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March 7, 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 March 5, 2008 correspondence of Broadwater Energy LLC and Broadwater Pipeline LLC with the U.S. Army Corps of Engineers.

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

Respectfully submitted,

/s/ Brett A. Snyder

Brett A. Snyder

Enclosure

cc: Mr. James Martin, FERC



Broadwater LNG Project
Docket Nos. CP06-54-000 and CP06-55-000
Federal Energy Regulatory Commission

Naomi Handell
Department of the Army
New York District, Corp of Engineers
Project Manager
Eastern Permits Section
Jacob K. Javits Federal Building
New York, NY 10278-0090

March 5, 2008

RE: Supplemental Information - NAN-2006-265-EHA Permit Review

Dear Ms. Handell:

This letter provides additional information in response to the Corp of Engineers (USACE) February 6, 2008 comment letter. The USACE comment letter requests information on two issues: (1) an evaluation of the impacts of upland and open water placement of dredged material; and (2) best management practices during dredging to avoid adverse impacts to coral communities.

As noted in Broadwater's prior responses to the Federal Energy Regulatory Commission's (FERC) Environmental Information Requests (EIRs), if installation of the pipeline connecting the Broadwater terminal to the Iroquois Gas Transmission system line requires dredging, Broadwater will manage and dispose of the dredged material in accordance with all applicable statutory and regulatory requirements.

In order to assess the suitability for disposal at open water or upland locations, Broadwater will determine if the disposal project complies with the requirements of the Marine Protection, Research, and Sanctuaries Act (MPRSA) and/or the Clean Water Act (CWA) sediment testing requirements. Broadwater will perform this assessment in coordination with the USACE before final dredging takes place.

If dredging is required, representative dredge materials will be sampled and tested prior to the execution of the dredging operation to determine their physical, chemical and biological properties, which can affect their suitability for open-water disposal and certain types of upland disposal facilities. Materials will not be approved for open-water disposal if it is determined that the material has the potential to cause unacceptable adverse effects to the marine environment and human health.

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Upland and open-water alternatives for disposal of dredged materials will be evaluated based on testing results. To the extent that upland alternatives do not satisfy EPA's disposal criteria, use of the two open-water dredged material disposal sites which EPA has designated (40 CFR Part 228) in Central Long Island Sound (CLIS) and Western Long Island Sound (WLIS) for the disposal of dredged material from harbors and navigation channels in the Long Island Sound vicinity will be assessed.

A. Evaluation of the Impacts of Upland and Open Water Placement of Dredged Material

Maintenance and construction projects in or proximate to the Sound produce millions of cubic yards of dredge material each year. For these dredging projects, some material may be suitable for open water disposal and some will be determined better suited for upland disposal. This determination is based on several factors specifically related to the marine environment, physical location of the project activity, and physical and chemical composition of the dredge material. Outlined below is an evaluation of the benefits and impacts of both upland and open water placement of dredged material.

Upland Disposal

Upland disposal has certain benefits when compared to an open water option. These benefits include:

- Dredge material may be categorized for beneficial reuse as fill material for landfills, construction projects, and beach or shoreline renourishment
- Upland disposal has no associated benthic or marine impacts
- Concerns about unwanted transport or drift of sediment after disposal are eliminated
- There are generally no time-of-year restrictions for disposal activities

Upland disposal can also have associated impacts or constraints when compared to an open water option. These include:

- Added time to fully complete dredging activities if time for transfer to the shore-based upland facility needs to be considered in the construction plan
- Added cost for disposal (generally more expensive per cubic yard)
- There may be added impacts associated with vessel emissions if the upland disposal facility is a significant distance away from the dredging activity (added emissions from truck, rail, and marine vessels)
- Disposal facility or landowner constraints due to space or size limitations
- Restrictions on types of material acceptance at potential disposal facilities (i.e. sediment type, grain size, cohesive properties, contaminants present)

Open-Water Disposal

There are two open-water dredged material disposal sites that the EPA has designated (40 CFR Part 228) in Central Long Island Sound (CLIS) and Western Long Island Sound

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(WLIS) for the disposal of dredged material from harbors and navigation channels in the Long Island Sound vicinity.

The benefits of open water disposal at these approved locations include:

- Shorter duration of dredge and disposal operation if disposal sites are nearby (same waterbody)
- Lower cost since material does not have to be transported a great distance from the dredging location
- Uncontaminated material may be used for in-water placement in areas where beachside or shoreline erosion has occurred
- Limits emissions associated with transport of materials rather than those associated with a shore-based facility

Open water disposal can also have associated impacts or constraints when compared to an upland option. These include:

- Impacts to marine and benthic life during the disposal operation
- Potential for sediment drift away from the actual disposal location
- Impacts to water quality (i.e. turbidity, dissolved oxygen, release of potential contaminants)
- Potential for habitat alteration during disposal

At this time, Broadwater does not have a preference for upland versus open water disposal and the need for this type of disposal is not certain since this effort would only be necessary if the trial plow across Stratford Shoal is not successful. Based on sediment sampling and chemical analysis that was conducted along the proposed pipeline route in May 2005, contaminant levels are generally non-detect in all areas and a concern for disposal of contaminated material would likely not be an issue. Once the appropriate approvals for the activity are in place, Broadwater will evaluate all dredge disposal options and will implement the most suitable option with appropriate regulatory and agency approval.

Measures to Minimize Impacts of Disposal

In order to minimize impacts from dredge disposal operations, time-of-year restrictions or environmental windows can be utilized in order to protect fishery resources and minimize interference with use at open water disposal locations. This includes limiting the disposal activities to the months of October through April, inclusive. Other measures that will minimize impacts include sediment testing as set forth in 40 CFR Part 227 which is used to determine the dredged materials suitability for open water and upland disposal.

Measures also can be implemented relating to the type and quantity of dredge material, acceptable methods of release, such as use of hopper dredges or bottom dump barges which discharge material near the surface as a standard operating procedure for open water operation; and methods of packing or concentrated placement during disposal which minimize bottom impacts. Other protective measures can also be implemented

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when transporting material for upland disposal including keeping ponded water on top of the dredge material during transport to discourage birds from congregating. Also, once material arrives at the upland disposal facility, construction of detention basins and sedimentation ponds can be used to dewater sediment and control sediment runoff during material placement. It is also important to ensure that the upland disposal facility uses appropriate control technologies including liners, leachate collection systems, run-off controls, and treatment systems, as necessary.

B. Best Management Practices for Dredging Activity to Avoid Adverse Impacts to Coral Communities

The USACE's comment letter refers to the presence of coral communities along the proposed pipeline route across Stratford Shoal and asked Broadwater to address best management practices to avoid impacts on these communities. While Broadwater addresses the issue below and reiterates its commitment to work with permitting agencies to minimize all impacts, it is important to note that impacts to coral communities are expected to be limited.

Issues with respect to potential impacts to coral communities are generally based on the observational reporting provided by Dr. Peter Auster and presented in "Benthic Characterization of the Stratford Shoal Region of Long Island Sound – May 29 to June 2, 2007". It is important to note that the conclusions presented in Dr. Auster's report are preliminary. Site-specific data collected by Broadwater in May 2005 using an underwater camera survey showed no evidence of the presence of coral communities along the proposed pipeline route or protected species that would be impacted during construction (see *Ecology and Environment, Inc. - Spring 2005 Environmental Sampling Report for a Project To Construct and Operate an LNG Receiving Terminal in Long Island Sound, Long Island, New York.*).

The Final Environmental Impact Statement (FEIS) published by the Federal Energy Regulatory Commission (FERC) on January 11, 2008 referenced Dr. Auster's report and noted that the report included a benthic habitat survey in the general vicinity of Stratford Shoal. With respect to Dr. Auster's report, the FEIS stated:

"Surveys were conducted along and near the proposed Broadwater pipeline route. In addition to side-scan sonar and video, the survey collected sediment samples and measured water quality (for example, salinity and temperature). The survey report did not provide the data or quantitative analyses of the side-scan sonar survey, video survey, sediment sampling, or water quality sampling but did provide anecdotal observations on the benthic habitat. Relevant to past pipeline construction across Stratford Shoal, the authors reported that they were unable to visually differentiate the IGTS pipeline from video despite observing a characteristic reflectance pattern in the side-scan sonar record.

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Although the analysis was not reported, the authors suggested that segments of the side-scan transect would be analyzed to determine if lobster burrow features occur at densities along the buried pipeline that are different than background. The authors stated that, despite the limited number of segments available for analysis, preliminary data may be useful to define a future study to better understand the habitat value of installed pipelines in cohesive sediments in Long Island Sound.

The authors concluded that data collected during the survey could be used to describe, in a preliminary fashion, general characteristics of habitats and dominant emergent fauna across a gradient of grain size in the survey regions. Areas with coarser sediments (i.e. greater visible sand fraction) were characterized with single and hinged valves of dead mollusks such as razor clam (*Ensis directus*), slipper shell (*Crepidula sp.*), and blue mussel (*Mytilus edulis*). Hard substrate communities on both small gravel and boulder-size rocks, supported sparse and dense aggregations of finger sponges (*Haliclona oculata*), northern star coral (*Astrangea poculata*), blue mussel, and erect bryozoans.

The EPA report is presented as providing preliminary results and concludes that there are no plans for final reporting. In general, the techniques identified lobster burrows, but the distribution and relative abundance were not mentioned. Similarly, the report identified that finger sponge and northern star coral were observed on the crest of Stratford Shoal in the vicinity of the proposed Broadwater pipeline route. Although the distribution and relative abundance of these species were not reported, it is expected that the communities consist of a scattering of individuals based on the existing information on these species. There is no evidence to suggest that these scattered individuals would be considered a "special aquatic site," and no nearshore coral reef habitat has been identified north of Florida since the water temperatures are too cold for the coral species that compose coral reefs. Grace (2006) indicates that northern star coral are very hardy and are plentiful in Long Island Sound. In addition, northern star coral differ from many other coral species because they are dormant during the winter months when Long Island Sound waters are cold."

The FEIS concluded:

"The communities of northern star coral and dead man's fingers located along the proposed pipeline route across Stratford Shoal would be impacted by construction of the proposed pipeline. However, impacts would be expected to be minimal because benthic disturbance to Stratford Shoal would occur at one of the narrowest points of Stratford Shoal and would extend for less than 1 mile. In addition, because northern star coral is plentiful within the Sound, it would be expected that adjacent communities not impacted by construction would aid in reestablishing populations in the disturbed area through natural recruitment."

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Based on the information presented above, impacts to coral communities related to pipeline construction are expected to be minimal. However, Broadwater is committed to working with all relevant State and Federal agencies including the USACE to implement all measures that are deemed necessary to limit project related impacts during construction and operation.

Best Management Practices (BMPs) posed by USACE for pipeline construction across Stratford Shoal include environmental buckets and bucket speed restrictions.

Section C3.2 of Broadwater's Stratford Shoal Contingency plan states:

“The water depth across Stratford Shoal provides a challenge for pre-lay trenching. The most controlled method of trenching would be to use a long-arm excavator unit. This is a specialized spud barge containing a heavy duty excavator. Another option is to use a clamshell dredge; however, its effectiveness and accuracy in deep water is reduced.”

The backhoe/long arm excavator would enable excavation or disturbance of the least amount of material and likely result in the least impact to any potential coral communities and offers the best method to penetrate the hard substrate and recover the disturbed material. This method also limits the amount of material that would be generated for dredge disposal. It is important to note that in the initial plan for pipeline installation across Stratford Shoal, the use of the sub-sea plow involves a trial plow operation. If plowing is not deemed suitable after the trial, then the use of the backhoe/long arm excavator would be implemented.

Clam shell buckets or environmental buckets could be utilized but they may not have the capability or the power to dig deeply enough into the hard substrate to create the pipeline trench if plowing is not successful. Various equipment options have been considered and the backhoe/long arm excavator is the preferred option for recovering the largest amount of material while minimizing the amount of loss through the water column and allows for more accuracy in trench excavation. This will limit the extent of any turbidity plume; ensure the shortest duration of in-water operations, and the smallest area of disturbance.

Broadwater will consider committing to additional in-water construction measures across Stratford Shoal if they are deemed necessary by USACE and to evaluate the conditions across Stratford Shoal during trial plow operations including a diver survey and/or additional drop-camera observations which could provide definitive data along the actual pipeline installation route and ensure that BMPs implemented are the most suitable for the existing substrate.

If there are any additional questions related to construction operations for the Broadwater facility as this process moves forward, please feel free to contact me at 716-684-8060.

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Sara Allen-Mochrie
Senior Biologist
Ecology & Environment, Inc.

Cc: Robert Alessi (Dewey & LeBoeuf)
John Hritcko (Broadwater)
Jim Martin (Federal Energy Regulatory Commission)

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 7th day of March 2008.

/s/ Brett A. Snyder _____

Brett A. Snyder

Document Content(s)

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