey, Liberty Deepwater Port Docket # USCG-2013-0363-0334
[262] Ibid.
[263] Liberty LNG Draft Environmental Impact Statement, Appendix N, 15
[264] Ibid., Section 4 at 4-106
[265] Ibid. at 4-107
[266] Ibid. at 4-1
[267] Ibid., Appendix I, 1-2

clarify the timeframe of construction and include the losses experienced by the commercial and recreational fishing industries if the twelve month[268] timeframe is chosen.

Additionally, during the normal operations of Port Ambrose, enforcement of the NAAs surrounding the Port facilities will displace fishing activities. The DEIS assumes that the impacts as they relate to the NAAs would be "minor,"[269] yet provides no independent assessment to validate the conclusion. This industry is still suffering from their losses from Superstorm Sandy. In a resolution calling for more federal funding for fishery disaster relief, the New Jersey Assembly stated:

> *"Hurricane Sandy had caused an estimated $77,802,318 to $120,603,234 in uninsured losses to New Jersey's fishing industries, and an estimated $76,599,149 in uninsured losses to New York's fishing industries … [estimates which] account only for physical damages suffered by fishing industries, and do not account for income lost by the recreational or commercial fishing industries during the time period immediately following Hurricane Sandy."*[270]

In New York, for Superstorm Sandy, "[d]amages to the recreational fishing sector totaled $58 million ($36 million, marinas; $17 million, for hire; $5 million, bait and tackle shops) while damages to the commercial fishing sector totaled $19 million ($9 million, seafood dealers; $5 million federally-permitted commercial fishermen; and $5 million, seafood processors)."[271]

In New Jersey, losses to the "recreational fishing sector exceeded $62 million, with losses including $30 million to marinas and operations co-located and affiliated with the marina; $16 million to bait and tackle shops; and $16 million to for-hire operations" while "damages to the commercial fishing sector included $11 million to seafood dealers; $3 million to federally-permitted commercial fishermen, and $100,000 to seafood processors."[272]

In comments submitted to the Federal Docket on February 12, 2015 in response to the DEIS for Port Ambrose, James Lovgren, President of the Fishermens Dock Co-operative of Point Pleasant NJ, described the devastating impacts threatened by the proposed project: "the fishing industry will suffer severe and maybe even catastrophic consequences from the construction, operation and any 'accidents' that take place at Port Ambrose, or its pipeline. New Jersey's commercial fishing industry contributes over a billion dollars a year to our economy and feeds millions of people with one of the healthiest foods on the earth."[273]

The commercial and recreational fishing industries cannot afford another loss. Port Ambrose would do just that. It is imperative that a *true No Action Alternative* be chosen so as not to compound the losses seen by this industry as a result of Superstorm Sandy.

C. Other Commercial Users. The commercial and recreational fishing industries are not the only ones that would be impacted by the construction, operation and decommissioning of Port

---

[268] Ibid.
[269] Ibid., Section 4 at 4-108
[270] NJ Legislature; Resolution AR178/SR110. Available at http://www.njleg.state.nj.us/2012/Bills/AR/178_I1.HTM (last visited August 1, 2013).
[271] Sandy Report, *supra*.
[272] Ibid.
[273] Fishermen's Dock Cooperative, Liberty Deepwater Port Docket # USCG-2013-0363-1384

Ambrose. For example, American Princess Cruises, which is known to cross the Project area, will be forced to re-route. Based on the 2014 calendar for this cruise line, they have events all year round.[274]

Other wildlife viewing businesses will also be impacted by Port Ambrose, though the DEIS suggests that they will only experience "short-term, minor impacts from increased vessel traffic in the proposed Project area during construction of the proposed Project."[275] Further information is needed about the impacts associated with operation of the Port, specifically increased vessel traffic, on these industries. These industries, which are a foundation of the NY/NJ coastal economies, will be expected to amend their businesses due to the construction, operation, and decommissioning of Port Ambrose. Additionally, adequate assessment on impacts to air traffic was not considered in the DEIS.

D. Conclusions Regarding Other Uses and Resources. Whatever nominal gross benefit the proposal project represents, if any, it is clear that it has no net economic benefit to the region given the existing (and competing) uses of the subject area. Moreover, the inherent risk of a catastrophic accident puts these economically significant uses in jeopardy of closure. The NY/NJ Region should not be asked to undertake such a risk for such a nominal alleged benefit.

4.8 Socioeconomics.

Note: In addition to the specific comments regarding Socioeconomics set forth in Section 3.8 above, we submit these comments.

Comment 1. Commercial Fisheries, Recreational Fisheries, and Marine Based Tourism and Recreation.

Page 4-116: "Impacts on commercial fishing from the proposed Mainline and Port facilities construction would be short-term, minor, direct, and adverse. Disturbance of the seafloor and creation of noise from proposed Mainline trenching and installation and placement of the STL Buoys would result in short-term displacement of fish, followed by rapid recolonization. Most commercial fish species would avoid the construction areas; however, relocation of species would be reversible."

Page 4-117: "A majority of recreational fishing is done nearshore, where the installation of the proposed Mainline would have a minimal impact. Impacts on recreational fisheries performed farther offshore would be similar to impacts on commercial fisheries. Impacts include short-term displacement of fish due to seafloor and noise disturbance in the work area during construction. Recreational fishing opportunities are not concentrated in the vicinity of the proposed Project, and as construction activities would progress along the proposed Mainline route, any impacts would be localized, short-term, and minor."

Page 4-117: "Increased vessel traffic traversing to and from the proposed Project during construction would result in short-term, minor, direct, and adverse impacts on marine-based tourism and recreation, including boating, scuba diving, and wildlife watching."

The DEIS does not include an economic impacts analysis of these impacts to substantiate the conclusion that this range of impacts would be "minor". Given the economic significance of both of these industries,

[274] American Princess Cruises, available at http://www.americanprincesscruises.com/dolphin_whale_watching.htm (last visited March 16, 2015).
[275] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-112

as outlined in Section 3.8 of the DEIS, and in order to garner a better idea of how short term impacts would affect these industries, the DEIS should include a breakdown of economic losses, including impacts to employment and wages, for the anticipated construction phase as well as economic impacts during the operation and decommission phases.

4.10 Air Quality.

A. Air Pollution Generally. In addition to the CO_2 emissions and impacts, other significant pollutants are emitted from the terminals, tankers, and the numerous support vessels needed for construction and operations, negatively impacting air and water quality. LNG ports burn fossil fuels for energy and emit many air pollutants including: particulate matter, methane, nitrogen oxides (NO_x), sulfur oxides (SO_x), volatile organic compounds (VOCs), and other toxins.[276,277] Construction of LNG facilities and installation of pipelines are energy intensive and require significant vessel activity and transport. All of this results in widespread air pollution.

On-site tanker activities and long transit distances emit extensive pollution. Indeed, "[l]arge vessels are among the fastest-growing sources of air pollution" and a "single ship coming into harbor can generate the smog-forming emissions of 350,000 new cars."[278] "[F]oreign-registered ships – the majority of commercial ships – do not operate under any EPA emissions standards while in U.S. waters,"[279] and no LNG tankers are U.S. flagged.[280] "Ships are the last major sulfur dioxide (SO_2) source category that burns high sulfur fuels in New Jersey."[281] "Researchers report that international shipping emissions could be responsible for more than 60,000 deaths a year."[282] Factors contributing to the premature mortalities include "exposure to particulate matter, nitrogen oxides (NO*x*), and sulfate in global ship emissions."[283] In the same way that LNG results in greater CO_2 emissions, the liquefication, shipping, and regasification stages of LNG results in far greater emissions of other pollutants than from domestic natural gas consumption. A study by Carnegie Mellon researchers on lifecycle emissions from LNG states that "[f]or SO_x and NO_x we find there are significant emissions in the upstream stages of the NG/LNG life-cycles, which contribute to a larger range in SO_x and NO_x emissions for NG/LNG than for coal."[284] Significant NO_x emissions particularly come from LNG liquefication plants.[285] The LNG lifecycle can result in NO_x

[276] Crown Landing Final Environmental Impact Statement, Federal Energy Regulatory Commission, Docket Nos. CP04-411-000, *et al*., p. 3-4 (Apr. 26, 2006).
[277] Statement by Lisa P. Jackson, Commissioner, New Jersey Department of Environmental Protection, Before the United States Senate Committee on Environment And Public Works On S.1499, the Marine Vessel Emissions Reduction Act of 2007, (Feb. 14, 2008).
[278] Gregory Richards, *Ships are an increasing source of air pollution*, The Virginian-Pilot, Nov. 2, 2007.
[279] Ibid.
[280] A message from Maritime Administrator Sean T. Connaughton, Deepwater Port Licensing for LNG and Oil, U.S. Maritime Administration, July, 2008.
[281] Statement by Lisa P. Jackson, Commissioner, New Jersey Department of Environmental Protection, Before the United States Senate Committee on Environment And Public Works On S.1499, the Marine Vessel Emissions Reduction Act of 2007, Feb. 14, 2008.
[282] Death from Shipping, *Environmental Science & Technology,* 2007, 41 (24) p. 8206.
[283] Ibid.
[284] Paulina Jaramillo, W. Michael Griffin, and H. Scott Matthews, Comparative Life-Cycle Air Emissions of Coal, Domestic Natural Gas, LNG, and SNG for Electricity Generation, *Environmental Science & Technology*, 2007, 41, p. 6290.
[285] Ibid., p. 6294.

emissions of up to 15.4 pounds (lb) per megawatt hour (MWh), while it is only 9.69 lb/MWh for the lifecycle of coal.[286]

While the DEIS evaluates the impact of these emissions on the attainment of air quality standards at the project site, the DEIS is deficient because it contains no recognition or analysis of the impact of such emissions upon (1) onshore areas and (2) water quality, as further discussed below.

(1) Onshore Air Pollution. The DEIS does not give adequate consideration to the impact of onshore air pollution from the proposal project. As the New Jersey Department of Environmental Protection has recognized:

> *"SO_2 and oxides of nitrogen (NO_x), and the particles formed from SO_2, and NO_x, as well as direct emissions of fine particles, can be transported over long distances and deposited far from their point of origin, contributing to air quality problems far beyond the areas where they were emitted. Emissions from sources in the New Jersey – New York Metropolitan area are blown by the winds along the coast many miles, impacting [Long Island, Connecticut], Rhode Island, Massachusetts and beyond."*[287]

Therefore, placing LNG terminals and their tanker traffic offshore will simply relocate onshore air pollution problems, not eliminate them. Given the variability in wind directions, LNG facility emissions in the NY Bight would also be blown toward the Jersey Shore by northeast winds.

(2) Air Pollution Impacts on Water Quality. The DEIS fails to adequate consider air pollution impacts on water quality due to the proposed project. Air pollution from natural gas combustion negatively impacts water quality. Because LNG facilities are often in coastal waters that are already polluted by excess nitrogen, increased NO_x emissions can exacerbate the frequency of massive algal blooms and detrimental low dissolved oxygen conditions.[288, 289] Indeed, the NY Bight is already experiencing such harms. Adding more NO_x is contrary to current efforts to reduce nitrogen loading.[290] Existing NO_x emissions from combustion of natural gas and other fossil fuels significantly contributes to eutrophication of coastal waters worldwide, and these emissions are expected to increase in the future.[291] NO_x and SO_x emissions are also of concern as they form acids in the atmosphere, which results in acid rain.

---

[286] Ibid.

[287] Statement by Lisa P. Jackson, Commissioner, New Jersey Department of Environmental Protection, Before the United States Senate Committee on Environment and Public Works On S.1499, the Marine Vessel Emissions Reduction Act of 2007, Feb. 14, 2008.

[288] Human Alteration of the Nitrogen Cycle: Threats, Benefits and Opportunities, Scope Policy Briefs, No. 4, UNESCO, Apr. 2007, at http://unesdoc.unesco.org/images/0015/001509/150916E.pdf (last visited August. 7, 2008).

[289] H. Pearl, Coastal eutrophication and harmful algal blooms: Importance of atmospheric deposition and groundwater as "new" nitrogen and other nutrient sources, *Limnology and Oceanography*, 1997, 42 (5, part 2) p. 1154-1165.

[290] Action Plan for the New York-New Jersey Harbor Estuary Program, USEPA Harbor Estuary Program, (Draft June 17, 2008), at http://www.harborestuary.org/reports/HEP_Action_Plan-061708.pdf (last visited Aug. 22, 2008).

[291] Galloway, *et al*., Nitrogen cycles: past, present, and future, *Biogeochemistry*, 2004, 70 p.153-226.

B. Greenhouse Gas Impacts on the Environment. Greenhouse gases, such as carbon dioxide, NO_x and methane, are well known to contribute to global warming and climate change.[292, 293, 294] There is a wealth of information on how global warming already has altered the planet and what changes are predicted for the future.[295,296] Impacts range from sea level rise, changes in ocean circulation patterns and rates, increased number and intensities of storms, ocean acidification, and water temperature changes resulting in spatial and temporal shifts in population distributions and dynamics affecting entire ecosystems and their productivity.

In Section 3.11.4, the DEIS contains a discussion of the dangers of greenhouse gases and climate change. The DEIS even recognizes the fact that NYDEC has reported that "key impacts of climate change have already begun in New York and Northeastern United States." And in Section 4.10.7 of the DEIS, it is acknowledged that the proposed project would have significant GHG emissions during both construction and operation. However, rather than analyze the impact of an additional 200,000 tons of GHG emissions into our region, the DEIS downplays its significance by comparing it to personal vehicle emissions. This is an extremely weak analysis and comparison; it wholly ignores the cumulative effect of these climate changing emissions at a time when it is acknowledged that GHG emissions need to be reduced to avoid drastic global consequences. The DEIS is deficient in this regard as well.

4.11 Noise

Note: In addition to the specific comments regarding noise set forth in Section 4.2(B)(2) and 4.3(E) above, we submit these additional comments.

Sound is capable of traveling "five times faster through sea water than through air, and low frequencies can travel hundreds of kilometers with little loss in energy."[297] Sound proliferation is most influenced by "(i) frequency of sound (ii) water depth and (iii) density differences within the water column, which vary primarily with temperature and pressure."[298]

---

[292] *Climate Change 2007: The Physical Science Basis, Fourth Assessment Report, Intergovernmental Panel on Climate Change,* 2007, (S., Solomon *et al*., Eds.). (Cambridge University Press, Cambridge, UK) 996 pp. at http://www.ipcc.ch/ipccreports/ar4-wg1.htm (last visited Aug. 26, 2008).

[293] Health and Environmental Impacts of NO_x, U.S. Environmental Protection Agency, at http://www.epa.gov/airprogm/oar/urbanair/nox/hlth.html (last visited July 23, 2008).

[294] Human Alteration of the Nitrogen Cycle: Threats, Benefits and Opportunities, Scope Policy Briefs, No. 4, UNESCO, Apr. 2007, at http://unesdoc.unesco.org/images/0015/001509/150916E.pdf (last visited August. 7, 2008).

[295] *Climate Change 2007: The Physical Science Basis, Fourth Assessment Report, Intergovernmental Panel on Climate Change,* 2007, (S., Solomon *et al*., Eds.). (Cambridge University Press, Cambridge, UK) 996 pp. at http://www.ipcc.ch/ipccreports/ar4-wg1.htm (last visited Aug. 26, 2008).

[296] Assessment of observed changes and responses in natural and managed systems, C. Rosenzweig, et al., in *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, (M.L. Parry, et al., Eds.), p. 79-131 (Cambridge University Press, Cambridge, UK) at http://www.ipcc.ch/ipccreports/ar4-wg2.htm (last visited Aug. 26, 2008).

[297] Nowacek, Douglas P., *et al*., 2007. Response of cetaceans to anthropogenic noise. Mammal Review 37: 81-115

[298] Ibid.

The DEIS briefly makes mention of the characteristic of sound to travel "about four-and-a-half times in water than air,"[299] but fails to recognize the implications of that characteristic on the sound produced by Port Ambrose. In the light-limited ocean environment, marine mammals depend on sound for survival. From crustaceans to dolphins and whales, the sense of hearing is critical for many species' biological functions. Over 700 fish species produce low frequency, species-specific sounds.[300] Sea turtles, squid, octopus, shrimp, crab, and even coral and fish larvae have been found to respond to sound. In the ocean, hearing and sound are vital to life. Noise pollution can interfere with animal behaviors, including communication, mating, food identification, prey avoidance, and nursing. Noise pollution can also be fatal by injuring hearing and other organs in sea life.

The NY Bight is a heavily congested area that contains both natural and anthropogenic sounds. The natural sources of sound may differ, but the species local to the environment have learned to coexist. Disruption to the natural sources of sound can have a significant impact on biological functions such as inter and intra-species communication, mating, and feeding. Construction and operation of Port Ambrose will provide a constant new source of sound that will be unavoidable for the marine environment.

A. Generally. From the start of construction to the end of the Port's life expectancy, noise will constantly be present at varying degrees. Specifically, "[u]nderwater noise generation is likely to occur during construction and operation phases (including normal operations and routine maintenance), decommissioning and during unplanned events (e.g., unplanned repairs or incidents)."[301]

As stated in the DEIS, "[s]hipping noise is considered to be the dominant source, with the Port located approximately 2.5 km from the closest traffic lane,"[302] but the implications are negated in an another section that states that "[n]oise from LNGRV and Support Vessel movements at Port Ambrose will be of similar magnitude and character to other shipping movements within the NY Bight, and as such the Project vessels should be treated like other vessels."[303] In other words, the addition of vessel numbers in the NY Bight will have little impact; however, the DEIS fails to recognize that there will be an increase in traffic flow and thus an increase in noise.

The DEIS states, "[a]dditional trips made by the support vessel would be within navigation channels and the noise produced would not exceed that of existing vessel traffic."[304] Given the main time of year that Port Ambrose will predominately be used (i.e., peak energy demand periods in the winter and summer), there will be increased noise in an area that is heavily used for migration purposes in the summer. Additionally, any increase in the number of vessels, exceeds the existing vessel traffic and thus exceeds the preexisting noise.

The noise associated with the construction, operation, and decommissioning of Port Ambrose will be compounded by the increase in vessels in the area. All of these sources combined will have a tremendous impact on the marine life of the NY Bight.

---

[299] Liberty LNG Draft Environmental Impact Statement, Appendix M, page 2-1
[300] Luczkovich, Joseph J., Mann, David A., Rountree, Rodney A. 2008. Passive Acoustics as a tool in Fisheries Science. Transactions of the American Fisheries Society 137: 533-541
[301] Liberty LNG Draft Environmental Impact Statement, Appendix M, page 2-2
[302] Ibid., page 2-4
[303] Ibid., page 8-1
[304] Ibid., Section 4 at 4-159

As stated elsewhere, the noise impacts during the construction phrase have not been adequately quantified as the DEIS is inconsistent in its references to the duration of construction activities[305], [306].

(1) Mooring and Anchoring System. The DEIS states, " [c]onstruction of the proposed Project would have insignificant impacts on species of marine mammals, turtles, and fish relative to the "harm" criteria (PTS), as the greatest noise impact of underwater sound (use of driven pilings as a mooring anchoring system) has been removed from the proposed Project scope."[307]

At several points, the DEIS claims that suction pile installations will be utilized instead of driven pilings as a mooring and anchoring system.[308] This 'certainty' is later contradicted within the same document by saying "[i]f suction piles cannot be used during the construction phase of the Project, impact piling may be considered."[309] Even though "[t]his source [driven pilings] of underwater noise was removed from the proposed Project scope and was replaced with suction piling,"[310] other parts of the DEIS (including the next sentence) prove discrepancies that lead the reader to believe that impact driven pilings is not completely off the table, but could be needed depending on the "unlikely event geotechnical conditions preclude use of suction anchors."[311] Noise implications associated with such construction activities must be evaluated in case they are decided to be used.

Even if driven pilings as a mooring anchoring system aren't used, no conclusive evidence is available that suction pile installations won't cause any harm since "[u]nderwater sound measurements of suction pile installations are not available…"[312] Yet, without this data, the DEIS still claims that "…the noise from this method of anchor placement [suction pile installations] would be negligible relative to other construction methods because the only noise source is the suction pump."[313] But, "[s]uction piling noise levels are predicted to exceed the TTS threshold for LF cetaceans within 3.5 km of piling, and the PTS criterion within 130 m of suction piling."[314]

Regardless of the lack of data, the DEIS still claims that "[b]ecause suction piles will be used during construction phase of the project, a low level of risk has been identified for cetaceans, sea turtles, and fishes from sound generated by pile placement. Operational, routine maintenance and decommissioning activities are also expected to have a low level risk to protected fauna because vessel noise is expected to be comparable to that generated by common and existing vessel traffic in the surrounding area and because animals have the ability to move away from the potential sources."[315]

(2) Marine Animals. The Marine Mammal Protection Act describes "'harassment' [as] any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild; or (ii) has the potential to disturb a marine mammal or marine mammal stock

[305] Ibid. at 4-1
[306] Ibid., Appendix I, 1-2
[307] Ibid., Section 4 at 4-159
[308] Ibid. at 4-166
[309] Ibid., Appendix M, page 2-2
[310] Ibid., Section 4 at 4-166
[311] Ibid.
[312] Ibid., Appendix M, page vii
[313] Ibid.
[314] Ibid., page 7-3
[315] Ibid., page viiI

in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, feeding, or shelter."[316] The Marine Mammal Protection Act requires impacts on marine mammal populations to be assessed. However, we lack critical information on populations of endangered and threatened whales and other sea life that will be adversely affected even if these were properly assessed based on available data.

Marine mammals, for example, "use sound in social interactions as well as to forage, to orient, and to respond to predators."[317] Any interference with their behavior and/or hearing could have drastic consequences on the continuation of species. "When observable reactions do occur, they may include orientation or attraction to a sound source; increased alertness; modification of characteristics of their own sounds; cessation of feeding or social interaction; alteration of movement/diving behavior; temporary or permanent habitat abandonment; and, in severe cases, panic, flight, stampede, or stranding, sometimes resulting in injury or death."[318]

Noise exposure is capable of significantly impacting a species physiological effects (i.e. non-auditory structures), whether directly or indirectly.[319] An animal's exposure history "with a particular sound affects whether it is subsequently less likely (habitation) or more likely (sensitization) to respond to a stimulus such as sound exposure."[320] Significantly, a liquefied natural gas port would be new to the NY Bight. The installation and construction of Port Ambrose would create a new wave of sounds that the marine species in the NY Bight have not grown accustomed. Thus, their "exposure history" would be significant.[321]

Liberty LNG's DEIS states that there will be no long-term effects on the biological resources of the NY Bight. Closer examination of the DEIS proves otherwise. The National Marine Fisheries Services (NMFS) has recognized construction and operation data deficiencies of noise impacts to sea turtles, Atlantic sturgeon marine mammals, and other invertebrates.[322] These deficiencies are still evident based on the lack of available data. The DEIS fails to recognize that "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."[323] Such changes could have drastic consequences on survival of the species, yet the DEIS claims that there will be little impacts to the marine life in the NY Bight as a result of construction, operation, and decommissioning.

The Liberty LNG application specifically states that the "[e]xisting underwater noise levels in the Project area in the New York Bight are expected to be higher than ambient natural conditions due to vessel traffic (both recreational and commercial)."[324] Pre-existing conditions of the NY Bight are already above ambient; thus, the addition of noise associated with Port Ambrose will affect the marine life. If pre-existing conditions of the NY Bight are already above ambient, then how will the addition of the noise associated with Port Ambrose not affect the marine life?

---

[316] 16 U.S.C. §1361 (2)(a).
[317] Marine Mammal Noise Exposure Criteria: Initial Scientific Recommendations, European Association for Aquatic Mammals, http://sea-inc.net/assets/pdf/mmnoise_aquaticmammals.pdf (last visited August 8, 2013).
[318] Ibid.
[319] Ibid.
[320] Ibid.
[321] Ibid.
[322] Data Gaps, item #72, Liberty LNG Docket #USCG-2013-0363-0013.
[323] Ibid.
[324] Liberty LNG Application, Volume 2, Report 9, at 9-59.

Behavioral disturbances on marine mammals and invertebrates are of a major concern based on noise impacts associated with the operation and maintenance of Port Ambrose. Examples of behavioral changes that could be directly related to noise impacts include "the abandonment of an important activity (e.g. feeding, nursing) or location in response to some sound, and the repeated abandonment of such vital activities can lead to detrimental consequences for the animal(s) affected."[325] The DEIS purports that "[g]iven the volume of existing traffic in the area, it is expected that any noise attributable to the additional LNG vessels will not be noticed by species tolerant of existing shipping."[326] However, any change in habitat (including noise pollution) can be extremely detrimental to the continuation of a species.

Many species of whales, for example, are known to transit the area at various points throughout the year, specifically, fin whales, humpback whales, and the North Atlantic right whale.[327] Combined, these species transit the project area during the winter, spring, summer and fall.[328, 329, 330] There is no good time for Port Ambrose.

Even with the above data, the DEIS purports that little harm will result from construction, operation and decommissioning of the port: "[a]lthough species abundance varies by season in the Project area the likelihood of "harm" (PTS) or "harassment" (TTS) from the Project to individuals or species due to underwater sound is Rare to Unlikely because of the transient and seasonal nature of the species moving through the Project area, and the ability of animals to move away from sound sources."[331] Why should these species have to change their course in their habitat to move away from an anthropogenic sound?

(3) Lack of Available Data on Noise Impacts

The DEIS is not able to adequately anticipate the impacts of noise on marine life because there is a lack of available data, specifically, when it relates to fish species and turtles. The DEIS mentions that "[r]esearch studies and/or acoustic guidance or regulations related to fish and underwater sound is lacking."[332] Additionally, "[t]here are no published underwater noise criteria for turtles in U.S. waters."[333]

Similar to construction activities, operation of the port will add new noise sources to the NY Bight. How those new noise sources will impact biological resources, such as fish species, has yet to be quantified: "[h]earing capabilities of fish have been studied in less than 0.01 percent of fish species."[334] Noise impacts on fish are highly variable, but "[p]otential impacts of continuous sounds on marine fish include temporary threshold shifts(TTS), physiological stress response, and behavioral response (e.g., startle, alarm, avoidance), physiological damage to hearing structures, or in more severe instances,

[325] Nowacek, Douglas P., *et al*., 2007.Response of cetaceans to anthropogenic noise. Mammal Review 37: 81-115
[326] Liberty LNG Application, Volume 2, Report 9, at 4-68.
[327] Liberty LNG Draft Environmental Impact Statement, Appendix M, page 4-1
[328] Ibid.
[329] Ibid., page 4-6
[330] Ibid., page 4-7
[331] Ibid., page 7-2
[332] Ibid., page 3-2
[333] Ibid., page 5-3
[334] Ibid., Section 4 at 4-28

hemorrhaging in the body cavity (permanent threshold shift or PTS)."[335] Specifically, data is needed for Atlantic sturgeon because there is "no data on behavioral shifts in Atlantic sturgeon due to noise from similar construction activity exists…"[336] Since there is no data, "harassment distance for Atlantic sturgeon is not estimated in this report."[337]

More data is needed in order to make the assumption "…most adult fish would leave the construction area temporarily because of in-water disturbances, and the distance between the fish and the noise source would increase, thereby minimizing the change of injury."[338]

The NY Bight is ecologically significant for sea turtles, of which all species are endangered. A small amount of data is available for turtles and their use of hearing. For example, there is "[n]o information on Kemp's ridley sea turtle [the most endangered sea turtle] or leatherback sea turtle hearing."[339] It is hypothesized that "turtles likely use sound for navigation, location of predators/prey, and environmental awareness."[340]

It is a gross failure of the DEIS to assume that the turtle population will not be impacted by the noise associated with Port Ambrose when there is little data to support it.

Additionally, the DEIS references NOAA's *Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammals* when discussing noise impacts. This document is in its draft phase and will be released once it has been peer reviewed and public comments incorporated.[341] These guidelines will provide "acoustic threshold levels for onset of permanent threshold shift (PTS) and temporary threshold shifts (TTS) for all sound sources."[342] The data to be provided by this document should be an integral component of the review of noise impacts. Until this is released, the DEIS is incomplete.

Since there is a lack of available data, the DEIS cannot adequately assume that no marine life will be harmed as a result of Port Ambrose. It is imperative that a *true No Action Alternative* be selected.

B. Impacts of Construction (DEIS Section 4.11.2)

The DEIS purports that "[a]ll sound sources from the construction phase of the Project are considered to have a Minor impact to species of marine mammals, turtles, and fish"[343] and that "[t]he radiation of sound to marine waters during the construction phase of this Project will be within the immediate vicinity of the Project and effects are expected to be temporary, hence "harassment" (TTS) for all species are ranked as Negligible to Minor."[344] But sound is capable of traveling "five times faster through

[335] Ibid.
[336] Ibid., Appendix M, page 5-3
[337] Ibid., page 5-3
[338] Ibid., Section 4 at 4-29
[339] Ibid., Appendix M, page 5-3
[340] Ibid.
[341] NOAA's Marine Mammal Acoustic Guidance, NOAA Fisheries, available at http://www.nmfs.noaa.gov/pr/acoustics/guidelines.htm (last visited March 16, 2015).
[342] Ibid.
[343] Liberty LNG Draft Environmental Impact Statement, Appendix M, page 7-2
[344] Ibid.

sea water than through air, and low frequencies can travel hundreds of kilometers with little loss in energy."[345]

Noise associated with various construction activities will harm the marine species of the NY Bight. For example:

- **Blasting and pile driving**: "The pressure pulses generated by high energy noise sources, such as blasting and pile driving of large diameter piles, can cause the swim bladder of fish to rupture or tear. This generally occurs in the immediate vicinity of the source where the pressure rises and reduces quickly to its positive and negative peak pressure level. The sudden increase and decrease in pressure level causes gas oscillations that can rupture or tear the swim bladder."[346]

- **Installation of the lateral pipeline:** "Installation of the lateral pipeline will produce noise levels that are predicted to exceed the PTS criterion for LF cetaceans within 250 m."[347]

Since sound can travel hundreds of kilometers, the radiation of sound in the marine waters will be compounded by the ability of noise to travel farther through water. Thus, it is imperative that a *true No Action Alternative* is selected so as not to cause potential harm to marine life in the immediate vicinity and those further away.

Additionally the overall timeframe of construction activities is unclear within the DEIS. At some points, a nine month timeline[348] is proposed whereas at other times, twelve months[349] is mentioned. The two month discrepancy would allow for greater water quality impacts. The assessments of impacts are, in part, dependent the length and time of year of the activity.

C. Impacts of Operation (DEIS Section 4.11.3)

The DEIS claims that "[t]he radiation of sound to marine waters during operations is expected to be short-term,"[350] but ignores the consistency of noise that will result with the operation of the Port. "The proposed Port would be operational all year long; however, LNGRV and regasification activities would predominately occur during winter during the peak of the heating season."[351] Yet this ignores earlier statements of increased activities during the summer months as well. Regardless, the DEIS claims that "…all sound sources are considered to have minor consequences to species of marine mammals, sea turtles, and fish relative to harm criteria (PTS)."[352]

During normal, operational periods, "[u]nderwater noise is anticipated to be produced by the LNGRVs during the approach, mooring, maneuvering on the buoy and regasification procedures."[353] "The highest-energy source of underwater sound during the operation phase would be from vessel transits

[345] Nowacek, Douglas P., *et al*., 2007. Response of cetaceans to anthropogenic noise. Mammal Review 37: 81-115
[346] Liberty LNG Draft Environmental Impact Statement, Appendix M, page 5-5
[347] Ibid., page 7-3
[348] Ibid., Section 4 at 4-1
[349] Ibid., Appendix I, 1-2
[350] Ibid., Section 4 at 4-166
[351] Ibid. at 4-162
[352] Ibid. at 4-166
[353] Ibid. at 4-162

near the proposed Port and from mooring activities,"[354] but earlier excerpts from the DEIS state that these vessel transits will not exceed existing vessel noise. Consistency within the DEIS is lacking.

D. Impacts of Decommissioning (DEIS Section 4.11.4)/Repairs. The DEIS states, "[u]nderwater sound generated from planned maintenance, decommissioning and unplanned events would be similar to those from the construction and operation phases of the proposed Project and as such **were not modelled** as unique sound sources."[355] However, "[m]ajor repairs to the proposed Project would likely generate additional underwater sound in the area. During repair of the proposed Project, underwater sound levels would be temporarily elevated…These types of repairs could take up to two to four weeks."[356] A comparison of other LNG ports of similar make is needed to evaluate the consistency and type of repairs. All potential sound sources should have been modeled in the DEIS.

E. Mitigation and Monitoring (DEIS Section 4.11.6). The DEIS outlines mitigation procedures as it relates to noise impacts. Mitigation measures assume that all marine animals can be seen at all times of potential impacts[357], but other data suggests that marine mammals stay underwater much longer than originally expected and thus might not be seen at the appropriate times.

Additionally, "…visual observations would occur continuously during daylight hours to monitor for sea turtles and whales in the area…If pile driving commences during daylight hours, pile driving may continue into nighttime hours provided that there has been no interruption in activity. However, pile driving would not be mitigated during nighttime hours when visual clearance of the zone cannot be conducted."[358] This notion that the lack of visual presence of turtles and whales during the day means a lack of presence of such creatures at night is erroneous. Most species of turtles are nocturnal, and therefore are more likely to be present during nighttime hours. In addition, whales are not strictly diurnal creatures, some species have been documented to communicate and hunt during the night. Allowing piling activity during times when the presence of such animals cannot be confirmed by visual observation presents an unacceptable risk that the DEIS fails to consider.

F. Conclusions Regarding Noise. As stated previously, disruption to the natural sources of sound can have a significant impact on biological functions such as inter and intra-species communication, mating, and feeding. Liberty specifically states in its application "man-made sounds…are relatively new and have the potential to disturb behavior and interfere with important biological functions."[359] The Liberty LNG application does not adequately analyze the impacts of noise pollution on marine life in the NY Bight. Construction, maintenance, and repair represent times at which marine life will be exposed to potentially detrimental noises. Construction and operation of Port Ambrose will provide a constant new source of sound that will be unavoidable in the marine environment. As NMFS has pointed out "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."[360]

[354] Ibid.
[355] Ibid. at 4-166
[356] Ibid.
[357] Ibid. at 4-169
[358] Ibid. at 4-169 to 4-170
[359] Liberty LNG Application, Volume 2, Report 4, at 4-62.
[360] Data Gaps, item# 72, Liberty LNG Docket # USCG-2013-0363-0013.

Nevertheless (and once again), the DEIS dismisses serious risks due to environmental factors that are not adequately understood. On the issue of noise, the DEIS concludes, "[b]ecause the behavioral response of marine mammals to a perceived marine sound depends on a range of factors…it is more difficult to predict behavioral shifts to anthropogenic sounds," [361] and classifies any such noise impacts as "minor." A conclusion based upon a blind assumption is without merit, and accordingly, the DEIS is deficient with respect to its analysis of noise impacts.

5.0 <u>SAFETY</u>.

A. The Inherent Hazards of LNG

LNG "is more than just a potential weapon of mass destruction in the right locale. It also offers terrorists an awesome economic target wherever in the world it can be found--even on the high seas."[362]

Due to LNG having a volume 620 times smaller than in its natural gaseous state,[363] LNG represents highly compressed energy. As a result, "[t]he energy content of a single standard LNG tanker (one hundred twenty-five thousand cubic meters) is equivalent to seven-tenths of a megaton of TNT, or about fifty-five Hiroshima bombs."[364] While the energy content might not be released at the same rate and in the same format as a Hiroshima bomb, not enough is known as to the full-scale results of a large LNG release.

"Impact estimates for LNG tanker attacks are largely based on engineering models, however, each with its own input assumptions–so it is difficult to assert definitively how dangerous a real attack would be."[365] In citing LNG ports, researchers rely primarily on modeling reports, which can vary largely. [366] But researchers have found the threats to be real.

A Congressional Research Service Report for Congress found that LNG "is a hazardous fuel,"[367] "poses a serious hazard of explosion or fire,"[368] and "can be vulnerable to terrorist attack." [369] The Congressional Report also discusses the various hazards that LNG terminals pose, including what follows.

---

[361] Liberty LNG Draft Environmental Impact Statement, Section 4 at 4-66

[362] Lieutenant Commander Cindy Hurst, Is Liquefied Natural Gas an Economic Target?, Spero News (adapted from a report for the Institute for the Analysis of Global Security and a contributor to The Cutting Edge News), June 30, 2008, at http://www.speroforum.com/site/article.asp?id=15596 (last visited March 16, 2015).

[363] Amory Lovins and L. Hunter Lovins, Brittle Power (Jack Howell ed., Brick House Publishing Co. 1982) (1982), p. 87.

[364] Ibid., p. 88.

[365] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-12.

[366] Government Accountability Office, Report to Congressional Requesters, Maritime Security, *Public Safety Consequences of a Terrorist Attack on a Tanker Carrying Liquefied Natural Gas Need Clarification*, GAO-07-316, Feb. 2007, p. 2 of 45.

[367] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, Summary.

[368] Ibid., p. CR-8.

[369] Ibid.

First, there are the threats of pool fires that would spread and burn "far more hotly and rapidly than oil or gasoline fires. They cannot be extinguished–all the LNG must be consumed before they go out. Because LNG pool fires are so hot, their thermal radiation may injure people and damage property a considerable distance from the fire itself. Many experts agree that a pool fire, especially on water due to thermal effects, is the most serious LNG hazard."[370] According to a Coast Guard review of the proposed Calypso LNG port offshore Florida, "[i]n the worst-case scenario, with tanks breached and the pooled gas catching fire, the blaze could kill people half a mile a way and cause second-degree burns at 1.6 miles, according to the review. If the leaked gas vaporized, the flammable cloud could extend 3.7 miles from the leak."[371]

Second, there are flammable vapor clouds that result if an LNG spill does not immediately ignite as in a pool fire. A vapor cloud "would not likely explode all at once, but the fire could still cause considerable damage. An LNG vapor cloud fire would gradually burn its way back to the LNG spill where the vapors originated and would continue to burn as a pool fire."[372] One government study put the hazard range for a vapor cloud up to more than one and a half miles.[373] Researchers from a Pentagon commissioned study found that a gas cloud "might extend at least three miles downwind from a large tanker spill within ten to twenty minutes. It might ultimately reach much farther – perhaps six to twelve miles. If not ignited, the gas is asphyxiating. If ignited, it will burn to completion with a turbulent diffusion flame reminiscent of the 1937 *Hindenberg* disaster but about a hundred times as big. Such a fireball would burn everything within it, and by its radiant heat would cause third-degree burns and start fires a mile or two away."[374] "[A] single cubic meter of spilled LNG can make up to twelve thousand four hundred cubic meters of flammable gas-air mixture."[375] An LNG tanker holding 125,000 cubic feet of LNG "can form between about twenty and fifty billion cubic feet of flammable gas-air mixture."[376]

A vapor cloud explosion at an LNG liquefaction plant in Algeria, which killed 27 people and injured dozens, took eight hours to extinguish. According to scientific studies, including one by Sandia National Laboratories in New Mexico, the radiated heat from an ignited vapor cloud "could burn skin on those outside up to a mile away."[377] "Jerry Havens, a professor of chemical engineering at the University of Arkansas, said the Federal Energy Regulatory Commission…[has] misused two models he devised to calculate how far a vapor cloud would travel should LNG spill from an import terminal. He also said the

---

[370] Ibid.
[371] David Fleshler, *Floating gas plant proposal off Fort Lauderdale 'crazy idea'*, South Florida Sun-Sentinel, May 17, 2008.
[372] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-8-9.
[373] Mike Hightower, *et al.*, *Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water*, Sandia Report, Sandia National Laboratories, SAND2004-6258, Dec. 2004, p. 15.
[374] Amory Lovins and L. Hunter Lovins, Brittle Power (Jack Howell ed., Brick House Publishing Co. 1982) (1982), p. 88.
[375] Ibid.
[376] Ibid.
[377] Armen Keteyian and Phil Hirschkorn, *Safety Concerns Tie Up LNG Development*, CBS News, Oct. 27, 2007, at http://www.cbsnews.com/stories/2007/10/27/cbsnews_investigates/main3419576.shtml?source=search_story (last visited March 16, 2015).

data FERC has used assumes a relatively small spill, which skews projections for how far vapor rising off leaking LNG could spread."[378]

Third, there is the potential for flameless explosions that could result from LNG spills on water. Known as a "rapid phase transition," LNG could heat up and regasify almost instantly in a "flameless explosion."[379]

Other threats include vapor clouds causing asphyxiation by displacing breathable air, as well as cryogenic injuries and equipment damage.[380] Cryogenic injuries are less of a threat "as a major spill would likely result in a more serious fire."[381]

Historically, one frequently cited accident was the shattering of an LNG storage tank in Cleveland, Ohio in 1944. While this is an old accident, it provides insight into the potential scale for an LNG accident. When the storage tank shattered, "LNG spilled over the containment dikes, into the streets, and into the sewer system, where it vaporized and ignited. A large area of Cleveland was destroyed, and 133 people died."[382] "The subsequent explosion shot flames more than half a mile into the air. The temperature in some areas reached three thousand degrees Fahrenheit."[383] That incident involved a small storage tank with a capacity of only 5,000 cubic meters.[384] A modern-size storage tank is 160,000 cubic meters.[385] The Atlantic Sea Island Group island terminal proposed off New York and New Jersey would have four 180,000 cubic meter storage tanks for a total of 720,000 cubic meters.[386] Exxon, another company proposing an LNG terminal off New Jersey, has ordered the world's largest LNG tanker, which has 266,000 cubic meters of capacity.[387] That is over fifty times larger than the storage tank in Cleveland.

B. Safety Reviews

The DEIS states that "[t]he addition of the proposed Project would minimally increase the safety and hazardous risk in the region. Any incident occurring at the proposed Project would rely on emergency procedures outlined in the Deepwater Port Operations Manual."[388] The DEIS also maintains that "outcomes and possible safety hazards resulting from an attack on an [LNG Regasification Vessel] are manageable by implementing the current daily safety standards for unintentional spills." But Section 5 states that operational reviews and approvals that would increase safety will be completed after the

[378] Tony Lystra, *LNG expert: Vapor model misused*, The Daily News, Nov. 10, 2007, at http://tdn.com/business/local/lng-expert-vapor-model-misused/article_4f8726ab-4301-5b6f-8680-cd3ca9421969.html (last visited March 16, 2015).
[379] CRS Report for Congress, *Liquefied Natural Gas (LNG) Infrastructure Security: Background and Issues for Congress*, Congressional Research Service, The Library of Congress, Order Code RL 32073, Sep. 9, 2003, p. CR-9.
[380] Ibid., p. CR-9.
[381] Ibid.
[382] Theo van de Kletersteeg, *LNG: Birth of a New Industry*, Canadian Sailings, June 23, 2008.
[383] Amory Lovins and L. Hunter Lovins, Brittle Power (Jack Howell ed., Brick House Publishing Co. 1982) (1982), p. 89.
[384] Theo van de Kletersteeg, *LNG: Birth of a New Industry*, Canadian Sailings, June 23, 2008.
[385] Ibid.
[386] Terminal Design Specifications, Safe Harbor Energy, Atlantic Sea Island Group, at http://www.atlanticseaislandgroup.com/terminal_design_specifications.shtml (last visited March 16, 2015).
[387] Jeff Florian, Exxon to get world's biggest LNG tanker, AME Info, July 8, 2008, at http://www.ameinfo.com/162819.html (last visited July 20, 2008).
[388] Liberty LNG Port Ambrose, Draft Environmental Impact Statement, Section 6, page 6-15

application is approved, not before.[389]

It is not clear how a plan to deal with spills would be able to deal with a terrorist attack. Redacted versions of safety plans regarding Emergency Response, Mitigation, and Vessel Security should be available for the public to evaluate whether Liberty Natural Gas and the Coast Guard will be able to provide an adequate level of protection under extreme circumstances. Operational reviews and approvals related to safety should occur before, not after, approval of the Port Ambrose application.

C. Coast Guard Capacity

Originally submitted in December, 2010, plans for the Liberty LNG "Liberty Deepwater Port" were quickly derailed by a veto letter submitted to MARAD and the USCG by New Jersey Governor Chris Christie. The Governor's letter, sent in February, 2011, stated that "under my authority as Governor of the State of New Jersey, I hereby disapprove the issuance of a license to Liberty."[390] The Governor's veto was explicitly clear as to why the port "would present unacceptable and substantial risks to the State's residents, natural resources, economy, and security":

> *"…the Liberty project would also present significant security risks to our State through increased demands on the U.S. Coast Guard and our State Homeland Security personnel and first responders. The Liberty project would create a heightened risk in a densely developed region, including potential accidents or sabotage disrupting commerce in the Port of New York and New Jersey."*[391]

Based on these economic, environmental, and security arguments, as well as habitat destruction and exclusion area concerns, the Governor disapproved of the port license, and review of Liberty LNG's initial application was stopped.[392]

This proposal will require significant and costly patrolling activities by the Coast Guard to ensure compliance with exclusion zones and possibly even the Navy and Air Force for protection. Thus, it does not promote "support[ing] ocean stewardship in a fiscally responsible manner" as directed by the NOP Executive Order.[393]

This port, situated in the middle of the shipping lanes leading into and out of the busiest port on the east coast, surrounded by the most densely-populated coastline in the nation, at the gateway of the financial capital of the world, is a clear terrorist target. The agencies charged with policing and protecting the LNG port, according to internal Coast Guard reports and New Jersey Governor Christie, do not have the

---

[389] Liberty LNG Port Ambrose, Draft Environmental Impact Statement, Section 5, page 5-9

[390] New Jersey Governor Chris Christie License Issuance Disapproval Letter, Liberty Deepwater Port Docket # USCG-2010-0993-0038. Note that the USCG, which maintains the docket, titled this letter as the "License Disapproval Letter" – indicating the agency's acceptance of the letter as an official DPA ACS veto letter, despite MARAD's later decision to accord this veto "no legal significance" (see MARAD Veto Letter, *infra*).

[391] Ibid.

[392] Note that these concerns are all still issues for Liberty LNG's Port Ambrose proposal – reliance on foreign fossil fuels, strain on first responders and national security personnel, direct competition for renewable energy investment, exclusion areas, impacts on fisheries, and risks to the environment, Port of NY/NJ commerce and shipping, and endangered species, to name a few.

[393] NOP Order, at 3.

capacity. The nature of the facility, and the new World Trade Center Tower-size LNG vessels which will be calling on the port, creates an additional layer of risk – accidentally or intentionally, LNG leaks, explosions, or fires can engulf the ocean for miles around each vessel in flames, shutting down commerce, fisheries, and recreation across an entire swath of the ocean. To put it mildly, this port presents a significant safety and security risk to the people, first responders, commerce, economy, and environment of the Mid Atlantic Ocean.

The DEIS section on safety and security makes no meaningful attempt to analyze the burden this port would generate on the region's already over-burdened security agencies. Placing a possibly highly explosive tanker within this area without concrete plans as to ensure the safety of the millions of people is completely unethical and necessitates further review by the agency that reviews that.

(1) Response Capacity. Liberty LNG broadly assumes that the United States Coast Guard would be capable of patrolling, securing, and protecting the Port Ambrose facility, despite reports from the USCG that conclude the opposite – that the USGS is over-stretched with aging fleets that do not have the existing capacity to protect existing ports, much less new ones.[394] According to GAO testimony on the report "legacy vessels have become increasingly costly to maintain and their degraded condition has negatively affected the Coast Guard's operational capacity to meet mission requirements."[395] Even if the USGS had sufficient financial resources, the agency, according to the GAO, does not possess the speed necessary to fully protect the tanker from small fast boats which could cause the most damage and potential terror threat. In the application, Liberty LNG states several times that it is the responsibility of the USCG to escort the LNG tanker into port, yet no analysis is made as to the costs associated with training, maintaining, and operating a USCG presence for LNG tankers in the NY Bight, or where revenues for those costs will come from. [396]

Shortfalls in Coast Guard (or local first responder) response capacity can impact, among other things, the time it takes for personnel to get to an LNG emergency over 25 miles from the nearest marinas, the ability of those first-on-scene professionals to address emergencies on LNG vessels the size of the new World Trade Center Tower, and the ability to respond to cascading impacts from events such as explosions and pool fires to nearby cargo vessels, fishing vessels, or wind facilities. In order to fully review the proposal, all of the costs, burdens, and constraints of the Port Ambrose proposal must be made available to the people and agencies bearing those burdens.

Under DPA implementing regulations, the "deepwater port proposal and reasonable alternatives will be evaluated on the basis of how well they … [p]ose no compromise to national security."[397] In developing the Final EIS, the USCG must provide an analysis of its current capacity around the Port Ambrose project area, specifically noting the reductions in capacity planned at (or already carried out at) several of the region's USCG bases, as well as the impact of Superstorm Sandy on Coast Guard capacity. Without this

[394] U.S. GAO - Coast Guard: Legacy Vessels' Declining Conditions Reinforce Need for More Realistic Operational Targets [Reissued on August 30, 2012] (hereafter "USCG GAO Report"). US Government Accountability Office, July 2012. Available at http://www.gao.gov/assets/600/593163.pdf (last visited August 1, 2013).
[395] Coast Guard Mission Performance Challenged by the Declining Condition and Rising Costs of its Legacy Vessel Fleet. Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of Stephen L. Caldwell, GAO. Available at http://www.gao.gov/assets/650/648657.pdf (last visited August 1, 2013).
[396] Liberty LNG Application, Volume I, Report 10, at 10-4.
[397] 33 C.F.R. 148.735.

information, the public (and the USCG) cannot know the extent to which this port compromises natural security.

Furthermore, the USCG and MARAD must specifically assess the burdens that would be added to local first responders, state-level security, and Port of NY/NJ security. This analysis should clearly describe the status quo of the regional, state, and local capacity, especially given Governor Christie's concern from 2011 that:

> *"the Liberty project would also present significant security risks to our State through increased demands on the U.S. Coast Guard and our State Homeland Security personnel and first responders. The Liberty project would create a heightened risk in a densely developed region, including potential accidents or sabotage disrupting commerce in the Port of New York and New Jersey."*[398]

Additionally, the effect of Liberty LNG on this capacity must be assessed prior to Port licensing, as outlined in the DEIS, in order to understand the full impacts on the United States Coast Guard.[399] The DEIS notes that "much of this activity [Liberty's collaboration with USCG] is completed in the post-licensing phase of the application." This would mean that such concerns will not be fully reviewed during the EIS process, which is unacceptable and inadequate.[400]

6.0 <u>CUMULATIVE IMPACTS</u>.

The DEIS fails to adequately consider analysis of all reasonable foreseeable projects, current projects and past projects in the ROI and proximate to the ROI as per NEPA requirements. Rather, the DEIS only considers aggregated impacts from similar projects to Port Ambrose. Such items that need to be evaluated include additional air emissions, waterway traffic, transportation issues associated with onshore construction and preparation for offshore construction, influx of new residents/employees under socioeconomics, etc.

Prior to the completion of the Final EIS, the applicant must provide a table listing such projects, their quantitative and qualitative impacts as well as a comprehensive methodology that explains why each project was selected. Further, as no staging area(s) have been confirmed, the analysis must include a cumulative analysis for EACH potential staging area discussed throughout the DEIS. In sum, the entire section is inadequate and more information is required.

7.0 <u>COASTAL ZONE CONSISTENCY</u>.

The below signatories' position on federal consistency requirements pursuant to the Coastal Zone Management Act (CZMA) has not substantially changed from our comment letter dated August 22, 2013

[398] New Jersey Governor Chris Christie License Issuance Disapproval Letter, Liberty Deepwater Port Docket # USCG-2010-0993-0038.
[399] Liberty LNG Draft Environmental Impact Statement, Section 4 at 5-9
[400] Ibid.

on Liberty LNG's Port Ambrose Deepwater Port License Application.[401] We maintain that the processing of this application without the DPA-required New Jersey and New York coastal zone consistency certifications is illegal.

According to the Deepwater Port Act (DPA) implementing regulations, an application must contain "a request for each [adjacent coastal state's coastal zone consistency] certification required by section 307 of the Coastal Zone Management Act of 1972."[402] The DPA clearly states that, with respect to deficient applications, the Maritime Administration must "take no further action with respect to the application until such deficiencies have been remedied."[403]

In response to a letter sent to the USCG and MARAD notifying both agencies of this missing application requirement, the USCG sent a response acknowledging the deficiency:

> *"As you note, the requirement for an applicant to submit a consistency certification in accordance with the Coastal Zone Management Act is required by 33 Code of Federal Regulations 148.105(j). ... Despite the fact that Liberty had not prepared its New Jersey consistency certification at the time it submitted its application, the Maritime Administrator determined that the application contained sufficient information to commence processing it."*[404]

In other words, the USCG and MARAD admit that the application is deficient, yet are allowing the processing of the application to continue.

It is unclear whether Liberty has submitted CZMA consistency certifications to either New York or New Jersey. Contradictory statements can be found in the DEIS and the table, "Expanded Port Ambrose Combined Comment Data Request Matrix (hereinafter "Data Gaps") posted to the federal docket. Liberty responded to questions about CZMA federal consistency in the Data Gaps table: "December 20, 2013. Ongoing. Liberty is continuing its effort on an application for a Coastal Zone Consistency determination, which will be submitted to New Jersey upon completion." They later posted this statement: "February 28, 2014. Liberty submitted a draft application for a Coastal Zone Consistency determination to New Jersey DEP on January 10, 2014."[405]

However, the December 9, 2014 DEIS states that, "Liberty has provided a "Draft Statement of Compliance with the New York State Coastal Zone Management Program;" however, a formal submittal to the New York State Department of State has not been made as of the writing of this draft Environmental Impact Statement (EIS). Similarly, a submittal to the New Jersey Department of Environmental Protection (NJDEP) has not been made to date."[406] Incredibly, the DEIS does not advise

---

[401] Clean Ocean Action. Comments on Liberty LNG's Port Ambrose Deepwater Port License Application; Federal Docket #USCG-2013-0363. *Available at* http://www.regulations.gov/#!docketDetail;D=USCG-2013-0363. August 22, 2013.
[402] 33 CFR 148.105(j).
[403] 33 U.S.C. 1504(c)(1).
[404] Response Letter to Clean Ocean Action from U.S. DHS/CG and U.S. DOT/MARAD, Liberty LNG Docket # USCG-2013-0363-0015.
[405] Expanded Port Ambrose Combined Comment Data Request Matrix (hereinafter "Data Gaps"), Page 55. Docket # USCG- 2013-0363-0013.
[406] Draft Environmental Impact Statement for the Port Ambrose Project Deepwater Port Application. Page 7-1. *Available at* http://www.regulations.gov/#!documentDetail;D=USCG-2013-0363-1076. December 9, 2014.

the public that the failure of the application to have these approvals at this point in the process is contrary to its regulations.

CONCLUSION

As described above, the DEIS is procedurally and substantively flawed. Draft EIS is incomplete, inconsistent, contradictory, and misleading about the project details. The DEIS also fails to disclose important and essential details about the applicant, Liberty Natural Gas, who they are and their interests and capacity. Finally, the below signatories find that, based upon the fatally flawed purpose and need for the project, the strong public opposition to LNG imports, including by the Governor of New Jersey, the continued pursuit of this application by federal agencies is to affront the public trust and the purpose of good government.

Sincerely,

Cindy Zipf
Executive Director
Clean Ocean Action

Kyle Gronostajksi
Executive Director
Alliance for a Living Ocean

Tim Dillingham
Executive Director
American Littoral Society

Captain Paul Eidman
Founder/Director
Anglers Conservation Network

Rick Anthony
President
Atlantic Surfing Federation, NY/NJ Chapter

Bellmore Merrick Democratic Club
Bellmore, NY

Karen Feridun
Founder
Berks Gas Truth

Biltmore Shores Civic Association

John Weber
Chair
Bradley Beach Environmental Commission

Daniel Mundy Jr.
President
Broad Channel Civic Association, Jamaica Bay

Bruce Ferguson
Catskill Citizens for Safe Energy

Wes Gillingham
Program Director
Catskill Mountainkeeper

Taffy Williams
Board Member
Cetacean Society International

Joseph Otis Minott, Esq.
Executive Director and Chief Legal Counsel
Clean Air Council

David Pringle
Executive Director
Clean Water Action

Maureen Healy
Co-Coordinator
Coalition Against the Rockaway Pipeline

Coalition of Nassau Civic Associations

Jeremy Samuelson
Executive Director

Concerned Citizens of Montauk

Tom Fagan
Treasurer
CWA Jersey Shore Local 1075 ·

Robert P. Spiegel
Executive Director
Edison Wetlands Association

Anthony Rogers-Wright
Policy and Organizing Director
Environmental Action

Doug O'Malley
Executive Director
Environment New Jersey

James Lovgren
Fishermens Dock Cooperative, Pt. Pleasant

Jim Walsh
Mid-Atlantic Director
Food & Water Watch

Patti Wood
Executive Director
Grassroots Environmental Education

Captain Bill Sheehan
Executive Director
Hackensack Riverkeeper

Harbor Green Civic Association

Michael O'Sullivan
President
Humane Society of Canada

Daniel Mundy Sr.
President
Jamaica Bay Ecowatchers

Paul Haertel
President
Jersey Coast Anglers Association

Ida Sanoff
Executive Director
Natural Resource Protection Agency

Tim Burden
President
New Jersey Beach Buggy Association

Jeff Tittel
Director
New Jersey Sierra Club

Carol Gray
President
New Jersey State Industrial Union Council

Susan B. Elbin, PhD
Director Conservation and Science
New York City Audubon

Norgate Civic Association

North and Central Merrick Civic Association

Northside Civic Association

Taffy Williams
President
NY 4 Whales

Edie Kantrowitz
President
NYC Friends of Clearwater

Old Lindenmere Civic Association

Poets' Corner Neighborhood Association

Gordian Raacke
Executive Director
Renewable Energy Long Island

Clare Donohue
Program Director
Sane Energy Project

Britta Wenzel
Executive Director
Save Barnegat Bay

Seaford Harbor Civic Association

Ann I. Aurelio
Vice Chair
Sierra Club Long Island Group

Richard Lee
Executive Director
Surfers Environmental Alliance

Matt Gove
Mid-Atlantic Policy Manager
Surfrider Foundation

Nick Lynn
Chairperson
Surfrider Foundation, NYC Chapter

Terrace Manor Civic Association

Ling Tsou
United for Action

Susan Golas, csjp
WATERSPIRIT

Wharfside Condominium Association