

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

Broadwater Energy, LLC	)	Docket Nos.:	CP06-54-000
	)		CP06-55-000
Broadwater Pipeline, LLC	)		CP06-56-000

**REQUEST OF BROADWATER ENERGY, LLC AND  
BROADWATER PIPELINE, LLC FOR LEAVE TO FILE  
SUPPLEMENTAL COMMENTS ON THE DRAFT  
ENVIRONMENTAL IMPACT STATEMENT**

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To: The Commission

In accordance with the provisions of Rule 212 of the Commission's Rules of Practice and Procedure, Broadwater Energy, LLC and Broadwater Pipeline, LLC (jointly hereinafter referred to as "Broadwater" or "the Applicants") request leave to file these supplemental comments on the Draft Environmental Impact Statement ("DEIS").

In his letter to Representative Timothy Bishop, Chairman Kelliher indicated that although the Commission did not expect to convene additional public meetings or extend the formal date for comments, the Commission would continue to consider comments even after the initial comment date of January 23, 2007. Broadwater seeks leave to file these comments for the limited purpose of providing information, clarification, and controlling case law, where relevant, on issues over which commenters have voiced concerns. Broadwater's comments will enhance the record upon which the Final Environmental Impact Statement ("FEIS") will be based and, in turn, the Commission's own orders will be more complete.

### Statement of Purpose

On January 23, 2007, Broadwater filed comments on the Commission staff's DEIS. While Broadwater offered some technical suggestions and clarifications to assist with preparation of the FEIS, Broadwater concluded, based upon the entire record before the Commission, that the DEIS satisfied the requirements of the National Environmental Policy Act ("NEPA") and applicable regulations.

Broadwater submits these supplemental observations by way of response to the incorrect representations and characterizations of data and misrepresentation of data, analyses and the Commission's NEPA obligation reflected in certain written and oral comments now before the Commission. In addition, Broadwater seeks to provide references in the record which demonstrate that notwithstanding the claims of some adversary commenters to the contrary, the Commission's staff conducted its environmental review in accordance with controlling law, regulations and precedent. As part of that obligation, the Commission's staff met its burden to characterize anticipated and potential environmental impacts of the proposed project and its reasonable alternatives. These comments neither object to nor criticize the November 2006 DEIS.

Broadwater requests that the comments contained herein be considered during preparation of the FEIS. Further, in light of the nature of some of the comments before the Commission, Broadwater respectfully submits that the FEIS should specifically refer to materials that are in the record and which have been considered by the FERC staff in the environmental review process by the Commission staff even though they were not included in the list of references (Appendix G) to the DEIS. Specifically, Broadwater's section 3 and section 7

applications, along with Resource Reports 1-13 and all other technical reports and information, including Environmental Information Request and Cryogenic Information Request responses, should be referenced. In addition, Broadwater applications and filings with all other federal and state agencies involved with the project and information supporting such applications and filings, including the Coastal Zone Consistency Certification submitted to the New York State Department of State, should be included in the list of referenced materials.

### **Summary of Observations**

The comments to which Broadwater's observations are directed fall into three distinct categories. The first is a series of legal arguments regarding the Commission's purported failure to meet its statutory burden for the identification and disclosure of environmental impacts of the proposed project. The second consists of claims of factual omissions and errors with which Broadwater vigorously disagrees. The third consists of vituperative attacks on the Commission's staff. As Broadwater demonstrates in this submission, however, the claims of legal and factual error and omission are plainly wrong. Broadwater also submits that the attacks on the Commission's staff are wholly unwarranted and inappropriate. Advocates for one side or the other may find substantive matters contained in the DEIS about which they disagree but that disagreement presents neither a basis nor an excuse for the claims of bias or lack of professionalism that permeate portions of the comments of adversary parties. As the Commission is obviously aware, its staff has conducted this matter in an even-handed and exceptionally professional manner. As Broadwater is confident that the Commission will not be influenced by the entirely inappropriate characterization of its staff, Broadwater's comments that follow are confined to the first two areas.

With respect to the Commission's legal burden under NEPA, the opponents argue that a far reaching suite of alternatives must be considered and there are options that are better than Broadwater. However, Broadwater opponents ignore the stated purpose of the project, bypass the comparative environmental impacts of the alternatives they champion, and use this incomplete analysis to suggest that the Commission's staff has not met its legal obligation to find the alternative that has the least environmental impact. Neither the facts nor precedent support their contentions. Further, several opponents, including the Attorney General for the State of Connecticut, argue that more studies need to be done before the EIS process can be completed, extracting language from a case that is cited as support. In fact, the case is inapposite to a situation such as Broadwater's project in which there has been an extensive inventory of comprehensive studies conducted to develop the Broadwater proposal in the Commission record that are detailed in the DEIS.

Also, the opponents contend that safety and security issues have not been vetted fully. While the adversary parties apparently are unwilling to accept the analyses, conclusions and recommendations contained in the U.S. Coast Guard Captain of the Port Long Island Sound Waterways Suitability Report for the Proposed Broadwater Liquefied National Gas Facility (September 21, 2006) ("WSR" or "Report"), the Commission staff is entitled, and obligated under NEPA regulations, to rely upon the expertise of other governmental authorities. The record is clear that the staff has given due consideration to genuine experts which by virtue of their statutory responsibilities are entitled to substantial deference and has made specific recommendations in the DEIS for the continued involvement of these experts during project implementation, should the Commission issue an approving order. The Commission's authority to condition certificate orders to ensure continued oversight and compliance is well established.

The factual omissions and errors that are presented in the comments of adversary parties make it evident that many reflect at best an incomplete understanding of the record. It will be important for the Commission staff to separate fact from emotion and hyperbole to prepare the FEIS for this project. Broadwater trusts that the following fact-based observations will assist in that undertaking.

Broadwater includes in this submission limited specific requests. In connection with any order authorizing the project, Broadwater requests that the Commission's section 7 findings provide it with the ability to exercise eminent domain rights, if necessary, not only with respect to the pipeline right of way, but also for equipment necessary for the proper functioning of the pipeline—encompassing the concentric circles surrounding its FSRU. In addition, because the Commission's FEIS can be accepted in lieu of a separate New York State Environmental Quality Review Act ("SEQR") analysis, provided state issues are addressed, Broadwater requests that the Commission explicitly refer to the public trust doctrine in the FEIS, that it expressly consider and reference the discussion in the WSR at Section 5.2.2.2 and that the Commission refer to, attach, and make part of the FEIS Broadwater's April 2006 Coastal Zone Consistency Certification filed with the Commission on April 13, 2006 and the October 2006 Supplement filed with the Commission on November 3, 2006 (collectively, the "CZCC") so that there will be no occasion for a separate SEQR review that will delay the final outcome.

**I. The Commission Has Provided Ample Opportunity for Meaningful Participation in the NEPA Process.**

1. Various comments and other submissions to the Commission<sup>1</sup> asserted that the Commission's process has been flawed because of a lack of opportunity for public participation and that the DEIS is therefore incomplete. Accordingly, these commenters assert that the Commission, as well as the U.S. Army Corps of Engineers ("USACE" or "Corps") and U.S. Coast Guard ("USCG" or "Coast Guard"), are required to deny authorizations and permits requested by Broadwater.

2. Clearly, there has been no lack of public participation in the process. The Commission, through the NEPA Pre-Filing Process (which was voluntary when the project was proposed and at all times prior to the filing of the applications), its extremely liberal application of the Council on Environmental Quality's regulation regarding public involvement in the EIS process (40 C.F.R. § 1506.6), and its flexibility in permitting comments to be submitted beyond the original due date. Respectfully, there is no evidence of disregard for public participation and there has been no abuse of process by the Commission or its staff.

3. The Connecticut Fund for the Environment ("CFE") incorrectly claims that the proximity in time of the release of the DEIS and the comment date to the various winter holidays created procedural unfairness.<sup>2</sup> CFE also claims that it did not receive all Critical Energy Infrastructure

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<sup>1</sup> See December 7, 2006 Comments of 20<sup>th</sup> District State Senator Andrea L. Stillman at page 1; See also January 22, 2007 Comments of the State of New York Department of Public Service at page 4; January 23, 2007 Comments of Save the Sound, a Program of CT Fund for the Environment at page 1. January 8, 2007 Comments of Citizens Campaign for the Environment at page 4; January 19, 2007 Comments of Audubon Connecticut at page 1.

<sup>2</sup> See January 4, 2007 Motion for 60 Day Extension of Time filed by Connecticut Fund for the Environment at page 3.

Information (“CEII”) materials relevant to the Broadwater proceeding.<sup>3</sup> CFE is wrong on both scores.

4. The Commission’s records amply chronicle the opportunities CFE has had to become familiar with the project and to develop its position during more than two years since the commencement of what was then the optional NEPA Pre-Filing Process under Docket No. PF05-4-000 and the nine and a half months since Broadwater filed its formal applications and Resource Reports.

5. The Commission provided sixty-seven days for public consideration and written comment on the DEIS, which is more than the fifty-one day average the Commission has provided during the most recent two years for comments on the various LNG projects’ DEISs, with the exception of one instance of a prolonged extension due to Hurricane Katrina—a condition clearly not present here.

6. The presence of holidays during this already prolonged comment period is no basis for claiming a procedural infirmity. There are holidays every month of one sort or another and participants in the administrative process find ways to manage their personal schedules and work responsibilities without delaying the orderly processes that the Commission has invoked. In any event, the Commission’s Chairman indicated that comments would continue to be considered even after the official date for comments had closed, and this invitation was repeated at each public meeting to accept comments on the DEIS.

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<sup>3</sup> *Id.* at page 3-4.

7. CFE also unjustly characterizes the time it has taken for it to be provided access to CEII materials by omitting salient facts. In every instance, Broadwater has cooperated with intervenors that have requested CEII, and has done so with exceptional promptness. Broadwater sent the Protective Agreement it has used with every other party to this proceeding to CFE on the same day CFE requested access to CEII materials—August 4, 2006. CFE voiced no objection to the Protective Agreement, which was modeled on the Commission's standard Protective Agreement, but did not execute it until November 30, 2006, almost four months later, and then did not provide the executed Agreement to Broadwater until December 13, 2006. Further, CFE did not provide anything more than a vague description of the materials it sought until January 2, 2007. In any event, after CFE confirmed the specific materials it sought on January 5, 2007, CFE had the materials in hand by January 10, 2007.

8. The delay in CFE's receipt of CEII materials is entirely due to CFE's four month delay in executing the Protective Agreement and demonstrates that CFE has no basis for claiming unfairness due to the Commission's procedures.

## **II. NEPA Requirements and Standards Are Met by the DEIS**

9. Broadwater's initial comments on the DEIS discussed the basic standards and legal principles governing Commission compliance with NEPA.<sup>4</sup> A variety of comments submitted by project opponents exhibit a fundamental misunderstanding of the NEPA process for considering the environmental impacts of this proposed agency action.<sup>5</sup>

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<sup>4</sup> See January 23, 2007 Comments of Broadwater at p. 1-2.

<sup>5</sup> See, e.g., January 23, 2007 Comments of the Connecticut Fund for the Environment at page 19 ("At a minimum, a regional approach to site LNG facilities is needed"); See also January 22, 2007 Comments of Town of

**A. DEIS Scope and Alternatives Analysis are Consistent with Legal Precedent**

10. The Commission's final decision on the Broadwater applications must be supported by NEPA analyses of environmental impacts that must be reasonable in scope and pass the Administrative Procedure Act test. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 370-72 (1989). Throughout the NEPA process, an agency's discussion and resolution of issues of fact that require technical expertise are afforded a high degree of deference by the courts. *Id.*

11. Under NEPA, agencies contemplating major federal actions are required to give a "hard look" to the environmental consequences of alternatives evaluated in the EIS process before choosing a preferred alternative. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976). Agencies that have taken the requisite "hard look" are free to choose an option that fully achieves the project's purposes, even if that option has impacts upon the environment. *Roberston v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); *Strycker's Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 227-28 (1980), citing *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 558 (1978). NEPA does not dictate a particular result, or even that the most environmentally sound option be selected. *Id.*

12. Every conceivable alternative need not be assessed, as was implied by many project opponents.<sup>6</sup> Rather, NEPA only requires consideration of those alternatives that reasonably can be expected to achieve the statutory and program goals of the agency with which an application has been filed and because of which the EIS process has been triggered, since the requirement

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Smithtown at page 2 ("... I believe that this proposal is a distraction from the development of a comprehensive regional energy plan. It is in the best interests of the people of Smithtown and all of Long Island that a decision on this proposal be tabled until such a plan is presented to the public").

<sup>6</sup> See, e.g. January 23, 2007 Comments of Connecticut Fund for the Environment at page 13-14 ("The purpose of the project is defined inappropriately narrow as to define competing alternatives out of contention.").

for analyzing alternatives is bounded by the "notion of feasibility," *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 551 (1978), and the "rule of reason." *City and State of New York v. United States Department of Transportation*, 715 F.2d 732, 740-43 (2d Cir. 1983), *cert. den.*, 465 U.S. 1055 (1984). Based on the rule of reason, the Commission is under no obligation to exhaustively consider alternatives that are too remote or speculative, *City and State of New York v. United States Department of Transportation*, 715 F.2d 732, 743 (2d Cir. 1983); *NRDC v. Callaway*, 524 F.2d 79, 93 (2d Cir. 1975); *Headwaters v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1180-81 (9th Cir. 1990), *reh'g en banc denied*, 940 F.2d 435, or alternatives unlikely to be implemented or those that are inconsistent with its basic policy objectives. *Fuel Safe Washington v. FERC*, 389 F.3d 131 (10<sup>th</sup> Cir. 2004)(FERC need not consider alternatives it has, in good faith, rejected as too remote, speculative, impractical or ineffective); *NRDC v. Morton*, 458 F.2d 827, 837-38 (DC Cir. 1972)( NEPA "must be construed in the light of reason if it is not to demand what is, fairly speaking, not meaningfully possible, given the obvious, that resources of energy and research—and time—available to meet the Nation's needs are not infinite.") (emphasis supplied).

13. Many commenters confused the Commission's limited regulatory role in reviewing and passing upon discrete project applications with the establishment of broader national and regional energy policy initiatives, which is the province of the Congress.<sup>7</sup> While these commenters' broad discussions of regional energy plans and "systems alternatives" often included projects outside the anticipated service area, it should be recognized that the Commission's statutory responsibilities in connection with NEPA and the Natural Gas Act

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<sup>7</sup> See January 19, 2007 Comments of Town of Darien, CT at page 1. See also January 12, 2007 Comments of Nassau Hiking and Outdoor Club at page 4; January 22, 2007 Comments of Town of Smithtown Councilwoman Patricia Biancianiello at page 1.

("NGA") are narrower in scope. DEIS at p. 4-2. *NRDC v. Morton*, 458 F.2d 827, 835 (DC Cir. 1972).

14. The Commission, which is responsible in the first instance for determining the range of alternatives to consider, had its staff complete a full analysis of alternatives that could potentially fulfill the goals of the project. DEIS at 4.0-4.10. The appropriate guide for determining the purpose and goal of a proposed project is the enabling legislation of the agency under which it could be authorized. *City and State of New York, supra* 715 F.2d. at 742-43; DEIS at p. 4-2 ("we do not believe that a regional siting study needs to be concluded prior to conducting site-specific review of the project. Rather, FERC's responsibility is to review applications as they are filed.").

15. The seminal case establishing the test for what constitutes a "reasonable alternative" is *NRDC v. Morton*, 458 F.2d 827 (DC Cir. 1972), decided shortly after NEPA was enacted. The *Morton* case involved an EIS prepared by the Department of Interior in connection with a program for the sale of oil and gas leases on the Outer Continental Shelf. In considering claimed deficiencies in the EIS, 458 F.2d at 834-35, the court provided an instructive delineation of what energy alternatives had to be considered:

*The statute must be construed in the light of reason if it is not to demand what is, fairly speaking, not meaningfully possible, given the obvious, that resources of energy and research—and time—available to meet the Nation's needs are not infinite.... The mere fact that an alternative requires legislative implementation does not automatically establish it as beyond the domain of what is required for discussion... But the need for an overhaul of basic legislation certainly bears on the requirements of the Act.... In the last analysis, the requirement as to alternatives is subject to a construction of reasonableness... There is reason for concluding that NEPA was not meant to require detailed discussion of ... "alternatives" put forward in comments when these ... alternatives are deemed only remote and speculative, in view of basic changes in statutes or policies of other agencies—making them available, if at all, only after protracted debate*

*and litigation not meaningfully compatible with the timeframe of the needs to which the underlying proposal is addressed.*

Id. at 837-38 (emphasis supplied)

16. While the court in *Morton* held that Interior's EIS was deficient, it distinguished the EIS programmatic alternative analysis from the alternatives analysis required for discrete project EISs, 458 F.2d at 835, as would be required for Broadwater's application. The alternatives analysis for discrete projects is allowed to be more circumscribed. *City and State of New York v. United States Department of Transportation*, 715 F.2d 732, 740 (2d Cir. 1983) (agency not required to maximize safety nor minimize environmental hazards).

17. Other than to describe the NEPA process, the cases cited by opponents of the project have no relevance to the Commission's ongoing and extensive consideration of the Broadwater project and project alternatives. In fact, the process being used to assess Broadwater is sound under the principles established in the cases cited by the commenters. *See, e.g., Scientists Institute for Public Information, Inc. v. AEC*, 481 F. 2d 1079, 1092 (2d Cir. 1973); *NRDC v. Morton*, 458 F. 2d 827, 837 (DC Cir. 1972). While these cases affirm the requirement for preparation of an EIS and an examination of reasonable and foreseeable alternatives, there is no support for the bald assertion that the Commission failed to adhere to those requirements based on the extent of the review of alternatives in the instant proceeding. In fact, just the opposite is true.

18. The Commission has undertaken two year's worth of review of the proposed Broadwater project and alternatives, has engaged numerous federal and state agencies in the process, and has provided multiple opportunities for public and private sector input into the process. DEIS at p.

4-1 ("information used to evaluate alternatives to the proposed Project included published studies, comments and suggestions from regulatory agencies, analyses prepared for similar projects, comments from the public, and data and analyses provided by Broadwater in its application."). Applicants' Resource Report 10 analyzes and rejects, based on data, science, and reasoning, not rhetoric, many of alleged alternatives to the Broadwater project that the opponents conclude are viable. More importantly, those alternatives and others were then extensively considered by the Commission's staff during its preparation of the DEIS and deemed not to be preferable to the Broadwater project when taking their environmental impacts into account. DEIS 4.1 to 4.10.

19. One such example is the alternative of the Safe Harbor Project proposed to be sited in the Atlantic Ocean offshore of Long Island, cited by the Towns of Riverhead and Southold and the Attorney General of the State of Connecticut.<sup>8</sup> These commenters, who have publicly denounced the Broadwater project since its inception and who have made clear their opposition to its being sited within Long Island Sound, appear to tout the Safe Harbor Project simply because it would not be located in the Sound. There appears to be no other reason for their support of Safe Harbor, particularly when the environmental impacts of the proposed project and this alternative are compared, as the Commission staff and the Applicants have done. DEIS at p. 4-203. Most notably, the commenters entirely ignore the fact that one of Safe Harbor's most significant environmental impacts will be its construction of a new pipeline from the proposed terminal in the Atlantic Ocean to connect with an existing pipeline somewhere on Long Island, with its attendant impacts on fragile near-shore, shoreline and onshore coastal ecosystems.

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<sup>8</sup> See January 19, 2007 Comments of the Towns of Riverhead and Southold NY at pages 4-5; See also January 23, 2007 Comments on Connecticut Attorney General Blumenthal at pages 43-44.

Ironically, the Connecticut Attorney General and the Connecticut Department of Environmental Protection have cited these same criteria as grounds for opposing the Islander East LNG pipeline project.<sup>9</sup> Broadwater, as the DEIS reflects and the entire record before the Commission demonstrates, has neither near-shore, shoreline nor onshore pipeline construction impacts.

20. Several commenters, including CFE, the State of Connecticut and its Attorney General, offer straw-men alternatives to the Broadwater project, while at the same time opposing these same projects administratively or in court. Examples include the Islander East LNG project, suggested as an alternative in comments on the DEIS.<sup>10</sup> In many respects, the arguments raised by these commenters are similar to attempts to use NEPA to stop competing energy projects. For example, in *ANR Pipeline Co. v. FERC*, 205 F. 3d 403, 408 (DC Cir. 2000), the petitioner asserted that its pipeline project was more "environmentally friendly" than a competitor's, and that one pipeline was "environmentally better than two." 205 F.3d at 407-08. Both the Commission and the Court found the projects were not mutually exclusive. The Court admonished that NEPA "cannot be used as a handy stick" by those who had predetermined that a particular project should not be built, based on their individual interests, and not a thorough NEPA analysis. *Id.*

21. But it is clear that neither the Islander East project nor the other projects offered are viable substitutes for the Broadwater project. The projects have been extensively analyzed in

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<sup>9</sup> See, December 19, 2006 Letter from Gina McCarthy to Islander East Pipeline Company, LLC at page 1 (denying Islander East's WQC application and stating that DEP believes "there are other pipeline routes that would avoid the impacts to sensitive nearshore areas."); See also December 19, 2006 Connecticut Attorney General's Office Press Release, Attorney General's Statement on State Report Declaring Islander East Environmentally Unsound ("The denial of water quality certification for this pipeline route is supported by abundant detailed scientific evidence – eliminating any doubt that the Islander East Pipeline poses grave environmental danger, particularly in the pristine Thimble Islands and nearby Branford shoreline.").

<sup>10</sup> See, e.g., *Islander East Pipeline Company v. State of Connecticut Dep't of Environmental Protection*, Docket No. 05-4139-aq (2d Cir. Oct. 5, 2006) (State denial of Water Quality Certification deemed arbitrary and capricious).

Broadwater's Resource Report 10 in section 10.4 (page 10-12 to 10-25) and in FERC's DEIS (page 4-13 to 4-14). Some pipeline projects, such as Islander East is claimed, would result in environmental impacts to fragile coastal ecosystems (which Broadwater does not), while providing insufficient capacity to meet projected energy needs. Other land-based options also would have far greater safety, security and environmental impacts while also not providing sufficient capacity to meet the energy supply needs of the region proposed to be served by the Broadwater project. Some of the options are designed to provide new capacity to the region but not new supply. Thus, they are not "reasonable alternatives" to Broadwater because they do not serve the purposes of project. Moreover, the projects also are not mutually exclusive based on capacity requirements and the locations intended to be served. *ANR Pipeline Co. v. FERC*, 205 F. 3d 403, 408 (DC Cir. 2000).

22. Other alternatives alluded to by the commenters, such as LNG production facilities or terminals located in Canada, are wholly outside the jurisdiction and control of the United States government and the Commission.<sup>11</sup> Thus, such alternatives and their impacts need not be exhaustively explored. *See Dep't of Transportation v. Public Citizen*, 541 U.S. 752, 767 (2004). Reliance upon such projects for the energy needs of the region is too remote and speculative, based on numerous political, technical, pipeline transport, and other assumptions, to be considered a viable alternative under the case law. Nevertheless, the DEIS gives the appropriate level of consideration to these types of alternatives, *See generally* DEIS at Section 4.0.

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<sup>11</sup> *See* March 2, 2006 Comments of Connecticut Fund for the Environment at page 4; *See also* January 23, 2007 Comments of Save the Sound at page 16, FN 35 and January 19, 2007 Comments of the Towns of Riverhead and Southold, NY at page 2.

**B. The Commission Staff's Assessment of Cumulative Impacts Exceeds Legal Requirements.**

23. The comments on the sufficiency of the DEIS' analysis of cumulative environmental impacts are equally groundless and fail to objectively assess the analysis contained in the DEIS.<sup>12</sup> The starting point for any discussion of NEPA case law governing cumulative impacts is the unanimous decision of the Supreme Court in *Dep't of Transportation v. Public Citizen*, 541 U.S. 752, 769-70 (2004), wherein the Supreme Court narrowed previous NEPA decisions on cumulative impacts and held that the causal connection between an agency's action and any impacts from that action, including cumulative impacts, must be relatively close or "proximate" to trigger a NEPA review. Moreover, the Court held that a federal agency is not required to consider any impacts, including cumulative impacts, that the agency has no legal authority to control. The DEIS properly focused on Islander East and projects requiring Commission approval that were in the same reasonably proximate geographic area.

24. The Commission completed an EIS on the Islander East project, which has a segment located in a sensitive coastal zone, as well as a segment proximate to the proposed Broadwater pipeline. The Commission is allowed to take cognizance of the findings and conclusions of the EIS in its cumulative impacts analysis of the Broadwater project. Selection of the preferred locations for Broadwater's Floating Storage and Regasification Unit ("FSRU") and connecting pipeline were made specifically to maximize safety and minimize environmental impacts. For example, the DEIS cumulative impact analysis demonstrates that Broadwater's minor impacts are sufficiently distant from, and would not significantly add to, those impacts from the Islander East pipeline located in substantially more sensitive waters. DEIS 3.11.5.

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<sup>12</sup> See January 23, 2007 Comments of Connecticut Attorney General Blumenthal at pages 31-34.

25. Not only did the DEIS meet the established requirements for consideration of cumulative impacts, it also considered impacts from projects outside of Commission regulatory control. DEIS 3.11.1 to 3.11.6. For example, the DEIS considered the incremental and cumulative impacts from telecommunications cables, fiber optics, dredge disposal sites, as well as commercial shipping unrelated to energy, and concluded that only a "small cumulative effect is anticipated when the impacts of the proposed Project are added to past, present, or reasonably foreseeable future projects in the area." *See, e.g.*, DEIS Table 3.11-1, sections 3.11.2; 3.11.2.4-5; 3.11.3.1; 3.11.4 and 3.11.6.

**C. The Legal Standards for Sufficient Information in a DEIS Have Been Met.**

**(i) The Adequacy of Supporting Information and Studies Must Be Guided by a Rule of Reason.**

26. Despite the massive amount of data collected and studies completed, as well as the staff's detailed consideration of that information in its DEIS, several commenters insist that still more design details, biological studies, and security-related information must be compiled and released to the public under NEPA.<sup>13</sup> The Broadwater DEIS, however, certainly satisfies the NEPA statutory and case law requirements for information needed for the Commission to make an informed judgment after considering the benefits of the project and any environmental impacts. *Department of Transportation v. Public Citizen*, supra 541 U.S. 752, 768-70 (2004). The Commission is required to be guided by the "rule of reason" in determining the amount and kind of information to include in the EIS process. *Id.* While more information and studies hypothetically would be useful in every NEPA review, agencies must make decisions in real

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<sup>13</sup> *See* January 8, 2007 Comments of Dr. Stephen T. Tettelbach, on behalf of the Citizens Campaign for the Environment at page 1; *See also* January 18, 2007 Comments of the United States Department of the Interior at page 2; January 23, 2007 Comments of the Connecticut Long Island Sound LNG Task Force at page 6.

world timeframes to meet the needs of the nation. *NRDC v. Morton*, 458 F.2d 827, 838 (DC Cir. 1972) (Consideration of information and alternatives must be "meaningfully compatible with the timeframe of the needs to which the underlying proposal is addressed.").

**(ii) It is Appropriate for the Commission Staff to Rely Upon the Expertise of Other Governmental Authorities.**

27. Several commenters want additional studies and information related to safety and security.<sup>14</sup> The DEIS clearly demonstrates that the Commission's staff conducted required studies and consideration of maritime safety and security issues in cooperation with other federal agencies that possess vast amounts of experience in those fields, namely the Coast Guard and the Corps of Engineers.

28. Since NEPA requires a federal agency preparing an EIS to consult with other federal agencies that have jurisdiction or special expertise regarding the particular environmental impacts involved, 42 U.S.C. § 4332(C), the DEIS properly relied on the Coast Guard's expertise regarding marine safety and security issues associated with Broadwater. *See EMR Network v. FCC*, 391 F.3d 269 (D.C. Cir. 2004), *cert. den.*, 125 S. Ct. 2925 (FCC could appropriately credit scientific expertise provided by other agencies and outside experts regarding health effects of radiofrequency radiation during NEPA process). So long as the lead agency gives the work of the cooperating agency the requisite "hard look," as FERC has done with safety and security issues (DEIS at 3.7; 3.10; and Appendix D), NEPA requirements are satisfied. In *Stop the Pipeline v. White*, 233 F.Supp.2d 957, 967-68 (SD Ohio 2003), the court held that the Corps could rely on the expert safety evaluation of a 149-mile pressurized oil pipeline performed by the Office of

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<sup>14</sup> See January 8, 2007 Comments of Dr. Stephen T. Tettelbach, on behalf of the Citizens Campaign for the Environment at page 1; See also January 18, 2007 Comments of the United States Department of the Interior at page 2; January 23, 2007 Comments of the Connecticut Long Island Sound LNG Task Force at page 6.

Pipeline Safety (OPA) when the Corps issued an Environmental Assessment/Finding of No Significant Impact. The court in *Stop the Pipeline* held that “acceptable work need not be redone” and that deferral to an agency with superior expertise is acceptable under the Act. *See* 233 F.Supp.2d at 968.

29. The Commission may rely on the maritime expertise of the Coast Guard and its resources<sup>15</sup> in making its assessment of an LNG project’s security and safety. In the instant case, the Coast Guard and ABS determined that the preliminary design and other data made available by the Applicants was sufficient to complete the WSR, which forms the basis for the DEIS safety and security analysis of the project. DEIS at Appendix D. Requiring that Broadwater further confer with the Coast Guard about emergency planning issues does not equate to failure by the Commission to perform an adequate review of safety issues in the DEIS. Rather, such a requirement is proper as a condition to any certificate order in accordance with the Commission's authority to establish conditions to ensure applicable requirements are met.

**(iii) Limiting Access to Critical Energy Infrastructure Information Does Not Violate NEPA.**

30. While parading a long list of alleged security and safety problems with LNG projects, the same commenters simultaneously decry the fact that more CEII is not openly available to the public.<sup>16</sup> FERC implementation of its CEII regulations in its NEPA review of the Broadwater proposal is not only lawful, but mandatory.

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<sup>15</sup> ABS, the internationally recognized classification society and vessel design expert, was retained to work on the Coast Guard's behalf on this project.

<sup>16</sup> *See* January 4, 2007 Comments of Save the Sound at page 3; *See also* January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 14, footnote, 4.

31. Unfortunately, following September 11, 2001, all elements of the nation's infrastructure, and even commercial workplaces, have recognized their vulnerability to possible terrorist attack. The possibility of attack does not render such structures inherently unsafe.

32. Moreover, the fact that Congress,<sup>17</sup> the President,<sup>18</sup> and the Commission have taken precautions to prevent the broad, uncontrolled dissemination of CEII does not interfere with the conduct of appropriate review during the NEPA process. If the existence of CEII precluded licensing of a project, the Nation would have far fewer sources of energy. Many engineering and design elements related to hydroelectric facilities, nuclear power plants, and LNG facilities are appropriately designated CEII, or otherwise are exempted from unrestricted public disclosure.

33. Commission and Coast Guard rules strike the appropriate, and legally required, balance of competing public interests by allowing dissemination of sufficient information to the public to satisfy the mandates of NEPA, while providing all the information necessary to conduct a complete safety and security assessment to those cooperating agencies with safety and security oversight responsibilities for LNG facilities. Agencies such as the Coast Guard, the Corps, the Office of Pipeline Safety, and appropriate state agencies have full access to CEII information to ensure that LNG facilities are built and operated safely, subject to the non-disclosure requirements of federal law.

34. The Supreme Court addressed similar arguments while upholding the Navy's refusal to release information during the NEPA process that could compromise national security. The

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<sup>17</sup> Congress passed the Critical Infrastructure Information Act in 2002, 6 U.S.C. §131 et seq. and various agencies have subsequent promulgated regulations and orders.

<sup>18</sup> President Clinton issued Presidential Decision Directive/NSC-63 in 1998 and President Bush followed with Executive Order 13231 (Oct. 16,2001) focusing on threats to "critical infrastructure in the information age."

Supreme Court noted that Congress wrote NEPA in a manner that reconciled its disclosure requirements with the Freedom of Information Act exemptions. *Weinberger v. Catholic Action of Hawaii*, 454 U.S. 141, 143 (1984). NEPA expressly makes disclosure of the contents of an environmental assessment or EIS subject to the provisions of the Freedom of Information Act. 42 U.S.C. § 4332(C) ("copies of such statement... shall be made available to the President, the Council on Environmental Quality, and the public as provided by section 552 of Title 5"...). The Supreme Court, in construing the requirements of NEPA and FOIA, held the following:

FOIA was intended by Congress to balance the public's need for access to official information with the Government's need for confidentiality.... Thus, [NEPA] §102(2)(C) contemplates that in a given situation a federal agency might have to include environmental considerations in its decisionmaking process, yet withhold public disclosure of any NEPA documents, in whole or in part, under the authority of an FOIA exemption.

454 U.S. at 143-44.

35. The Commission achieved just such a balance in promulgating its regulations concerning the disclosure of CEII information. 18 CFR Parts 375 and 388; FERC Order 630, 102 FERC ¶ 1161,190 (Feb 21, 2003) as amended by FERC Order 630-A, 104 FERC ¶ 61,106 (July 23, 2003). The definition of CEII encompasses information that could aid terrorists and is exempt from disclosure under FOIA. *See* 18 CFR §388.113(c)(ii)-(iii) (2004).

36. The public, however, should not be left with the impression that because of the CEII regulations, a full safety and security review will not be performed on the proposed Broadwater project, nor any other proposed LNG facility. Several federal agencies, most notably the Commission, the Department of Transportation's Office of Pipeline Safety, the Coast Guard, and the Corps must perform comprehensive security and safety reviews before construction can

begin. These reviews are mandated by the NGA, 15 USCA § 717b(a), as amended by the Energy Policy Act of 2005; the Rivers and Harbors Act of 1899, 33 U.S.C. § 401; the Maritime Transportation Security Act, 46 U.S.C. § 70101; the Ports and Waterways Safety Act, 33 U.S.C. §§ 1221-1226; and the Natural Gas Pipeline Safety Act, 49 U.S.C. § 60101, as amended by the Pipeline Safety Act (PSA), and the regulations promulgated pursuant to those statutes. As noted above, appropriate state agencies have full access to CEII by signing nondisclosure statements and following the FERC procedures for gaining such access and maintaining confidentiality, whereas parties have access to CEII by executing Protective Agreements.

37. As a result, claims that the unavailability of sensitive security information or its treatment as CEII render the NEPA process assailable amount to collateral attacks on the orderly processes the Commission and Congress have put in place to balance competing public interests.

### **III. Responses to Specific Issues Raised by Parties Commenting on the DEIS.**

#### **A. Broadwater's Demonstration of the Purpose and Need for Its Proposed Project Satisfies Commission Standards.**

38. In its comments opposing the project, the CFE relies on a revised report from Synapse Energy Economics, Inc. ("Synapse") to contend that the DEIS relies upon outdated supply demand data. The report concludes that the Broadwater "project is not well suited to local or regional gas supply need, and that several supply and demand management alternatives exist which would better serve the region." Synapse Report at 1.

39. Although Synapse contends that supply demand data which the DEIS has cited is dated, the trends that Broadwater identified in its Resource Reports remain sound and supported by authoritative sources. To be sure when projecting demand and supplies decades ahead, every

year is likely to show variations in data, but the Energy Information Administration Annual Energy Outlook 2007, with Projections to 2030,” DOE/EIA-Report #:DOE/EIA-0383(2007) (“*AEO2007*”), [http://www.eia.doe.gov/oiaf/aeo/pdf/0383\(2007\).pdf](http://www.eia.doe.gov/oiaf/aeo/pdf/0383(2007).pdf), and every authoritative projection will include some variation. In the *AEO2007*, Comparison with Other Projections, EIA states:

In the AEO2007 reference case, natural gas consumption is projected to grow steadily through 2020 and then level off as higher projected natural gas prices cause natural gas to lose market share to coal for electricity generation. With the exception of GII [Global Insights, Inc.], this is a major difference between the AEO2007 reference and high price cases and the other projections (Table 22), which show natural gas consumption generally increasing throughout the projection period, both overall and for electricity generation. The lowest projected overall growth is in the GII projection, with 2030 consumption that is 2.4 trillion cubic feet less than in the AEO2007 reference case. The DB [Deutsche Bank AG], SEER [Strategic Energy and Economic Research, Inc.], and Altos projections expect natural gas consumption in 2030 to exceed the AEO2007 reference case projection by 1.1, 4.1, and 4.8 trillion cubic feet, respectively; the two latter projections even exceed the AEO2007 low price case projection. Although GII projects less total natural gas consumption than does the AEO2007 reference case, the GII projection for consumption by electricity generators exceeds that in the AEO2007 reference case, further highlighting a fundamental difference between the AEO2007 reference case and the other projections.

\* \* \*

All the projections show steady growth in natural gas consumption in the combined residential and commercial sectors, with the exception of GII, which expects a slight decline in consumption from 2025 to 2030. The *AEO2007* reference case shows higher industrial natural gas consumption than all the other projections over the entire 2005-2030 period. With the exception of GII and EEA, all the other organizations project growth in industrial natural gas consumption from 2005 to 2015 and through the end of the projection period. Growth in residential, commercial, and industrial natural gas consumption in the *AEO2007* reference case is offset, however, by the decline in natural gas consumption by electricity generators.

*AEO2007*, page 110.

40. There is little reason to believe that overall, natural gas demand will decline, although EIA projects some degree of sectoral re-balancing:

Total natural gas consumption in the United States is projected to increase from 22.0 trillion cubic feet in 2005 to 26.1 trillion cubic feet in 2030 in the *AEO2007* reference case. Much of the growth is expected before 2020, with demand for natural gas in the electric power sector growing from 5.8 trillion cubic feet in 2005 to a peak of 7.2 trillion cubic feet in 2020 (Figure 67). Natural gas use in the electric power sector declines after 2020, to 5.9 trillion cubic feet in 2030, as new coal-fired generating capacity displaces natural-gas-fired generation. Much of the projected decline in natural gas consumption for electricity generation results from higher delivered prices for natural gas in the reference case projection after 2020.

Continued growth in residential, commercial, and industrial consumption of natural gas is roughly offset by the projected decline in natural gas demand for electricity generation. As a result, overall natural gas consumption is almost flat between 2020 and 2030 in the *AEO2007* reference case, and the natural gas share of total projected energy consumption drops from 23 percent in 2005 to 20 percent in 2030.

*AEO2007*, page 89.

41. Even with domestic production remaining relatively flat, *AEO2007* projections of demand will require increases in LNG deliveries. *AEO2007* reports:

With U.S. natural gas production remaining relatively constant, imports of natural gas are projected to rise to meet an increasing share of domestic consumption. Most of the expected growth in U.S. natural gas imports is in the form of LNG. The total capacity of U.S. LNG receiving terminals increases from 1.4 trillion cubic feet in 2005 to 6.5 trillion cubic feet in 2030 in the reference case, and net LNG imports grow from 0.6 trillion cubic feet in 2005 to 4.5 trillion cubic feet in 2030 (Figure 77). Nevertheless, the U.S. LNG market is expected to be tight until 2012, because of supply constraints at a number of liquefaction facilities, delays in the completion of new liquefaction projects, and rapid growth in global LNG demand.

*AEO2007*, page 94.

42. Accordingly, while there may be some degree of variation in year to year projections, directionally, there is no basis for the belief asserted by Synapse that projected demands can be satisfied in the reasonably anticipated future without supplemental LNG projects such as Broadwater. Nor do these national trends in any way mask projections of natural gas use in New

England, in which the EIA projects increased use in every sector through 2030. See

[http://www.eia.doe.gov/oiaf/aeo/supplement/suptab\\_1.xls](http://www.eia.doe.gov/oiaf/aeo/supplement/suptab_1.xls).

43. As discussed below, Broadwater disagrees with the proposition that there are sound projections for a balance between demand and supply affected by favorable competitive pricing that can be assured solely by aggressive conservation efforts. Broadwater does not dispute the important role that fuel efficiency and conservation must play in demand management, but as detailed below, those factors alone will not satisfy projections of growth in demand and the additional supplies that Broadwater will bring to market will most certainly offer needed competition in this market.

44. Moreover, even assuming stable demand over the long-term - an assumption that is unsupportable except in extreme hypotheticals - Synapse entirely ignores the value of supply diversity in the management of energy costs, the benefit of the introduction of supplies to the heart of the regional market that includes major metropolitan areas, and the value of the introduction of such supplies without the need to transport these supplies over multiple pipelines with substantial off-takes en route before arriving at the regional market.

45. Synapse is wrong in suggesting that either new or existing pipelines are a feasible alternative to Broadwater. Although Synapse ignores it, such additional pipelines have an environmental impact price tag and consequences that could be substantial. Existing lines, as well as the new pipelines, have other key considerations for assessing whether they are viable alternatives to meet the objectives of the Broadwater project: (1) physical location and access to existing and future markets; (2) technical design, operating efficiency and expansion capability; and (3) cost of transportation.

46. Islander East, if successful in its current litigation to secure approval previously denied by the State of Connecticut, has significant limitations to its ability to supply the volume of gas proposed by Broadwater to meet the acknowledged needs of the region. As noted in the DEIS, with a proposed capacity of .3 bcf in order to accommodate flow equal to Broadwater, the Islander East pipe, as well as the upstream Algonquin system, would have to be expanded, and to transport additional volumes to New York City, as Broadwater will do, would require substantial reconfiguration of the KeySpan Long Island systems in areas of high population density.

47. By contrast, Broadwater's reliance on the Iroquois Gas Transmission System ("IGTS") line has distinct advantages. *See* Table 10-2 and Figure 10-3 in Resource Report 10. It has a high pressure design and a maximum operating pressure of 1440 psi, which gives Iroquois the ability to accommodate incremental volumes of natural gas efficiently at higher pressure and without the need for costly and intrusive pipeline looping. This is a significant consideration in an area of high population density where avoiding the necessity of additional pipeline expansion looping projects is a positive consideration. Further, with the completion of the Eastchester Expansion project, IGTS has the capability to deliver incremental natural gas volumes not only to Connecticut and Long Island, but also directly to New York City. Other pipeline systems that currently deliver gas to the region are older and designed to a lesser pressure classification that was the practice when those systems were built. As a result, they cannot perform with the same efficiency inherent in the high pressure design of Iroquois. Therefore, in examining various siting alternatives, access to IGTS was a key consideration. The pipeline routing analysis described in the DEIS and in Resource Report 10 considered many different ways of accessing the Iroquois Pipeline from many alternate locations. The site proposed by Broadwater represents the most feasible method of access, while avoiding the crossing of sensitive nearshore areas,

onshore conflicts associated with new pipeline development across Long Island, and incremental pipeline facilities such as compressor stations.

48. In addition Synapse, along with several other commenters, including the Connecticut Task Force (*See* Comments at p. 9), suggest that LNG terminals proposed to be constructed in Canada can supply natural gas to the New York market. Those who raise these issues appear only to be concerned with the potential incremental supply of natural gas, and are unconcerned with the cost of transportation via pipeline from those more distant locations. Notwithstanding the favor that the Bear Head and Canaport projects find in the pleadings of the commenting parties, these projects are not sound alternatives to the Broadwater project.<sup>19</sup>

49. Recent experience has shown that LNG regasification terminals located close to U.S. markets are better able to attract LNG supply, because they provide better realizations net of pipeline transportation costs to LNG suppliers. This is evident from looking at the utilization of the Everett terminal in Boston and the Cove Point terminal in Maryland, compared to the lower utilization of the Elba Island, Georgia and Lake Charles, Louisiana terminals.<sup>20</sup> The pipeline tolls on M&NP and other downstream pipelines that could potentially supply the New York and Connecticut region are substantial, and will be accounted for by LNG suppliers in the Atlantic Basin. Suppliers who deliver LNG to the Canaport terminal will have to accept lower realizations for their LNG supply, which will make it correspondingly more difficult for

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<sup>19</sup> Anadarko Petroleum announced that the company was officially writing off its investment in the Bear Head project. Broadwater speculates that the remote location of the proposed terminal was an obstacle to obtaining contracts from LNG suppliers.

<sup>20</sup> In 2005, the combined import volumes for the Everett and Cove Point facilities were 391 bcf, while the combined volumes for the Elba Island, Lake Charles and Gulf Gateway facilities were 241 bcf. Data source: U.S. Energy Information Administration, *U.S. Natural Gas Imports and Exports: Issues and Trends 2005*, February, 2007.

Canaport LNG terminal to attract supply in a supplying-constrained environment. Repsol's stated ability to serve markets is contingent upon its ability to attract LNG supplies.

50. The Synapse Report also is internally inconsistent because of a narrow focus on its misperception of local needs when it emphasizes the significance of having delivery points largely downstream from conventional supply sources. Synapse Report at 3. It is difficult to discern with precision because the Synapse report is so vague and conclusory but it appears that Synapse is suggesting some particular value in a backhaul. But the more important consideration regarding deliveries of gas near the heart of a market is that Broadwater will facilitate competition between traditional upstream suppliers and new LNG supplies to this market. While LNG would have to be transported across the seas to reach the proposed Broadwater terminal, the remote domestic production from the alternatives recommended by Synapse and from traditional upstream suppliers face substantial charges for transportation over hundreds of miles of pipeline.

51. Commenters also urged the Commission to recognize the Suez Neptune and Northeast Gateway Energy Bridge offshore terminal projects as viable alternatives to meet the needs of the New York and Connecticut market.<sup>21</sup> First, the commenters fail to recognize that both projects were sited to serve the *local* market demand in Massachusetts. In the alternatives analysis supplied with the Northeast Gateway Deepwater Port Application, Docket No. 22219 at p. 3-12, the project's target market was contrasted with Broadwater's:

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<sup>21</sup> See, e.g., Comments of Citizens Campaign for the Environment when speaking at the public meeting in Smithtown and the January 23, 2007 Comments of the Connecticut Long Island Sound LNG Task Force at pages 9-10.

[Broadwater] has been specifically designed to serve the New York and Connecticut markets, not the Massachusetts and New England market targeted by the Northeast Gateway project.

Even if all of the average combined throughput of these projects of 800 mmcf/d could be diverted to serve New York and Connecticut, the supply would be 200 mmcf/d short of the 1 bcf/d which Broadwater will supply to meet the acknowledged demand. Further, unlike Broadwater which has 8 bcf of LNG storage capacity and can accept deliveries from any of the multitude of LNG carriers operating in the world, these terminals must depend on availability of shuttle regasification vessels ("SRVs") from the current small fleet to supply LNG and neither terminal has storage capability to meet a 1bcf/d baseload supply.

**B. Safety Factors and Requirements for the Broadwater Project Have Been the Subject of Extensive Evaluation by Experts within and Associated with the Federal Agencies Exercising Jurisdiction over Aspects of the Project.**

52. Several commenters, including the Connecticut Long Island Sound LNG Task Force, the Connecticut Attorney General<sup>22</sup> and a number of individuals expressed fear that the LNG carriers and the FSRU were of unproven technology design and thus posed significant safety risks that warranted detailed analysis, which they found to be lacking in the DEIS. Yet the record before the Commission is replete with references to the state of the art design and technology standards that will be used for the carriers and FSRU. Below are several specific clarifications that support the DEIS's conclusions with respect to safety features of these project components:

LNG Carriers:

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<sup>22</sup> See January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 1; *See also* December 21, 2006 Comments of Connecticut Attorney General Blumenthal at page 1; December 15, 2006 Comments of Senator Leonard A. Fasano on behalf of the Connecticut Long Island Sound LNG Task Force at page 1 and January 22, 2007 Comments of The Nature Conservancy at page 7.

- These ships use sophisticated navigational equipment including radar, global positioning and communications technology to constantly monitor their course, speed and position and that of other vessels nearby. Officers and crew of the LNG carriers undergo extensive training to meet internationally recognized operating standards. The ships carry detailed contingency plans to cover all types of potential incidents. Regular exercises are conducted to ensure that the ship's crew know the appropriate response in any emergency.

- The International Maritime Organization (IMO) has developed standards for the construction and operation of all ships. These standards and codes govern the design, construction and operation of specific ships, including LNG ships, and, when ratified, are adopted and incorporated into the individual flag state regulations. Further, the USCG routinely inspects LNG ships when in U.S. port, for compliance with these codes. The process for boarding and inspection of any LNG carrier that would conduct operations with the Broadwater terminal is described in Resource Report No. 11, pages 11-41 to 11-43.

- Maritime classification societies provide the means by which LNG shipping operators demonstrate that they have established clear, practical, technical standards that address the protection of life, property, and the environment. The classification societies establish rules for the construction of LNG ships using IMO standards as a minimum. They certify existing proven technologies and methods of construction and assist in gaining approval for the development of new technologies such that they are comprehensively analysed before construction. Some of the societies that classify LNG ships include American Bureau of Shipping (ABS), Bureau Veritas (BV), Det Norske Veritas (DNV) and Lloyd's Register of Shipping (LR).

#### The FSRU:

- The Broadwater facility, if approved, may be one of the first FSRUs in operation, but it does not rely on new technologies for processing the LNG. For example, the Gulf Gateway terminal, currently in operation in the U.S., utilizes a conventional LNG carrier with regasification equipment onboard the ship that is similar to the processing equipment which will be on the FSRU.

- The Broadwater facility consists of three main components, all of which utilize existing and proven technology:
  - The hull and containment system for the LNG use the same technology which is in use by LNG carriers today. The FSRU cargo tanks are of a commensurate size with the tanks being installed on the current larger generation LNG carriers.

- The process equipment to vaporize the LNG is similar to that currently being used in onshore terminals.
- The yoke mooring system ("YMS") has been used in open water conditions in international applications. In response to FERC data requests, Broadwater provided technical details on no less than five of these existing installations (*see* Cryogenic Information Request, Response C-10). Further, in Table 11-10, page 11-27 of Broadwater's Resource Report 11, a comparison is made between an existing yoke mooring system currently operated by Shell overseas, and that proposed for Broadwater. From the table, it can be seen that the proposed Broadwater yoke mooring system is similar in application to that which is currently installed and operating.

- While the scale of the proposed facility is larger than those that have been constructed in the past, design and construction methods are well established and are recognized by maritime classification societies. For example, in 2004 the American Bureau of Shipping issued a [\*Guide for Building and Classing Offshore LNG Terminals\*](#) that provides detailed technical guidance on the safe construction of offshore LNG facilities. The Broadwater FSRU will be constructed according to these principles.

- Broadwater's Resource Report No. 13 provides a detailed summary of the applicable design guidelines for all of the major components of the facility.

- In addition, FERC and the Coast Guard will exercise extensive oversight on the facility design. In total, 37 of the 79 DEIS recommendations deal with issues pertaining to facility design. All design details will be submitted to FERC and the Coast Guard for review before approval to construct the facility is given.

53. The Connecticut Attorney General and several shoreline communities, among others, expressed similar concerns over the yoke mooring system, particularly in adverse weather conditions.<sup>23</sup> Again, the record before the Commission provides extensive documentation that answers the unfounded speculation of the opposing parties:

- The mooring system has been designed to withstand a Category 5 hurricane, in spite of the fact that there is little likelihood that a hurricane exceeding Category 3 would ever reach Long Island Sound. DEIS Recommendation 62 specifically states that the YMS design shall be capable of withstanding a Category 5 hurricane. Broadwater's

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<sup>23</sup> See January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 2; See also January 22, 2007 Comments of The Nature Conservancy at page 7 and January 23, 2007 Comments of the Citizens Campaign for the Environment at page 2.

proposed YMS design meets this requirement. Refer to Table 11-9 in Resource Report 11, page 11-26 which provides details concerning the proposed design of the YMS. The WSR, page 117 contains an independent validation that Broadwater's proposed design criteria are based on the worst case of a Category 5 hurricane.

- In analyzing the project, Broadwater conducted simulations of the marine operations of the project. As part of those simulations, operational limits for approach, mooring and departure were defined. Any operational scenario would consider anticipated weather conditions prior to entry into Long Island Sound. If conditions were predicted to be outside of defined operating limits, then the LNG carrier would remain outside of Long Island Sound. Ultimately, the decision of whether to allow entry of LNG carriers into Long Island Sound would rest with the Coast Guard. In the event of weather conditions such as strong winds or poor visibility precluding safe navigation and entry of LNG carriers into Long Island Sound, the vessels would remain at sea. LNG carriers are designed for worldwide trade and are capable of weathering storms in the open ocean.
  
- The weather conditions and forecasts are monitored before and during the LNG carrier unloading and according to pre-determined limits, the operation would be suspended, loading arms disconnected and the vessel unberthed from the facility. Any excessive, relative movement between the FSRU and LNG Carrier would initiate an emergency shutdown of the cargo transfer and depending on the severity, the unloading arms automatically would release, using an emergency (quick disconnect) system. The operation of the system is described in Section 11.3.3.4 of Resource Report 11, page 11-20. Further, Broadwater will require that LNG carriers maintain propulsion and steering capability at all times during unloading operations.
  
- Despite the robust design of the YMS, concerns have been expressed by some commenters about the possibility that the FSRU could, through accidental or intentional means, become detached from the YMS. *See* January 22, 2007 Comments of The Nature Conservancy at page 1. These issues were addressed in Broadwater's responses to FERC staff dated August 15, 2006 concerning a load and survivability analysis for the YMS based on an allision with the FSRU, mooring jacket and yoke structure by a bulk carrier or tanker displacing 90,000 deadweight tons. No guidance was provided by either FERC staff or the US Coast Guard concerning estimates of the probability of such an event, which must be considered to be extremely low.
  
- The results of the analysis were that in the event of an allision of this nature with the FSRU or with the mooring jacket, either facility would be capable of withstanding the forces generated by such an allision without separation of the YMS and the FSRU. Only in the event of an allision with the yoke structure, which comprises 8% of the overall length of the structure, would there be any risk of separation. The Broadwater response also noted that there would be, even at full sea speeds, some time for the FSRU to react to the approach of the bulk carrier or tanker in order to minimize the effects of any theoretical allision.

- Beyond the low likelihood of such an event, Broadwater discussed mitigation measures in the event of a mooring system failure. Response to Cryogenic Information Request 2-2, page 4, dated August 15, 2006. The immediate response in the unlikely event of a total mooring failure would be to use the azimuth thrusters on the FSRU to maintain heading and position. The degree of station keeping would be dependent upon prevailing weather conditions, but with the proposed thruster capabilities the FSRU would be capable of remaining close to its original position until the primary recovery method could be implemented. The primary method would be the deployment of the four project tugs to maintain the position of the FSRU until such time as it can be prepared to be towed away from Long Island Sound for repairs. Permanent towing arrangements are required for the tow between the shipyard and Long Island Sound and these will remain available during the project life.

54. The Connecticut Attorney General also argued that the pipeline would be exposed to rupture from anchor strikes with attendant catastrophic consequence from gas escaping from the breach.<sup>24</sup> The following information, which is included in the record, dispels those concerns and corrects unfounded speculation and conclusions:

- The pipeline will be designed to all applicable codes and standards, which are presented in Resource Report 11, Section 11.5.4, page 11-52 and will be coated with approximately 3 inches of concrete coating for buoyancy control, which provides protection against anchor strikes.

- Protection from the effects of inadvertent impacts from vessel anchors and fishing gear will be incorporated into the pipeline design. A previous study conducted for Iroquois Gas Transmission System, which is a 24-inch pipeline, demonstrated that pleasure vessel anchors and fishing gear will not damage the pipeline.<sup>25</sup> The Broadwater pipeline will be 30 inches in diameter and will be designed to the same standards as those of Iroquois, which meet or exceed Minimum Federal Safety Standards.

- The pipeline will also be noted on future navigational charts as a designated pipeway, to make users of the Sound aware of its vicinity, and marine regulations restricting vessels from anchoring will be imposed.

Potential consequences of a line break are very limited. The pipeline will be continuously monitored 24 hours per day (discussed in Section 11.5.6 of Resource Report

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<sup>24</sup> See January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 18; See also January 22, 2006 Comments of 12<sup>th</sup> District Legislator John M. Kennedy, Jr. at page 1.

<sup>25</sup> See, December 14, 2001 Resource Report 11 submitted by Iroquois Gas Transmission System, L.P. for the Eastern Long Island Extension Project: Pipeline Section at page 11-13.

11). The pipeline system will employ a system of subsea valves that will allow isolation of the Broadwater pipeline in the event of a pipeline breach. The flow of gas from the FSRU will be halted immediately when a breach is detected. The gas from the pipeline breach would bubble up through the water column to the surface, where it would dissipate promptly into the atmosphere.

- Broadwater will undertake a fracture control analysis that takes into consideration pipeline operating conditions to specify pipe fracture toughness requirements to ensure that the pipeline will have adequate resistance to fractures.

55. Some commenters, including the Connecticut Long Island Sound LNG Task Force, have remarked about the lack of understanding of the behavior of large LNG spills over water.<sup>26</sup>

One reference cited by the Task Force is the Congressional Research Service (“CRS”) Report entitled *Liquefied Natural Gas (LNG) Import Terminals: Siting, Safety and Regulation*<sup>27</sup>. This report is cited as a key reference with respect to LNG safety in the Task Force's comments (pages 12-15). However, this report is not a definitive reference on the subject of LNG safety. The report is only a compilation of recent studies on issues arising from the siting of LNG terminals and does not offer further analysis nor conclusions by experts. The report simply quotes other literature. Page CRS-1 clearly states:

This report provides an overview of recent industry proposals for new LNG import terminals. The report summarizes LNG safety hazards and the industry's safety record.

56. The Connecticut Long Island Sound LNG Task Force dwells on the summary of the May, 2004 ABS Study contained in the CRS Report, but omits the references in the CRS Report to the Sandia National Laboratories study.<sup>28</sup> The Sandia Report, the most recent and definitive

<sup>26</sup> See January 16, 2007 Comments of Hon. Wayne R. Horsley at page 2; See also January 23, 2007 Comments of Connecticut Long Island Sound LNG Task Force at page 12.

<sup>27</sup> P.W. Parformak and A.M. Flynn, *Liquefied Natural Gas (LNG) Import Terminals: Siting, Safety and Regulation*, CRS Report for Congress, updated April 20, 2005.

<sup>28</sup> Sandia National Laboratories, *Guidance on Risk Analysis and Safety Implication of a Large Liquefied Natural Gas (LNG) Spill Over Water*, SAND2004-6258. Albuquerque, New Mexico, December 2004.

reference on the subject, analyzes many of the other studies previously completed. The Sandia Report, as well as others, notes that modeling as a tool for assessing the impact of potentially large spills of LNG over water would benefit from additional experimentation to validate analysis techniques and approaches. This implies a certain degree of conservatism in applying the results of such techniques; neither more, nor less. Broadwater's selection of an offshore location, 9 miles from the Long Island shoreline and 11 miles from the Connecticut shoreline, provides a large safety buffer in excess of any inherent uncertainty in modeling potential LNG spills.

57. Some commenters expressed concerns about the findings of the Coast Guard's WSR and the potential risks posed by the Broadwater project.<sup>29</sup> The Coast Guard's report chose an extremely conservative worst-case scenario, particularly with respect to the determination of Hazard Zone 3, the estimate of the outer limit where LNG vapor could be ignited in the event of a large release. The probability of such a release without ignition at the source is extremely low, as the Coast Guard noted.

58. The scenario analyzed by the Coast Guard, based on guidance from the Sandia Report, assumed the following:

- An intentional tank breach, rather than an accidental tank breach. The nominal hole size for a large accidental breach was assessed as being 2 m<sup>2</sup> in area (5.2 feet in diameter) versus a large intentional breach (8.3 feet in diameter).
- Breach of three tanks – Sandia Report considered a scenario where a cascading failure of the ships tanks occurred because of an intentional breach, affecting up to three tanks in total. Although an actual failure is assumed to be cascading (in other words, one tank

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<sup>29</sup> See December 21, 2006 Comments of Connecticut Attorney General Blumenthal at page 1; See also January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 16.

failure after another), the Sandia Report modeled the simultaneous release from three tanks. The Coast Guard's WSR made the same assumption. Compared to a breach from a single tank, this assumption alone can result in an increase in the distance to the Lower Flammability Limit of 50%. Table 15, Sandia Report, page 53.

- Each LNG tank is full and leaks out the entire volume above the waterline (27,300 m<sup>3</sup> per tank for an LNG carrier, or 81,900 m<sup>3</sup> in total). For the FSRU, the assumption was 35,560 m<sup>3</sup> per tank, or 106,680 m<sup>3</sup> in total.
- Despite an intentional breach capable of making a hole in excess of 8 feet in diameter, no immediate ignition of the vaporizing LNG is assumed. Again, this is an extremely conservative assumption.
- In addition to all of the assumptions noted above, an assumption is made of worst case, calm, atmospheric conditions. A low wind speed and highly stable atmospheric condition were chosen because this state has shown by experiment to result with the greatest distance to the Lower Flammability Limit, and is therefore the most conservative. Broadwater looked at average atmospheric conditions in the area, and calm weather conditions assumed by the Sandia Report and the Coast Guard only occur for about 15% of the day, on average. Broadwater Response to U.S. Coast Guard Letter – report dated February 13, 2006.

59. Thus, the results of the Hazard Zone 3 analysis represent a worst-case scenario, rather than a likely scenario. A number of the analyses submitted by Broadwater suggest that the extent of a vapor cloud under a less extreme set of assumptions would be 50 to 75% less than the analysis in the WSR. A large release of LNG has never occurred in the history of LNG carrier commercial operations.

60. The Sandia Report itself recognizes the inherent conservatism associated with its assessment:

While previous studies have addressed the vapor dispersion issue *from a consequence standpoint only*, the risk analysis performed as part of this study indicates that the potential for a large vapor dispersion from an intentional breach is *highly unlikely*. This is due to the high probability

that an ignition source will be available for many initiating events identified, and because certain risk reduction techniques can be applied to prevent or mitigate the initiating events identified.

Sandia Report, page 53. (emphasis added)

61. Also, while making all of the assumptions noted above and accounting for the larger volumes of LNG stored in the tanks in the FSRU and in the 250,000 m<sup>3</sup> LNG carrier, the WSR did not attempt to quantify the reduction in risk associated with the more robust construction which will occur with larger size vessels compared to the present generation of LNG carriers. Broadwater Response to Coast Guard letter, dated February 13, 2006, page 4. This conclusion was repeatedly recognized by the Coast Guard in the WSR:

It should be noted that Det Norske Veritas (DNV) Consulting, on behalf of Broadwater Energy, conducted a comparison of the thickness and material strength of outer and inner hull plating as well as the distance between the outer and inner hulls of the FSRU and 250,000 m<sup>3</sup> LNG carriers to establish that a breach with a nominal size of 5 m<sup>2</sup> was applicable to both. Based on this comparison, it was determined that a nominal breach of 5 m<sup>2</sup> is conservative for both the proposed FSRU and 250,000 m<sup>3</sup> LNG carrier.

WSR, p. 10.

The results of the modeling conducted by Broadwater indicate that larger LNG carriers may potentially be able to absorb twice the energy of LNG carriers currently in service before the inner hull is contacted. The implication is that the conclusions of the Sandia Report are conservative with respect to the potential breach of the LNG containment for LNG carriers with capacities upwards of 250,000 m<sup>3</sup> involved in a collision with a large commercial vessel.

WSR, p. 111.

The implication is that insofar as the construction of the FSRU will be similar to an LNG carrier, this type of accident is very similar to a collision involving an LNG carrier. Based on the modeling provided by Broadwater Energy, the FSRU would be able to absorb significantly more energy than the LNG carriers considered in the discussion of involved (sic) LNG carriers, before the inner hull would be contacted. This is primarily because the distance between the outer and inner hull of the FSRU will be approximately 4.8 m whereas the corresponding distance for LNG carriers is between 2-3 m. The analysis for collisions involving LNG carriers applies also to allisions with LNG carriers moored at the FSRU by a transiting vessel. The implication is that the conclusions of the Sandia Report re: breach size are conservative for breaches resulting from an allision.

WSR, pp. 112-13

62. A 5 m<sup>2</sup> hole is a conservative assumption for an intentional breach of either the Broadwater FSRU or a 250,000 m<sup>3</sup> LNG carrier. It follows that calculations of thermal radiation associated with pool fires will necessarily be conservative as well. Incorporating the assumptions noted above, the WSR estimated the distance to the 37.5 kW/m<sup>2</sup> thermal radiation zone and estimates in the range of 721-736 yards were determined. WSR, page 12. In response to a data request to the Coast Guard, Broadwater presented a range of results that varied according to the size of the breach. Report No. 70015341 dated March 10, 2006, pages 6 -7. These results show that the distance to the 37.5 kW/m<sup>2</sup> thermal radiation zone varies significantly, depending upon breach size. For a single tank breach of the FSRU, the thermal zone estimated by Broadwater of 629 m for a 5 m<sup>2</sup> breach drops to 441 m for a 2 m<sup>2</sup> breach, which is a 30% decrease.

63. Similarly, atmospheric conditions can significantly influence these results. The extent of a thermal hazard, in the extremely unlikely event of a tank breach and subsequent pool fire, is substantially less than the 720+ yard results obtained in the WSR.

64. In summarizing the results of the WSR, which relied on the Sandia Report, the Coast Guard found:

High consequence operations such as the transportation, off-loading and storage of LNG imply potential risks to people and property. Risk is defined as the potential for suffering harm or loss and is often quantified as the product of the probability of occurrence of a threatening event times the system vulnerability to that event and the consequences of that event.

Effectively evaluating the risks of a large LNG spill over water requires that the potential hazards (results of events that are harmful to the public and/or property) and consequences be considered in conjunction with the probability of an event, plus the effectiveness of physical and operational measures of LNG transportation to prevent or mitigate a threatening event.

WSR at p. 31.

65. Moreover, the conservatism of the assumptions in the Coast Guard's analysis is not accompanied by an explicit quantification of the probability associated with this type of event, which suggests that even that potential risk is overstated, particularly in light of the excellent safety record of the LNG industry:

Over the approximately 45 years since the shipment of LNG began in vessels, more than 33,000 LNG carrier voyages have taken place. Transport of LNG in vessels has an excellent safety record: only eight marine incidents worldwide have results in LNG spills, with some damage. No cargo fires have occurred.

WSR at p. 56. Even when the worst-case analysis is assumed, the considerable safety buffers afforded by Broadwater's offshore location and the proposed LNG carrier route ensure that public safety, which is a paramount concern, is maintained.

66. Several commenters expressed concern over the safety of users of the Sound and the potential for accidents associated with transiting LNG carriers.<sup>30</sup> In fact, however, the record reflects due consideration of navigational safety and provides appropriate mitigation measures to address such potential events. The WSR provides extensive evidence of consideration by the Coast Guard and its Harbor Safety Working Group (a multidisciplinary group comprised of government agency representatives, community safety professionals, commercial interests and public interest groups) of potential risks and consensus recommendations for risk mitigation measures. *See, generally* WSR, Section 4, at pp. 103-131. The Report concludes that "it will be necessary to implement mitigation measures to effectively manage potential risks to navigation safety..." WSR, at p. 124. These mitigation measures – transit scheduling, moving safety zones, vessel traffic routing and vessel traffic service – were designed, to the maximum extent practicable, to be consistent with certain assumptions:

- LNG carrier movements shall not delay or otherwise impede the movement of naval vessels;
- Minimize potential to create vessel interactions that require deviation from either the International or Inland Rules of the Road;
- Any measures intended to mitigate potential risks to waterway safety should be consistent with current uses of Long Island Sound; and
- Any potential for imposing the burden of adjusting transit patterns/schedules on non-LNG related traffic, commercial and recreational, should be minimized as much as possible.

WSR p. 125.

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<sup>30</sup> *See* January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 23; *See also* January 16, 2007 Comments of Mr. Frederick R. Kedenburg at page 1.

67. It also was the consensus of the Harbor Safety Working Group with respect to vessel traffic management that:

- LNG carrier arrivals and departures should be scheduled to minimize conflicts with other waterway users, with particular emphasis on avoiding transiting The Race during times when use by commercial and recreation fishermen is highest and avoiding interfering with regattas;
- LNG carrier arrivals and departures should be scheduled so that only one LNG carrier is inshore of the pilot stations at any one time;
- Broadwater Energy should provide the Coast Guard with sufficient notice of planned LNG carrier transits to ensure there is not a conflict with U.S. Navy vessel movements;
- Broadwater Energy should provide initial and periodic refresher full mission bridge simulator training for all pilots licensed by either the State of New York or Connecticut who may be responsible for serving as pilot onboard an LNG carrier as provided by pilotage requirements established by either of the two states;<sup>229</sup>
- Broadwater Energy should ensure that a pilot licensed by either the State of New York or Connecticut is onboard an LNG carrier throughout the entire discharge operation;<sup>230</sup> and
- These requirements must be outlined in the Operations Manual required by 33 C.F.R. § 127.305.

<sup>229</sup> Pilotage of foreign-flag ships and U.S.-flag ships sailing under registry operating on the waters of Long Island Sound is subject to regulation by the States of New York and Connecticut. The assignment of pilots to ships required to comply with state pilotage requirements is managed by a Rotation Administrator in accordance with the MOA between the two states.

<sup>230</sup> This requirement is consistent with statements made in Broadwater Energy's application to FERC and in a letter to the Coast Guard dated... It is standard practice for state licensed pilots to remain on board tankers at either the Riverhead or Northport platforms during discharge operations.

WSR at pp. 126-127; *footnotes in original*.

Broadwater concurs with these prescriptions.

**C. Security Considerations for the Broadwater Project Have Been Adequately Evaluated Through the Coast Guard's WSR.**

68. Questions pertaining to the vulnerability of the project to terrorists were presented in a number of comments.<sup>31</sup> In many instances, the comments reflected only superficial logic, asserting, essentially, that because much of the substance of security planning is not publicly available, it follows that the project must be a security risk and a terrorist target and as such, should not be built. That logic is flawed. Any substantial investment in energy infrastructure has the same general potential. The question is whether the risk can be reduced to a satisfactory level so that the potential benefits can be realized. The alternative of building no infrastructure is incompatible with sound public policy.

69. It is readily evident from the information contained in the DEIS that the Commission's staff, referencing the detailed analysis in the Coast Guard's WSR (*See, generally* pp. 139-141), has established the foundation for the Commission's requisite "hard look" at security considerations, including the potential for the FSRU and/or transiting LNG carriers to be a terrorist target. Because the conclusion of the federal, state and local government experts with responsibilities related to maritime security and representatives from the marine industry was that *the project more than likely would not be a terrorist target*, Broadwater submits that the factual foundation for any contrary conclusion is lacking. The WSR states:

The current threat environment indicates a primary factor in the selection of targets by a terrorist organization such as al-Qa'ida is whether an attack could result in significant loss of life. Another factor is that the target is readily accessible to the media so that

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<sup>31</sup> See January 23, 2007 Comments of Connecticut Attorney General Blumenthal at page 28; See also January 25, 2007 Comments of the Nassau Hiking and Outdoor Club, Inc. at page 3 and January 16, 2007 Comments of 14<sup>th</sup> District County Legislator Hon. Wayne R. Horsley at page 1.

images of the attack can quickly be seen throughout the country and around the world.

There would normally be between 30 and 60 persons on the FSRU and between 20 – 25 crewmembers on an LNG carrier. While an attack against the FSRU or an LNG carrier would possibly result in loss of life, the proposed location is sufficiently remote that hazard Zones 1, 2, or 3 would not affect shoreside population centers. Second, the proposed location of the FSRU is relatively remote given the distance from shore and would not be broadly and readily accessible to the media or public. *Based on the above criteria, the Broadwater Energy FSRU would more than likely not be an attractive terrorist target.*

WSR at p. 140, emphasis supplied.

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It was recognized that the proposed location of the FSRU has both potential benefits and challenges. The benefits include reducing its attractiveness as a potential target because it would be removed from population centers by virtue of its location away from land. There are benefits as well for consequence management in the event of an accident or attack that results in breach of the LNG containment and subsequent release of LNG, because of the proposed location is away from population centers.

WSR at p. 141.

70. Broadwater is committed to periodic review and updating of its security assessment and facility security plan, as well as to consultation with the Coast Guard and the Long Island Sound Area Maritime Security Committee as appropriate.<sup>32</sup>

71. A number of commenters expressed concern over the proposed deployment of private security personnel within and on the perimeter of the FSRU security zone to be established by

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<sup>32</sup> The Area Maritime Security Committee participated in the security review portion of the Coast Guard's WSR.

the Coast Guard and the threat they would pose for recreational boaters.<sup>33</sup> The DEIS, referring to Section 5 of the WSR takes into account the Coast Guard's assessment of a full range of security risk management strategies and concludes that the recommended fixed security zone around the FSRU, based upon the proposed location of the facility, will not be in an area of high recreational use and, because it comprises less than 0.1 percent of the total area of the Sound, will not restrict or unduly interfere with recreational activities DEIS at p. 5-7.

72. The record is clear on the position of the Coast Guard: the sole purpose of private security personnel is to notify those who might stray toward the security zone *as a deterrent*. WSR at p. 147. Private security personnel cannot and may not act as law enforcement representatives. Law enforcement is a power that is reserved exclusively to the Coast Guard and other authorized public agencies. These limitations are common to all land-based commercial and industrial facilities with security needs, and the use of security guards is not novel and certainly not unique to the Broadwater project. The discussion in the DEIS, including the materials it cites, describes a logical protocol that cannot be misunderstood and should not be mischaracterized.

**D. Environmental Impacts Have Been Adequately Characterized.**

**(i) Sufficient Investigations were Conducted to Disclose Environmental Conditions and Impacts.**

73. Several commenters<sup>34</sup> took issue with the scientific information reflected in the DEIS, arguing that more detailed studies and review of recent sources is required to complete the DEIS.

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<sup>33</sup> See January 22, 2007 Comments of the Cross Sound Ferry Services, Inc. at page 1; See also January 22, 2007 Comments of the Norwalk Yacht Club at page 1.

<sup>34</sup> See, e.g., January 23, 2007 Comments of Connecticut Long Island Sound LNG Task Force at p. 25-32; See also January 27, 2007 Comments of Connecticut Attorney General Blumenthal at pages 9-14 and 19-21.

However, the persons who provided the observations cited by the commenters acknowledged to the Commission's staff<sup>35</sup> that each had reviewed portions of the DEIS but none had reviewed the entire DEIS *nor* the Applicants' scientific information contained in the Resource Reports filed in January 2006 and the entire technical record before the Commission. The Resource Reports, for example, reflect that during the Spring of 2005 Broadwater conducted geotechnical and biological surveys with data collected at approximately 1 mile intervals at sampling locations selected to be representative of the various habitats and sediment types based upon review of the database of existing literature. The database was a significant compilation of baseline sedimentary and biological conditions from sources including Ralph Lewis, Roman Zajac, and Peter Auster, all of whom appeared before the Connecticut Task Force. Prior to the initiation of field surveys, Broadwater developed a Draft Sampling and Analysis Plan describing the proposed field efforts that would be undertaken to characterize the existing conditions and to assess potential impacts resulting from the implementation of the project. Broadwater's sampling frequency and regime were consistent with the practices utilized on previously permitted and installed pipeline projects both in Long Island Sound and nationwide. Agencies that were provided the opportunity to comment on the Plan included the Corps, the US Environmental Protection Agency (EPA), NOAA Marine Fisheries, the New York State Department of State (Coastal Resources), and the New York State Department of Environmental Conservation. The final Plan was submitted as Appendix A to the Spring 2005 Environmental Sampling Report, which was submitted as a stand alone report with Broadwater's January 2006 FERC application.

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<sup>35</sup> Meeting of January 16, 2007 attended by Connecticut Long Island Sound LNG Task Force Co-chairs, local professors and former state geologist, FERC staff, Broadwater representatives and the Connecticut Attorney General.

74. Geotechnical studies conducted along the proposed pipeline route included both vibracore and cone penetrometer testing to assess the sediment structure and stability. A total of 28 samples were collected along the proposed pipeline alignment and at the proposed FSRU location. At each sampling location, vibracore samples were collected to a depth of approximately 10 feet (3 meters or depth of refusal) to characterize the sediments to the proposed depth of installation. In addition to the geotechnical samples collected with the vibracore, an *in situ* test method also was performed in the field using the cone penetrometer test. Where the materials exhibited properties of muck rather than a silt or sand, the probe extended up to 30 feet (9 m) deep to collect data on sediment density. Results of these studies were presented in Broadwater's FERC application as part of Resource Report 7 – Soils, with logs from this sampling effort included as Appendices A and B. In addition, soil property data collected as part of the geotechnical surveys were used to provide support for the preliminary engineering design of the pipeline.

75. Broadwater also conducted benthic and water/sediment quality sampling to establish baseline data regarding existing conditions at each of the 28 sampling locations. Based on the close association depicted in the background literature between sediment type and benthic habitat structure, the analyses completed more than adequately characterize the existing environment in proximity to the proposed route for the pipeline. Benthic sampling utilized a Smith Mac-Intyre grab sampler that collected bottom sediment from an approximate 0.1 square meter area. Biological materials collected as part of each grab sample were assessed to identify the community metrics of abundance, richness, Shannon Weiner Diversity, and evenness. The benthic data was supplemented with the use of a drop camera to provide a snapshot of bottom conditions at each of the sampling locations. Sediment quality at each station was analyzed in

accordance with specific NYSDEC guidelines. As requested by NYSDEC, dioxin was added to the suite of testing parameters in areas where clay content was significant. Water quality samples were collected at a wider interval because of the general mixing that occurs within the Sound due to tidal and weather activity. Results of this sampling were presented in the 2005 Environmental Sampling Report submitted as a standalone report with Broadwater's FERC application.

76. With respect to the proposed location of the mooring tower, a plan was developed to provide supplemental characterization of the deeper geological conditions into which the tower will be installed: on pages 3-5 (Soil Liquefaction), the DEIS acknowledges that Broadwater proposes to conduct exploratory borings in 2008 to assess deeper substrate conditions and determine the depth of pile-driving. These are construction related issues to ensure there will be no damage to the YMS. Future additional geotechnical investigations will be conducted at or near the Iroquois hot tap site and the two cables to be crossed by the pipeline for use in the final design of the pipeline. The project will also evaluate the feasibility of plowing the pipeline through the Stratford Shoal to finalize the pipeline installation and lowering method. Consistent with its authority to impose conditions, the Commission staff will maintain oversight of these further investigations and the Director of the Office of Energy Projects must approve the findings. DEIS Section 5.2, Condition 12 at p.5-20. The necessary data to evaluate environmental conditions at the construction site have been identified and properly evaluated; further design and geotechnical information is not needed as the DEIS satisfies the Commission's NEPA obligations.

**(ii) Evidence Supports Conclusion That Benthic Communities Will Recover from Temporary Construction Disturbances.**

77. Commenters, including the Connecticut Attorney General<sup>36</sup> raised concerns that existing benthic communities may never adequately recover from impacts caused by installation of the subsea pipeline. Anecdotal and existing literature sources provide a variety of opinions on the success of restoration. Those opposed to Broadwater point to the Iroquois pipeline as an example of failed or poor restoration success. However, these negative observations relate to impacts on the shallower inshore areas that are considered high quality shellfish habitats. No such negative data has been presented regarding the deeper sedimentary environments in the central portion of the Sound that would be similar to those where Broadwater's proposed pipeline would be installed.

78. In fact, initial monitoring reports generated for the Cross Sound Cable find that in sedimentary environments within the Sound, restoration may be occurring quickly. Roman Zajac, in his 1998 "A Review of Research on Benthic Communities Conducted in Long Island Sound and An Assessment of Structure and Dynamics" identifies and describes the successional stages that define the communities in Long Island Sound where there has been some disturbance. He noted that benthic communities were found to be highly variable. In 1977 and 1978 publications McCall also addressed disturbance in marine habitats and adaptive strategies of infaunal benthos in Long Island Sound. First stage successional communities typically consist of early colonizers, which are high in number and opportunistic in nature. They are generally small, live in tubes within the upper sediment layer, and have rapid colonization life history strategies. Later stage successional communities tend to be dominated by species that are larger,

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<sup>36</sup> See January 23, 2007 Comments of Connecticut Attorney General Blumenthal at p. 25-27.

mobile, and deeper living organisms. Successional stages also are influenced by sediment type depositional environment, which is supported by Zajac's observations of high variability in benthic communities. Broadwater has not found any studies that demonstrate that restoration does not occur following disturbance. Based on the narrow linear nature of the proposed disturbance, natural recruitment from adjacent areas would be expected to provide a biological source for community reestablishment. If sediment dynamics are altered by installation of the pipeline, community structure may evolve on a slightly different path than adjacent undisturbed areas. As pointed out by Zajac in his 1998 publication, the potential variation in community dynamics in estuarine systems such as Long Island Sound can be quite significant and various successional stages may intermix, thus making it difficult to apply specific models or draw general conclusions with respect to the recovery rate for existing communities.

79. Thus, the establishment of a linear disturbance amidst a moderately diverse ecosystem (confirmed by Broadwater sampling) would not have significant impact to the community, particularly given that the data collected by Broadwater identified no unique assemblages, but rather assemblages that encompass large areas of the Sound. Recognizing that some impact is unavoidable with the installation of the pipeline, Broadwater established a baseline assessment to which post-construction restoration of benthic communities will be compared. Broadwater acknowledges that post construction monitoring of the benthic communities would be essential to assess the recovery of disturbed portions of the marine ecosystem and is committed to do so.

80. Commenters also identified concerns regarding impacts that the Broadwater project's pipeline may have on the lobster population in the Sound.<sup>37</sup> In Resource Report 3 (page 3-49), Broadwater noted that, unlike many lobster populations in the Northeast, lobsters in Long Island Sound are not migratory. Information obtained from the lobstering community (*See Appendix C to Resource Report 8*) confirms that lobster fishing is not constant throughout the year, but rather two peak fishing periods occur, one during the spring and summer and another during late fall and early winter. As depicted in Figure 3-16, while the lobsters in Long Island Sound do not migrate per se, the lobster populations demonstrate a seasonal pattern with numbers lower in the winter months when Broadwater anticipates installing the pipeline and tower. Regardless of season, the construction of the Broadwater pipeline has the potential to result in short term impact to lobsters, primarily from direct disturbance and potential mortality along the trench line to less mobile individuals. The installation of the pipeline will result in some elevated levels of turbidity. However, lobsters live in a variety of habitats, including nearshore areas where suspended sediment concentrations are routinely high, and lobsters have obviously adapted to storm events that result in increased sediment levels in the water column. While long term impacts to lobster habitat has been identified as a potential concern, Broadwater has not found any studies that document a reduced lobster stock associated with any of the existing utility lines that have been installed within Long Island Sound, including the Eastchester and Iroquois Pipelines, the Cross Sound Cable or any of the communication cables. The presence of this existing network of existing subsea utilities supports the conclusion that lobsters have adapted to, and coexist with these linear-type disturbances and that similar results would be expected from the installation of the Broadwater pipeline.

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<sup>37</sup> *See* January 23, 2007 Comments of the Connecticut Department of Environmental Protection at p.11-13; *See also* January 23, 2007 Comments of New York State Department of Environmental Conservation at p.3.

**(iii) The Need for Mechanical Backfill of the Construction Trench is Uncertain.**

81. In the DEIS, the Commission's staff has recommended that Broadwater backfill the trench after installation of the pipeline. While several commenters supported the recommendations, others suggested there could be unintended consequences, such as supporting the growth of invasive species, from mechanical backfilling and the use of certain materials.<sup>38</sup> Based on modeling, Broadwater concluded that in-filling of the trench (within 1 foot of the surface) would largely occur within a 36 month period for the portions of the project that are located within depositional environments. Based on trench geometry, the bottom half of the trench would be naturally infilled within 12 months. Broadwater is committed to assuring that a mutually agreed upon backfill level is achieved within a reasonable timeframe or that a demonstration of obvious advancement toward the stated restoration benchmarks is occurring. If it is determined that the area to be disturbed by the Broadwater project will not have a reasonable likelihood of backfilling naturally, then Broadwater will develop a plan that provides for active backfilling as a part of the construction phase.

**(iv) FSRU and LNG Carrier Water Withdrawal Will Have Minimal Impact Upon Aquatic Species.**

82. Several comments received on the DEIS stated that significant mortality to marine species will result from operation of the seawater intakes for process and ballast water. Broadwater recognizes that impingement and entrainment impacts will occur during the operation of the FSRU and LNG offloading of the carriers. Broadwater has put these impacts into context as part of its determination of whether the impacts could be considered significant.

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<sup>38</sup> See January 23, 2007 Comments of Connecticut Department of Environmental Protection Commissioner McCarthy at p.10.

In order to qualify the findings presented in the DEIS and provide further support that aquatic species impacts from the Broadwater facility will not be significant, several comparative analyses were performed to compare the FSRU with other facilities that withdraw water from Long Island Sound. This analysis included comparisons of annual water intake rates, annual entrainment estimates for eggs and larvae based on site-specific sampling data, and annual entrainment estimates based on adult equivalents and recreational and commercial catches.

83. The comparison reflects that the FSRU, with an average annual intake volume of 5.5 MGD as presented in Table 3.2.3-1 of the DEIS, withdraws significantly less water than all other facilities located in the same impact area. Table 1 below shows that nominal withdrawal rates for existing power plants range from 155 MGD for the AES facility on the Thames River to 2,189 MGD for the Millstone nuclear power plant which discharges to Niantic Bay. Many of these facilities are located in estuarine areas that likely contain much higher densities of ichthyoplankton and other species within much smaller bodies of water. As a result, these power plants are withdrawing a greater percentage of the available water within a defined area, whereas the Broadwater facility would be withdrawing water from the open expanse of central Long Island Sound.

84. In addition, a comparison of site-specific data for listed species including ichthyoplankton was performed for Millstone Station and the Broadwater facility. The results presented for Broadwater include sampling data presented in the DEIS (Poletti data from intermediate and deep strata). As stated in the DEIS (pg 3-52), the deep strata are most representative of the Broadwater facility, since the intermediate strata includes waters as shallow as 20 feet. Both strata were included here for comparison purposes. As shown below in Table 2,

Broadwater egg and larvae sums from the deep and intermediate strata are significantly lower (123.9 and 243.5, respectively) than the Millstone egg and larvae count (5,146.1). Most importantly, the Millstone data show no downward trend in long-term abundance for fish or American lobster based on 30-years of monitoring data from this facility (NUSCO 2006) which has included trawl, ichthyoplankton, entrainment, seine, lobster and benthos sampling and evaluation. Based on the Millstone impacts being more than an order of magnitude greater than Broadwater and no evidence of adverse impact after 30 years of monitoring, there is no rationale to support the commenters' contention that the potential impacts from the FSRU and LNG carriers will be significant.

85. A comparison of adult equivalents for the species potentially affected by the Broadwater facility and the commercial fishery landings can be developed to provide a tangible demonstration of the anticipated impacts. This comparison uses the proportion of water withdrawal supplied for cooling water to power plants, which is often used to derive a conservative estimate of potential adverse impacts to the local fishery. For example, withdrawal of 5% of the source water flow may be expected to result in a loss of 5% of planktonic organisms. Although the assumption of uniform distribution of planktonic organisms in the vicinity of the intake may not always be met, when data on actual distributions are unavailable, simple mathematical models based on this assumption provide a conservative and easily applied method for predicting potential losses (Goodyear, 1977). The sum of both the FSRU (5.5 MGD) and LNG carriers (22.7 MGD) average daily seawater intake is 28.2 MGD. The volume of water in Long Island Sound is approximately  $16 \times 10^{12}$  (16 trillion) gallons. The volume of water in the offshore areas of the central basin of Long Island Sound (where total water depth is  $> 20$  ft) is approximately  $10 \times 10^{12}$  (10 trillion) gallons. Therefore, the daily intake rate of the FSRU and

associated LNG carriers represents only 0.0003% of the source water body volume of Long Island Sound.

86. With respect to fish eggs and larvae it must be noted that they suffer high rates of natural mortality; greater than > 99.9% of young spawned by a marine female fish typically die before reaching adulthood. Therefore, the entrainment loss of 100-200 million fish eggs and larvae is in no way equivalent to the loss of 100-200 million adult fish capable of reproducing or being harvested by recreational or commercial fishermen.

87. Broadwater entrainment estimates (124 million eggs and larvae) from the deep waters of the central basin of Long Island Sound (*See* Table 2) were expressed in terms of one year old (fingerling) and adult (age at sexual maturity) equivalent fish. Of the 124 million eggs and larvae entrained, only 230,000 (0.2% of the eggs and larvae) would be expected to survive natural mortality to their first birthday and only 140,000 (0.1%) are estimated to survive to the age of first maturity (see Table 3). Bay anchovy represent the highest proportion of the adult equivalent fish (33%), followed by sea robin (24%), cunner (12%), and fourbeard rockling (11%). Sportfish sought after by recreational fishermen in Long Island Sound (winter flounder, scup, tautog, weakfish, black sea bass, and Atlantic mackerel) combined represent only 1% of the adult equivalent fish. Other commercially valuable species such as Atlantic menhaden (3%), Atlantic herring (< 0.1 %), and butterfish (1%) comprised a small proportion of the adult equivalent total.

88. The combined recreational catch of winter flounder, scup, tautog, weakfish, black sea bass and Atlantic mackerel in Connecticut state waters (averaged for 2000-2005) is > 2 million fish per year. The number of adult equivalents lost to entrainment for these six sport fish species

combined is approximately 1,500 or  $< 0.1\%$  of the annual recreational catch in Connecticut waters.

89. Foregone fishery yield is a measure of the amount of commercially valuable fish that are not available to be harvested in the future because the fish are lost to entrainment while in egg or larval form. Foregone fishery yield (in pounds) of the sport fish (winter flounder, scup, tautog, weakfish, black sea bass, and Atlantic mackerel) represents  $< 0.1\%$  of the  $> 1$  million pounds (averaged 2000-2005) of these species harvested annually by recreational fisherman in Connecticut state waters. Foregone fishery yield for commercially harvested species collected in the Broadwater ichthyoplankton samples (Atlantic herring, Atlantic mackerel, Atlantic menhaden, black sea bass, butterfish, scup, tautog, weakfish, windowpane flounder, winter flounder) represents  $< 1\%$  of the 1.5 million pounds (averaged 2000-2004) of these species harvested annually by commercial fishermen in Connecticut.

90. Entrainment losses for lobster larvae expressed in terms of Age 5 lobsters (the age where many lobsters in Long Island Sound first molt to legal size) range from about 50-150. These values represent  $< 0.01\%$  of the nearly 2 million lbs (average 2001-2004) harvested in Long Island Sound by commercial lobsterman in New York and Connecticut.

91. Based on the very low adult equivalent entrainment estimates and the small percentage ( $< 1\%$ ) of the commercial fishery yield that could potentially be impacted by the entrainment and impingement at the Broadwater facility, significant impacts on the fishery area not expected.

**Table 1 - Comparison of permitted cooling water intake flow (million gallons per day, MGD) at electrical generating stations located on or near Long Island Sound.**

Facility	Location	Cooling Water Source	Cooling Water Intake Rate at Full Capacity (MGD)
AES Thames	Uncasville, CT	Lower Thames River	155
Bridgeport Station	Bridgeport, CT	Bridgeport Harbor	439
Devon Station	Milford, CT	Lower Housatonic River	919
Montville Station	Uncasville, CT	Lower Thames River	315
New Haven Harbor	New Haven, CT	New Haven Harbor	404
NRG Norwalk Harbor	South Norwalk, CT	Long Island Sound	284
Millstone Station	Waterford, CT	Niantic Bay	2,189
Charles Poletti	Astoria, NY	East River	763
Ravenswood	Long Island City, NY	East River	1389
E.F. Barrett Station	Island Park, NY	South Oyster Bay	281
Glenwood Power Station	Glenwood Landing, NY	Hempstead Harbor	176
Northport Generating Station	Northport, NY	Long Island Sound	926
Port Jefferson	Port Jefferson, NY	Long Island Sound	408

Source: Energy Information Administration. EIA-767 Data Files, Annual Steam-Electric Plant Operation and Design Data for 2005. <http://www.eia.doe.gov/cneaf/electricity/page/eia767.html>; Data for Millstone Station was obtained from NUSCO 2006.

**Table 2 - Comparison of annual entrainment of fish (and American lobster) eggs and larvae (in millions) at Millstone Power Station and the proposed Broadwater Facility.**

Species	Millstone <sup>a</sup>			Broadwater-Deep Strata <sup>b</sup>			Broadwater- Intermediate Strata <sup>c</sup>		
	Eggs	Larvae	Eggs + Larvae	Eggs	Larvae	Eggs + Larvae	Eggs	Larvae	Eggs + Larvae
American lobster	NR	0.2	0.2	0.0	0.04	0.04	0.0	0.05	0.05
American sandlance	NR	26.0	26.0	0.0	1.2	1.2	0.0	1.4	1.4
Bay anchovy	9.3	99.4	108.8	5.8	38.6	44.4	19.9	45.7	65.6
Atlantic menhaden	NR	347.3	347.3	2.1	14.5	16.6	23.3	33.0	56.3
Grubby	NR	94.0	94.0	0.0	0.05	0.0	0.0	0.1	0.1
Cunner	2,648.2	24.3	2,672.6	2.0	2.8	4.9	3.3	11.0	14.2
Tautog	1,638.3	63.6	1,701.9	5.9	3.9	9.8	7.1	11.6	18.6
Winter flounder	NR	195.3	195.3	0.0	1.5	1.5	0.0	1.0	1.0
Other <sup>d</sup>	NR	NR	NR	32.0	13.5	45.5	42.9	43.4	86.2
SUM	4,295.9	850.2	5,146.1	47.9	76.1	123.9	96.4	147.1	243.5

NR = Not Reported

1. Millstone values (a) represent the annual average from 1996-2005 as reported in Nusco (2006). Entrainment estimates are only calculated for the listed species, which represent 85% of all eggs and 87% of all larvae collected (1973-2004); and therefore represent the majority although not all potential fish entrained. Broadwater deep strata (b) estimates include data obtained from site specific collections made from August 2005-February 2006 and the 2002 Poletti Ichthyoplankton Monitoring Program at stations subset to represent the Central Basin of Long Island Sound where total water column depth is > 98 feet from March-July. Broadwater intermediate strata (c) estimates include data obtained from site specific collections made from August 2005-February 2006 and the 2002 Poletti Ichthyoplankton Monitoring Program at stations subset to represent the Central Basin of Long Island Sound where total water column depth is 20-98 feet from March-July. These numbers are presented to represent an upper boundary of entrainment estimates by including samples collected in more productive, shallow nearshore waters. Entrainment estimates for species other than those listed are not provided in Nusco (2006). Dominant species included in "Other" (d) for the Broadwater estimates include fourbeard rockling (14%), scup (9%) and searobins (5%) of the total eggs and larvae.

1. There are no long term abundance trends for fish or American lobster related to Millstone Station based on 30 years of extensive monitoring data (NUSCO 2006). Critical reviews of the annual report compiled by the Millstone Environmental Laboratory and oversight of the monitoring programs were completed by Dr. Ernesto Lorda, consultant to Millstone Environmental Laboratory and the following members of the Millstone Ecological Advisory Committee: Dr. John Tietjen (chair: emeritus, City University of New York), Dr. W. Hunting Howell (University of New Hampshire), Dr. Nelson Marshall (emeritus, University of Rhode Island), Dr. William Pearcy (emeritus, Oregon State University), Dr. Robert Whitlatch (University of Connecticut), and Dr. Robert Wilce (emeritus, University of Massachusetts).

**Table 3 – Broadwater Annual Fish Entrainment Estimates in Adult Equivalents (expressed in millions)**

	eggs	larvae	Adult Equivalents	Fishery Yield Lost to Entrainment (lbs)	% Recreational Harvest in CT (lbs) <sup>d</sup>	% Commercial Harvest in CT (lbs) <sup>e</sup>
Sport fish <sup>a</sup>	9.0	9.2	0.002	500	0.04	0.07
Other commercial <sup>b</sup>	4.1	16.6	0.005	12,500	NA	1.81
Forage <sup>c</sup>	34.8	50.2	0.130			
<b>Sum</b>	<b>47.9</b>	<b>76.0</b>	<b>0.137</b>			

a includes Atlantic mackerel, black sea bass, scup, tautog, weakfish, winter flounder

b includes Atlantic herring, Atlantic menhaden, butterfish

c all other species combined, dominant species include bay anchovy, fourbeard rockling, searobin, and cunner.

d Recreational fishery statistics are for Connecticut State waters, obtained from <http://www.st.nmfs.gov/st1/recreational/>

e Commercial fishery statistics for Connecticut, obtained from [http://www.st.nmfs.gov/st1/commercial/landings/annual\\_landings.html](http://www.st.nmfs.gov/st1/commercial/landings/annual_landings.html)

92. Commenters also noted a perceived inadequacy of Broadwater's proposed intake screen mesh size arguing that it will result in high levels of entrainment of aquatic organisms. Fine mesh screens can reduce entrainment by physical exclusion and reduce impingement by limiting hydrodynamic forces. Physical exclusion occurs when the mesh size of the screen is smaller than the organisms susceptible to entrainment. Impingement is reduced by minimizing the screen through-slot velocity. The Environmental Protection Agency (EPA) requires intake screen through-slot velocity not to exceed 0.5 ft/sec. The 0.5 ft/sec velocity is conservative since, at this velocity, mobile fish and sea life will be able to swim away. Most sea life will avoid the current caused by the intake suction and stay away from the intake screens. The only sea life at risk with this low velocity is the fish eggs and larvae that are not mobile. Lower velocities have not been shown to greatly reduce the risk to sea life.

93. In order to support compliance with the Clean Water Act Section 316(b), EPA has compiled data on the performance of the range of technologies currently used to minimize impingement and entrainment (I & E) at power plants nationwide. One of the favorable alternatives evaluated by the agency was the use of fine mesh screens. The design of the FSRU incorporates screens with a through-slot size of 5.0 mm and maximum through-slot velocity of 0.5 ft/sec located on the seawater intakes of the FSRU.

94. Broadwater's seawater intake screen design incorporated the 5.00 mm through-slot openings at a water depth where fish eggs and small larvae are at a lower population density than at an intermediate-strata location (20-98 feet), as supported by the data presented in Table 2 which shows that the intermediate strata has the highest number of egg and larvae present. The

use of intake screens with a through-slot of less than 5.00 mm for the Broadwater facility is an unproven application of the fine mesh technology, and as such would not guarantee that the FSRU would be able to be operate continually.

**(v) FSRU and LNG Carrier Water Discharge Temperature and Chlorine Levels Will Have Minimal Impact Upon Aquatic Species in Limited Area Mixing Zone.**

95. The New York State Department of Environmental Conservation (DEIS) expressed concern about the residual chlorine concentration in discharge water, especially as related to potential impacts on lobster larvae, and requested further analysis of expected chlorine concentrations in Long Island Sound resulting from the discharge.<sup>39</sup>

96. The marine growth prevention system proposed for the FSRU is electrolysis of seawater so that only a very low dose of sodium hypochlorite (0.2 ppm proposed) needs to be injected at the intake sea chest. This is one of the most typical marine growth prevention systems used in the shipping industry. Sodium hypochlorite is an unstable salt that degrades over time back to seawater. At the point of discharge from the FSRU, the concentration of residual chlorine is expected to be in the 10 to 50 µg/L (ppb) range and will rapidly dilute in the open waters of Long Island Sound.

97. Although there are numerous computer models available for evaluating dilution of ocean discharges, use of a simplified desktop method is often useful as a first step to estimate nearfield dilution of a proposed discharge. One of the simplest and conservative approaches is to use the

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<sup>39</sup> See January 23, 2007 comments of New York State Department of Environmental Conservation at p. 2.

EPA dilution equation.<sup>40</sup> This equation is best applied to situations where dilution is dominated by discharge momentum and where the discharge is essentially neutrally buoyant in the ambient water. Both conditions apply to the FSRU discharge water being evaluated. Since ambient current, which increases nearfield dilution, is ignored by this method, and because on-site field current monitoring indicates that currents of varying magnitudes are nearly always present, this analysis may be considered conservative and that actual nearfield dilution would likely be somewhat greater than estimated here. The desktop equation is:

$$S = 0.3(x/d)$$

where:

S = average dilution at distance x

x = distance from outlet

d = diameter of outlet pipe = 28" for the FSRU

Because the NYSDEC water quality standard is 5 ppb for chlorine and the discharge residual chlorine concentration is expected to range from 10 to 50 ppb, a dilution factor of 2 to 10 times would be necessary to achieve compliance with the standard. Based on the above equation, it can be calculated that chlorine compliance would be achieved within approximately 16 to 78 feet of the FSRU, depending on the actual residual chlorine concentration in the discharge. The mixing zone analysis demonstrates that the discharge would not have an adverse affect on the aquatic environment. Because actual ambient discharge conditions would include a certain amount of ambient current, it is expected that compliance would actually be achieved in shorter

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<sup>40</sup> U.S. Environmental Protection Agency. 1991. Technical Support Document for Water Quality-based Toxics Control. EPA /505/2-90-001.

distances from the point of discharge. Consequently the discharge of chlorinated ballast water from the proposed LNG facility would result in minor impacts to the water quality of Long Island Sound within a small geographic area proximate to the FSRU.

98. Concerns were raised with respect to thermal discharges from operation of the proposed Broadwater facility.<sup>41</sup> Broadwater notes that the ballast water discharge from the FSRU, which will be the major source of discharge water from the facility, will be at ambient temperature level. Heating or cooling of this water does not occur at any point throughout its residence time in the FSRU. Water does not remain in the ballast tanks for extended periods and a large proportion of the ballast tanks themselves are in contact with the sea through the outer hull. The Broadwater FSRU does not use seawater for cooling purposes except if the FSRU's closed loop shell and tube vaporization system fails.

99. Broadwater identified three discharges that would have thermal components; one consisting of cooling water from steam turbine LNG carriers offloading to the FSRU and one consisting of cooling water from the periodic (once every five years) purging, cleaning and inspecting of the FSRU storage tanks. The third discharge would be if the seawater cooling system were used in the event that the closed shell and tube vaporizer failed.

100. The LNG carrier cooling water discharges are estimated to be 2.6 million gallons per hour while the carrier is docked and offloading to the FSRU. The delta T of the discharge is expected to be 3.6°F above ambient temperatures, regardless of time of year. NYSDEC estuary regulations require a thermal discharge to not raise ambient temperatures greater than 4°F when

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<sup>41</sup> See, January 23, 2007 Comments of the New York Department of Environmental Conservation at page 2; See also January 23, 2007 Comments of Citizens Campaign for the Environment at page 5.

ambient temperature is less than 83°F and no greater than 1.5°F when ambient temperature is greater than 83°F (and never greater than 90°F). Since the expected discharge temperature would be 3.6°F above ambient temperature, the carrier cooling water discharge would be in compliance with temperature criteria whenever ambient temperature was less than 83°F.

101. Broadwater provided a discussion of typical temperature regimes in Long Island Sound throughout the year. Throughout the year, temperatures in the Sound are expected to fall well below 83°F throughout the year. Only in the warmest summer months (July through September) do temperatures even begin to approach the threshold value. Temperatures at or near the surface range from 65 °F to 77 °F, while temperatures can be as much as 9 °F cooler, at depth. Higher temperatures nearing 83°F likely would occur in shallower near shore estuarine environments that are more influenced by daily temperatures, but not in the deeper central portion of the Sound where the project would be located.

102. Finally, the potential impact of the once every five years discharge from purging, cleaning and inspecting of the FSRU storage tanks was evaluated. This activity would occur over a one to two day period. This is a non-contact, 0.29 million gallons per hour cooling water discharge that is expected to have delta T above ambient temperature of 20°F, regardless of the time of year. (Note: Although the DEIS indicates a delta T of 52°F, per Broadwater's April 20, 2006 response to a FERC Environmental Information Request, Broadwater identified an anticipated increase in temperature of 11°C, or 20°F.) A mixing zone would therefore be required to meet the temperature compliance criteria of no more than 4°F above ambient. Again assuming that temperature behaves conservatively, calculations indicate that approximately 4 gallons of ambient water for every gallon of discharge water would be required to reduce the discharge

temperature to 4°F above ambient. Using the EPA dilution equation and again assuming a discharge port diameter of 28 inches, the necessary level of dilution would be achieved within 39 feet of the point of discharge (calculated). One can conclude that water quality impacts from the discharge of tank cleaning, non-contact cooling water would have minor impacts on the thermal regime of LIS and then only in the immediate vicinity of the FSRU over a one to two day period every five years.

**(vi) Broadwater's Essential Fish Habitat Assessment Provides an Adequate Baseline Evaluation for NEPA Purposes.**

103. Broadwater prepared an Essential Fish Habitat Assessment for the project that included an assessment of potential impacts as a result of construction and operation of the project. Broadwater's draft EFH Assessment is included as Appendix A to Resource Report 3. In addition to stating the general biological impacts anticipated from the project, Broadwater addressed each of the 20 individual species with identified EFH habitat within the project area. While final design of the FSRU and pipeline will not be completed prior to issuance of the FEIS, Broadwater has undertaken sufficient design of the project to frame the biological consequences of the project.

104. NMFS's (NOAA) comments with regard to the adequacy of the information relate to the need to see the final design of the project and installation methodology in order to make a final opinion of the impacts. However, this is not required to satisfy the NEPA process. Broadwater will continue to work with NMFS to assess these impacts and to develop appropriate mitigation as the design for the project progresses and Broadwater expects that this will become a condition to any Commission order. If these discussions result in modifications to the project, the result would be a reduction of impact for that presented, not an increase, or the mitigation would not be

recommended and implemented. As such, the project information presented, both by Broadwater in the Resource Reports, and by FERC in the DEIS are, in fact, adequate for NOAA Fisheries to assess potential project impacts.

105. In the development of the ichthyoplankton impingement and entrainment estimates and the overall EFH impacts resulting from the construction and operation of the facility, Broadwater made conservative estimates of potential impacts that reflect worst case scenarios. The impact assessments presented by Broadwater address water intakes and discharges associated with both the FSRU and LNG carriers that will deliver cargo to the terminal, as well as all impacts that will be associated with the construction and operation of the pipeline. They are based on the actual impact to the biological communities affected and will be based on the intake and discharge volume estimates derived for the project, not the specific engineering design of the facility. For instance, Broadwater committed to implementing established NOAA Fisheries guidelines in terms of intake velocities to minimize impacts to the extent possible, with water intake flow velocities maintained at a maximum of 0.5 feet/second (0.15 m/s), which will allow any mobile organisms to swim away from the intake. Broadwater also designed the intake structures at approximately 40 feet below the surface, avoiding impacts to buoyant and demersal biological life stages. The final design of the intake structure is immaterial in assessing impacts associated with water withdrawal and discharge.

106. Broadwater is committed to continued coordination with NOAA Fisheries and other agencies as the project moves forward into the design phase, and as a cooperating agency, NOAA Fisheries will be provided additional design information as it is finalized. It is clear though, that for the purposes of assessing the potential project impacts and completing the EFH

consultation process, that NOAA Fisheries has sufficient information to make an informed decision on the anticipated impacts from the project.

**(vii) The Broadwater Project is Consistent with the Objective of the Estuary of National Significance Management Plan.**

107. Several commenters incorrectly urge that because Long Island Sound has been designated as an Estuary of National Significance, the Broadwater project cannot be authorized. Similarly and equally incorrectly, the Long Island Sound Stewardship Act of 2006 is cited for the same proposition.<sup>42</sup> The national estuary program initiated pursuant to Section 320 of the Federal Clean Water Act (“CWA”) focuses on the control of point and non-point sources of pollution. It also seeks to have plans developed for the management of such sources and the restoration of impacted areas and flora and fauna. The statute lists estuaries with complex shoreline development and mixed recreational, commercial and industrial uses, such as New York-New Jersey Harbor, Galveston Bay, San Francisco Bay and Massachusetts Bay (including Boston Harbor), as well as Long Island Sound, for priority consideration (CWA § 320(a)(2)(B)). But plainly, designation as an estuary of national significance does not constitute a bar to development. Rather it establishes the basis for specific pollution control plans and management practices.

108. With respect to the Broadwater project, the DEIS correctly found:

Although the entire Sound has been designated as an Estuary of National Significance, no wildlife management areas, marine sanctuaries, or state, federal, or local parks are within 9 miles of the proposed locations of the FSRU and YMS or within approximately 4 miles of the proposed pipeline route. As required

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<sup>42</sup> See November 28, 2006 Comments of the Connecticut Fund for the Environment at page 4.

by the National Estuary Program, a Comprehensive Conservation and Management Plan was developed for Long Island Sound to meet the goals of Section 320 of the Clean Water Act. The Plan for the Sound was developed to protect and improve the health of the Sound while ensuring compatible human uses within the Sound's ecosystem. *Areas of concern identified as top priorities include low dissolved oxygen levels, toxic contamination, pathogen contamination, floatable debris, and land use and development, along with their associated impacts to water quality, living resources, and habitat degradation. The proposed Project would not affect dissolved oxygen levels, introduce new toxic contaminants, increase pathogen contamination, generate floating debris, or result in a net degradation of habitat.* In addition, the Project appears to be consistent with the Plan's stated objective to encouraging environmentally sensitive development and land use planning.

DEIS at pp. 5-7 to 5-8, emphasis supplied.

Clearly the Broadwater project will not adversely impact any of the aspects of the management plan established for important restoration activities in Long Island Sound.

**(viii) Impacts Upon Commercial and Recreational Fishing Have Been Carefully Evaluated and Found to be Minimal.**

109. Comments at the public meetings and written submissions focused on the potential for damage to the commercial and recreational fishing interests from the siting of the FSRU, the LNG carrier transit route, and their respective permanent and moving safety/security zones.<sup>43</sup> The DEIS appropriately acknowledges the information that Broadwater has collected to date from commercial fishermen who have represented that their livelihoods, to varying degrees, will be impacted by the construction, siting, and safety/security zones associated with the project. The potentially affected fishermen identified by Broadwater total less than thirty, which

<sup>43</sup> See January 19, 2007 Comments of the Towns of Riverhead and Southold, NY at page 21.

represents a very small percentage of commercial fishermen who make their livelihood on the Sound. Broadwater is committed to continuing to work with potentially affected fishermen to devise a fair compensation plan. A Fisheries Liaison Committee has been established to facilitate ongoing engagement between the parties.

110. The DEIS evaluated the impacts of construction and operation on the species targeted by recreational fishermen and found no significant impact. *See* DEIS § 3.3.3.2 at pp. 3-64 to 3-66. Further, in its evaluation of recreation areas, based in part on the Coast Guard's findings in its WSR, the DEIS concludes that recreational vessels generally use areas of the Sound within 3.5 miles of the shoreline and cross-Sound travel is predominantly to/from major harbors. *See* Appendix D. Accordingly, the DEIS concludes, the frequented areas and routes do not include the site for the FSRU:

construction and operation of the FSRU, YMS and pipeline, including imposition of the safety and security zone around the YMS and FSRU, would not likely result in a significant change in recreational behavior nor would they result in a measurable economic effect on these industries.

DEIS at p. 3-119.

111. No substantive documentation has been provided that contradicts these findings and conclusions or requires modification to the referenced DEIS analysis.

**(ix) Prevention of Significant Deterioration (PSD) Permitting Requirements Do Not Apply to the Project**

112. Several commenters raised concerns that the project should be subject to PSD requirements. Table 3.9.1-8 in the DEIS shows the combined emission contributions of the FSRU and LNG carriers unloading compared to the PSD threshold (see column in Table 3.9.1-8

titled “Total Estimated Annual PTE (FSRU + LNG Carrier)); combined emissions are shown to be below the PSD threshold. Combined emissions (FSRU + LNG carrier unloading) are being considered during the air permit applicability process. Broadwater met with USEPA in October 2006 in Research Triangle Park North Carolina to discuss which Broadwater emission sources must be considered for applicability under the PSD review program; Broadwater requested USEPA provide a determination in writing regarding this issue. To date, USEPA has not provided a written determination. In any event, the PSD program does not apply because the potential to emit from the project is below PSD applicability thresholds.

#### **IV. Responses to Other Issues Raised by Parties Filing Comments.**

113. Certain of the comments described below present issues beyond the scope of the DEIS. Broadwater’s responses are intended to assist the Commission in developing a complete decisional record.

##### **A. Broadwater Does Not Violate the Public Trust Doctrine.**

114. Some commenters raised issues regarding the public trust doctrine and its application to submerged lands in New York state waters where the Broadwater project will be located.<sup>44</sup> In its comments, the New York State Office General Services (“NYS OGS”) specifically requests confirmation of the Commission’s views regarding the relationship of public interest determinations and the public trust doctrine.

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<sup>44</sup> See January 19, 2007 Comments of the Towns of Riverhead and Southold, NY at page 11; See also January 12, 2007 Comments of Senator Christopher Dodd, Senator Joseph Lieberman, Congresswoman Rosa DeLauro, Congressman Christopher Shays, Congressman John Larson, Congressman Christopher Murphy and Congressman Joseph Courtney at page 1.

115. The comments of parties that invoke the public trust doctrine as a bar to approval of Broadwater's applications contend that the government may not grant a private entity, such as Broadwater, permission to moor the FSRU on submerged land in state waters, or create a security exclusionary zone for the FSRU that precludes fishing and other recreational activities. The commenters' arguments are tantamount to asserting that no private entity is allowed to anchor, moor, or attach a structure to submerged land under navigable waters of the United States within the territorial waters of the states. These comments ignore the fact that such restrictions have been allowed for private structures and operations that impact Long Island Sound. For example, the Port of New Haven is considered to be the busiest port between Boston and New York City given that it has the highest volume of commercial maritime activity of any port on the Long Island Sound. The Port allows private dock operators and vessels that handle petroleum products, lumber, chemicals, scrap-metal, cement, stone and salt. City of New Haven, <http://www.cityofnewhaven.com/PortAuthority/pdfs/WhitePaper6-15.pdf>. New Haven recognizes the importance of the Port area as being integral to transportation and commerce while also mitigating security concerns in their New Haven Port Authority Strategic Land Use Plan. As another example, the Coast Guard established a temporary regulated navigation area (RNA) as well as two safety and security zones for the area in Long Island Sound adjacent to the Millstone nuclear power plant. Vessels are not allowed to operate within 700 yards of the Millstone nuclear power plant or 100 yards of an anchored Coast Guard vessel. United States Environmental Protection Agency, <http://www.epa.gov/fedrgstr/EPA-IMPACT/2002/January/Day-04/i160.htm>. The interpretation of the public trust doctrine propounded by these commenters flies in the face of fundamental principles of our Constitution and would make interstate commerce impossible.

116. The arguments and cases cited by the commenters regarding the public trust doctrine are predicated on a premise articulated by the Supreme Court in the late 1800s that a state may not permanently convey submerged land in fee simple to a private entity for its sole and exclusive enjoyment if the submerged land is owned by the state and held in public trust for the citizens of the state. *Illinois Cent. R.R. v. Illinois*, 146 U.S. 387, 435 (1892). However, the courts have recognized that there is an exception to the doctrine that allows licenses, permits, leases and other conveyances to private entities if the public interest is served by such action. *Id.* at 453; *Bunch v. Hodel*, 793 F.2d 129, 133-34 (6<sup>th</sup> Cir. 1986) (discussion of the public interest exception to the public trust doctrine). More importantly, the Supreme Court has always recognized that a state's right of ownership of submerged lands and stewardship for its citizens is subject to actions by the federal government under the Commerce Clause of the United States Constitution:

The Submerged Lands Act does give the States "title, "ownership," and the right and power to manage, administer, lease, develop and use" the lands beneath the oceans and natural resources in waters within state territorial jurisdiction. 43 U.S.C. § 1311 (a). But when Congress made this grant pursuant to the Property Clause of the Constitution, . . . it expressly retained for the United States "all constitutional powers of regulation and control" over these lands and waters "for purposes of commerce, navigation, national defense, and international affairs.

*Douglas v. Seacoast Product*, 431 U.S. 265, 283-284 (1977) (holding that a federal license to catch fish could not be restricted or obviated by denial of a state license to fish in the same area).

117. Further, recognition of rights under the public trust doctrine is not a NEPA-related obligation of the federal government; NEPA obligations are separate and distinct from state stewardship issues. *Jones v. Rose*, No. CV 00-1795-BR, 2005 WL 2218134 at 22 (D. Or. Sept.

9, 2005) (public trust doctrine issues are "not related to the CWA and, by extension, [federal obligations] under the APA and NEPA"). The Commission must consider the discrete environmental impacts to Long Island Sound natural resources regardless of whether those resources are subject to state public trust stewardship. The Commission will have fulfilled this obligation by considering project impacts on the natural resources of the sea floor, commercial and recreational fishing and the coastal waters.

118. Because there will be New York State consideration of the same impacts pursuant to the State Environmental Quality Review Act ("SEQR") and the public trust doctrine under its review of Broadwater's Coastal Zone Consistency Certification and since the FERC FEIS can be accepted in lieu of a separate SEQR analysis, provided state issues are addressed, Broadwater recommends that the Commission explicitly refer to the public trust doctrine in the FEIS, and also expressly consider and reference the discussion in the Coast Guard's WSR at Section 5.2.2.2.

**B. Broadwater May Exercise Authorities Conferred by Section 7 of the NGA.**

119. In their joint comments, the Towns of Riverhead and Southold ("Riverhead and Southold") incorrectly assert that the Commission's authority under section 7 of the NGA is restricted to the portion of the pipeline proposed to be located on the floor of Long Island Sound.<sup>45</sup> The legal and factual analysis presented by Riverhead and Southold, however, is misdirected and seriously flawed.

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<sup>45</sup> See January 19, 2007 Comments of Towns of Riverhead and Southold, NY at pages 3 and 14-18.

*Misdirection of Riverhead and Southold Comments*

120. Riverhead and Southold directed their comments to the Commission but also directed them to “any other involved agency, including the Corps of Engineers (COE), the United States Coast Guard (USCG), the New York State Department of State (DOS), the New York State Office of General Services (OGS), and the New York State Department of Environmental Conservation (DEC).” *See* Comments of Riverhead and Southold at 1. The comments are misdirected because a decision by a state agency purporting to restrict or interfere with FERC’s jurisdiction is unsustainable and it should not be assumed that New York state agencies have a different view. Historically, New York has not disputed FERC’s primary jurisdiction over matters arising under the NGA.<sup>46</sup> Although the Commission’s determinations of its jurisdiction may be subject to judicial review, Riverhead and Southold simply are incorrect when they suggest that the New York State Department of State may make an independent determination that differs from the Commission’s determination whether section 7 authority attaches to any of the facilities associated with the Broadwater applications.

*Errors in Riverhead and Southold Comments About Roles of Sections 3 and 7 of the NGA*

121. In their January 30, 2006 applications, each of Broadwater Energy and Broadwater Pipeline sought authorization under provisions of the NGA to construct, site and operate different facilities. Broadwater Energy sought authorization under Section 3 of the NGA to site,

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<sup>46</sup> *See Cross-Sound Cable Co. (New York), LLC*, No. 05-E-1030, 2006 N.Y. PUC LEXIS 44, at \*8 (NYPSC Feb. 15, 2006) (recognizing the preemptive effect of FERC’s jurisdiction over the issuance of securities, the acquisition of ownership interests and the transfer of property because of FERC’s primary jurisdiction over the transmission of electricity in interstate commerce); *Neptune Reg’l Transmission Sys., LLC*, No. 05-E-0669, 2005 N.Y. PUC LEXIS 480, at \*9 (NYPSC Nov. 30, 2005); *Consol. Edison Co. of New York*, No. 99-F-1314, 2001 N.Y. PUC LEXIS 425, at \*44 (N.Y. St. Bd. June 22, 2001) (instructing intervenor to raise claims about the inadequacy of a gas transmission system with the Public Service Commission or FERC, as appropriate).

construct and operate an LNG "receiving terminal and associated facilities in Long Island Sound." The LNG terminal consists of the FSRU where LNG would be delivered by carriers, then temporarily stored and vaporized (regasified). The Broadwater Energy section 3 application noted that the FSRU would be attached to the YMS that includes a mooring tower embedded in the seafloor, but the section 3 application did not seek authorization for the YMS.

122. Broadwater Pipeline requested issuance of a certificate under section 7(c) of the NGA to construct and operate a "pipeline lateral (and related facilities, including a tower to support the initial portion of the pipeline) to transport regasified LNG" to the interconnect with Iroquois Gas Transmission System (IGTS). In its section 7 application, Broadwater Pipeline described the facilities for which authorization was sought:

Broadwater proposes to construct a new 30-inch diameter natural gas pipeline and related facilities that are required to deliver vaporized natural gas from the FSRU to the existing Iroquois Gas Transmission System ("IGTS") pipeline. The Broadwater pipeline facilities will be connected to the FSRU through a pipeline riser within a stationary mooring tower, which will be secured to the seafloor by four legs. Each leg of the mooring tower will be constructed of steel, approximately 6.9 feet in diameter and embedded approximately 230 feet into the seabed. In addition to supporting the pipeline riser, the mooring tower will also house a yoke mooring system that will secure the FSRU and allow it to orient to the prevailing wind, wave and current conditions around the tower. *The pipeline will travel from the FSRU down the mooring tower to the sea floor and then to a subsea interconnect with the IGTS pipeline approximately 22 miles west of the FSRU site.* Facilities will be attached to the proposed subsea interconnection with the IGTS pipeline to allow the attachment of a pig receiver. A permanent pig launcher will be installed as part of the mooring tower to accommodate inspection of the pipeline at regular intervals throughout the life of the facility.

*The Broadwater pipeline will be 30-inches in diameter and the pipeline, the mooring tower, the pig launcher and related facilities for which authorization is sought herein will be designed and constructed to meet or exceed the safety standards established by the United States Department of Transportation ("USDOT") in 49 C.F.R. Part 196. All facilities will be*

constructed in accordance with regulations that govern material selection and qualification, minimum design requirements, general construction, pipe joining, testing, protection from corrosion, and operations and maintenance. The Broadwater pipeline facilities will include many equipment features that are designed to increase the overall safety of the system and protect the public from a potential failure of the system due to accidents or natural catastrophes. These features are described in Exhibit F Resource Report 11.

Broadwater Pipeline Application, Volume I, pp. 3-4 (emphasis supplied).

123. Riverhead and Southold incorrectly contend that no part of the project's mooring or FSRU fall within the terms of section 7 of the NGA on the grounds that the mooring and FSRU are components of an LNG terminal.<sup>47</sup> The significance of this contention--according to Riverhead and Southold-- is that these components of the project are not subject to the eminent domain provisions of section 7. Further, Riverhead and Southold contend that the New York State Office of General Services is precluded from considering the mooring or FSRU to be a pipeline or an appurtenant structure of a pipeline for purposes of section 3(2) of the Public Lands Law.<sup>48</sup>

124. In this submission, Broadwater does not attempt to respond to the purely New York law contentions of Riverhead and Southold—they will be presented to the appropriate authorities in New York. It is clear that a state agency may not reach a decision that is inconsistent with the FERC's exercise of its jurisdiction. Accordingly, Broadwater explains why the NGA contentions advanced by Riverhead and Southold are severely overstated and, by virtue of that overstatement, are wrong.

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<sup>47</sup> See January 19, 2007 Comments of Towns of Riverhead and Southold, NY at page 3.

<sup>48</sup> *Id.*

*Riverhead and Southold Confuse Jurisdiction with Implementation.*

125. Analytically, the treatment of the riser and the YMS are very similar, while the treatment of the FSRU is different.

126. Riverhead and Southold incorrectly contend that the riser and the YMS fall within the definition of "LNG terminal" set out in the NGA and, accordingly they contend these facilities may not be included within the section 7 authorization. As Riverhead and Southold state it, "FERC may not incorporate any part of the Project's mooring or floating storage unit within the terms of a Natural Gas Act (NGA) § 7 certificate of public convenience and necessity for the Project, because the mooring and floating storage unit are components of an LNG terminal, as defined by § 3 of the NGA, and such components are not subject to the jurisdiction of the Commission under § 7."<sup>49</sup>

127. Section 7 does not establish the Commission's jurisdiction. Jurisdiction is established by section 1 of the NGA; section 7 is merely a substantive section arising under that jurisdiction. The NGA brings "three things and three only" within FERC's jurisdiction. *Panhandle Eastern Pipe Line Co. v. Pub. Serv. Comm'n of Ind*, 332 U.S. 507, 516 (1947). Section 1 of the NGA states that FERC's regulatory power applies to: (1) "the transportation of natural gas in interstate commerce"; (2) "the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use"; and (3) "natural-gas companies engaged in such transportation or sale." 15 U.S.C. section 717(b); *see also Panhandle*, 332 U.S. at 516; *Bd. of Water, Light & Sinking Fund Comm'rs of Dalton, Ga. v. FERC*, 294 F.3d 1317, 1322 (11th Cir. 2002). The Energy Policy Act of 2005 added a fourth

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<sup>49</sup> *Id.*

element to the FERC's jurisdiction: the approval or denial of an application for the siting, construction, expansion or operation of an onshore LNG terminal or any LNG terminal located in state waters. *See* 15 U.S.C. 717b(e).

*Riverhead and Southold Mischaracterize the Riser.*

128. Riverhead and Southold incorrectly contend that the FSRU extends to the floor of the Sound where what they refer to as “Regasified LNG” exits the leg of the YMS. To the extent that it qualifies as a basis at all, the only basis for this erroneous contention appears to be that Riverhead and Southold “submit that the pipeline . . . begins at the point where the regasified and processed LNG *exits* the leg of the YMS on the seabed. All facilities upstream of that point are plainly used to receive, unload, store, transport, gasify and process imported LNG.”<sup>50</sup> None of that, however, is factually accurate.

129. Riverhead and Southold do not dispute that the 30-inch diameter, essentially cylindrical, hollow 22 mile long facility proposed to be sited on the floor of the Sound to transport vaporized LNG is a pipeline.

130. The physical characteristics of the riser are more consistent with a jurisdictional pipeline than a component of an LNG terminal. In *Exxonmobil Gas Marketing Company v. FERC*, 297 F.3d 1071 (D.C. Cir. 2002), the United States Court of Appeals for the D.C. Circuit affirmed FERC's criteria for determining whether the Sea Robin pipeline was a non-jurisdictional “gathering” facility or a jurisdictional “transportation” facility. The Court, holding that the Commission's decision declining jurisdiction over portions of the Sea Robin system was

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<sup>50</sup> *Id* at 17.

reasonable, affirmed the Commission's standards for distinguishing between "gathering" facilities and "transportation" facilities or pipelines on the basis of the primary function of the facilities. In the context of gathering and transmission lines, the primary function reflects an evaluation of multiple factors, including, as pertinent to this inquiry:

- the diameter of the lines;
- the location of compressors and processing plants; and
- the operating pressure of the lines.<sup>51</sup>

131. In *Sea Robin*, the Commission also considered the non-physical criteria: (1) the general purpose, location and operation of the facility; (2) the general business activity of the owner of the facility; (3) whether a jurisdictional determination, *i.e.*, gathering versus transmission, is consistent with the objectives of the Natural Gas Act and other legislation; and (4) the changing technical and geographic nature of exploration and production activities.<sup>52</sup>

132. Although "[n]o one factor is determinative in the primary function test, and not all factors apply in all situations,"<sup>53</sup> in *Sea Robin* the Commission emphasized the "single-shot" geographical configuration of the downstream pipeline and the line's large diameter.<sup>54</sup>

133. There is no operational, functional, physical or ownership factor that can be reconciled with *Riverhead and Southold's* assertion. The substance that the riser will transport is

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<sup>51</sup> *Id.* at 1077.

<sup>52</sup> *Id.*

<sup>53</sup> *Id.*

<sup>54</sup> *Id.* at 1081.

revaporized LNG and revaporized LNG is natural gas under section 2(2) of the NGA. The 30-inch diameter riser is the same diameter as the 30-inch diameter horizontal subsea gas transmission pipeline that will connect with the IGTS pipeline. Natural gas will be transported from the riser to the subsea horizontal pipeline. The riser will have the same maximum allowable operating pressure of 1,440 pounds per square inch as the horizontal subsea gas transmission pipeline. Pipeline pigs will go through the riser, just as they will through the horizontal subsea line.<sup>55</sup> The riser will be owned by Broadwater Pipeline, which will be a natural gas company when it commences the transportation of natural gas. There simply is no cognizable basis for the assertion of Riverhead and Southold.

*Riverhead and Southold Mischaracterize the YMS.*

134. Riverhead and Southold also incorrectly contend that the YMS and tower are part of the LNG terminal. To be sure, the YMS and the tower that support it obviously have multiple functions, but every function of the YMS and the tower directly or indirectly relates to the receipt and transportation of natural gas that is regasified on the FSRU. As described in Broadwater Pipeline's section 7 application:

The Broadwater pipeline facilities will be connected to the FSRU through a pipeline riser within a stationary tower, which will be secured to the seafloor by four legs. Each leg of the tower will be constructed of steel, approximately 6.9 feet in diameter and embedded approximately 230 feet into the seabed. In addition to supporting the pipeline riser, the tower will also house a yoke mooring system that will secure the FSRU and allow it to orient to the prevailing wind, wave and current conditions around the tower. The pipeline will travel from the FSRU down the tower to the sea

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<sup>55</sup> Pipeline pigs are used for hydrostatic testing of the pipeline and pipeline maintenance activities. In this case, the pipeline pig would be inserted into the riser and be able to clean the riser and the subsea gas transmission pipeline. Different types of pigs may be used to clean out debris or water during construction or pipeline testing, or to inspect a pipeline for evidence of damage or wear. DEIS at 2-15.

floor and then to a subsea interconnect with the IGTS pipeline approximately 22 miles west of the FSRU site. Facilities will be attached to the proposed subsea interconnection with the IGTS pipeline to allow the attachment of a pig receiver. A permanent pig launcher will be installed as part of the tower to accommodate inspection of the pipeline at regular intervals throughout the life of the facility. The Broadwater pipeline will be 30-inches in diameter and the pipeline, the tower, the pig launcher and related facilities for which authorization is sought herein will be designed and constructed to meet or exceed the safety standards established by the United States Department of Transportation ("USDOT") in 49 C.F.R. Part 196.

Broadwater Pipeline Application at 3-4.

135. The YMS and the facilities located on it all are appurtenant to the subsea horizontal pipeline and the riser. All of them are subject to section 7 certification.

*Riverhead and Southold are Incorrect in the View that Section 3 and Section 7 are Mutually Exclusive and Limiting of One Another in Connection with the Exercise of Eminent Domain Rights.*

136. Riverhead and Southold are incorrect in their belief that any facility subject to the requirement of section 3 authorization is necessarily excluded from section 7 certification and also excluded from being within the scope of the ancillary eminent domain authority of section 7. These contentions are simply not supported by statute or case law.

137. Simply because a facility qualifies for authorization under section 3 does not mean it also may not qualify for authorization under section 7. There is nothing in the words of either section that suggests that section 3 treatment excludes consideration under section 7. Rather, the NGA establishes a much more flexible standard for the approval of facilities that are LNG terminals than it does for other natural gas facilities. Section 3 of the NGA also establishes particular procedures for LNG terminals.

138. The definition of “LNG terminal” in section 2(11) of the NGA includes:

all natural gas facilities located onshore or in State waters that are used to receive, unload, load, store, transport, gasify, liquefy, or process natural gas that is imported into the United States from a foreign country, but does not include-

(A) waterborne vessels used to deliver natural gas to or from any such facility; or

(B) any pipeline or storage facility subject to the jurisdiction of the Commission under section 7.

139. The term “LNG terminal” appears in section 3 in the following contexts: (i) establishing the Commission’s exclusive jurisdiction over siting, construction and expansion; (ii) preserving whatever other authority other federal agencies may have; (iii) setting out required procedures for the Commission to use in connection with an application to site, construct or expand; (iv) establish what actions the Commission may take with respect to such an application; (v) restrict the conditions the Commission may attach to an order respecting such an application.

140. In section 3A, the term “LNG terminal” appears in connection with: (i) the requirements for mandatory pre-filing NEPA procedures; (ii) the role of the Governor of a state in which such a facility is to be located; (iii) the role of a state agency designated by the Governor of such a state regarding state and local safety considerations; (iii) the role of a state Commission to conduct safety inspections after the facility becomes operational; and (iv) conditions associated with developing and funding an emergency response plan.

141. LNG terminals are a specific form of natural gas facility that qualify for approvals under a different set of standards. Some of those standards warrant special consideration and some require exceptional treatment. But nowhere in the NGA does it say that a facility that qualifies

for section 3 authorization is necessarily excluded from consideration under the eminent domain provisions of section 7. Broadwater recognizes that authorizations granted under section 3 of the NGA, without more, do not include eminent domain rights. But that is different from saying that authorizations under section 3 disqualify facilities from consideration under section 7 and that is the essence of the Riverhead and Southold contention.

142. Section 7 provides in part:

When any holder of a certificate of public convenience and necessity cannot acquire by contract, or is unable to agree with the owner of property to the compensation to be paid for, the necessary right-of-way to construct, operate, and maintain a pipe line or pipe lines for the transportation of natural gas, and the necessary land *or other property, in addition to right-of-way, for the location of compressor stations, pressure apparatus, or other stations or equipment necessary to the proper operation of such pipe line or pipe lines*, it may acquire the same by the exercise of the right of eminent domain in the district court of the United States for the district in which such property may be located, or in the State courts. The practice and procedure in any action or proceeding for that purpose in the district court of the United States shall conform as nearly as may be with the practice and procedure in similar action or proceeding in the courts of the State where the property is situated: *Provided*, That the United States district courts shall only have jurisdiction of cases when the amount claimed by the owner of the property to be condemned exceeds \$ 3,000.

15 USC 717f(h) (emphasis supplied).

143. If the Commission finds that Broadwater Pipeline is entitled to a certificate of public convenience and necessity, section 7 provides that Broadwater will have the statutory right to obtain easements that are necessary for the pipeline right of way and other property associated with the equipment necessary for the proper operation of the pipeline.

144. Although the right to exclude a third party from an area is generally an attribute of a property right, in this instance, the right to exclude third persons from the concentric zone surrounding the sweep of the FSRU as it pivots around the mooring is dictated by the Coast Guard's safety and security requirements. As such, in the first instance, the exclusion of third persons from the area and its occupation by Broadwater is inextricably linked to Commission authorization and Coast Guard requirements.

145. Most certainly, mooring the FSRU is consistent with the implementation of the rights that section 7 confers. If property rights are needed, withholding an easement would squarely conflict with findings that the pipeline is required by the public convenience and necessity and that the terminal is not inconsistent with the public interest. Accordingly, Broadwater requests that the Commission expressly confirm that such area is necessary for the proper operation of its pipeline. Doing so will enable Broadwater to exercise eminent domain rights if it is unable to reach agreement with the owner.<sup>56</sup> In this instance, the State of New York is the owner of the area to be used by the FSRU. There is no indication that that the State of New York will exercise any authority inconsistent with the Commission's public convenience and necessity or public interest findings. If property rights are needed, withholding an easement would squarely conflict with findings that the pipeline is required by the public convenience and necessity and that the terminal is not inconsistent with the public interest. Most certainly, mooring the FSRU is consistent with the implementation of the rights that section 7 confers. Broadwater believes its request will ensure that the Commission's jurisdiction will not be frustrated by obstacles associated with easements. *Tennessee Gas Transmission Co. v Schmidt* (1951, Sup) 108 NYS2d

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<sup>56</sup> In this instance, the State of New York is the owner of the area to be used by the FSRU. There is no indication that the State will exercise any authority inconsistent with the Commission's public convenience and necessity or public interest findings.

435 (Pipeline company is entitled to acquire easement by eminent domain, if unable to agree with landowner on compensation). *See also Tennessee Gas Transmission Co. v Cleveland Trust Co.* (1953, Prob Ct) 59 Ohio Ops 282, 67 Ohio L Abs 264, 120 NE2d 143, 3 OGR 1347 (Plaintiff gas transmission company had substantive right to appropriate or condemn property for its proper use in state and particular county therein, said right being derived from federal government by virtue of 15 USCS § 717f(h); any other consideration would, in effect, be denial to federal government of right to effectively regulate transportation of natural gas across state lines).

146. The eminent domain provisions of section 7 are not as tightly circumscribed as Riverhead and Southold contend.

**C. Broadwater is Consistent with Applicable New York State, Long Island Sound and Local Coastal Management Plans and Policies**

147. Several commenters asserted that the project is inconsistent with NYS coastal zone management policies and even state that NEPA requires the Commission to determine consistency with NYS coastal zone management policies.<sup>57</sup> While these views overstate the requirements of NEPA, it is desirable from every perspective that the FEIS also satisfy the requirements of New York's State Environmental Quality Review Act, to the extent that determinations to be made by state agencies require environmental analysis. Accordingly, Broadwater has included as Attachment 1 a review to provide the Commission with information that may be used to ensure the acceptability of the FEIS for SEQR purposes. As is shown in this review, the environmental impacts that the commenters cite to support their claim of

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<sup>57</sup> See e.g., January 19, 2007 Comments of the Towns of Riverhead and Southold at page 19; January 23, 2007 Comments of the Town of East Hampton Town Board at page 4; January 19, 2007 Comments of the Town of Oyster Bay at page 1.

inconsistency with federally-approved NYS coastal zone management policies already were evaluated in the DEIS and the record demonstrates that the project avoids or otherwise minimizes the effects that are the subject of the applicable NYS coastal zone management policies.

148. Accordingly, Broadwater respectfully requests that the Commission refer to, and make part of the FEIS Broadwater's April 2006 Coastal Zone Consistency Certification filed with the Commission on April 13, 2006 and the October 2006 Supplement filed with the Commission on November 3, 2006 (collectively, the "CZCC") so that there will be no occasion for a separate SEQR review that will delay the final outcome.

149. Broadwater has evaluated each of the comments asserting that the project is inconsistent with applicable NYS coastal zone management policies. The comments fall into five categories claiming inconsistency with: (1) Long Island Sound Coastal Management Policies ("LIS CMP"); (2) the Town of East Hampton's Comprehensive Plan and the New York State Coastal Management Plan ("NYS CMP"); (3) the Long Island Sound Stewardship Act of 2006; (4) the Long Island North Shore Heritage Management Plan; and (5) the Southold Local Waterfront Revitalization Program ("LWRP"). As detailed in the Attachment, these claims are incorrect.

## **V. CONCLUSION**

Broadwater submits that its supplemental comments provide information useful to complete the record upon which the FEIS and the Commission's decision on its applications should be based.

Respectfully submitted,

*/s/ James A. Thompson, Jr.*

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February 26, 2007  
Hartford, Connecticut

## Attachment 1

# **The Broadwater Project is Consistent with Applicable NYS Coastal Zone Management Policies**

## **1. The Broadwater Project is Consistent with Applicable NYS Coastal Zone Management Policies**

1. The project furthers the objectives of the LIS CMP and other coastal zone management policies and avoids or minimizes the coastal effects that are the subject matter of these policies. Broadwater refers the Commission to Chapter 4 of the CZCC. Broadwater also notes that several commenters asserted that the project is inconsistent with policies 1, 2, 4, 5, 6, 7, 8, 9, 10, and 19 of the LIS CMP. Section 4.1 of the CZCC demonstrates the consistency of the project with the LIS CMP policies.

2. Despite comments to the contrary,<sup>1</sup> there is an undeniable need for new fuel supply in the Long Island Sound regional market that Broadwater's project can at least partially satisfy. The Long Island, New York City, and Southern Connecticut regions combined presently constitute approximately 20 percent of the total gas consumption of the Northeastern U.S. and Eastern Canada ("NEEC") markets -- an estimated 700 billion cubic feet (bcf)/year. Average daily demand in Long Island, New York City, the greater New York City metropolitan area, and Southern Connecticut is anticipated to grow from 1.8 billion cubic feet per day (bcfd) in 2005 to 2.6 bcfd in 2025. Peak daily demand in this region, which was 3.3 bcfd in 2005, is expected to grow to 4.6 bcfd by 2025.<sup>2</sup> These figures confirm the substantial, existing regional demand and the significant increased needs in the near future. Conservation measures, which are estimated to

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<sup>1</sup> See e.g., January 19, 2007 Comments of the Town of Oyster Bay at page 7; January 23, 2007 Comments of the Towns of Brookhaven, Huntington and East Hampton at page 6; See also January 23, 2007 Supplemental Comments of Connecticut Fund for the Environment attaching the Synapse Energy Economics, Inc. final report entitled "The Proposed Broadwater LNG Import Terminal (March 2, 2006).

<sup>2</sup> See Regional Market Growth and Need for LNG Imports into the Northeast U.S. and Eastern Canada by Energy and Environment Analysis, Inc., October, 2005 at page 4.

save approximately 130 million cubic feet per day (mmcf) natural gas savings by 2022, clearly will be insufficient to balance forecasted energy needs.<sup>3</sup>

3. Commenters also incorrectly interpret the CZMA, LIS CMP and other NYS coastal zone management policies to require that the project must be screened against every single policy related to the protection of the environmental and natural resources while NYSDOS is unrestricted in disregarding those which enhance economic and commercial development. But it is fundamental to the federal CZMA, upon which the New York State Coastal Management Program is based that the statute is intended to:

encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone, giving full consideration to economical, cultural, historic and esthetic values as well as the needs for compatible economic development, which programs should at least provide for . . . priority consideration being given to coastal-dependent uses and orderly processes for siting major facilities related to natural defense, energy, fisheries development, ports and transportation, and the location, to the maximum extent practice, of new commercial and industrial developments in or adjacent to areas where such development already exists.

16 U.S.C. § 1452(2)(D).

The commenters' interpretation is inconsistent with the guiding principles of the CZMA which requires NYSDOS to balance economic development and natural resources when determining consistency with coastal zone management policies. The "all or nothing" approach suggested by the commenters effectively would prevent NYSDOS from approving any activities related to the commercial development of Long Island Sound, contrary to governing federal law.

4. Secretary of Commerce will override a state objection to a project's consistency with federally-approved coastal management plans and conclude that the activity is consistent with the objectives of the CZMA if the activity: (1) furthers the national interest as articulated in the

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<sup>3</sup> See New York State Energy Research and Development Agency Energy Efficiency and Renewable Energy Resource Development Potential in New York State (2003), Volume 2, Table 2.38.

Congressional findings and policies found in the CZMA; (2) *the national interest furthered by the activity outweighs the activity adverse coastal effects, when those effects are considered separately or cumulatively*; and (3) there is no reasonable alternative available that would permit the activity to be conducted in a manner consistent with the enforceable polices of the state coastal zone management program.<sup>4</sup> Thus, the absolutist position advocated by project opponents is squarely inconsistent with the requirements of law.

5. The LIS CMP identifies four distinct coasts – the developed coast, the natural coast, the public coast, and the working coast – and establishes "specially tailored standards that define what constitutes a balance between appropriate and needed economic development and protection and restoration of the natural and living resources of the Sound."<sup>5</sup> In furtherance of the balancing that the NYSDOS eventually will undertake, Broadwater urges the Commission to make explicit findings that the project is an appropriate component of the economic development of the Sound.

6. Historic data confirms an unmistakable pattern of mixed commercial, residential, recreational and industrial uses within Long Island's coastal communities and the Sound. One of the major findings of the Coast Guard's WSR prepared for the project was that Long Island Sound is a mixed-use waterway shared by commercial, fishing, military and recreational interests.<sup>6</sup> Significantly, the vessel traffic within the Sound has long included waterborne transportation for a substantial portion of the region's energy supply, including petroleum and coal. Notably, the WSR identifies 34 existing marine oil facilities within Long Island Sound subject to regulation by the Coast Guard.<sup>7</sup>

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<sup>4</sup>See 42 U.S.C. § 1456(c); 15 C.F.R. § 930.121 (emphasis supplied).

<sup>5</sup>See LIS CMP, Introduction at 1, 3.

<sup>6</sup>See WSR §§ 2.2.1 and 8.2.

<sup>7</sup>See WSR § 2.2.4.

7. Long Island's character is defined by the "collection of natural, recreational, commercial, ecological, cultural, and aesthetic resources" that make up Long Island's coastal communities and its landscape.<sup>8</sup> In other words, "the mix of historic structures, traditional harbors, residential areas, open spaces, working waterfronts, agricultural land, and tree-shaded country roads that make up the landscape of the Sound communities" all contribute to "a sense of the Sound."<sup>9</sup> The historic coexistence of these uses confirms that no single element has been or should displace the others, and the LIS CMP confirms that this "contrast and interplay of the green and the built environment should be maintained and celebrated as essential components of community character."<sup>10</sup> Energy supply projects such as Broadwater are an acknowledged part of the Long Island Sound landscape and the effects of the project (which Broadwater submits have been avoided or minimized, in any event) cannot be the basis for an objection to a consistency determination when balanced with the economic benefits of the project.

8. To the contrary, the project offers a compelling solution to the growing demands of the region for a competitively-priced, reliable, and cleaner-burning fuel supply. The pattern of development in the Long Island Sound coastal area reflects the balanced use of the Sound's natural resources to support commerce.<sup>11</sup>

9. Broadwater is consistent with the pattern of development, which recognizes the desirability of multiple uses within the Sound to fully realize the benefits of the "vast expanses of water surrounding Long Island."<sup>12</sup>

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<sup>8</sup> See LIS CMP Policy 1, Explanation.

<sup>9</sup> See LIS CMP, Ch. 1 at 3 "Charting the Course".

<sup>10</sup> *Id.*

<sup>11</sup> See State CMP Final Environmental Impact Statement, II-2-4 & II-2-5 (1982).

<sup>12</sup> *Id.* at II-2-5.

**2. The Town of East Hampton's Comprehensive Plan Cannot Serve As a Basis for Objecting to the Project on Consistency Grounds**

10. The Town of East Hampton ("East Hampton") asserts that the project is inconsistent with its recently adopted Comprehensive Plan and with policies 2, 4, 5, 9, 10, 19-22 and 27 set forth in the NYS CMP.<sup>13</sup>

11. Participation in the CZMA program is voluntary for states, but if a state elects to participate it must "develop and implement a CMP pursuant to federal requirements."<sup>14</sup> In 1981, New York State adopted the Waterfront Revitalization and Coastal Resources Act, which created the New York State Coastal Management Program.<sup>15</sup> The New York State Coastal Management Program received federal approval in 1982; New York State has been authorized to implement the federal CZMA through this Program.

12. Although the NYSCMP permits any local government whose jurisdiction is contiguous to the State's coastal waters to submit an LWRP to NYSDOS and, ultimately, NOAA for approval, East Hampton's Comprehensive Plan has not been submitted to NYSDOS or NOAA for approval and incorporation into the NYSCMP and accordingly, it is not an applicable or enforceable plan under any coastal management program.

13. In response to commenters' conclusion that the project is inconsistent with the NYS CMP, we note that the LIS CMP generally supplants and replaces the NYS CMP for the purposes of evaluating proposals for projects located in Long Island Sound. Nonetheless, Broadwater's CZCC demonstrates that the project is consistent with the NYS CMP policies referenced in the Town's comments. Brief responses and/or references to relevant parts of the

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<sup>13</sup> See January 23, 2007 Comments of the Town of East Hampton Town Board.

<sup>14</sup> See 71 Fed. Reg. 788, 789 (Jan. 5, 2006) (to be codified at 15 C.F.R. Part 930).

<sup>15</sup> See N.Y. Exec. Law § 910; Executive Memorandum "Waterfront Revitalization and Coastal Resources Shoreowner's Protection Act," Laws of 1981 at pages 2626-2627.

CZCC which justify Broadwater's conclusion that the project is consistent with the LIS CMP policies which are similar to the NYS CMP policies cited by the commenters are set forth below.

**NYS CMP POLICY 2** *Facilitate the siting of water-dependent uses and facilities on or adjacent to coastal waters.*

The goals of this policy are similar to the goals set forth in LIS CMP Policy 10 (relating to the protection of Long Island Sound's water dependent uses and promotion of the siting of new water dependent uses in suitable locations). Commenters' contentions that the project is not a water dependent or coastal dependent use are factually incorrect. The New York State Coastal Management Program states that New York's coast:

provides sites for numerous energy facilities, including ... gas transmission lines; oil and gas exploration, development, transfer and storage facilities (*including LNG facilities*) ...

*NYS CMP FEIS* at II-5-37 (emphasis supplied).

The LIS CMP provides the following water dependency test:

Water-dependent use means a business or other activity which can only be conducted in, on, over or adjacent to a water body because such activity requires direct access to that water body, and which involves, as an integral part of such activity, the use of the water.

*LIS CMP* Definitions, Ch. 4; *see also* N.Y.C.R.R. tit. 19 § 600.2(ag). Providing the target markets with overseas-sourced natural gas can only be conducted proximate to Long Island Sound by vessel. The project obviously constitutes a water dependent use. New York's recognition that certain energy facilities are water dependent is consistent with the federal CZMA's recognition that energy facilities -- including LNG facilities such as the project -- are coastal dependent and must be given priority consideration in coastal

management decisions.<sup>16</sup> The project is consistent with the objectives of LIS CMP Policy 10 and NYS CMP Policy 2.<sup>17</sup>

**NYS CMP POLICY 4** *Strengthen the economic base of smaller harbor areas by encouraging the development and enhancement of those traditional uses and activities, which have provided such areas with their unique maritime identity.*

The goals of this policy are similar to those set forth in LIS CMP Policy 1 (relating to the pattern of development in Long Island Sound). Broadwater's capability to provide reliable supplies of natural gas at a competitive price is important to sustaining and promoting development and with the historic and current patterns that establish community character. Relevant data and use patterns confirmed by the Coast Guard's WSR demonstrate the pattern of mixed commercial, residential, recreational and industrial uses within Long Island's coastal communities and the Sound.<sup>18</sup> Vessel traffic within the Sound historically has included waterborne transportation for the delivery of a substantial portion of the region's energy supply. Notably, the WSR identifies 34 existing marine oil facilities within Long Island Sound subject to regulation by the Coast Guard.<sup>19</sup>

**NYS CMP POLICY 5** *Encourage the location of development in areas where public services and facilities essential to such development are adequate, except when such development has special functional requirements or other characteristics which necessitates its location in other coastal areas.*

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<sup>16</sup> See 16 U.S.C. §§ 1452(2)(D), 1453(6); see also 71 Fed. Reg. 788 ("The CZMA requires States to consider the national interest as stated in the CZMA objectives and give priority consideration to *coastal dependent* uses and processes for facilities related to ... energy... when adopting and amending their [CMPs] and when making coastal management decisions.") (emphasis supplied). Any definitional difference perceived between a "coastal dependent use" and a "water dependent use," is resolved by use of the "coastal dependent use" definition. See Amendments to the CZMA Federal Consistency Regulations, 71 Fed. Reg. 788, 789 (Jan. 5, 2006, to be codified at 15 CFR Part 930). Because the project satisfies both definitions, however, any perceived difference in the two terms is inconsequential.

<sup>17</sup> See Broadwater's responses to LIS CMP Policy 10 and Greenport LWRP Policy 2 in Sections 4.1 and 4.2.2, respectively, of the CZCC for further discussion of project's compliance with this policy.

<sup>18</sup> See WSR §§ 2.2.1 and 8.2.

<sup>19</sup> See WSR § 2.2.4; see also Broadwater's response to LIS CMP Policy 1 in Section 4.1 of the CZCC and Appendix F to the CZCC for a further discussion of the project's compliance with this policy.

Because of the distant, offshore location proposed for the FSRU and interconnecting pipeline, the project is not inconsistent with this policy which encourages development "to locate within, contiguous to, or in close proximity to, existing areas of concentrated development where infrastructure and public services are adequate."<sup>20</sup>

East Hampton claims inconsistency with this policy because the town lacks adequate resources to provide the safety and security services necessary to the project.<sup>21</sup>

Broadwater will develop an Emergency Response Plan in consultation with the Coast Guard and state and local agencies. Broadwater will coordinate with emergency services and other public service departments to ensure adequate communication regarding Broadwater's business operations. For all of these reasons, the project is consistent with the objectives of this policy.<sup>22</sup>

**NYS CMP POLICY 9** *Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources. Such efforts shall be made in a manner which ensures the protection of renewable fish and wildlife resources and considers other activities dependent on them.*

The project is consistent with the goals and objectives of this policy because Broadwater's Social Investment Program will consider establishing a fund for beneficial regional projects whose purpose is to increase access to fish and wildlife resources in Long Island's coastal areas. A more detailed discussion of Broadwater's Social Investment Program is set forth in Appendix L to the CZCC. In addition, as noted and discussed in the DEIS and WSR, the effects on commercial and recreational fishing in the

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<sup>20</sup>See NYSDOS Policy 5 - Explanation of Policy.

<sup>21</sup>See January 23, 2007 Comments of the Town of East Hampton Town Board at page 6.

<sup>22</sup>See Broadwater's response to LIS CMP Policies 1, 9 and 10 in Section 4.1 of the CZCC for a discussion of the project's compliance with this policy.

Race and trawling areas off Montauk and throughout the Sound are expected to be minor and measures will be implemented to ensure that these impacts are avoided or minimized.<sup>23</sup>

**NYS CMP POLICY 10** *Further develop commercial finfish, shellfish and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing on-shore commercial fishing facilities, increasing marketing of the state's seafood products, and maintaining adequate stocks, and expanding aquaculture facilities. Such efforts shall be in a manner that ensures the protection of such renewable fish resources and considers other activities dependent on them.*

This policy is reflected in LIS CMP Policy 6 relating to the protection and restoration of the quality and function of the Long Island Sound ecosystem. The placement of the FSRU in a distant, offshore location preserves and protects existing marine resources, including finfish, shellfish and crustaceans, in the Long Island Sound area.<sup>24</sup>

Broadwater's Social Investment Program also will consider establishing a fund for regional projects to protect marine resources.

**NYS CMP POLICY 19** *Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.*

The considerations associated with this policy are reflected in LIS CMP Policy 9 (public access to and recreational use of the Long Island Sound coastal area). The project will protect and respect access to public water-related recreation as well as historic and natural resources. Broadwater gave substantial consideration to selecting a location and design for the LNG terminal that preserves public access within Long Island Sound's waters and minimizes conflicts with other existing water dependent users. Broadwater

<sup>23</sup>See Broadwater's response to LIS CMP Policies 1, 6, 9 and 10 in Section 4.1 of the CZCC for a discussion of the project's compliance with this policy. See also DEIS § 3.7.1.4 at pages 3-142 – 3-149.

<sup>24</sup>See Broadwater's response to LIS CMP Policy 6 in the CZCC for the project's consistency with this policy; See also Broadwater's Essential Fish Habitat Assessment, which is annexed as Appendix G to the CZCC and Broadwater's Fishermen Outreach Survey, which is annexed as Appendix H to the CZCC, for additional discussion and analysis establishing Broadwater's compliance with this policy.

completed a comprehensive, comparative analysis for multiple sites on- and offshore in Long Island Sound. The current location and configuration of the project is in the least conflict with and is most protective of other commercial, industrial, and recreational water dependent users. Broadwater's analysis of the most likely and reasonable alternatives is set forth in Section 2.2 of the CZCC.<sup>25</sup>

**NYS CMP POLICY 20** *Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.*

The project will be consistent with the goals and objectives associated with this policy which are reflected in LIS CMP Policy 9. The project will not limit access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly owned. Broadwater's water dependent business support operations that take place in the Villages of Greenport or Port Jefferson will be consistent with existing waterfront uses in those locations.<sup>26</sup>

**NYS CMP POLICY 21** *Water-dependent and water-enhanced recreation will be encouraged and facilitated, and will be given priority over non-water related uses along the coast.*

The project is consistent with similar considerations in LIS CMP Policies 9 and 10 because Broadwater's onshore business support operations that will be located in waterfront locations in Greenport or Port Jefferson will be water-dependent, including the

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<sup>25</sup>See Broadwater's response to LIS CMP Policy 9 in the CZCC for a discussion of the project's compliance with this policy; see also *Commercial Fishing, Recreation and Long Island Sound Dependent Commercial Activities -- An Economic Analysis*, which is annexed as Appendix F to the CZCC, and Broadwater's Marine/Land Use Compatibility Assessment, which is annexed as Appendix E to the CZCC, for further confirmation of Broadwater's compliance with this policy.

<sup>26</sup> See Broadwater's response to LIS CMP Policy 9 in Section 4.1 of the CZCC for further discussion of the project's compliance with this policy. See also Broadwater's Marine/Land Use Compatibility Assessment, which is annexed as Appendix E to the CZCC.

mooring of tugs and FSRU support vessels that will transport people and cargo between the shore and the FSRU.<sup>27</sup>

**NYS CMP POLICY 22** *Development, when located adjacent to the shore, will provide for water related recreation, whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development.*

The project will lease property for its proposed onshore business support facilities on Greenport's or Port Jefferson's working waterfront to provide marine transfer of people, equipment, and supplies. Because these are working waterfronts, Broadwater anticipates its facilities to be compatible with the reasonably anticipated, low level of demand for recreation and with the primary purpose of the development. Broadwater expects that water-related recreation will find support as part of its Social Investment Program.<sup>28</sup>

**NYS CMP POLICY 27** *Decisions on the siting and construction of major energy facilities in the coastal area will be based on public energy needs, compatibility of such facilities with the environment, and the facility's need for a shorefront location.*

An explanation of the project consistency with their policy is set forth in the CZCC.<sup>29</sup>

### **3. Long Island Sound Stewardship Act of 2006**

14. Suffolk County incorrectly asserts that the project is "entirely inconsistent with the federal policy, embodied in the [Long Island Sound Stewardship] Act of preserving and improving public access to Long Island Sound."<sup>30</sup> However, the Long Island Sound

<sup>27</sup> See Broadwater's response to LIS CMP Policies 9 and 10 in Section 4.1 of the CZCC for a discussion of the project's compliance with this policy; See also Broadwater's Onshore Facilities Resource Reports, annexed as Appendix O to the CZCC.

<sup>28</sup> See Broadwater's response to LIS CMP Policy 10 in Section 4.1 of the CZCC for a discussion of the project's compliance with this policy; See also Broadwater's Onshore Facilities Resource Reports, annexed as Appendix O to the CZCC.

<sup>29</sup> See Broadwater's response to LIS CMP Policies 10 and 13 in Section 4.1 of the CZCC for a discussion of the project's compliance with this policy; See also CZCC, Sections 1.3 and 2.2.

<sup>30</sup> See January 22, 2007 Comments of Suffolk County at pages 11-12.

Stewardship Act of 2006 ("LISS Act") applies to "upland sites within the Long Island Sound ecosystem." As the project is to be located 9 miles offshore in the waters of Long Island Sound, the LISS Act has no bearing on the project.<sup>31</sup>

#### **4. Long Island North Shore Heritage Area Management Plan**

15. The Town of Oyster Bay asserts that the DEIS did not include an assessment of the Long Island North Shore Heritage Area Management Plan.<sup>32</sup> As noted above, that task exceeds the scope of a DEIS. That said, Broadwater's Response to LIS CMP Policy 1 in Section 4.1 of the CZCC squarely establishes the consistency of the project with this management plan. As described in detail in Section 4.1 of the CZCC, the project was designed to preserve the North Shore heritage and historical resources, protect environmental, natural and maritime resources, and enhance the economic vitality and cultural life within the Heritage Area, which are the primary intentions of the plan. The Management Plan calls for strategic planning to protect coastlines, beach views, and water access, sites and structures, sites of historic maritime activity, and natural areas. The Visual Resource Assessment for the project confirmed that the project successfully eliminates or minimizes impact on historic sites or structures, sites of historic maritime activity, and onshore natural areas, including beach views. Although the FSRU will be visible from the shore on clear days, the facility's vessel-like appearance will make it difficult to distinguish it from views of ships that already use the Sound.

The Broadwater project is not expected to adversely affect preservation of the cultural, historic, and natural resources of the Sound. Its location virtually assures that result. Moreover, although short-term impacts on marine natural resources during construction of the

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<sup>31</sup>See LISS Act § 2(b).

<sup>32</sup>See January 19, 2007 Comments of the Town of Oyster Bay at page 1.

interconnection pipeline are expected, the project is anticipated to have long-term environmental benefits, by providing clean-burning natural gas to the target markets.

Finally, economic revitalization is a key component of the Management Plan. The main focus for this aspect of the Plan is on the already-developed or constructed environment, including downtown areas and commercial centers. The project's location avoids conflicts with these onshore, coastal environments, especially those areas designated as important historic and cultural resource areas. Broadwater's onshore facilities will be consistent with local land use and comprehensive planning initiatives or the objectives for the Heritage Area. Broadwater's onshore facilities that are located within established maritime centers (e.g., Port Jefferson) will make use of existing structures and facilities. Business support activities at Broadwater's onshore facilities (e.g., personnel transfer, boat dockage and storage of supplies) will be within zoning districts that allow for these types of activities.

#### **5. The Project is Consistent with the Town of Southold LWRP**

16. The Towns of Riverhead and Southold incorrectly assert that the project is inconsistent with the Southold LWRP.<sup>33</sup> In fact, the facilities are outside the Southold coastal and waterside boundary, making the Southold LWRP inapplicable. Notwithstanding the inapplicability of the Southold LWRP, the project is entirely consistent with its standards as well as all of the LIS CMP and NYS CMP policies, as detailed in Section 4.2.1 of the CZCC.

**LWRP POLICY 1** *Foster a pattern of development in the Town of Southold that enhances community character, preserves open space, makes efficient use of infrastructure, makes beneficial use of a coastal location, and minimizes adverse effects of development.*

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<sup>33</sup> See January 19, 2007 Comments of the Towns of Riverhead and Southold at page 3.

Broadwater submits that this LWRP policy applies only to the Southold waterfront and will not be applicable to the project because the project does not propose to construct any facilities in the coastal area boundary of the Town of Southold.<sup>34</sup> Additional analysis of the issues addressed in this LWRP policy is contained in Broadwater's response to LIS CMP Policy 1 in Section 4.1 of the CZCC.

**LWRP POLICY 2** *Preserve historic resources of the Town of Southold.*

2.1 *Maximize preservation and retention of historic resources.*

2.2 *Protect and preserve archaeological resources.*

2.3 *Protect and enhance resources that are significant to the coastal culture of the Long Island Sound.*

As was the case for LWRP Policy 1, this LWRP policy applies exclusively to the Town of Southold waterfront and will not be applicable to the project. Additional analysis of the issues in this LWRP policy is contained in Broadwater's response to LIS CMP Policy 2 in Section 4.1 of the CZCC.<sup>35</sup>

**LWRP POLICY 3** *Enhance visual quality and protect scenic resources throughout the Town of Southold.*

3.1 *Enhance visual quality and protect scenic resources throughout the Town of Southold.*

The project is consistent with this LWRP policy because the project is protective of scenic resources throughout the Town of Southold. The project is consistent with already visible views. For example, views from roads and public parks within the Town of Southold are extensive and varied. Typical views include sights of harbor centers, Long Island Sound, and Orient Harbor. As is noted in Broadwater's response to LIS CMP Policy 3 in Section 4.1 of the CZCC, Broadwater has taken extensive measures in the

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<sup>34</sup> See Southold LWRP, Section I-b, Boundary (2005).

<sup>35</sup> See Section 3.4 of the CZCC for a discussion of historic, cultural, and archaeological resources.

design, coloration, configuration, and siting of the FSRU to protect the scenic resources within the Sound. Broadwater also has considered the potentially sensitive visual resources and vantage points within the Town of Southold as part of its December 5, 2005 Visual Resource Assessment.<sup>36</sup> The presence of the FSRU and LNG carriers will have little impact on observers, as these features are consistent with already existing facilities and vessels on the Sound. The ConocoPhillips Northville petroleum terminal and the Shoreham Energy Center (formerly the Shoreham Nuclear facility) are just two examples of such facilities. Similarly, vessels are commonly-used for waterborne transportation within the Sound. This is confirmed in the WSR which categorizes the entire transit route that LNG carriers would traverse as a multiple use waterway.<sup>37</sup> In fact, numerous large vessels operate routinely on Long Island Sound.<sup>38</sup> The WSR states that deep draft vessels transiting Long Island Sound range in size from 500 to 902 feet in length and that those in excess of 800 feet in length generally carry petroleum or coal. As such, LNG carriers will be consistent with existing features and will even present a point of visual interest for many observers.

**LWRP POLICY 4** *Minimize loss of life, structures, and natural resources from flooding and erosion.*

- 4.1 *Minimize losses of human life and structures from flooding and erosion hazards.*
- 4.2 *Protect and restore natural protective features.*
- 4.3 *Protect public lands and public trust lands and use of these lands when undertaking all erosion or flood control projects.*
- 4.4 *Manage navigation infrastructure to limit adverse impacts on coastal processes.*

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<sup>36</sup>See CZCC, Appendix K.

<sup>37</sup>See WSR §§ 2, 2.2, 2.2.1, 3.2 and 8.2.

<sup>38</sup>See WSR § 2.2.1.1.

*4.5 Ensure that expenditure of public funds for flooding and erosion control projects results in a public benefit.*

*4.6 The siting and design of projects involving substantial public expenditure should factor in the trend of rising sea levels.*

The project does not propose to locate any onshore facilities in Southold. Therefore, there are no concerns about flooding or erosion due to onshore facilities.<sup>39</sup>

**LWRP POLICY 5** *Protect and improve water quality and supply in the Town of Southold.*

*5.1 Protect direct or indirect discharges that would cause or contribute to contravention of water quality standards.*

*5.2 Minimize non-point pollution of coastal waters and manage activities causing non-point pollution.*

*5.3 Protect and enhance quality of coastal waters.*

*5.4 Limit the potential for adverse impacts of watershed development on water quality and quantity.*

*5.5 Protect and conserve the quality and quantity of potable water.*

The project does not propose to locate any onshore facilities in Southold. Therefore, there are no concerns about water quality and supply due to onshore facilities.<sup>40</sup>

**LWRP POLICY 6** *Protect and restore the quality and function of the Town of Southold's ecosystem.*

*6.1 Protect and restore ecological quality throughout the Town of Southold.*

*6.2 Protect and restore Significant Coastal Fish and Wildlife Habitats.*

*6.3 Protect and restore tidal and freshwater wetlands.*

*6.4 Protect vulnerable fish, wildlife, and plant species, and rare ecological communities.*

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<sup>39</sup>See Broadwater's response to LIS CMP Policy 4 in Section 4.1 of the CZCC for a discussion of compliance with this LWRP policy.

<sup>40</sup>See Broadwater's response to LIS CMP Policy 5 in Section 4.1 of the CZCC for a discussion of the issues raised by this LWRP policy.

The project's facilities (i.e., the FSRU/YMS, the interconnection pipeline, and the onshore facilities) are outside Southold's coastal and waterside boundaries and thus, there are no issues regarding Broadwater's consistency with this LWRP policy.<sup>41</sup>

**LWRP POLICY 7** *Protect and improve air quality in the Town of Southold.*

- 7.1 *Control or abate existing and prevent new air pollution.*
- 7.2 *Limit discharges of atmospheric radioactive material to a level that is as low as practicable.*
- 7.3 *Limit sources of atmospheric deposition of pollutants to the Town of Southold, particularly from nitrogen sources.*

The project will be consistent with this LWRP policy because the introduction of a cleaner-burning energy source within the region will contribute to reduced emissions of acid rain precursors and other particulate matter.<sup>42</sup>

**LWRP POLICY 8** *Minimize environmental degradation in the Town of Southold from solid waste and hazardous substances and wastes.*

- 8.1 *Manage solid waste to protect public health and control pollution.*
- 8.2 *Manage hazardous wastes to protect public health and control pollution.*
- 8.3 *Protect the environment from degradation due to toxic pollutants and substances hazardous to the environment and public health.*
- 8.4 *Prevent and remediate discharge of petroleum products.*
- 8.5 *Transport solid waste and hazardous substances and waste in a manner which protects the safety, well-being, and general welfare of the public; the environmental resources of the state; and the continued use of transportation facilities.*
- 8.6 *Site solid and hazardous waste facilities to avoid potential degradation of coastal resources.*

The project will be consistent with this LWRP policy. Broadwater is committed to using best management practices to avoid environmental degradation by preventing discharges

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<sup>41</sup> See Broadwater's response to LIS CMP Policy 6 in Section 4.1 of the CZCC for a discussion of the measures by which Broadwater's facilities will be in compliance with this LWRP policy.

<sup>42</sup> See Broadwater's response to LIS CMP Policy 7 in Section 4.1 of the CZCC for further discussion of the project's compliance with this LWRP policy.

of solid waste, hazardous substances and other wastes during the construction and operation of the project. Because the project does not propose to locate its onshore or offshore facilities in the Town of Southold coastal boundary, and because of the multiple measures that the project is taking to properly handle and where possible avoid the release of solid waste, hazardous substances and other wastes, Broadwater has minimized the potential for environmental degradation of the coastal communities bordering Long Island Sound, including Southold.<sup>43</sup>

**LWRP POLICY 9** *Provide for public access to, and recreational use of, coastal waters, public lands, and public resources of the Town of Southold*

- 9.1 *Promote appropriate and adequate physical public access and recreation to coastal resources.*
- 9.2 *Protect and provide public visual access to coastal lands and waters from public sites and transportation routes where physically practical.*
- 9.3 *Preserve the public interest in and use of lands and waters held in public trust by the state and the Town of Southold.*
- 9.4 *Assure public access to public trust lands and navigable waters.*
- 9.5 *Provide access and recreation that is compatible with natural resource values.*

The project is consistent with and will comply with the objectives of this LWRP policy because Broadwater will in no way interfere with the Town's efforts to protect and preserve public access to, and recreational use of, coastal waters, public lands, and public resources of the Town of Southold. As discussed above in Broadwater's response to Southold LWRP Policy 3, Broadwater is consistent with the objectives of this LWRP policy because it does not restrict physical public nor visual access to coastal resources within the Sound. To the extent that the FSRU is located in navigable waters off the

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<sup>43</sup>See Broadwater's response to LIS CMP Policy 8 in Section 4.1 of the CZCC for further discussion of the project's compliance with this LWRP policy; see also Section 2.1.2.8.1 of the CZCC regarding the project's waste generation and waste handling for further discussion and analysis regarding Broadwater's compliance with this LWRP policy.

coast of Riverhead such that transiting LNG carriers must pass through waters off the Southold coast, the project will result in only limited, temporary restrictions on public access for safety and security purposes during such transit periods. The WSR concludes that no major coastal features would be significantly impacted by the proposed LNG carrier or an associated Coast Guard-recommended safety and security zone.<sup>44</sup> Moreover, such limitations as will occur will be temporary. As is discussed in Broadwater's response to LIS CMP 9 in Section 4.1 of the CZCC, the estimated time restriction due to the safety and security zone surrounding a transiting LNG carrier is only 15 minutes.<sup>45</sup> Users of Long Island Sound currently face similar restrictions as the Coast Guard has established numerous safety and security zones, including those around the Northville Industries Offshore Liquefied Petroleum Gas Platform off of Riverhead, Long Island and Millstone nuclear facility in Waterford, Connecticut.<sup>46</sup>

This LWRP policy recognizes that while maintaining public access to the coastal resources is an important goal, there are instances where the public use may be restricted in navigable waters for "water dependent uses involving navigation and commerce which require structures or activities in water as part of the use."<sup>47</sup> Broadwater's business of receiving overseas-sourced LNG at the FSRU and the distribution of the LNG into the IGTS interconnection pipeline is water dependent because it relies exclusively on

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<sup>44</sup>See *WSR* § 3.2.

<sup>45</sup>See also DEIS § 3.7.1.4, at pages 3 -145 – 3-146.

<sup>46</sup>See generally, 33 C.F.R. Part 165, Subpart F; 33 C.F.R. §§ 165.154, 165.155.

<sup>47</sup>See Southold LWRP, Section III-41, Policy 9.4.E.2a. In fact, this LWRP policy states that "[t]he right of commercial navigation is superior to all other uses on navigable waters and may not be obstructed." (*Id.* at III-43-44, Policy 9.4.E.3a).

waterborne transportation for the delivery of LNG and also on the existing infrastructure of the water dependent IGTS pipeline.<sup>48</sup>

**LWRP POLICY 10** *Protect the Town of Southold's water-dependent uses and promote siting of new water dependent uses in suitable locations.*

*10.1(a) Protect existing water-dependent uses.*

*10.1(b) Improve the economic viability of water-dependent uses by allowing for non-water dependent accessory and multiple uses, particularly water enhanced and maritime support services where sufficient upland exists.*

*10.2 Promote Mattituck Inlet and Creek, Mill Creek and the Village of Greenport as the most suitable locations for water-dependent uses within the Town of Southold.*

*10.3 Allow for continuation and development of water-dependent uses within the existing concentration of maritime activity in harbors, inlets and creeks.*

*10.4 Minimize adverse impacts of new and expanding water-dependent uses and provide for their safe operation.*

*10.5 Provide sufficient infrastructure for water-dependent uses.*

*10.6 Promote efficient harbor operation.*

The project does not propose to locate on- or offshore facilities in the Town of Southold.

Therefore, the project will not affect and will protect the Town of Southold's water dependent uses.<sup>49</sup>

**LWRP POLICY 11** *Promote sustainable use of living marine resources in Long Island Sound, the Peconic Estuary and Town waters.*

*11.1 Ensure the long-term maintenance and health of living marine resources.*

*11.2 Provide for commercial and recreational use of the Town of Southold's finfish, shellfish, crustaceans, and marine plants.*

*11.3 Maintain and strengthen a stable commercial fishing fleet in the Town of Southold.*

*11.4 Promote recreational use of marine resources.*

*11.5 Promote managed harvest of shellfish originating from uncertified waters.*

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<sup>48</sup>See Broadwater's response to LIS CMP Policy 9 in Section 4.1 and Section 3.6.3.3 of the CZCC for further discussion of the project's compliance with this LWRP policy.

<sup>49</sup>See Broadwater's response to LIS CMP Policy 10 in Section 4.1. the CZCC.

*11.6 Promote aquaculture.*

The project is consistent with the objectives and goals of this LWRP policy, because the placement of the FSRU in the central portion of the Sound will result in the least effects on living marine resources within Long Island Sound, including those marine resources within the Town of Southold, as the FSRU will be sited away from the nearshore habitats of shellfish.<sup>50</sup>

**LWRP POLICY 12** *Protect agricultural lands in the Town of Southold.*

*12.1 Protect agricultural lands from conversion to other land uses.*

*12.2 Establish and maintain favorable conditions which support existing or promote new coastal agricultural production.*

*12.3 Minimize adverse impacts on agriculture from unavoidable conversion of agricultural land.*

*12.4 Preserve scenic and open space values associated with the Town's agricultural lands.*

The project does not propose to locate onshore facilities in the Town of Southold.

Therefore, the project will not affect agricultural lands in the Town of Southold.<sup>51</sup>

**LWRP POLICY 13** *Promote appropriate use and development of energy and mineral resources.*

*13.1 Conserve energy resources.*

*13.2 Promote alternative energy sources that are self-sustaining, including solar and wind powered energy generation.*

*13.3 Ensure maximum efficiency and minimum adverse environmental impact when siting major energy generating facilities.*

*13.4 Minimize adverse impacts from fuel storage facilities.*

*13.5 Minimize adverse impacts associated with mineral extraction.*

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<sup>50</sup> See Broadwater's responses to LIS CMP Policies 6 and 11 in Section 4.1 of the CZCC for further discussion of the project's compliance with this LWRP policy.

<sup>51</sup> See Broadwater's response to LIS CMP Policy 12 in Section 4.1 of the CZCC for further discussion of the issues raised by this LWRP policy.

The project does not propose to locate its onshore or offshore facilities in the Town of Southold. The project appropriately is located in the central portion of Long Island Sound to promote the use and development of energy resources within Long Island Sound. The project's selected location will not affect the Town of Southold.

Additionally, the objectives of this LWRP policy are identical to those set forth in LIS CMP Policy 13. Like LIS CMP Policy 13.4, this LWRP policy also plainly identifies LNG facilities as the type of energy facilities that would be sited and suitable in the Sound. Therefore, even assuming this LWRP policy applies to the FSRU, the project is consistent with it.<sup>52</sup>

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<sup>52</sup>See Broadwater's response to LIS CMP Policy 13 in Section 4.1 of the CZCC for further discussion of the issues raised by this LWRP policy.

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Washington, D.C. this 26th day of February 2007.

/s/ Brett A. Snyder  
Brett A. Snyder

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