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April 8, 2008

**BY ELECTRONIC FILING**

Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

Re: *Broadwater Energy LLC*, Docket No. CP06-54-000  
*Broadwater Pipeline LLC*, Docket Nos. CP06-55-000 & CP06-56-000

Dear Ms. Bose:

Enclosed for filing in the referenced proceedings is a copy of the April 2, 2008 correspondence of Broadwater Energy LLC and Broadwater Pipeline LLC (collectively, "Broadwater") with the New York State Department of State ("NYSDOS"). Because it would be needlessly duplicative of documents already filed with the Commission in these proceedings, Broadwater is providing a summary chart in lieu of the files contained on the five CDs and one DVD described on page 2 of the transmittal letter. The summary chart provides the relevant Commission Accession Numbers of the documents submitted to NYSDOS.

Please do not hesitate to contact me with any questions regarding this submission.

Respectfully submitted,

*/s/ Brett A. Snyder*

Brett A. Snyder

Enclosures

cc: Mr. James Martin, FERC





April 2, 2008

**VIA HAND DELIVERY**

Mr. Jeffrey Zappieri  
Supervisor, Consistency Review Unit  
Resources Management Bureau  
Division of Coastal Resources  
State of New York Department of State  
One Commerce Plaza  
99 Washington Avenue  
Albany, New York 12231-00001

Re: F-2006-0345  
Broadwater Energy Project

Dear Mr. Zappieri:

Broadwater is pleased to submit for filing with New York State Department of State (NYSDOS or Department) the following further supplemental information with respect to its Coastal Zone Consistency Certification. This supplemental information is provided in direct response to issues NYSDOS has identified in the engagement we have had with your Department over the past few weeks, including in-person meetings on March 19, 25, and 27 pursuant to 15 CFR 930.62(d). That section provides that applicants like Broadwater and State agencies such as your Department should attempt "to agree upon conditions, which, if met by the applicant, would permit agency concurrence."<sup>1</sup> The issues and attendant commitments by Broadwater have been summarized in tabular format up front in this document.

Broadwater has made 17 additional commitments to those reflected in Broadwater's regulatory applications, in data responses and that are conditions to Broadwater's Federal Energy Commission (FERC) approvals. Broadwater's additional commitments are summarized below in Table 1 and described more fully in Attachment 1. These additional commitments will enhance the project's consistency with the applicable and enforceable coastal policies of the State of New York.

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<sup>1</sup> In addition, this regulation provides that, "[t]he parties shall also consult with the Federal agency responsible for approving the federal license or permit to ensure that proposed conditions satisfy federal as well as management program requirements (see also § 930.4). 15 CFR § 930.62(d).

Mr. Jeffrey Zappieri

April 2, 2008

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The information presented below in Attachment 2 provides further detail relating to Atlantic alternatives, industrialization, and the Stratford Shoal which were topics discussed with NYSDOS at recent meetings.

Broadwater advises that Table 1 be read in conjunction with the attachments.

Also enclosed for filing with your Department as a supplement to the Broadwater Coastal Zone Consistency Certification are copies of applications and attendant correspondence on five compact discs and a DVD (3 copies) that Broadwater filed with the FERC, United States Army Corps of Engineers, and United States Coast Guard, as well as the March 20, 2008 FERC Order.

Sincerely,

A handwritten signature in blue ink, appearing to read "JCulp".

Jimmy Culp  
Broadwater Project Director

Enclosures

cc: Mr. George Stafford (w/o enclosures)  
Kathleen L. Martens, Esq. (w/o enclosures)  
Robert J. Alessi, Esq.

**Table 1 – Broadwater Project Commitment Summary**

NYSDOS Identified Issue	Project Commitment	Summary of Broadwater Commitments <sup>1,2</sup>
1. Limit FSRU above-water size and further limit visibility	Yes	Broadwater will apply least contrasting blue-gray color scheme and best lighting practices. Above water size will also be evaluated during front-end engineering design to determine if any further adjustments can be made to limit size of the FSRU.
2. No additional Long Island Sound industrialization resulting from facility	Yes	Broadwater commits to no expansion of the facility footprint/size in Long Island Sound. Broadwater has made further commitments with respect to this issue (see detailed text in Attachments 1 and 2).
3. Full compensation of residual local/state/federal safety & security costs	Yes	Broadwater will fully cover project specific security/emergency management costs as described in Attachment 1, Section 3. FERC Order conditions (45 and 46) require the development of a Cost Sharing Plan to cover local and state costs that must be filed with FERC for review and approval.
4. Prioritize non-carrier commercial transits at the Race	Yes	Broadwater commits to prioritize non-carrier commercial traffic at the Race and will incorporate this into the final facility operations plan subject to USCG approval.
5. Elimination of southern route – use northern route only	Yes	Broadwater commits to use only the northern transit route for LNG carriers and will incorporate this into the final facility operations plan subject to USCG approval.
6. Elimination of day-time carrier transits – nighttime transits only	Yes	Broadwater will limit LNG carrier transits to nighttime only and will incorporate this into the final facility operations plan subject to USCG approval.
7. Elimination of transits through Race during slack tide (+/- 1-hour)	Yes	Broadwater will require that LNG carriers not transit through the Race at slack tide and will incorporate this into the final facility operations plan subject to USCG approval.
8. Reduce Safety & Security Zone around FSRU	Yes	Broadwater will provide independent studies and further analysis to NYSDOS in support of a reduction in size of the FSRU Safety & Security Zone and will submit this information to the USCG during the rulemaking process.
9. Allow Safety & Security Zone use by traditional users	Yes	Broadwater will investigate and analyze mechanisms that would allow traditional users to enter the Safety & Security Zone and will submit this information to the USCG during the rulemaking process.
10. Reduce Safety & Security Zone size around inbound LNG carriers	Yes	Broadwater will provide independent studies and further analysis to NYSDOS in support of a reduction in size of the in-transit Safety & Security Zone, and

NYSDOS Identified Issue	Project Commitment	Summary of Broadwater Commitments <sup>1,2</sup>
		will submit this information to the USCG during the rulemaking process.
11. Eliminate Safety & Security Zone around outbound LNG carrier	Yes	Broadwater will provide independent studies and further analysis to NYSDOS in support of removal of, the Safety & Security Zone, around out-bound transits and will submit this information to the USCG during the rulemaking process.
12. Fully compensate all direct commercial harvester losses	Yes	Broadwater will fully compensate all commercial harvester demonstrable losses incurred as a result of project construction and operation.
13. Fully compensate secondary impacts using economic multiplier	Yes	Broadwater will fully evaluate the impacts of facility operations on secondary impacts to the fishing industry and if the impacts are linked to the fishermen directly impacted by the facility, Broadwater will fully compensate those losses.
14. Facilitate re-establishment of commercial harvesting industries	Yes	Broadwater will create programs to facilitate the sustainability and, where necessary, re-establishment of commercial harvesting industries.
15. Eliminate/Minimize larval/young-of-year/juvenile mortality	Yes	Broadwater will work with the New York State Department of Environmental Conservation (NYSDEC) to implement the best technology available to minimize adverse environmental impacts and otherwise comply with applicable NYSDEC Clean Water Act requirements.
16. Develop and finance stocking programs for Long Island Sound commercial species	Yes	Broadwater will develop and finance fisheries programs that will mitigate potential impacts from the project and enhance commercial fisheries populations in Long Island Sound.
17. Conduct Eco-system monitoring and commit to restoration where necessary	Yes	Broadwater will monitor the eco-system as required under several conditions mandated in the FERC Order issued March 20, 2008. Broadwater will restore areas impacted by pipeline construction and report those restoration efforts to relevant state agencies including NYSDEC and NYSDOS.

1. Complete detail regarding commitments made by Broadwater is provided in Attachment 1.

2. Commitments numbered two and three in Table 1 are necessarily conditioned upon Broadwater receiving a concurrence determination on its Coastal Zone Consistency Certification from the New York State Department of State which Broadwater accepts and which becomes final and binding, (except those elements of commitment number 3 that relate to state and local costs, which are unconditional commitments). Should Broadwater not receive such a concurrence determination, commitments numbered two and three (again, other than the elements of commitment number 3 that relate to state and local costs) in Table 1 would be deemed withdrawn, without prejudice, by Broadwater, including for any subsequent processes involving the United States Secretary of Commerce or any other adjudicatory or quasi - adjudicatory body.

## Attachment 1

### 1. Limit FSRU Above-Water Size and Visibility

As part of the initial siting and design for the Broadwater facility, steps have been taken to reduce the size of the FSRU as well as minimize any potential visual impacts. These visual impacts were minimized by siting the facility 9-miles offshore near the center of the Sound at its widest points. This maximizes the distance from any coastal vantage point and minimizes potential visual impact on coastal resources. Consequently, the LNG terminal will be approximately 9 miles from the nearest coastal vantage point. There is no location within the New York boundaries of the Sound where the project could be substantially farther from the nearest coastal observer. The visual impacts are also minimized by designing the facility to weathervane, and ensuring that lighting used at the facility was the least obtrusive as possible while still providing for the safety of the crew and FSRU operations. As part of the FERC Order Appendix B "Environmental Conditions for the Broadwater Project" issued on March 20, 2008, two conditions were imposed on the project that relate to the visual impact of the FSRU:

*Condition 21 - Prior to final design, Broadwater shall coordinate with FWS and NMFS to develop a detailed lighting plan that will be protective of avian species, fish species, and marine mammals, and file the plan with the Secretary, for review and written approval by the Director of OEP. (Section 3.3.5.2)*

*Condition 27 - Prior to installation activities in Long Island Sound, Broadwater shall file the final FSRU and YMS color scheme with the Secretary, for review and written approval by the Director of OEP. (Section 3.5.6.4)*

Broadwater will accept both of these conditions and also confirms that it will use the least contrasting paint color identified in consultation with NYSDOS. Also, as indicated in filings provided to the NYSDOS (see Exhibit 1 and Exhibit 2), Broadwater will meet the requirements reflected in the US Department of Transportation Federal Aviation Administration *Advisory Circular AC 70/7460-1K Obstruction Marking and Lighting* with respect to solid red or pulsating red incandescent lights.

Broadwater will conduct a review of environmental best practice guidelines with respect to lighting of offshore structures and provide a summary of the findings to NYSDOS every five years for the first 20 years of the life of the facility as a condition to Coastal Zone Consistency Certificate concurrence by the NYSDOS. Any potential change to the lighting standards and equipment suggested by such would be subject to FERC and USCG review and approval.

## **2. No Additional Long Island Sound Industrialization Resulting From Facility**

Broadwater commits to no further expansion at the Broadwater facility that would increase the facility footprint or otherwise increase the size of the facility in Long Island Sound. It is noted that the Broadwater facility is being designed with a maximum sendout capacity of 1.6 bcf/day. This level of operation, however, would require adding one more vaporizer unit to be placed on the process deck of the FSRU. For purposes of this provision, it is understood that the additional vaporizer unit would not be considered a change in the facility size or footprint since it would be placed on the existing space of the process deck of the FSRU.

The NYSDOS also has described this concern in the context of potential construction and operation of other in-water, offshore regasification facilities such as another FSRU or a GBS-system in Long Island Sound, but not including onshore facilities or underwater pipelines and cables. To respond to this concern, Broadwater provides the following: Broadwater Energy LLC is jointly owned by TCPL USA LNG, Inc. and Shell Broadwater Holdings LLC. The joint venture partners of Broadwater Energy LLC agree not to construct other in-water, offshore regasification facilities (including FSRU or a GBS-type system in Long Island Sound as a condition to receiving a Coastal Zone Consistency Certificate concurrence by the NYSDOS.

## **3. Full Compensation of Local/State/Federal Safety and Security Costs**

The FERC Order issued March 20, 2008, as Appendix B, "Environmental Conditions for the Broadwater Project" Condition numbers 45 and 46 require Broadwater to develop an Emergency Response Plan that includes a Cost Sharing Plan that addresses the funding for project specific local and state safety and security costs:

*Condition 45 - Broadwater shall develop an Emergency Response Plan and coordinate procedures with the Coast Guard; state, county, and local emergency planning groups; fire departments; state and local law enforcement; and appropriate federal agencies. This plan shall include at a minimum:*

- a. designated contacts with state and local emergency response agencies;*
- b. scalable procedures for the prompt notification of appropriate local officials and emergency response agencies based on the level and severity of potential incidents;*
- c. procedures for notifying residents and recreational users within areas of potential hazard;*
- d. evacuation routes/methods for residents and other public use areas that are within any transient hazard areas along the route of the LNG carrier transit;*
- e. procedures for evacuation and rescue of persons on board the FSRU and LNG carriers;*

- f. locations of permanent sirens and other warning devices;*
- g. an “emergency coordinator” on each LNG carrier to activate sirens and other warning devices;*
- h. provisions to address the recommendations contained in Section 6.2 of the WSR;*
- i. procedures for off-loading LNG from the FSRU to LNG carrier in the event that the FSRU must be removed from the mooring; and*
- j. procedures for pumping down the LNG onboard the FSRU in preparation for severe weather events such as a hurricane.*

*The Emergency Response Plan shall be filed with the Secretary, for review and written approval by the Director of OEP, **prior to keel laying or any other project-related construction activity.** Broadwater shall notify Commission staff of all planning meetings in advance and shall report progress on the development of its Emergency Response Plan at 3-month intervals.*

*Condition 46 - The Emergency Response Plan shall include a Cost-Sharing Plan identifying the mechanisms for funding all project-specific security/emergency management costs that would be imposed on state and local agencies. In addition to the funding of direct transit-related security/emergency management costs, this comprehensive plan shall include funding mechanisms for the capital costs associated with any necessary security/emergency management equipment and personnel base. The Cost-Sharing Plan shall be filed with the Secretary, for review and written approval by the Director of OEP, **prior to keel laying or any other project-related construction activity.***

As a result, Broadwater will develop the required Cost Sharing Plan as part of the overall Emergency Response Plan in conjunction with state and local emergency response providers and the USCG. Broadwater commits to fund all state and local project-specific emergency costs associated with any necessary equipment and personnel mandated by the USCG pursuant to the approved Broadwater Emergency Response Plan.

In addition, the USCG has a well-established process to secure incremental funding with respect to new projects. The USCG applies for funding through the annual appropriations budget to ensure that the required resources identified within the Waterways Suitability Report are in place before the project becomes operational. Provided the State of New York does not oppose any requests by the USCG for the appropriation of necessary funds to provide the services required by the Broadwater project, to the extent that there is a shortfall between the funds appropriated by Congress and the amount required by the USCG to meet existing requirements in Long Island Sound plus any incremental costs expected as a result of the Broadwater project, Broadwater will fund the shortfall. This will ensure that ample resources are available for the USCG to meet the needs of both existing users of the Sound and the Broadwater project requirements.

In addition to the financial commitments Broadwater has made with regard to safety & security costs, Broadwater and Maritime College, State University of New York are currently working together in order to develop a unique training partnership for students and cadets studying at the Maritime College at Fort Schuyler, Bronx, New York. Long Island has a distinguished maritime heritage and this partnership will further the training and development of the next generation of merchant mariners, for national and international positions within the growing international LNG fleet. The partnership will enable students to gain practical experience in a variety of expertise areas such as liquid gas handling and certification, facilities management, general engineering practices including maintenance and work planning, maritime operations and general safety and security exposure. This unique training opportunity is being developed to assist New York students to acquire hands-on experience that will prepare them for potential domestic and global leadership positions in the maritime industry.

#### **Items 4 – 7**

Items four through seven relate to operational requirements at the Broadwater facility that could be implemented in order to further reduce potential water usage conflicts. These requirements are established through Broadwater Terminal Regulations, which form part of the overall Operations Manual, which is required by 33 C.F.R. § 127.305 to be submitted to the Captain of the Port (“COTP”) Long Island Sound for review and approval at least 6 months but no more than 12 months before the FSRU would receive LNG deliveries. Broadwater plays an active role in the development and review of the Operations Plan, but it is the USCG that has final authority to accept or reject any proposals related to safety, security and navigational matters. Once approved, the Operations Plan, and therefore the Broadwater Terminal Regulations, are binding on Broadwater and non-compliance will subject Broadwater to potential sanctions and other enforcement action.

#### **4. Prioritize Non-Carrier Commercial Traffic at the Race**

As indicated above, Broadwater is committed to avoiding and reducing conflicts at the Race with non-carrier commercial traffic or other waterway users. Broadwater agrees to include in its Terminal Regulations the following language to address this conflict:

*“The approach to Long Island Sound is made through the eastern entrance through the “Race”, passing to the north of Valiant Rock and south of Race Rock. This is an obvious natural funneling area, and the position where the most conflict from other traffic is likely to occur.*

*Due to the Safety and Security zone imposed around the LNG Tanker, Broadwater has committed to prioritize other traffic through the Race area. As such the Master and Pilot on board are advised to act accordingly, bearing in mind due consideration for the Safety and Security of the vessel itself, in order to avoid affecting the safe transit of other commercial traffic through the Race”.*

## **5. Elimination of Southern Route – Use Northern Route Only**

As indicated above, Broadwater is committed to avoiding and reducing conflicts with other waterway users that may use locations along the southern route and will commit to adding the following paragraph to the Broadwater Terminal Regulations.

*“Foreign and American vessels under register transiting to ports or places within Long Island Sound must utilize a New York or Connecticut licensed marine pilot while transiting Long Island Sound. Pilotage on Long Island Sound is concurrent between the states of New York and Connecticut. Broadwater is committed to utilizing the designated Pilot Boarding Stations at Point Judith located at 41°17’N, 071°30.5’W for all transits to the FSRU.*

*The same pilot that boards the LNG carrier for transit to the FSRU will complete the docking and undocking operations at the FSRU and will remain onboard throughout the discharge operation.”*

Accordingly, the facility would be required to adhere to any reporting requirements stipulated by the Coast Guard, in addition to any actions that may be directed by the COTP Long Island Sound per 33 CFR 160.109.

## **6. Elimination of Daytime Carrier Transits – Nighttime Transits Only**

Broadwater is committed to reducing and avoiding conflicts with other waterway users.

The publication of the USCG Waterways Suitability Report for Long Island Sound highlighted the following recommendations under 4.6.1.2.

- *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;*
- *These requirements must be outlined in the Operations Manual required by 33 C.F.R. § 127.305.*

Broadwater will restrict LNG carriers to nighttime transits only, subject to USCG approval. Accordingly, Broadwater will add the following paragraph to the Broadwater Terminal Regulations that will be submitted to the USCG as part of the Operations Plan.

*“Broadwater Energy will schedule LNG Carrier arrivals such that transits to and from the FSRU are limited to nighttime, in order to minimize user conflicts in Long Island Sound. Further, Broadwater Energy will continuously discuss schedules with the USCG Captain of the Port to further mitigate conflicts. If, however, the USCG advises Broadwater Energy that a different schedule will cause less user conflict (e.g. an overnight regatta), Broadwater will adopt the revised schedule.”*

## **7. Elimination of Transits Through Race During Slack Tide**

Broadwater is committed to avoiding and reducing conflicts with other waterway users in the Race during slack tide. The USCG Waterways Suitability Report for Long Island Sound highlighted the following recommendations under 4.6.1.2.

- *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;*
- *These requirements must be outlined in the Operations Manual required by 33 C.F.R. § 127.305.*

Broadwater will add the following paragraph to the Broadwater Terminal Regulations that will be submitted to the USCG as part of the Operations Plan.

*“Broadwater Energy will schedule LNG Carrier transits through “The Race” to avoid the period of 1 hour before and 1 hour after slack water”.*

## **Items 8 – 11**

The USCG exercises regulatory authority over LNG facilities with respect to the safety and security of port areas and navigable waters under Executive Order 10173, the Magnuson Act, the Ports and Waterways Safety Act of 1972, as amended, and the Maritime Transportation Security Act of 2002. The USCG is responsible for matters related to navigation safety, vessel engineering and safety standards, and all matters pertaining to the security of facilities or equipment located in or adjacent to navigable waters. The USCG also has authority for LNG facility security plan review, approval and compliance verification as provided in Title 33 CFR, Part 105, and siting as it pertains to the management of vessel traffic in and around the LNG facility.

As described in Items 8-11 below, NYSDOS has asked whether the Safety & Security Zones around the FSRU and LNG carriers can be reduced in size and/or whether restrictions on entry into those zones can be reduced. As discussed below, Broadwater will further evaluate, propose, and implement, if approved by the USCG, a reduction in the size of the Safety & Security Zones for the FSRU and inbound and outbound LNG carriers. Broadwater will also propose and implement, if approved by the USCG, procedures that would allow traditional users of Long Island Sound access to the FSRU Safety & Security Zone.

#### **8. Reduce Safety & Security Zone Size Around FSRU**

The current proposed FSRU Safety & Security Zone identified in the Waterways Suitability Report is 1,210 yards centered on the Yoke Mooring Tower. The USCG will establish the Safety & Security Zone, and the rules related thereto, through a rulemaking process. The USCG will issue a Notice of Proposed Rulemaking, pursuant to the federal *Administrative Procedure Act (APA)*, 5 U.S.C. 553, which will initiate a public comment process on the proposed Safety & Security Zone and related rules. After the public comment period, the USCG will issue final, binding regulations.

Following a CZMA concurrence, Broadwater will provide independent studies and further analysis and information to the NYSDOS in support of a reduction in size of the FSRU Safety & Security Zone and will submit this information to the USCG during the rulemaking process. The final decision on the size of the FSRU Safety & Security Zone will lie with the USCG COTP Long Island Sound taking into consideration all of the comments filed during the rulemaking process, including those of other users of the Sound.

#### **9. Allow Safety & Security Zone Use Around FSRU by Traditional Users**

The current proposed Safety & Security Zone around the FSRU identified in the Waterways Suitability Report, is 1,210 yards centered on the Yoke Mooring Tower. The order issued by the FERC on March 20, 2008 found that up to 12 fishermen trawl and up to 5 lobstermen currently set pots within the Safety & Security Zone proposed in the Waterways Suitability Report. Fishermen would be prohibited from using the area within the Safety & Security Zone for the life of the project. Consequently, establishment of the Safety & Security Zone could result in some long-term economic impact to the fishing efforts of these commercial fishermen. Broadwater has proposed to offset the economic impact to the fishermen who use the Safety & Security Zone by providing compensation. This commitment is imposed by two conditions of the FERC Order:

*29. Prior to operation, Broadwater shall file with the Secretary documentation of completion of the final compensation agreements between Broadwater and the commercial fishermen related to fishing grounds within the fixed safety and security zone.*

*30. Prior to operation, Broadwater shall file with the Secretary documentation describing the mechanism for fishermen to file damaged gear claims and receive compensation.*

Further information with respect to fisheries compensation is in Item 12 below. In addition to providing appropriate compensation, Broadwater commits to investigating and analyzing mechanisms that would allow traditional users to enter the Safety & Security Zone and to provide that analysis both to the NYSDOS following CZMA concurrence and to the USCG in the context of its rulemaking process. This would include, but not be limited to potential procedures, permits/licenses applications, and the fitting of Automatic Identification Signals to the traditional users' boats to ensure that the chief operator on the FSRU knows the locations of any vessels that may be in the Safety & Security Zone at all times. The final decision on user access into the FSRU Safety & Security Zone will be made by the USCG COTP Long Island Sound.

#### **10. Reduce Safety & Security Zone Around Inbound LNG Carrier**

The current proposed moving Safety & Security Zone around the inbound LNG carrier identified in the Waterways Suitability Report is two nautical miles ahead, one nautical mile astern (behind) and 750 yards on either side of the vessel. Like the Safety & Security Zone for the FSRU, the Safety & Security Zone for carrier movement is determined through the rulemaking process.

Broadwater will provide independent studies and further analysis to the NYSDOS following CZMA concurrence in support of a reduction in size of the in-transit Safety & Security Zone, including risk mitigation and information on Safety & Security Zones from other projects and to advance that information to the USCG through the rulemaking process.

Other facilities and waterways with LNG carrier transits that may be evaluated in comparison to the Broadwater facility include:

- Boston Harbour – 2 NM ahead, 1 NM astern and 500 yards on either side  
33 CFR § 165.110(b)(1)
- Chesapeake Bay – 500 yard radius around the LNG Carrier  
33 CFR § 165.500 (b)
- Savannah River - 2NM for all vessels greater than 1600 GRT and all other  
Vessels must remain clear 33 CFR § 165.756 (d)(1)
- Lake Charles – 2 NM ahead, 1 NM astern and the width of the ship channel  
on either side 33 CFR § 165.805(b)

#### **11. Eliminate Safety & Security Zone Around Outbound LNG Carrier**

The proposed moving Safety & Security Zone around the inbound LNG carrier is two nautical miles ahead, one nautical mile astern (behind) and 750 yards on either side of the vessel.

Broadwater will provide independent studies and further analysis to the NYSDOS following CZMA concurrence in support of a reduction in size of, or removal of, the Safety & Security Zone for outbound vessels, including risk mitigation and information on Safety & Security Zones from other projects and to provide that information to the USCG during the rulemaking process.

## 12. Fully Compensate All Direct Commercial Harvester Losses

Compensation to fisherman who can no longer carry out commercial fishing practices as a result of project operations has always been a commitment of Broadwater since the project application process began in 2006. This commitment has resulted in an extensive engagement process with local fishermen that is still ongoing and will remain in place throughout the duration of project operations. These commitments were reflected in the FERC Order issued March 20, 2008 as Appendix B “Environmental Conditions for the Broadwater Project;” Condition numbers 29 and 30 state:

29. *Prior to operation, Broadwater shall file with the Secretary documentation of completion of the final compensation agreements between Broadwater and the commercial fishermen related to fishing grounds within the fixed safety and security zone.*

30. *Prior to operation, Broadwater shall file with the Secretary documentation describing the mechanism for fishermen to file damaged gear claims and receive compensation.*

As part of the process to comply with these FERC conditions, Broadwater has established the “Broadwater Fisheries Advisory Committee” (BFAC) as described in Exhibit 3. The BFAC will act as a clearinghouse for information throughout the operational life of the project and provide a forum to discuss issues and concerns of both parties. The BFAC will also directly dispense funding to compensate fishermen once a claim has been received and a determination made as to the level of payment required, especially those related to direct gear damage that may occur during project operations. The general areas of focus of the BFAC will be:

- (1) Clearinghouse for information of mutual interest;
- (2) Discussion of issues and process development;
- (3) Conflict resolution; and
- (4) Dispense compensation funds.

Additional data analyses intended to supplement the financial values presented in Broadwater’s Coastal Zone Consistency Certification application are underway as part of the development of the fishing compensation package, which includes a more refined assessment of fishing impacts specific to the project area and the fishermen in that area. Data that will be used for this refined assessment includes:

- Site-specific data from the fishermen, including Connecticut Department of Environmental Protection (CTDEP) log books provided by lobstermen in the Safety & Security Zone, to calculate local lobster landings, numbers per pot, and catch per unit effort. Broadwater currently has logbooks from 3 fishermen in the Safety & Security Zone;

- Mapping that has been developed with specific fishermen's lobster pots and trawl lanes from mark-ups that were made on NOAA charts at the Riverhead and Mattituck outreach meetings;
- The licensee list from NYSDEC that has been received and provides specific information about those licensed to catch lobster and other commercial species in Long Island Sound so the number of actual fishermen with a license that are impacted can be determined for the project area; and
- Forms utilized by the Empire State Development Fund in 1999 when the lobster die-off in Long Island Sound occurred. This information was used as a starting point for Broadwater to develop a project specific form (see Exhibit 3). This project specific form will be used to assess income conditions before and after the implementation of the Broadwater project and will provide the monetary baselines that will be used in the compensation determination for each fisherman, as appropriate (see Exhibits 4 and 5).

In addition to compensation programs for those fishermen displaced by the Safety & Security Zone, Broadwater is establishing a process to compensate for gear damage that may occur due to LNG carrier transit. Compensation will be administered through a gear damage fund that will be operated directly by the BFAC. Gear damage will encompass many issues including cost of gear, as well as any fines incurred by fishermen that were unable to retrieve their gear due to direct conflicts with Broadwater operations. At this time, the agreed upon approach is to use the cost per trap as a baseline figure to account for gear lost but other inputs are likely needed; feedback from the fishermen and those participating in the BFAC will be necessary before a "gear damage fund" can be fully implemented. Input and experience from the Joint Oil/Fisheries Liaison will also be valuable. An appropriately funded gear damage compensation fund will ensure timely and appropriate payment of all documented claims with any balance that remains at the end of each year being made available to the BFAC for investment into facilities or equipment to support the industry as a whole.

Broadwater is also committed to engaging a third party resource to assist the BFAC in finalizing compensation agreements, gear damage claim protocols and other required forms and procedures as necessary. This third party is likely to be an individual from a recognized institution or organization that has site-specific knowledge about the Long Island Sound fishery such as Sea Grant, SUNY-Stony Brook, regional fisheries management council or other academic institutions.

All of the above information and expert knowledge will be utilized to determine what the specific impacts are to the fishermen in the Safety & Security Zone and potential impacts along the LNG carrier route, and will support the monetary value proposed as compensation for both direct and indirect losses.

### **13. Fully Compensate Secondary Impacts Using Economic Multiplier**

As part of the compensation process described in Item 12, Broadwater has agreed to fully compensate fishermen for all demonstrable losses resulting from project implementation and operation. Concerns have been noted that in addition to direct impacts experienced by fishermen from Broadwater facility operations, a secondary economic impact may occur throughout the industry to other entities that provide goods and services to fishermen in support of their fishing efforts and those that purchase seafood as a product from these fishermen.

Broadwater notes that the number of fishermen expected to be impacted by the project is extremely small. Moreover, the concern with respect to secondary impacts has been largely discounted by previous data and trends that were evaluated by Sea Grant when the lobster die-off occurred in Long Island Sound in 1999 (see Exhibit 6). As reported by Sea Grant in 2005, lobstermen, lobster dealers, and seafood restaurants in Connecticut and New York were surveyed by telephone in 2002 to assess the economic impact that the 1999 die-off had on various sectors of the lobster market. The results indicated that the lobster dealers and seafood restaurants were able to fill their supply demands with lobsters from northern New England and Canada. The socio-economic hardship resulting from the lobster mortality event was largely confined to local lobstermen and their families. Based on the evaluation of these impacts for several hundred fishermen that experienced the die-off in Long Island Sound in 1999, Broadwater has concluded that the small numbers of fishermen that will be impacted by the operation of the facility are not likely to result in a related secondary economic impact on the fishing industry. However, Broadwater is committed to fully evaluating the impacts of facility operations and if secondary impacts to the fishing industry are linked to the fishermen directly impacted by the facility, Broadwater agrees to fully compensate those losses.

### **14. Facilitate Sustainability and Re-establishment, as Needed, of Commercial Harvesting Industries**

As part of the compensation process described in Items 12 and 13, Broadwater has agreed to fully compensate fishermen for all demonstrable losses to fishermen resulting from project implementation and operation. Concerns have also been expressed about re-establishment and perpetuation of commercial fishing practices in Long Island Sound and what programs Broadwater may support to promote these continued efforts that contribute to the community character and maritime heritage of Long Island.

Broadwater is committed to supporting and aiding in the re-establishment of commercial fishing industries by proposing potential programs similar to those offered to fishermen during the lobster die-off that occurred in 1999. These programs could include:

- Low interest loans;
- Subsidies for fisherman to purchase equipment in support of fishing practices;

- Vocational education or training programs to educate and promote others to enter the fishing occupation.

Monetary programs such as loans and subsidies would be funded by Broadwater but administered by a third party such as the Empire State Development Fund or other not-for-profit entity similar to the process that was implemented during the lobster die-off that occurred in 1999. Under this type of structure, agencies and organizations with specific knowledge of the area and the resources involved would have control over the process of funding approval and administration of monies to specific individuals that apply for assistance.

#### **15. Eliminate - Minimize Larval/Young of Year/Juvenile Mortality**

Operations at the Broadwater facility include the use of seawater taken in by the FSRU as well as LNG carriers for on-board operations and ballasting. Broadwater has been working in consultation with the NYSDEC on these potential impact issues and has committed to three operational adjustments at the facility that will reduce the volume of water intake and subsequently will reduce the impacts to ichthyoplankton and resulting mortality. These include:

- Implementing ballast water management practices for the LNG carriers that offload at the facility. As part of the Terminal Regulations, Broadwater will request that all vessels limit the ballast quantities loaded whenever possible such that each LNG Carrier would take on any additional ballast water after departing the Broadwater facility. In all cases the LNG carrier would load the minimum required for propeller immersion and safe navigation. This practice will minimize the amount of ballast water taken on by the LNG carrier within the Long Island Sound. With these management practices in place, LNG carriers could potentially reduce their ballast water volume by 20-30% resulting in a significant reduction in ichthyoplankton mortality and a reduction in the amount of bio-mass removed from Long Island Sound. Currently the LNG carrier ballast and cooling water intake value is approximately 21.6 MGD (a worst case value for steam vessels that will be reduced with the next generation LNG carriers). This intake potentially occurs 2-3 days per week when a carrier is offloading at the Broadwater facility. By incorporating a request to reduce these volumes into the Terminal Regulations, the ballast water intake value can be reduced to range from 17.28 (20% reduction) to 15.12 (30% reduction) MGD. These reductions would be recorded and reported to NYSDEC on an annual basis.
- Similarly, Broadwater would implement ballast water management practices on the FSRU. As part of the Terminal Regulations, Broadwater will limit whenever possible, the ballast water quantities for the FSRU. In all cases the FSRU would load the minimum required for safe operation and navigation. The ability to take on less ballast water would be most prevalent in the summer months when met-ocean conditions in Long Island Sound are the most benign and conversely when ichthyoplankton densities are likely highest.

This practice would lead to an expected reduction of ballast water intake of 15-20%, and will be monitored through best practices on board the FSRU. These reductions would be recorded and reported to NYSDEC on an annual basis.

- In addition to an operational adjustment for reduce ballast water intake, Broadwater has also committed to a design change on the FSRU to further minimize ichthyoplankton impacts pending approval from NYSDEC. If approved, Broadwater will alter the design of the water intake structure and install 4 water intakes rather than 2. This design change will result in no additional intake volume and no increase in flow velocity, but will designate 2 intakes that only serve the ballast water system and water routing through this intake system will no longer be treated with sodium hypochlorite. This would result in a significant reduction in the amount of treated seawater being discharged from the facility and increases the likelihood that ichthyoplankton that enter the water intake structure can survive passage through the ballast water system and will be returned to Long Island Sound.

These design changes demonstrate the commitment Broadwater has made to installing the best technology available to minimize impacts to the Long Island Sound aquatic environment and fishery to the maximum extent possible within the bounds of marine technologies that have a proven level of application and performance in a moving marine environment. Like with air matters and the Clean Air Act, Broadwater understands from statements made by your Department at our recent meetings that compliance with the Clean Water Act requirements administered by the NYSDEC will demonstrate consistency with the applicable and enforceable coastal policies of the State of New York. Broadwater continues to engage with the NYSDEC on water and air issues and will comply with all applicable regulations in these areas. For instance, Broadwater has committed to a 1.5% sulfur in fuel annual average limit for LNG carriers calling on the FSRU which will further the net air quality benefits this project will bring to the region.

#### **16. Develop and Finance Stocking Programs for Long Island Sound Commercial Species**

As indicated in Item 15, Broadwater will implement design and operational adjustment to minimize and eliminate impacts to the Long Island Sound ecosystem to the maximum extent possible within the bounds of proven marine technology. After these adjustments are made, a minimal impact to the fishery may still occur. Subject to CZMA concurrence, Broadwater agrees to develop and finance programs to promote the sustainability of commercial species in Long Island Sound. Research conducted by Broadwater and discussions with NYSDEC and NYSDOS have resulted in initial feedback and input on the types of programs that would be best suited for implementation in Long Island Sound based on the needs of the ecosystem and the success rate of a given program. Stocking programs and other direct input efforts for a given commercial species do not have a very high success rate since external variables (e.g., temperature, dissolved oxygen, food availability) are difficult to control in an open ocean

environment such as Long Island Sound. Broadwater has proposed other potential projects that could be implemented depending on final input received from NYSDEC. In general, the potential programs proposed by Broadwater have a higher success rate and result in a more direct and measurable biological benefit to the Long Island Sound ecosystem and a greater long-term monetary benefit to its commercial fisherman. Options for potential programs include:

- tag buy-back program;
- V-notching of lobsters to promote sustainability of the depleted lobster population;
- Sea grass bed restoration to provide habitat for spawning of commercial species; and
- Lobster management program encompassing (v-notch, tag buy back, habitat restoration, artificial reef creation).

Further, Broadwater is committed to continue engagement with NYSDEC and NYSDOS on these potential programs and working toward a cooperative agreement to implement the programs that will have the greatest benefit to the Long Island Sound ecosystem and its users.

#### **17. Conduct Ecosystem Monitoring and Commit to Restoration and Reporting**

Discussions with NYSDOS have brought forth a concern that ecosystem monitoring, restoration, and reporting related to the pipeline must be part of the overall implementation for the Broadwater facility. Broadwater will conduct ecosystem monitoring of the pipeline as required under several conditions mandated in the FERC Order issued March 20, 2008 to satisfy both federal and state cooperating agencies. In addition, Broadwater commits to restoration to baseline conditions for habitat impacts associated with pipeline construction and reporting of those monitoring and restoration efforts to relevant state agencies including NYSDEC and NYSDOS.

## **Attachment 2**

In this attachment Broadwater is providing further detail relating to two subject areas - - Atlantic alternatives and the Stratford Shoal - - discussed with NYSDOS at recent meetings.

### **Atlantic Alternatives**

Previously, Broadwater received a map of potential Atlantic alternatives from NYSDOS (see Exhibit 7) and evaluated these offshore locations and well as their associated onshore pipeline routes. These routes were evaluated and information on this analysis was filed as part of the project record as a response to an NYSDOS information request on August 15, 2007 (see Exhibit 8).

As part of the evaluation, a site visit was performed by Broadwater from November 13-16, 2007 to further examine the alternatives routes and point out engineering and environmental related impacts and obstacles that make construction and operation along these routes and in many adjacent locations impractical and in most cases impossible. The objective of the site visit was to evaluate each land-based route suggested by NYSDOS in detail by driving the entire route and examining, photographing, and documenting cover types, workspace limitations, other utilities within the proposed pipeline Right-Of-Way, conflicting uses, and any other features of the route. The complete evaluation including relevant environmental and engineering concerns and photos from specific locations along the pipeline routes are attached for review (see Exhibit 9).

In many cases, construction is not possible due to the existence of buildings, infrastructure, and current uses which could not be removed or disrupted to allow for construction of a 30-inch diameter pipeline which would contain high pressure natural gas and in various instances flow through residential neighborhoods. It was determined through this detailed, on the ground evaluation, including photo documentation along each route, that based on the conditions along these proposed routes, impacts from construction and operation of a pipeline in these areas of Long Island proper would result in greater environmental impacts, including greater direct coastal effects, than the preferred facility site in Long Island Sound.

Overall, the environmental impacts, including coastal effects, associated with a facility sited in the Atlantic Ocean would be greater than those of the proposed Project due to the need to construct a substantially longer pipeline to connect the terminal to the existing pipeline transmission system. Further, the existing transmission system would need substantial expansions to deliver incremental gas supplies to New York City and Long Island. Operational difficulties would be greater in the Atlantic Ocean due to more turbulent met-ocean conditions when compared to Long Island Sound. Operational difficulties would diminish to unacceptable levels the reliability of the facility as a base-load gas supply for Long Island and the greater New York area and would further thwart the intended purpose and need for the project which is to provide new molecules of natural gas supply directly to and for this market area to stabilize energy costs and reduce the volatility of energy prices.

### **Industrialization**

Broadwater acknowledges the concerns raised by NYSDOS Staff over the industrialization of Long Island Sound. Broadwater has responded to those concerns in its previous submissions to the NYSDOS and desires to more specifically address why Broadwater's commitment in this area as described in Table 1 and Attachment 1 is appropriate.

As stated in Attachment 1, as a condition to receiving a Coastal Zone Consistency Certificate concurrence by the NYSDOS, Broadwater Energy LLC and its members, TCPL USA LNG, Inc. and Shell Broadwater Holdings, LLC, will agree not to construct other in-water, offshore regasification facilities (including an FSRU or GBS-type system in Long Island Sound. Commitments in this regard beyond its joint venture partners would create a competitive disadvantage to TransCanada and Shell and restraint of trade concerns. Broadwater does not understand how NYSDOS or any other state agency can prohibit energy facilities in Long Island Sound which are subject to the federal Natural Gas Act and Energy Policy Act of 2005. Further, the existing Long Island Sound Coastal Management Plan does not contain such a broad prohibition. As such, competitors of TransCanada and Shell would be free to apply to construct and operate energy facilities throughout Long Island Sound without constraint while TransCanada and Shell would be constrained. In addition, Broadwater respectfully submits that the rigorous CZMA and other New York State and federal requirements, including as they may be amended, which are to be consistently and uniformly applied to all applicants wishing to develop an energy facility, also address the industrialization concern.

### **Stratford Shoal**

Stratford Shoal was also discussed and questions arose around the basis for the existing pipeline route in Long Island Sound. As supported by data in previous filings, Broadwater examined many physical and biological factors during the pipeline siting and routing process. The proposed pipeline route was chosen to cross Stratford Shoal at one of its narrowest points to avoid or minimize impacts related to other Long Island Sound features including:

- Sediment contamination;
- Historic wrecks;
- Underwater obstructions;
- Lightering areas (potential for anchor strikes of the pipeline);
- Avoidance of the FLAG-Atlantic cable;
- Historic dumping grounds; and
- Essential Fish Habitat and shellfish bed impacts that would be impacted with associated degraded water quality if construction occurred in areas with contaminated sediments.

Overall, construction across Stratford Shoal will have a hard-bottom impact of approximately 1.5 acres over a length of approximately 4,000 feet and while avoiding areas that have been identified as large rock or bedrock that would require blasting or the use of more intrusive means for pipeline construction. Broadwater has also recently filed a response with the U.S. Army Corp of Engineers (USACE) regarding the "Stratford Shoal Contingency Plan" (see Exhibit 10) in which Broadwater would commit to additional in-water construction measures across Stratford Shoal if they are deemed necessary by USACE. These measures include evaluating the conditions across Stratford Shoal during trial plow operations utilizing a diver survey and/or additional drop-camera observations which could provide definitive data along the actual pipeline installation route and ensuring that Best Management Practices implemented are the most suitable for the existing substrate. In addition, conditions 13 through 17 mandated in the FERC Order issued March 20, 2008 ensure proper construction operations and post-construction monitoring at Stratford Shoal.

Based upon continued engagement and feedback received from NYSDEC, NYSDOS, and USACE, Broadwater would develop an approach and plan for returning the material removed from Stratford Shoal to its original location to ensure that any native hard-bottom habitat remains in Long Island Sound rather than ending up at a distant open-water or upland disposal facility. Broadwater would also develop an approach and plan in conjunction with other local experts, to thoroughly map the Shoal area and provide this data to NYSDOS and relevant institutions for further study and analysis.