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March 31, 2006

BY ELECTRONIC FILING

Magalie Roman Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NW
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. Salas:

Enclosed for filing in the referenced proceedings is a copy of each of the following:

1. New York State Department of Environmental Conservation ("NYSDEC") State Pollutant Discharge Elimination System General Permit Application for Stormwater Discharges from the Broadwater LNG Terminal in Long Island Sound, Long Island, New York, filed with the NYSDEC on March 24, 2006; and

2. NYSDEC State Pollutant Discharge Elimination System Industrial Permit Application for the Broadwater LNG Terminal in Long Island Sound, Long Island, New York, filed with the NYSDEC on March 24, 2006.

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

Respectfully submitted,

/s/ Brett A. Snyder

Brett A. Snyder
Counsel to Broadwater Energy LLC and Broadwater Pipeline LLC

Enclosures

cc: James Martin
Federal Energy Regulatory Commission

LeBoeuf, Lamb, Greene & MacRae LLP

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Received
Dorothy Fitzgerald
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March 24, 2006

BY HAND

Mr. Jeffrey Gregg
Environmental Analyst 2
New York State Department
of Environmental Conservation
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, New York 12233-1750

Re: Broadwater Energy LLC – SPDES Applications

Dear Mr. Gregg:

On behalf of our client, Broadwater Energy LLC (Broadwater), we are pleased to enclose an original and two copies of the following documents:

1) New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System General Permit Application (NOI) for Stormwater Discharges from the Broadwater LNG Terminal in Long Island Sound, Long Island, New York (Stormwater Application); and

2) NYSDEC State Pollutant Discharge Elimination System Industrial Permit Application for the Broadwater LNG Terminal in Long Island Sound, Long Island, New York (SPDES Application).

By copy of this letter and pursuant to your request, we are also providing one copy of Broadwater's Stormwater and SPDES Applications to William Spitz in the NYSDEC Stony Brook office.

Also, this will confirm that in furtherance of conversations with NYSDEC Department of Environmental Permits (DEP), a State Environmental Quality Review Act Environmental Assessment Form (EAF) is not being submitted with Broadwater's submissions because, among other reasons, the Department possesses several other items of documentation for the Broadwater Project that serve the purpose of an EAF.

If you have any questions or if we may be of further assistance, please contact me.

Thank you for your continued attention to this matter.

Very truly yours,

Robert J. Alessi

cc: (By FedEx)
Broadwater Energy LLC
Mr. Michael Donnelly, Ecology & Environment
Mr. William Spitz, NYSDEC Stony Brook
94469

BROADWATER

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT APPLICATION (NOI) FOR STORMWATER DISCHARGES FROM THE BROADWATER LNG TERMINAL IN LONG ISLAND SOUND
LONG ISLAND, NEW YORK

PREPARED FOR:
BROADWATER ENERGY LLC

SUBMITTED TO:
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
625 BROADWAY
ALBANY, NEW YORK 12233-3505

MARCH 2006

PUBLIC

Table of Contents

List of Figures

1. STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT FOR STORMWATER DISCHARGES

1.1 STORMWATER NOTICE OF INTENT APPLICATION

The Stormwater Notice of Intent (NOI) Application is presented on pages 1-2 and 1-3 below. This application is filed subject to applicable federal and other law and retained rights and without waiver of our prejudice to such law/rights and the rights of Broadwater.

1.2 PROJECT LOCATION

The proposed Broadwater terminal will be located approximately 9 miles from Long Island in Long Island Sound, in approximately 90 feet of water, and offshore of Riverhead, Suffolk County, New York (see Figure 1-1). The nearest Connecticut onshore point is approximately 10 miles from the proposed terminal location.

NYS Department of Environmental Conservation
Division of Water
625 Broadway
Albany, NY 12233-3505
Phone: (518) 402-8111 **Fax:** (518) 402-9029
Website: www.dec.state.ny.us

NOTICE OF INTENT OR TERMINATION FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER SPDES GENERAL PERMIT 98-03

Section I. Reason for Submittal - Check either A or B or C:

☒ A. This is a new (original) or renewal submittal. Complete the rest of the form. (Items marked with an asterisk (*) must be completed.)
* See attached.

-or-

☐ B. There has been a change in information since the earlier submittal. Indicate changes in appropriate sections. If known, enter your permit identification number below.

-or-

☐ C. Want to terminate general stormwater permit coverage. Complete the following sections, as appropriate, including Section V. If known, enter your permit identification number below.

Permit Identification Number: NYR

Section II. Owner/Operator Information

*Name: Broadwater Energy LLC – Murray Sondergard, Project Director

*Street: c/o Robert J. Alessi, Esq., LeBoeuf, Lamb, Greene and MacRae LLP

Additional Address (if any): One Commerce Plaza, 99 Washington Avenue, Suite 2020

*City, State and Zip Code: Albany, NY 12210-2820

Section III. Contact Person

First Name: Murray Last Name: Sondergard

Telephone #: 403-920-2046 E-mail:

Section IV. Facility Information

*Name: Broadwater Energy LLC - Murray Sondergard, Project Director

*Street: c/o Robert J. Alessi, Esq., LeBoeuf, Lamb, Greene and MacRae LLP
(See note on second page)

Additional Address (if any): One Commerce Plaza, 99 Washington Avenue, Suite 2020

*City, State and Zip Code: Albany, NY 12210-2820

*County: Suffolk Region:
(For DEC use only)

NOTE: If the activity lacks a street address, provide the latitude and longitude of the approximate center of the site and/or the nearest intersection of roadways:

Longitude: 7[2° 50 '44.56]W Latitude: 4[1° 6 '1.31 "]N

Nearest Intersection: [Long Island Sound]

A. Name of municipal storm sewer system (if any): [4491]

B. Name of nearest waterway: [ ]

C. If there are other State Pollutant Discharge Elimination System ("SPDES") permit(s) for this facility, indicate number(s):

NY[ ]NY[ ]NY[ ]

*D. Enter the primary Standard Industrial Classification ("SIC") code for the facility or check one of the following activity descriptions:

SIC code: [ ]

Hazardous waste treatment, storage or disposal facility, including those that are operating under interim status or a permit under subtitle C of RCRA [40 CFR 122.26(b)(14)(iv)].

Landfill, land application site, and open dump that receive or has received any industrial waste, including those that are subject to regulation under subtitle D of RCRA [40 CFR 122.26(b)(14)(v)].

Steam electric power generating facility, including coal handling sites [40 CFR 122.26(b)(14)(vii)].

Treatment works treatment domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage [40 CFR 122.26(b)(14)(ix)].

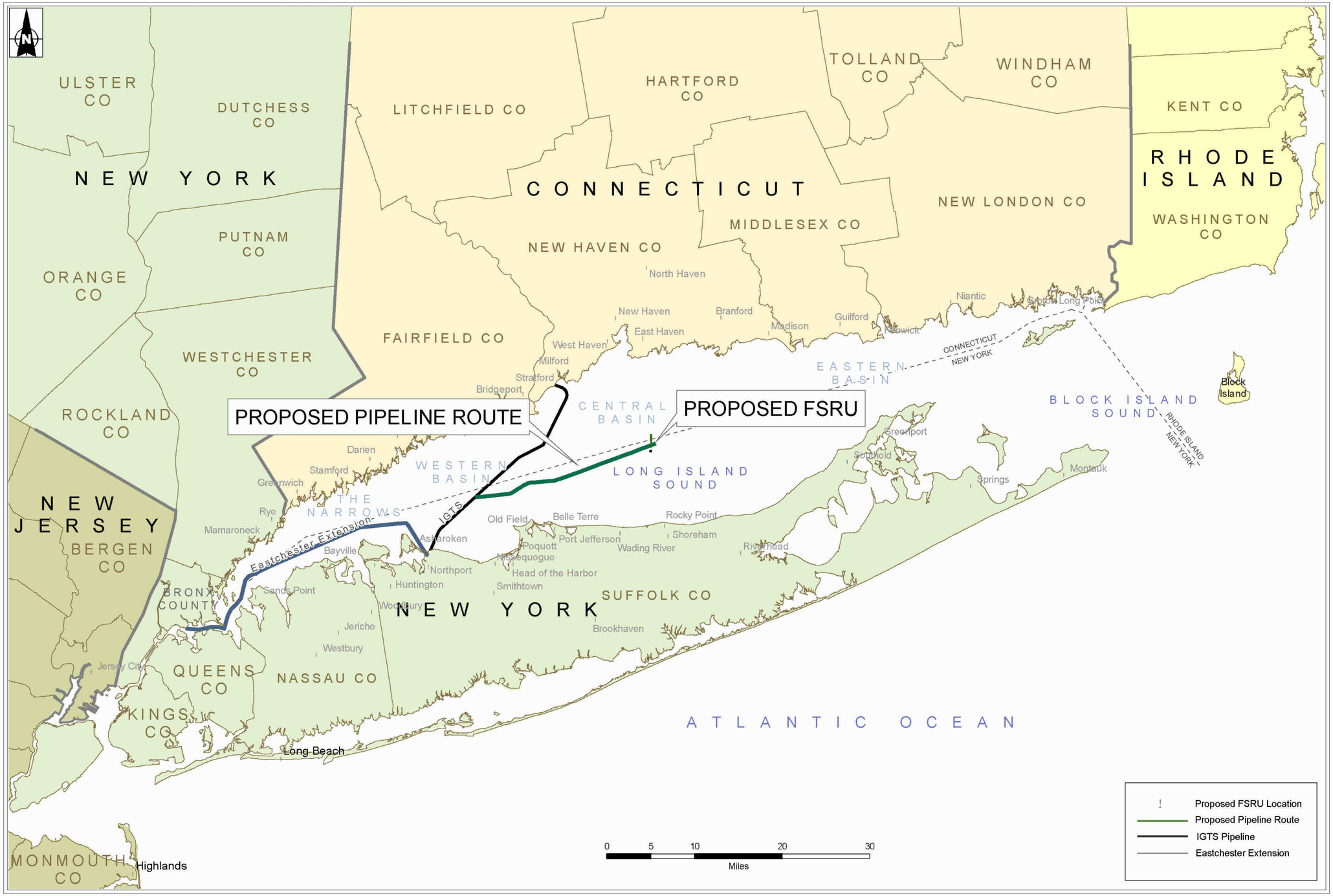
Section V. Certification - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Printed Name: [MURRAY SONDERGARD] *Date: [MARCH 23, 2006]

*Signature: [signature] Title/Position: [PROJECT DIRECTOR]

There are attachment(s) with additional comments and/or explanations.

\\BUFSDL4\GIS\Pensacola\LNG\BROADWATER\Maps\MXD\Environmental_Sampling_Report\site_map_with_Eastchester.mxd 01/13/2006



Source: ESRI StreetMap, 2002.

Figure 1-1
Proposed Broadwater Project
Location in Long Island Sound

2. PROJECT DESCRIPTION

Broadwater Energy, a joint venture between TCPL USA LNG, Inc., and Shell Broadwater Holdings LLC, has filed an application with the Federal Energy Regulatory Commission (FERC) seeking all of the necessary authorizations pursuant to the Natural Gas Act to construct and operate a marine liquefied natural gas (LNG) terminal and subsea connecting pipeline for the importation, storage, regasification, and transportation of natural gas. The Broadwater LNG Project (the Project) will increase the availability of natural gas to the New York and Connecticut markets through an interconnection with the Iroquois Gas Transmission System (IGTS).

The LNG terminal facilitates the sea-to-land transfer of natural gas. It will be designed to receive, store, and regasify LNG at an average throughput of 1.0 billion cubic feet per day (bcfd) and will be capable of delivering a peak throughput of 1.25 bcfd. The Project will deliver the regasified LNG to the existing interstate natural gas pipeline system via an interconnection to the IGTS pipeline. Onshore facilities are discussed in Onshore Facilities Resource Reports.

The proposed LNG terminal will consist of a floating storage and regasification unit (FSRU) that is approximately 1,215 feet (370 meters [m]) in length, 200 feet (60 m) in width, and rising approximately 80 feet (25 m) above the water line to the trunk deck, as shown on Figure 2-1. The FSRU's draft is approximately 40 feet (12 m). The freeboard and mean draft of the FSRU will generally not vary throughout operating conditions. This is achieved by ballast control to maintain the FSRU's trim, stability, and draft. The FSRU will be designed with a net storage capacity of approximately 350,000 cubic meters [m^3] of LNG (equivalent to 8 billion cubic feet [bcf] of natural gas) with base vaporization capabilities of 1.0 bcfd using a closed-loop shell and tube vaporization (STV) system. The LNG will be delivered to the FSRU in LNG carriers with cargo capacities ranging from approximately 125,000 m^3 up to a potential future size of 250,000 m^3 at the frequency of two to three carriers per week.

The FSRU will be connected to the send-out pipeline, which rises from the seabed and is supported by a stationary tower structure. In addition to supporting the pipeline, the stationary tower also serves the purpose of securing the FSRU in such a manner to allow it to orient in response to prevailing wind, wave, and current conditions (i.e., weathervane) around the tower. The tower, which is secured to the seabed by four legs, will house the yoke mooring system (YMS) allowing the FSRU to weathervane around the tower. The total area under the tower structure, which is of open design, will be approximately 13,180 square feet (1,225 square meters [m^2]).

A 30-inch-diameter natural gas pipeline will deliver the vaporized natural gas to the existing IGTS pipeline. It will be installed beneath the seafloor from the stationary tower structure to an interconnection location at the existing 24-inch-diameter subsea section of the IGTS pipeline, approximately 22 miles (35 kilometers [km]) west of the proposed

Figure 2-1 Conceptual Design Showing Proposed Broadwater FSRU, Yoke Mooring System, and Moored LNG Carrier

FSRU site. To stabilize and protect the operating components, sections of the pipeline will be covered with engineered back-fill material or spoil removed during the lowering operation. Figure 1-1 presents the proposed pipeline route.

The Project also contains an onshore facilities component. Broadwater does not anticipate that any permits will be required for the onshore facilities. However, if necessary, Broadwater will acquire any needed approvals and authorizations.

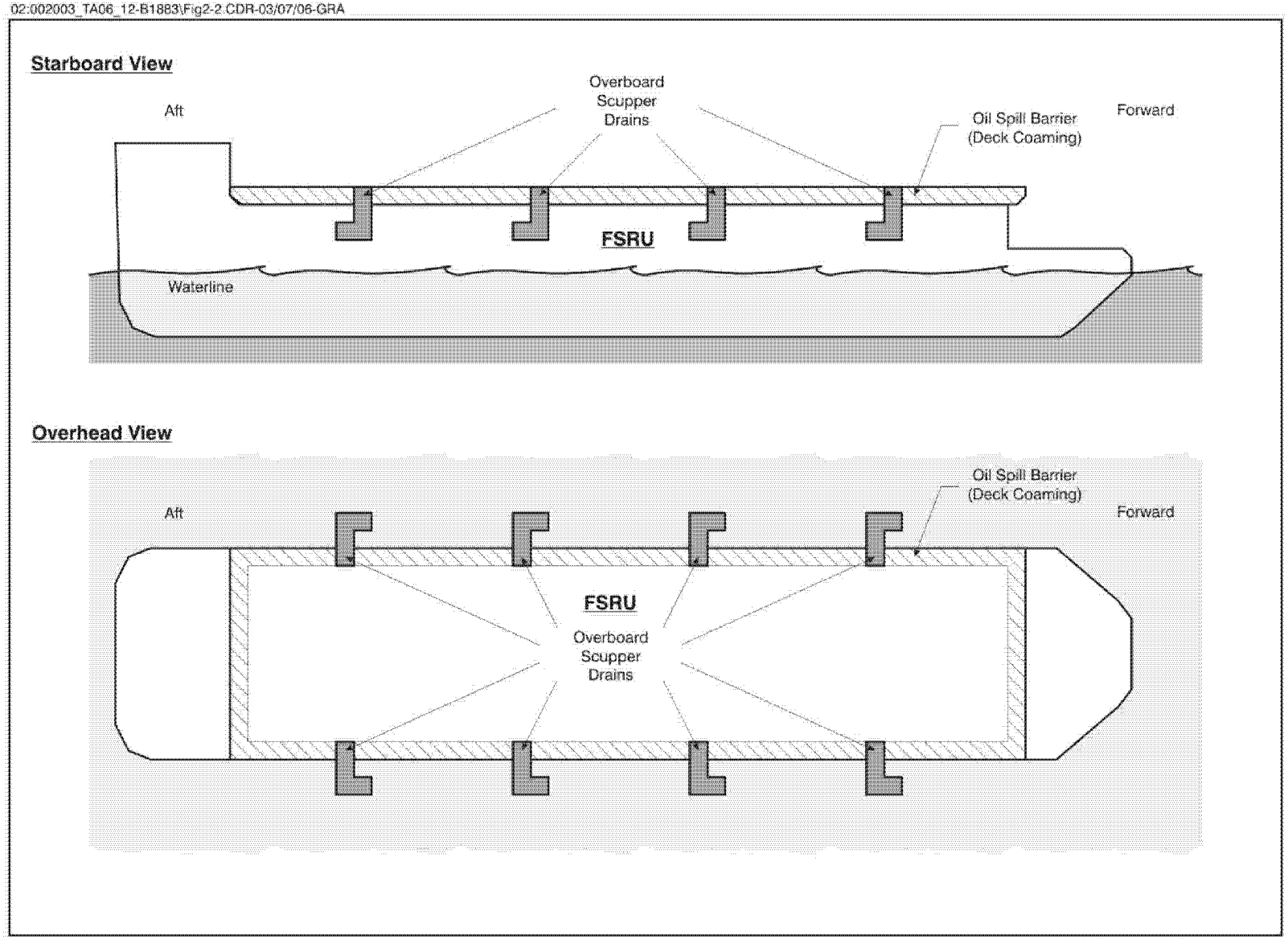
2.1 STORMWATER DISCHARGE

FSRU operations will include non-point-source discharges into the Sound, including uncontaminated deck runoff from storm events. Uncontaminated deck runoff from the FSRU will be comprised of rainwater and will be directed overboard via scupper drains as depicted in Figure 2-2. This figure represents a typical arrangement since final design drawings for this FSRU component are not yet available. The volume of this runoff will be based on local levels of precipitation and will be at ambient temperature when drained to the Sound. Runoff from any on-deck location that has the potential for oil and grease contamination will be collected and routed to the bilge holding tank for shipment to shore. Also note that due to the fall height of discharges from the scupper drains some foaming may occur on the water surface.

2.2 MAINTAINING WATER QUALITY

All discharges of storm water from the FSRU will be in compliance with applicable water quality requirements, including:

- No increase in turbidity that will cause a substantial visible contrast to natural conditions;
- No suspended, colloidal and settleable solids from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages; and
- No residue from oil and flowing substances attributable to sewage, industrial wastes or other wastes, nor visible oil film no globules or grease.



SOURCE: Broadwater 2006

Figure 2-2 Typical Arrangement – Deck Scupper Drain System

3. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

3.1 PURPOSE OF PLAN

The purpose of this Storm Water Pollution Prevention Plan (Plan) is to demonstrate compliance with the requirements of the State Pollutant Discharge Elimination System (SPDES) in consideration for issuance of a General Permit for storm water discharges associated with project activity. The General Permit requires the preparation and implementation of such a plan to prevent, as much as practicable, the release of pollutants in storm water runoff from the FSRU to waters of the United States.

This Plan provides information concerning the Broadwater LNG Terminal in Long Island Sound. Administrative requirements and potential storm water and non-storm water pollutant sources are identified. Best management practices to prevent the discharge of non-storm water materials in storm water runoff are also described.

3.1.1 Pollution Prevention Team

A specific individual or individuals within the FSRU-LNG facility organization will be identified as members of the storm water pollution prevention team and their roles and responsibilities defined once the timeframe moves closer to actual project inception in 2010. The Team will be responsible for further development of storm water pollution prevention practices and assisting the FSRU Operator in the implementation, maintenance and necessary revisions to the plan.

3.2 EXISTING SITE CONDITIONS

3.2.1 Long Island Sound Receiving Waters

The proposed Project is located entirely within Long Island Sound. Long Island Sound is approximately 112 miles (180 km) long and 21 miles (34 km) across at its widest point. The total area of the Sound is 1,300 square miles (3,370 square km), containing approximately 2.4 trillion cubic feet (68 billion m^3) of water. Long Island Sound is divided into three major basins: eastern, central, and western. The proposed FSRU will be located in the central basin, while the interconnecting subsea pipeline will be located in the central and western basins. The eastern basin is the deepest and narrowest of the three basins. The central basin is the widest, with depths ranging from 60 to 130 feet (18 to 40 m). The western basin is characterized by shallower depths and a predominantly mud substrate. Stratford Shoal, a shallow area located in the western portion of the Project area, serves as the boundary between the central and western basins.

The Long Island Sound watershed consists of a 16,000-square-mile (41,400-square-km) drainage basin that includes much of New England and Long Island. Over 8 million people live within this watershed, with the coastal areas being among the most populated. The major rivers entering Long Island Sound flow through Connecticut, including the Housatonic, Quinnipiac, Connecticut, Norwalk, Pawcatuck, and Thames. Approximately

90% of the freshwater content of the Sound comes from the Connecticut, Housatonic, and Thames rivers.

3.2.2 Water Quality

A brief overview of the water quality of Long Island Sound is provided below including temperature, salinity, and hypoxia trends. Additional data on the water quality of Long Island Sound and the site-specific water quality in the Project Area can be found in the Federal Energy Regulatory Commission Application: *Broadwater Resource Report 2 – Water Use and Quality for a Project to Construct and Operate a Liquefied Natural Gas Terminal in Long Island Sound, January 2006.*

Temperature

Overall, water temperatures in Long Island Sound average 38.5 degrees Fahrenheit [°F] (3.6 degrees Celsius [°C]) in January, with temperatures in the western Sound approximately 1.8 •F (1 °C) cooler on average than those in the eastern Sound. The average temperature in Long Island Sound does not exceed 50 °F (10 °C) until May. During July, August, and September, Long Island Sound exhibits the highest water temperatures for the year. It is also only during this time frame that a significant temperature gradient exists from the top to the bottom of the water column. Temperatures at, or near, the surface range from 65° F to 77° F (18° C to 25° C), with temperatures at depths of 65 feet to 98 feet (20 m to 30 m measuring as much as 9•F (5° C) cooler.

Weather patterns significantly affect temperatures within Long Island Sound. Hot dry summers with mild breezes allow the Sound to thermally stratify, sealing off the bottom layer of water below a thermocline. By fall, climate conditions change, allowing more complete mixing within Long Island Sound. During the fall, temperatures within Long Island Sound are fairly consistent from top to bottom, averaging 18 °C (65 °F) in October, 13 °C (55 °F) in November, and 8 °C (45 °F) in December.

Salinity

Long Island Sound receives hydrologic inputs from both saline and freshwater sources. Due to its size and the differing hydrologic inputs, salinity varies throughout the Sound. The Sound has two connections with the ocean. The eastern portion of Long Island Sound maintains fairly constant salinity levels via input from the Atlantic Ocean through Block Island Sound, with average salinities on the order of 27 parts per thousand (ppt) to 30 ppt. In the western portion of Long Island Sound, lower-salinity water enters from New York Harbor through the East and Harlem Rivers. Within the western portion of Long Island Sound, salinity variations are more evident due to the seasonal influx of freshwater from adjacent uplands. Due to the significant inflows of freshwater, the salinity levels in the western portion of the Sound may be 1 ppt to 2 ppt below levels in the eastern portion of the Sound. The majority of the freshwater content of the Sound, approximately 90%, comes from the Connecticut, Housatonic, and Thames Rivers, which are located north of the Project area along the southern shore of Connecticut.

Hypoxia

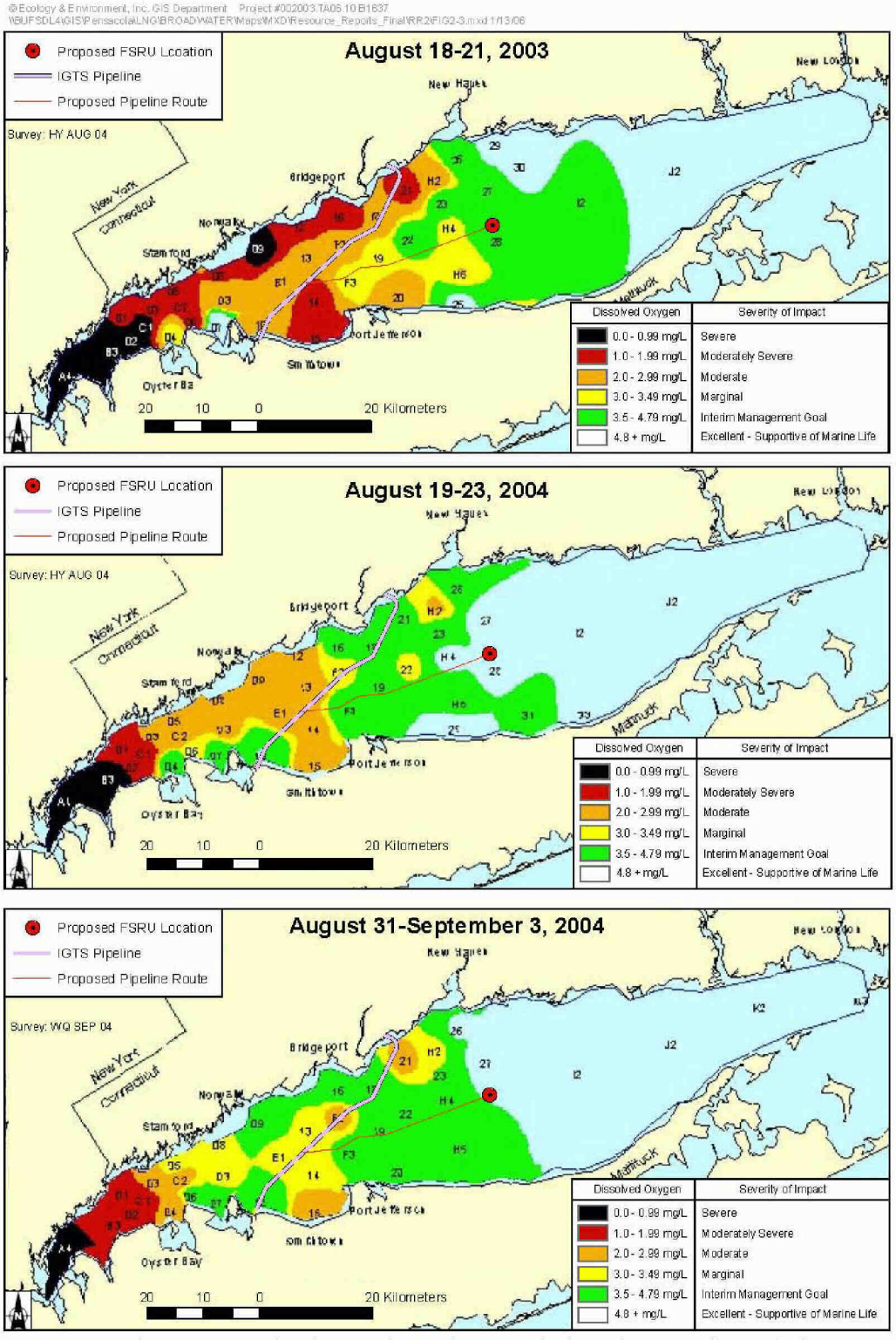
Water quality within Long Island Sound is also affected by several point and non-point sources of pollution. Point sources of pollution include effluent from sewage treatment plants, industrial discharges, and port and marina operations. Non-point sources of pollution include storm water runoff, agricultural runoff, and atmospheric deposition. Input from these sources contributes to nitrogen pollution, sediment contamination, and habitat degradation and loss.

Hypoxia, or low levels of dissolved oxygen (DO), is considered to be the most serious water quality issue in Long Island Sound. Hypoxia occurs primarily during the summer, when the waters of the Sound stratify, and high nutrient loading results in depressed DO levels at bottom depths within the Sound. Stratification prevents the mixing of oxygen-rich surface waters of the Sound with oxygen-depleted bottom waters. The western and central basins of the Sound exhibit lower biological abundance and diversity when hypoxic conditions occur. Hypoxia, which occurs largely in the deeper waters of the western basin, impairs habitat required by finfish and shellfish for their survival. Nitrogen inputs associated with discharges from sewage treatment plants have been identified as the main cause of hypoxia in the Sound, with the highest inputs arising from the densely populated New York City area.

DO levels in the Sound vary both seasonally and spatially. The levels tend to be constant during winter, averaging between 11 mg/L and 13 mg/L. DO levels tend to be slightly lower during summer, as warm water is less able to absorb oxygen. In general, average DO levels in the Sound range from 6.5 mg/L to 10 mg/L, depending on water temperature and location. DO levels above 4.8 mg/L are considered excellent and supportive of marine life. When hypoxic conditions develop, DO levels drop significantly below 4.8 mg/L, and in some cases drop to near anoxic. Figure 3-1 shows the extent of hypoxia within Long Island Sound during August 2003 and August 2004. During the hypoxia event in August 2003, 186 square miles (482 square km) of Long Island Sound experienced DO levels below 2 mg/L, and 345 square miles (893 square km) experienced levels below 3 mg/L. In addition, the 62 square miles (161 square km) affected by DO levels below 1 mg/L was the largest recorded during the 13 years the Connecticut Department of Environmental Protection (CTDEP) has been mapping summer hypoxia in Long Island Sound.

3.3 LNG TERMINAL USE

The intended use of the proposed Broadwater Project will be to operate a marine LNG terminal and subsea connecting pipeline for the importation, storage, regasification, and transportation of natural gas. The Broadwater LNG Project (the Project) will increase the availability of natural gas to the New York and Connecticut markets through an interconnection with the IGTS pipeline.



Source: Connecticut Department of Environmental Protection, Long Island Sound Water Quality Monitoring Program. http://dep.state.ct.us/wtr/lis/monitoring/monsum.htm

Figure 3-1 Historical Dissolved Oxygen Levels

The LNG terminal facilitates the sea-to-land transfer of natural gas. It will be designed to receive, store, and regasify LNG at an average throughput of 1.0 billion cubic feet per day (bcfd) and will be capable of delivering a peak throughput of 1.25 bcfd. The Project will deliver the regasified LNG to the existing interstate natural gas pipeline system via an interconnection to the IGTS pipeline.

3.4 GENERAL DESCRIPTION OF STORM WATER MANAGEMENT SYSTEM

The storm water management system was designed following NYSDEC water quality discharge requirements. Elimination of pathways for potentially contaminated water and pure rainwater runoff is the main goal of storm water management on the FSRU.

The potential for storm water runoff pollution will be present during operation of the LNG terminal. This risk will be minimized through the use of several control measures that have been implemented in the FSRU design such as drainage barriers and drip pans.

The storm water management system was designed such that uncontaminated storm water runoff from the FSRU will be directed immediately overboard via scupper drains. Runoff from any on-deck location that has the potential for oil and grease contamination will be collected separately and routed to the bilge holding tank for shipment to shore.

3.5 FSRU STRUCTURAL PRACTICES AND DRAIN LOCATIONS

Permanent structural and diversion practices to ensure stormwater runoff is not contaminated have been implemented into the FSRU design. Details of the structural control measures are shown in Figure 2-2. These are typically the ship side coaming that runs around the deck edge and coamings/drip pans under equipment and piping. The design details are not yet finalized, but typical detail of oil coaming at the deck edge is shown on the Typical Arrangement drawing provided as Figure 2-2.

3.6 POTENTIAL POLLUTANT SOURCES

Pollutants from various sources have the potential to enter the storm water system during FSRU operation. A description of these potential pollutants and control measures to reduce the risk of storm water contamination is provided below.

3.6.1 Petroleum Products

Certain types of FSRU equipment will require the addition of diesel fuel and lube oil on a routine basis. In addition, some type of equipment may require drip pans and collection vessels for material that may leak or drip during operation. The potential exists for spills or leakage of these materials onto deck surface and other areas that may come in contact with storm water.

To ensure petroleum products do not enter the storm water discharge, equipment will be routinely monitored for leaks and receive regular preventative maintenance to ensure proper operation and reduce the chance of leaks. Any refueling and maintenance involving these materials will occur in a designated, contained area. Petroleum products

will be stored in clearly labeled tanks and will have adequate leak detection systems and spill containment.

3.6.2 Hazardous Materials

All hazardous materials and wastes stored in tanks or small containers will be stored and disposed of in the proper manner specified by local and state regulations to ensure they do not come in contact with storm water runoff. Site personnel will be instructed of these procedures and the FSRU Operator will be responsible for implementing these practices.

3.6.3 Deck Paints

All containers will be tightly sealed and properly stored to prevent leaks or spills. Excess paint will not be discharged to the storm water system. Unused paints will be disposed of according to local or state regulations or the manufacturer's guidelines. Spray painting will not occur on windy days, and a drop cloth will be used to collect and dispose of drips and overspray.

3.7 BEST MANAGEMENT PRACTICES - MEASURES AND CONTROLS

Chemicals, petroleum products, and other materials will be used and stored on board the FSRU. Best Management Practices, such as good housekeeping measures, inspections, containment, and spill prevention practices will be used to limit contact between storm water and potential pollutants.

3.8 GOOD HOUSEKEEPING

The good housekeeping practices listed below will be followed to reduce the risk of potential pollutants entering storm water discharges. All FSRU personnel will be responsible for monitoring and maintaining housekeeping tasks, or notifying the appropriate person of a problem.

- Store only enough product required to do the job.
- Store all materials in a neat and orderly manner in the appropriate containers and, if possible, under a roof or within an enclosure.
- Keep products in the original container with the original manufacturer's label.
- Do not mix products unless recommended by the manufacturer.
- Use all of a product before disposing of the container.
- Use and dispose of products according to the FSRU Operator direction or manufacturer's recommendations.
- Perform regular inspections of the storm water system and the chemical or hazardous material storage areas.

- When and where appropriate, use posters, bulletin boards, or meetings to remind and inform personnel of required procedures.

3.9 MATERIAL STORAGE

Storage areas for hazardous materials such as oils, greases, paints, fuels, and chemicals, will be provided with appropriate leak detection and secondary containment to ensure that spills in these areas do not reach Long Island Sound waters.

3.10 SPILL PREVENTION AND RESPONSE PROCEDURES

In addition to the housekeeping and hazardous materials storage procedures described above, spill prevention and cleanup practices will be followed as described in the attached generic Spill Prevention Control and Countermeasures Plan (Appendix A). Note that a project specific plan will likely be prepared in the future once the timeframe is closer to the actual start of project operations in 2010. The future plan would include the development of a Ship Oil Pollution Emergency Plan (SOPEP) that would be reviewed and approved by the United States Coast Guard.

3.11 TRAINING

A training program shall be provided at least once per year for all FSRU personnel to inform them of their responsibilities for implementing the activities identified in the SWPPP and other storm water management practices to ensure runoff is not contaminated by other materials on board the FSRU.

3.12 INSPECTION, MAINTENANCE AND RECORD KEEPING PROCEDURES

Site inspection and facility maintenance are important features of an effective storm water management system. Qualified personnel will inspect critical areas such as those mechanical areas on deck that may be exposed to precipitation, all control measures including leak detection and spill containment, and access areas such as scupper drains to determine if the control measures and storm water management system is effective in preventing significant impacts to receiving waters.

3.13 CONTROL STRUCTURES

The following procedures will be used to inspect and maintain drainage control structures including deck coaming, secondary containment and drip pans.

- Routine inspection of control structures will be included in the facility maintenance plan.

- The FSRU Operator will select individuals to be responsible for inspections, maintenance, repairs, and reporting. The designated inspectors will receive

the necessary training to properly inspect and maintain the controls in good working order.

- An Inspection Form (Form 1) will be completed after each inspection.
- The completed Inspection Forms will be kept with this Plan in Appendix A (Inspection Forms).

3.14 RECORD KEEPING

An blank inspection form is provided in Appendix A for recording inspections and maintenance of the control structures. All exposed areas and materials storage areas require inspection after a significant rainfall event. After each inspection, the inspector completes an inspection report and inserts that report in Appendix A of this Plan. Any maintenance required is initiated within 24 hours of the inspection.

A fully signed copy of this Plan and any supporting materials must be maintained on board the FSRU from the date of project inception through FSRU decommissioning. All records and supporting documents will be compiled in an orderly manner, and maintained with this plan.

The generation of inspection reports, as part of the storm water management process and inspection or amendment procedures, provides accurate records which can be used to evaluate the effectiveness of this Plan and document compliance.

Changes in design or operation of the storm water management system must be documented and included with the Plan to facilitate Plan review or evaluation and ensure applicable permit compliance. Any plan amendments must be documented and maintained as part of Appendix B (Record of Plan Amendments) of this plan.

3.15 CERTIFICATION OF COMPLIANCE

This SWPPP reflects best management practices and contaminant control measures for storm water management as recommended by NYSDEC. Any person signing this document certifies the SWPPP as described below.

3.16 SWPPP CERTIFICATION

As promulgated by NYSDEC Permit No. GP-98-03 Issues Pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted it to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant

penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations"

3.17 ACKNOWLEDGEMENT OF CERTIFICATION

Owner/Operator:

Date:

Name/Title:

Address:

Phone:

3.18 COMPREHENSIVE COMPLIANCE EVALUATION

Qualified personnel will conduct compliance evaluations at predetermined intervals, at least once a year or more if necessary. This evaluation will include:

- A visual inspection or all storm water controls for evidence of, or the potential for, pollutants entering the discharge system. The control measures will be evaluated to determine if they are adequate and supply the best performance standard available in accordance with the permit requirements;

- The potential pollutant sources that can enter the discharge system will be evaluated to ensure the items identified in the plan represent the complete list of materials; and

- A summary inspection report will be prepared including the personnel performing the inspection, scope of the inspection, date, major findings; and any proposed actions. This summary inspection report will also point out any incidents of non-compliance and will be retained with the SWPPP.

Upon completion of all compliance evaluations, the evaluation report will be certified in accordance with NYSDEC requirements as described in Section 3.16 of this SWPPP.

4. MONITORING AND REPORTING REQUIREMENTS

As part of the SPDES general permit compliance, monitoring of storm water discharges associated with industrial activity is required for many facilities. In particular, facilities included in the category of Section 313 of SARA Title III. Section 313 pertains to the Emergency Planning and Community Right to Know Act of 1986 (EPCRA). Section 313 of the EPCRA identifies chemicals which are classified as "Section 313 water priority chemicals." Certain chemicals contained on this list will be part of FSRU operation including aqueous ammonia, ethylene glycol, and mercaptan. Therefore, semi-annual monitoring of the storm-water discharge is required.

4.1 SEMI-ANNUAL MONITORING

Semi-annual monitoring requires the collection of storm water samples for analysis 2 times per year from the effective date of the permit through the expiration date. Parameters that are required to be monitoring in each sample include:

Parameter	Reporting Units
Oil and grease	mg/L
Biochemical Oxygen Demand	BOD_5 mg/L
Chemical Oxygen Demand	mg/L
Total Suspended Solids	mg/L
Total Kjeldahl Nitrogen	TKN mg/L
Total Phosphorus	mg/L
pH	Standard units
Acute whole effluent toxicity	# individuals (per test parameters)

The sample type collected for this analysis will include a grab sample and a composite sample that will be collected from the scupper drain overboard discharge stream. The sample should be collected from the discharge resulting from a storm event that is greater than 0.1 inches and occurs at least 72 hours from any previously measurable storm event. The grab sample will be collected during the first thirty minutes of the discharge if possible, or collected during the first hours of the discharge event and properly noted in the monitoring report. The composite sample can be either flow-weighted or time-weighted and taken with a continuous sampler or a combination of three sample volumes taken over the course of 3 discharge hours. Grab samples will only be analyzed for oil and grease, pH and whole effluent toxicity. Samples collected as part of the monitoring program will be collected during the period running from August to January and February to July.

4.2 REPORTING

The submission of a monitoring report is required as part of the permit compliance process. Monitoring sample results collected during the reporting period will be submitted in report format to:

Stormwater General Permits
NYSDEC Division of Water
Bureau of Water Permits
625 Broadway
Albany, NY 12233-3505

The monitoring report must be sent to the NYSDEC office no later that the 28th day of August for each reporting period during the term of the SPDES permit.

APPENDIX A

INSPECTION FORM 1

Inspection Form 1

Instructions:

Visually inspect control structures after a significant rainfall event. Inspections are to be completed within 24 hours of a significant rainfall event. Maintenance is to be performed within 24 hours of inspection.

Inspection Form 1

Inspector:	
Inspection Date:	
Date of last rainfall:	
Amount of last rainfall (inches):	
Report on condition of the control structures:	

APPENDIX B

RECORD OF PLAN AMENDMENTS

APPENDIX C

GENERIC SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

Note: During detailed design of the FSRU, a Ship Oil Pollution Emergency Plan (SOPEP) will be developed to meet United States Coast Guard requirements and will include elements required in the SPCC Plan.

Generic Spill Prevention Control and Countermeasures Plan for the

Broadwater FSRU Operation

Long Island Sound

March 2006

This is a generic spill prevention control and countermeasure (SPCC) plan intended to describe the basic spill prevention and response measures that will be used by Broadwater during operation of the FSRU. A site-specific SPCC plan that meets the requirements of 40 Code of Federal Regulations 112 will be completed before commencement of operations.

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Note: Bracketed notes in the Table of Contents indicate cross-references to 40 Code of Federal Regulations 112.

List of Tables

List of Figures

Management Approval and Review [112.5 & 112.7(D)(2)]

MANAGEMENT APPROVAL

Broadwater is committed to the prevention of discharges of oil or hazardous materials to navigable waters or the environment. This spill prevention control and countermeasures (SPCC) plan is for activities related to the operation of a proposed LNG terminal that will consist of a floating storage and regasification unit (FSRU). If a spill occurs, Broadwater will provide the manpower, equipment, and materials required to expeditiously control and remove any quantity of discharged material that may be harmful to waterways or the environment.

Authorized Facility Representative: _

Signature: _____

Title: _____

Professional Engineer's Review [112.3(D)(1)]

The undersigned Registered Professional Engineer is familiar with the requirements of Chapter 40 of the Code of Federal Regulations Part 112 (40 CFR 112) and has previously supervised these types of activities. The undersigned Registered Professional Engineer attests that this SPCC plan has been prepared in accordance with good engineering practices, including applicable industry standards, and in accordance with the requirements of 40 CFR 112, and that the plan is adequate for FSRU operation.

_____	_____
Signature	Name
_____	_____
Title	Company
_____	_____
Date	P.E. Registration Number

1 Introduction

1.1 Purpose

The purpose of this spill prevention control and countermeasure (SPCC) plan is to prevent oil spills or hazardous material releases from occurring, and to perform safe, efficient, and timely response activities in the event of a spill or leak (both referred to as *spills* herein). In accordance with United States Environmental Protection Agency (EPA) oil pollution prevention regulations (40 Code of Federal Regulations [CFR] 112), Broadwater must prepare and implement an SPCC plan for facilities that could reasonably be expected to discharge oil into or upon navigable waters or adjoining shorelines.

EPA's definition of a *facility* includes any mobile installation, equipment, or pipeline (other than a vessel) in which oil will be used. This SPCC plan is required if the storage or use of oil at the job site is greater than 1,320 gallons. The boundaries of the job site covered by this SPCC plan will depend on site-specific factors such as equipment used, types of activities at the site, and staging and fueling areas. This generic SPCC plan provides an overview of the project and proposed operational activities.

This generic SPCC plan will be revised into a site-specific SPCC plan once the specific commencement date for operations is known. The revised SPCC plan will be a site-specific comprehensive plan to prevent, respond to, and report spills or releases to the environment. The plan will be designed to minimize hazards to human health and/or the environment from any sudden or non-sudden releases of oils or toxic, hazardous, or other polluting materials to the air, soil, surface water, or groundwater.

1.1.1 Using the Plan

In addition to satisfying regulatory requirements, this SPCC plan will be used as a working document throughout the FSRU operational period. The plan should be used frequently in the following ways:

- As a reference for oil storage, refueling, and containment system information;
- As an employee training guide for preventing and responding to spills; and
- As a resource during an emergency response.

1.1.2 Plan Revisions

The SPCC plan will be updated as project work progresses or as site activities change. An updated copy of this SPCC plan will be maintained on board the FSRU.

1.2 Site Information [112.7(a)(3)]

1.2.1 FSRU Location

This SPCC plan was developed for the proposed Broadwater LNG terminal located in Long Island Sound (the Sound), approximately 9 miles (14.5 kilometers [km]) from the shore of Long Island in New York State waters at 72 ° 50 min, 44.56 W and 41° 6 min, 1.31 N.

In the site-specific SPCC plan, Broadwater will include a more detailed description of the FSRU equipment that will be used that contain materials with the potential to spill and enter Long Island Sound waters.

1.2.2 Waterways

FSRU operation will occur entirely within Long Island Sound, which is adjacent to and flows directly into the Atlantic Ocean. Personnel working on board the FSRU will be made aware that spills can impact these waterbodies, which could then affect marine environments in Long Island Sound, adjacent shoreline areas and potentially the Atlantic Ocean.

[INSERT FIGURE 1-1]

2 Potential Spill Sources and Spill Prevention Control and Countermeasure Features

2.1 Spill Prevention Control and Countermeasure Compliance [112.7(a)(1) & 112.7(a)(2) & 112.8]

2.1.1 Potential Spill Sources

Potential spill sources at the include materials and equipment on board the FSRU, which are likely to include:

- Petroleum storage areas (bulk storage of diesel oil);
- Hazardous material storage areas (containers of lube oil and hydraulic oil); and
- Waste storage areas (containers of used oil, filters, and material used to clean and maintain equipment).

2.1.2 Bulk Storage Areas

Once final FSRU design has been completed, the bulk storage areas will be identified (Table 2-1). At that time, fuels or hazardous materials will be identified and this SPCC plan will be revised (project-specific plans will be incorporated).

Table 2-1
List of Bulk Storage Materials

Material	Quantity on Site	Location
Diesel Oil		
Hydraulic Oil		
Lube Oil		

3 Spill Prevention and Response

3.1 Spill Containment Methods [112.7(a)(3) & 112.8]

FSRU personnel will be trained to implement spill prevention practices for work with and around oil sources. Personnel will rely on standard spill prevention practices at all times to minimize the potential for an oil release.

This section identifies the types of secondary containment or diversionary structures that will be used to handle each spill source identified in Section 2.1.1:

- **Petroleum Storage Areas.** Spills during fueling operations will be contained within the secondary containment containment berms in the bulk fuel storage areas. A funnel and/or hand pump will be used to transfer fuel into portable equipment, and a spill pad will be used to absorb incidental spills or drips. A spill response kit will be located near the fueling area for easy access. The kit will include plastic sheeting, tarps, overpack drums, kitty litter, shovels, and assorted absorbent pads;

- **Hazardous Material Storage Areas.** Container or drum spills in the hazardous material staging areas will be stored or contained within pallets; and

- **Waste Storage Areas.** Containment for storage areas that will hold more than six 55-gallon drums will include polyethylene (10 mil) liners or constructed secondary containment. Smaller areas storing fewer than six 55-gallon drums will use containment as described above or a portable manufactured rack with a containment feature.

3.2 Emergency Response [112.7(a)(3)(iv) & 112.7(c)]

It is critical to initiate spill response and notification immediately following or as soon as there is knowledge of a spill to minimize human health and environmental impacts, and to minimize property damage and cleanup costs. Notification of a discharge will be made in accordance with 33 CFR 153, Subpart B, and 40 CFR 302. See Section 3.5 for notification procedures.

FSRU personnel will be trained to respond immediately to spills of regulated materials. The standard approach toward spill response is as follows.

In the event of a spill, the following steps will be taken:

Assess Hazard

- Cease activities that are causing or are in the vicinity of the leak.

- If possible, secure the source to stop the leak or spill of additional material.

- Notify the Broadwater FSRU Operator, or if not available, the environmental inspector.

- Complete the Spill Notification Form.

Obtain Spill Response and Personal Protective Equipment

- Direct safe evacuation of the area, and notify the fire department (911) and emergency response contractor, if necessary.

- Secure the area.

- Obtain appropriate spill response equipment and personal protective equipment (PPE).

Contain and Eliminate Spill Source

- Contain the spill to prevent entry to waterways. If the spill occurs in the water, contain or control the spill from spreading and impact shoreline areas or larger waterbodies.

- Seal or stop the source of the spill by closing valves, providing containment, or stopping pumps.

3.3 Mitigating, Removing, and Disposing of Spilled Material [112.7(a)(3)(v)]

Only trained personnel with required PPE will perform spill cleanup activities. The Broadwater FSRU Operator is responsible for cleanup of spills or leaks of materials covered by this plan. Notification procedures should be followed as described in Section 3.5. All spills (including a sheen created on water) must be reported to the Broadwater FSRU Operator or the designated Broadwater environmental inspector.

The FSRU will have adequate manpower and equipment necessary to divert any spill from reaching waterbodies. Emergency equipment may include, but not be limited to, oil-absorbent booms, pillows, socks and/or mats.

Spills into or that threaten waterways:

- If possible, stop the source of the spill immediately.

- Shut down all equipment and ignition sources in the area.

- Notify the Broadwater FSRU Operator or environmental inspector.

- Notify a spill response contractor if necessary.

- Deploy boom and absorbent material to contain the spill.

- Clean up absorbent and waste materials, and dispose of them at an approved waste disposal facility.

- Decontaminate the affected area, equipment, and surfaces that have contacted the spilled material.

3.4 Site Inspections

The Broadwater FSRU Operator must conduct daily inspections of the bulk storage areas ensure that spill control measures are in place. Inspections of the project site for general housekeeping and best management practices will be performed weekly.

3.5 Notification and Reporting [112.7(a)(4)]

Notification of an oil discharge or release of a hazardous substance in an amount equal to or greater than the reportable quantity must be made immediately in accordance with 33 CFR 153, Subpart B, and 40 CFR 302, respectively. Notification will be provided to the National Response Center (NRC; 1-800-424-8802) and to the New York State Department of Environmental Conservation (NYSDEC; 1-800-457-7362). Lists of emergency contacts are provided in Appendix A. The notification process is provided below.

The Broadwater FSRU Operator and FSRU personnel are responsible for spill prevention, control, and countermeasures. All spills are to be reported to the Broadwater FSRU Operator, who will notifiy the Broadwater environmental inspector. The Broadwater environmental inspector will determine whether state and/or federal notifications are required and will make notification accordingly.

In the event of a minor spill (less than 10 gallons [38 liters] of a known chemical and known source), the FSRU Operator shall notify the environmental inspector and complete a written Spill Notification Form (Appendix B). This form describes the time, material, and quantity of chemical released.

If a major spill (more than 10 gallons [38 liters], or an unknown chemical or unknown source) occurs, the environmental inspector will provide written information to the EPA regional administrator, as required by the SPCC plan rules. A copy of this information will be provided to NYSDEC. **This will be in addition to the notification procedures described above.**

After the appropriate telephone calls are made and the spill is contained, a Spill Notification Form (Appendix B) will be completed for any spill and submitted to the environmental inspector. The Spill Notification Form includes a checklist to document the proper notification of state and federal agencies, if required.

3.6 Training [112.7(f)]

Broadwater will provide training on the SPCC plan to personnel and/or contractors involved with handling petroleum products or hazardous materials. This training will include the contents of this SPCC plan (e.g., spill prevention planning, spill source and receptor

recognition, spill prevention and containment techniques, spill response measures, and spill reporting protocol). Broadwater's environmental inspector shall arrange for the training, which will also include the following topics:

- An introduction to pollution control laws and penalties for noncompliance;
- Rules and regulations pertaining to the use and storage of petroleum products;
- Inspection, operation, and maintenance of spill equipment, and petroleum storage and dispensing equipment;
- Spill response and cleanup;
- Spill notification and record keeping; and
- Spill prevention practices.

The Broadwater FSRU Operator will maintain records of training attendance and topics.

All personnel are responsible for spill prevention. Any Broadwater employee or contractor who notices a leak should respond as appropriate based on his or her training. If a spill has occurred, the spill area should be isolated and the FSRU operator or environmental inspector should be notified, as required.

3.7 Area Plans

EPA and the United States Coast Guard (USCG) administer area plans for spill contingency response by region throughout the United States. USCG covers coastal areas, and EPA covers inland areas. In a major spill event, contacting the NRC hotline will trigger assistance from the appropriate agency, if necessary. The Broadwater LNG Terminal is within USCG's area of responsibility for oil and hazardous material releases. The USCG Marine Safety Office Sector Long Island Sound, (MSO), New Haven, Connecticut, acts as the predesignated Federal On-Scene Coordinator for the project location. USCG MSO Sector Long Island Sound may be contacted 24 hours per day at (203) 468-4404.

Appendix A
Emergency Contacts
[112.7(a)(3)(vi)]

Emergency Contacts

Spill Reporting Hotlines

Agency	Telephone #
New York State Department of Environmental Conservation Oil Spill Response	
National Response Center (USCG/EPA)	800-424-8802
United States Coast Guard Marine Safety Office, Sector Long Island Sound	203-436-4404

Local Emergency Agencies

Agency	Telephone #
Fire Department (inside city limits)	
Police Department (inside city limits)	
Suffolk County (outside city limits)	

Spill Response Contractors

Company/Location	Telephone #
(To be determined)	

Owner/Operator (Broadwater)

Name/Title	Telephone #
(primary)	
(secondary)	

See Appendix B for Emergency Response—Spill Notification Form.

Appendix B
Spill Notification Form

Spill Notification Form

1. Person Reporting Spill or Incident:	
Name:	**Address:** _____
Organization:	_____
Title:	**Telephone:**
Signature:	**Fax:**

2. Type of Spill:	
Common Name of Spilled Substance:	
Quantity Spilled (Estimate):	
Concentration (Estimate):	
Date of Spill:	
Time Spill Started: _____ AM _____ PM	**Time Spill Ended: _____ AM _____ PM**

3. Location of Spill:	
SPILL TO LAND:	**SPILL TO WATERBODY:**
Name of site:	Name of waterbody:
Street address:	Location of discharge with reference to fixed point:
City/Town:	Description of area that spilled material may reach:
County:	County:

All spills are to be reported to the Broadwater FSRU Operator, who will notifiy the Broadwater environmental inspector. The Broadwater environmental inspector will determine whether state and/or federal notifications are required, and will make notification accordingly.

BROADWATER

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
INDUSTRIAL PERMIT APPLICATION FOR
THE BROADWATER LNG TERMINAL IN LONG ISLAND SOUND
LONG ISLAND, NEW YORK

PREPARED FOR:
BROADWATER ENERGY LLC

SUBMITTED TO:
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
625 BROADWAY
ALBANY, NEW YORK 12233-3505

MARCH 2006

PUBLIC

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1. PERMIT APPLICATION

1.1 STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM INDUSTRIAL PERMIT APPLICATION SECTION I, II, III

The State Pollutant Discharge Elimination System (SPDES) Industrial Permit application Section I, II, and III is presented on pages 1-2 through 1-14 below. This application is filed subject to applicable federal and other law and retained rights and without waiver of our prejudice to such law/rights and the rights of Broadwater.

1.2 PROJECT LOCATION

The proposed Broadwater terminal will be located approximately 9 miles from Long Island in Long Island Sound, in approximately 90 feet of water, and offshore of Riverhead, Suffolk County, New York (see Figure 1-1). The nearest Connecticut onshore point is approximately 10 miles from the proposed terminal location.

State Pollutant Discharge Elimination System (SPDES)

INDUSTRIAL APPLICATION FORM NY-2C

For New Permits and Permit Modifications to Discharge Industrial Wastewater and Storm Water

Section I - Permittee and Facility Information

Please type or print the requested information.

1. Current Permit Information (leave blank if for new discharge)

SPDES Number:	DEC Number:

2. Permit Action Requested: (Check applicable box)

[X] A **NEW** proposed discharge *See attached. [ ] An **EBPS INFORMATION REQUEST** response [ ] A **RENEWAL** of an existing SPDES permit

[ ] A **MODIFICATION** of the existing permit [ ] An **EXISTING** discharge currently without permit

Does this request include an increase in the quantity of water discharged from your facility to the waters of the State?

[ ] **YES** - Describe the increase:

[ ] **NO** - Go to Item 3. below.

3. Permittee Name and Address

Name	Attention
Broadwater Energy LLC	Murray Sondergard, Project Director
Street Address	
c/o Robert J. Alessi, Esq., LeBoeuf, Lamb, Greene and MacRae LLP, 99 Washington Avenue, Suite 2020	
City or Village	**State** / **ZIP Code**
Albany	NY / 12210-2820

4. Facility Name, Address and Location

Name			
Broadwater Energy LLC – Murray Sondergard, Project Director			
Street Address		**P.O. Box**	
c/o Robert J. Alessi, Esq., LeBoeuf, Lamb, Greene and MacRae LLP, 99 Washington Avenue, Suite 2020			
City or Village	**State**	**ZIP Code**	
Albany	NY	12210-2820	
Town	**County**		
Brookhaven	Suffolk		
Telephone	**FAX**	**NYTM - E**	**NYTM - N**
(403) 920-2046	(403) 920-2350		
Tax Map Info (New York City, Nassau County and Suffolk County only)			
Section	**Block**	**Subblock**	**Lot**
Pending			

5. Facility Contact Person

Name		Title	
Broadwater Energy LLC – Murray Sondergard		Project Director	
Street Address			**P.O. Box**
c/o Robert J. Alessi, Esq., LeBoeuf, Lamb, Greene & MacRae LLP, 99 Washington Avenue, Suite 2020			
City or Village		**State**	**ZIP Code**
Albany		NY	12210-2820
Telephone	**FAX**	**E-Mail or Internet**	
(403) 920-2046	(403) 920-2350		

6. Discharge Monitoring Report (DMR) Mailing Address

Mailing Name			
Broadwater Energy LLC - Murray Sondergard, Project Director			
Street Address			**P.O. Box**
c/o Robert J. Alessi, Esq., LeBoeuf, Lamb, Greene & MacRae LLP, 99 Washington Avenue, Suite 2020			
City or Village		**State**	**ZIP Code**
Albany		New York	12210
Telephone	**FAX**	**E-Mail or Internet**	
(403) 920-2046	(403) 920-2350		
Name and Title of person responsible for signing DMRs		**Signature**	
Murray Sondergard, Project Director			

INDUSTRIAL APPLICATION FORM NY-2C
Section I - Permittee and Facility Information

Facility Name:	SPDES Number:
Broadwater Energy, LLC	

7. Summarize the outfalls present at the facility:

Outfall Number	Receiving Water	Type of discharge
001	Long Island Sound	Ballast Water
002	Long Island Sound	Ballast Water
003	Long Island Sound	Desalinization Overboard
004	Long Island Sound	Treated Wastewater
005	Long Island Sound	Side Shell Water Curtain
006	Long Island Sound	IG Scrubber Overboard
007	Long Island Sound	Cooling water Overboard
008	Long Island Sound	Emergency Bilge Overboard
009	Long Island Sound	One-time discharge of hydrostatic test water

8. Map of Facility and Discharge Locations:

Provide a detailed map showing the location of the facility, all buildings or structures present, wastewater discharge systems, outfall locations into receiving waters, nearby surface water bodies, water supply wells, and groundwater monitoring wells, and attach it to this application. Also submit proof, either by indication on the map or other documentation, that a right of way for the discharges exists from the facility property to a public right of way. (See Figure 1-1, 1-2, and 2-4 of this application)

9. Water Flow Diagram:

See Figure 2-1 Process Flow Diagram FSRU Intakes; and
Figure 2-2 Process Flow Diagram FSRU Discharges.

INDUSTRIAL APPLICATION FORM NY-2C
Section I - Permittee and Facility Information

Facility Name:	SPDES Number:
Broadwater Energy, LLC	

10. Nature of business: (Describe the activities at the facility and the date(s) that operation(s) at the facility commenced)

See Section 2.0 of this application for a complete project description.

11. List the 4-digit SIC codes which describe your facility in order of priority:

Priority 1	Description:	Priority 3	Description:
4 | 4 | 9 | 1		| | |	
Priority 2	**Description:**	**Priority 4**	**Description:**
| | |		| | |	

12. Is your facility a primary industry as listed in Table 1 of the instructions?

[ ] **YES** - Complete the following table.

[X] **NO** - Go to Item 13. below.

Industrial Category	40 CFR		Industrial Category	40 CFR	
	Part	Subpart		Part	Subpart

13. Does this facility manufacture, handle, or discharge recombinant-DNA, pathogens, or other potentially infectious or dangerous organisms?

[ ] **YES** - Attach a detailed explanation to this application.

[X] **NO** - Go to Item 14 below.

14. Is storm runoff or leachate from a material storage area discharged by your facility?

[ ] **YES** - Complete the following table, and show the location of the stockpile(s) and discharge point(s) on the diagram in Item 9.

[X] **NO** - Go to Item 15 on the following page.

Size of area	Type(s) of material stored	Quantity of material stored	Runoff control devices

INDUSTRIAL APPLICATION FORM NY-2C
Section I - Permittee and Facility Information

Facility Name:	SPDES Number:
Broadwater Energy LLC	

15. Facility Ownership: (Place an "X" in the appropriate box)

Corporate [ ] Sole Proprietorship [X] Partnership [ ] Municipal [ ] State [ ] Federal [ ] Other [ ]

Are any of the discharges applied for in this application on Indian lands? Yes [ ] No [X]

16. List information on any other environmental permits for this facility:

Issuing Agency	Permit Type	Permit Number	Permit Status		
			Active	Applied for	Inactive
See Tables 2-1 and 2-2 of this application for all applicable permits					

17. Laboratory Certification:

Were any of the analyses reported in Section III of this application performed by a contract laboratory or a consulting firm?

[ ] **YES** - Complete the following table.

[X] **NO** - Go to Item 18 below.

Name of laboratory or consulting firm	Address	Telephone (area code and number)	Pollutants analyzed

18. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title (type or print)		Date signed
Murray Sondergard, Project Director		MARCH 23, 2006
Signature	Telephone number	FAX number
	(403) 920-2046	(403) 920-2350

INDUSTRIAL APPLICATION FORM NY-2C
Section I - Permittee and Facility Information

Facility Name: Broadwater Energy, LLC	SPDES Number:

19. Industrial Chemical Survey (ICS)

Complete all information for those substances your facility has used, produced, stored, distributed, or otherwise disposed of in the past five (5) years at or above the threshold values listed in the instructions. Include substances manufactured at your facility, as well as any substances that you have reason to know or believe present in materials used or manufactured at your facility. Do not include chemicals used only in analytical laboratory work, or small quantities of routine household cleaning chemicals. Enter the name and CAS number for each of the chemicals listed in Tables 6-10 of the instructions, and the table number which lists the chemical. You may use ranges (e.g. 10-100 lbs., 100-1000 lbs., 1000-10000 lbs., etc.) to describe the quantities used on an annual basis as well as for the amount presently on hand. For those chemicals listed in Tables 6, 7, or 8 which are indicated as being potentially present in the discharge from one or more outfalls at the facility, indicate which outfalls may be affected in the appropriate column below, and include sampling results in Section III of this application for each of the potentially affected outfalls. Make additional copies of this sheet if necessary.

Name of Substance	Table	CAS Number	Average Annual Usage	Amount Now On Hand	Units (gallons, lbs, etc)	Purpose of Use (see codes in Table 2 of instructions)	Present in Discharge? (Outfall(s)?)
Sodium hypochlorite	10	7681-52-9 (see Section 2.1)				WTC	Yes

This completes Section I of the SPDES Industrial Application Form NY-2C. Section II, which requires specific information for each of the outfalls at your facility, and Section III, which requires sampling information for each of the outfalls at your facility, must also be completed and submitted with this application.

State Pollutant Discharge Elimination System (SPDES)

INDUSTRIAL APPLICATION FORM NY-2C

For New Permits and Permit Modifications to Discharge Industrial Wastewater and Storm Water

Section II - Outfall Information

Please type or print the requested information.

Facility Name:	SPDES Number:
Broadwater Energy, LLC	

1. Outfall Number and Location

Outfall No.:		
001 through 009 – see Figure 2-2		
Latitude	Longitude	Receiving Water
41° 6' 1.31"	72 ° 50 '44.56"	

2. Type of Discharge and Discharge Rate (List all information applicable to this outfall)

	Volume/Flow	Units MGD	Units GPM	Units Other (specify)		Volume/Flow	Units MGD	Units GPM	Units Other (specify)
a. Process Wastewater					f. Noncontact Cooling Water				
b. Process Wastewater					g. Remediation System Discharge				
c. Process Wastewater					h. Boiler Blowdown				
d. Process Wastewater					i. Storm Water				
e. Contact Cooling Water					j. Sanitary Wastewater				
k. Other discharge (specify): See Figure 2-2									
l. Other discharge (specify):									

3. List process information for the Process Wastewater streams identified in 2.a-d above:

a. Name of the process contributing to the discharge: See Figure 2-2 and Section 2.1			Process SIC code: 4 4 1 9
Describe the contributing process	Category / Subcategory	Quantity per day	Units of measure
b. Name of the process contributing to the discharge			Process SIC code:
Describe the contributing process	Category / Subcategory	Quantity per day	Units of measure
c. Name of the process contributing to the discharge			Process SIC code:
Describe the contributing process	Category / Subcategory	Quantity per day	Units of measure
d. Name of the process contributing to the discharge			Process SIC code:
Describe the contributing process	Category / Subcategory	Quantity per day	Units of measure

4. Expected or Proposed Discharge Flow Rates for this outfall: See Figure 2-2 notes

a. Total Annual Discharge	b. Daily Minimum Flow	c. Daily Average Flow	d. Daily Maximum Flow	e. Maximum Design flow rate
MG	MGD	MGD	MGD	MGD

INDUSTRIAL APPLICATION FORM NY-2C
Section II - Outfall Information

Facility Name:	Outfall No.:
Broadwater Energy, LLC	SPDES Number:

5. Is this a seasonal discharge?

[ ] **YES** - Complete the following table.
[X] **NO** - Go to Item 6 below.

Operations contributing flow (list)	Discharge frequency		Flow				
	Batches per year	Duration per batch	Flow rate per day LTA	Flow rate per day Daily Max	Total volume per discharge	Units	Duration (Days)

6. Water Supply Source (indicate all that apply)

	Name or owner of water supply source	Volume or flow rate	Units (check one)		
Municipal Supply			MGD	GPD	GPM
Private Surface Water Source			MGD	GPD	GPM
Private Supply Well			MGD	GPD	GPM
Other (specify)	Public – Long Island Sound	see Figure 2-2	MGD	GPD	GPM

7. Outfall configuration: (Surface water discharges only)

A. Where is the discharge point located with respect to the receiving water? see Figure 2-4 and Section 2.1

In the streambank: [ ]
In the stream: [X] – Long Island Sound below waterline.
Within a lake or ponded water: [ ]
Within an estuary: [ ] Attach Supplement C, MIXING ZONE REQUIREMENTS FOR DISCHARGES TO ESTUARIES.
Discharge is equipped with diffuser: [ ] Attach description, including configuration and plan drawing of diffuser, if used.

B. If located in a stream, approximately what percentage of stream width from shore is the discharge point located?

10% [ ] **25%** [ ] **50%** [ ] **Other:** [ ]

C. If located in a stream, describe the stream geometry in the general vicinity of the discharge point, under low flow conditions:

Stream width	Stream depth	Stream velocity
Feet	Feet	Feet/Sec

Are the results of a mixing/diffusion study attached? [ ] **YES** [ ] **NO**

INDUSTRIAL APPLICATION FORM NY-2C

Section II - Outfall Information

Facility Name:	Outfall No.:
Broadwater Energy, LLC	SPDES Number:

8. Thermal Discharge Criteria

Is your facility one of the applicable types of facilities listed in the instructions, and does the temperature of this discharge exceed the receiving water temperature by greater than three (3) degrees Fahrenheit?

[ ] **YES** - Complete the following table.

[ ] **NO** - Go to Item 9. below.

[X] **Information on the intake and discharge configuration of this outfall is attached.**

For emergency use only. See Section 2.1

Discharge Temperature, deg. F			Duration of maximum discharge temperature		Dates of maximum discharge temperature		Maximum flow rate	Discharge configuration (e.g. subsurface, surface, effluent diffuser, diffusion well, etc.)
Average change in temperature (delta T)	Maximum change in temperature (delta T)	Maximum temperature	hours per day	days per year	From	To	MGD	

9. Are any water treament chemicals or additives that are used by your facility subsequently discharged through this outfall?

[ ] **YES** - Complete the following table and complete pages 1 of 3 and 2 of 3 of Form WTCFX for each water treatment chemical listed.

[X] **NO** - Go to Item 10. below.

Manufacturer	WTC trade name	Manufacturer	WTC trade name

10. Has any biological test for acute or chronic toxicity been performed on this outfall or on the receiving water in relation to this outfall in the past three (3) years?

[ ] **YES** - Complete the following table.

[X] **NO** - Go to Item 11. on the following page.

Water tested	Purpose of test	Type of test	Chronic or Acute?	Subject species	Testing date(s)		Submitted? (Date)
					Start	Finish	

INDUSTRIAL APPLICATION FORM NY-2C
Section II - Outfall Information

	Outfall No.:
Facility Name: Broadwater Energy, LLC	SPDES Number:

11. Is the discharge from this outfall treated to remove process wastes, water treatment additives, or other pollutants?

[ ] **YES** - Complete the following table. Treatment codes are listed in Table 4.

[X] **NO** - Go to Item 12 below.

Treatment process	Treatment Code(s)	Treatment used for the removal of:	Design Flow Rate (include units)

12. Does this facility have either a compliance agreement with a regulating agency, or have planned changes in production, which will materially alter the quantity and/or quality of the discharge from this outfall?

[ ] **YES** - Complete the following table.

[X] **NO** - Go to Section III on the following page.

Description of project	Subject to Condition or Agreement in existing permit or consent order? (List)	Change due to production increase?	Completion Date(s)	
			Required	Projected

This completes Section II of the SPDES Industrial Application Form NY-2C. Section I, which requires general information regarding your facility, and Section III, which requires sampling information for each of the outfalls at your facility, must also be completed and submitted with this application.

Section III
Sampling Information

Sampling information is not provided as part of this permit application since data for discharges is not available. This section will be completed and submitted to the New York State Department of Environmental Conservation (NYSDEC) for review subsequent to final floating storage and regasification unit (FSRU) design and prior to the initiation of FSRU operations in 2010.

INDUSTRIAL APPLICATION FORM NY-2C
Section III - Sampling Information

Facility Name: Broadwater Energy, LLC	SPDES No.:	**Outfall No.:**

1. Sampling Information - Conventional Parameters

Provide the analytical results of at least one analysis for every pollutant in this table. If this outfall is subject to a waiver as listed in Table 5 of the instructions for one or more of the parameters listed below, provide the results for those parameters which are required for this type of outfall.

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (using the same format) instead of completing this page.

Pollutant	Effluent data							Units		Intake data (optional)		
	a. Maximum daily value		b. Maximum 30 day value		c. Long term average		d. Number of analyses	a. Concentration	b. Mass	a. Long term average value		b. Number of analyses
	1. Concentration	2. Mass	1. Concentration	2. Mass	1. Concentration	2. Mass				1. Concentration	2. Mass	
a. Biochemical Oxygen Demand, 5 day (BOD)												
b. Chemical Oxygen Demand (COD)												
c. Total Suspended Solids (TSS)												
d. Total Dissolved Solids (TDS)												
e. Oil & Grease												
f. Chlorine, Total Residual (TRC)												
g. Total Organic Nitrogen (TON)												
h. Ammonia (as N)												
i. Flow	Value		Value		Value					Value		
j. Temperature, winter	Value		Value		Value					Value		
k. Temperature, summer	Value		Value		Value					Value		
l. pH	Minimum	Maximum	Minimum	Maximum						Minimum	Maximum	

2. Sampling Information - Priority Pollutants, Toxic Pollutants, and Hazardous Substances

a. Primary Industries:

i. Does the discharge from this outfall contain process wastewater?

- ☐ **Yes** - Go to Item **ii.** below.
- ☐ **No** - Go to Item **b.** below.

ii. Indicate which GC/MS fractions have been tested for: Volatiles: ☐ Acid: ☐ Base/Neutral: ☐ Pesticide: ☐

b. All applicants:

i. Do you know or have reason to believe that any of the pollutants listed in Tables 6, 7, or 8 of the instructions are present in the discharge from this outfall?

- ☐ **Yes** - Concentration and mass data attached.
- ☐ **No** - Go to Item **ii.** below.

ii. Do you know or have reason to believe that any of the pollutants listed in Table 9 or Table 10 of the instructions, or any other toxic, harmful, or injurious chemical substances not listed in Tables 6-10, are present in the discharge from this outfall?

- ☐ **Yes** - Source or reason for presence in discharge attached
- ☐ **Yes** - Quantitative or qualitative data attached
- ☐ **No**

INDUSTRIAL APPLICATION FORM NY-2C
Section III - Sampling Information

Facility Name: Broadwater Energy, LLC	SPDES No.:	**Outfall No.:**

3. Projected Effluent Quality - Priority Pollutants, Toxic Pollutants, and Hazardous Substances

Provide analytical results of at least one analysis for each pollutant that you know or have reason to believe is present in this discharge, as well as for any GC/MS fractions and metals required to be sampled from Section III Forms, Item 2.a on the preceding page.

List the name and CAS number for each pollutant that you know or have reason to believe is present in the discharge from this outfall. For each pollutant listed from Tables 6, 7, or 8, provide the results of at least one analysis for that pollutant, and determine the mass discharge based on the flow rate reported in Item 1.i. For each pollutant listed from Table 9, or any other toxic pollutant not listed in Tables 6-10, you must provide concentration and mass data (if available) and/or an explanation for their presence in the discharge. Make as many copies of this table as necessary for each outfall.

Page of

Pollutant and CAS Number	Effluent data							Units		Intake data (optional)			Believed present, no sampling results available
	a. Maximum daily value		b. Maximum 30 day value (if available)		c. Long term average value (if available)		d. Number of analyses	a. Concentration	b. Mass	a. Long term average value		d. Number of analyses	
	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass	(1) Concentration	(2) Mass				(1) Concentration	(2) Mass		
CAS Number:													
CAS Number:													
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INDUSTRIAL APPLICATION FORM NY-2C
Section III - Sampling Information

Facility Name: Broadwater Energy, LLC	SPDES No.:	**Outfall No.:**

4. Existing Effluent Quality - Priority Pollutants, Toxic Pollutants, and Hazardous Substances

Provide analytical results for the last three (3) years for each pollutant that you know or have reason to believe present in this discharge from this outfall, as well as for any GC/MS fractions and metals required to be sampled from Section III Forms, Item 2.a for this discharge.

Make as many copies of this table as necessary for each outfall. You can list the results from 24 sampling dates on each copy of this page.		Parameter name:	Parameter name:	Parameter name:	Parameter name:	Parameter name:	Parameter name:	Parameter name:
Page Of		CAS Number:	CAS Number:	CAS Number:	CAS Number:	CAS Number:	CAS Number:	CAS Number:
Date	Flow rate	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
	Units:	Units:	Units:	Units:	Units:	Units:	Units:	Units:

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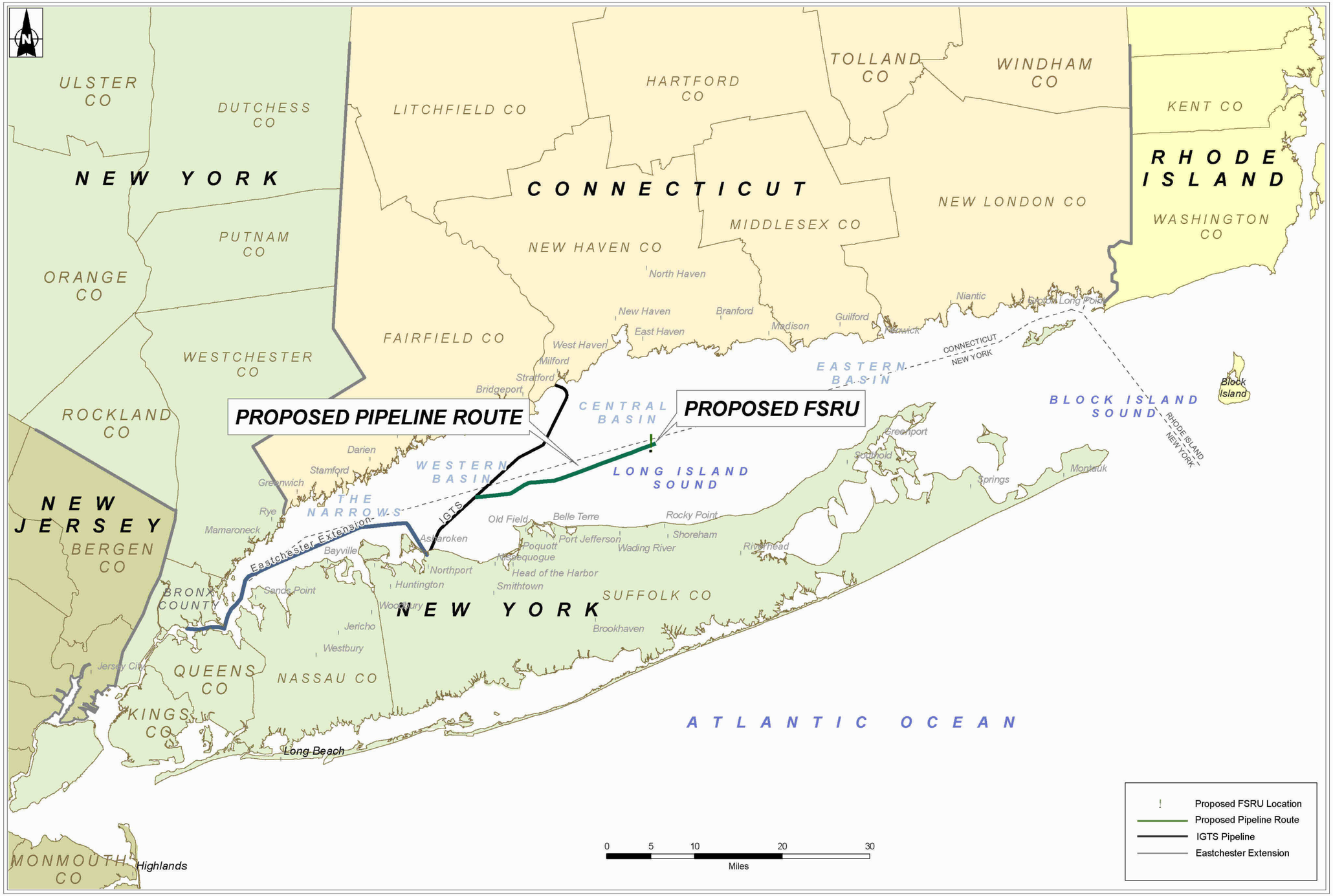

Source: ESRI StreetMap, 2002.

Figure 1-1
Proposed Broadwater Project
Location in Long Island Sound

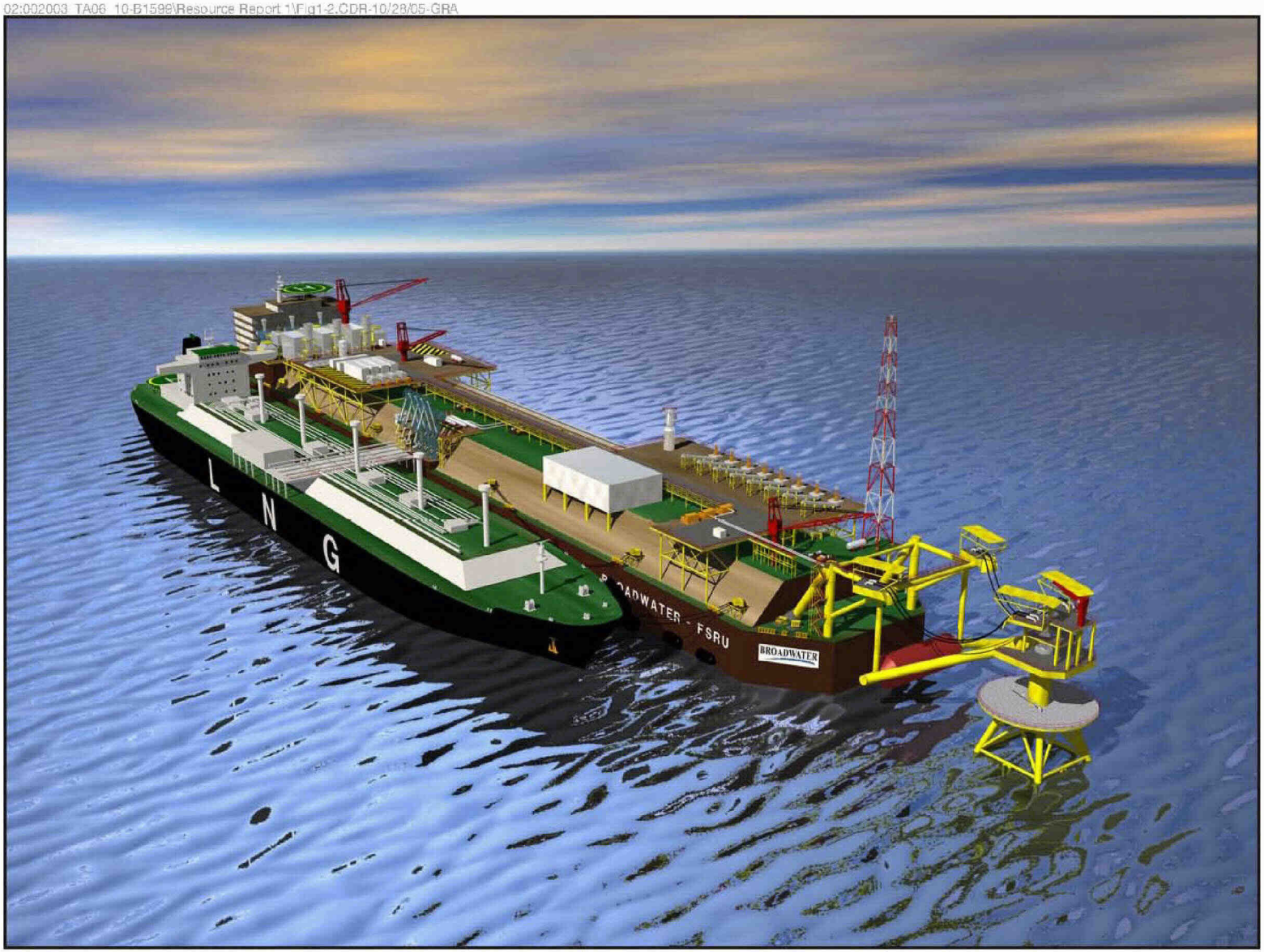

Figure 1-2 FSRU General Arrangement

2. PROJECT DESCRIPTION/NATURE OF BUSINESS

Broadwater Energy, a joint venture between TCPL USA LNG, Inc., and Shell Broadwater Holdings LLC, has filed an application with the Federal Energy Regulatory Commission (FERC) seeking all of the necessary authorizations pursuant to the Natural Gas Act to construct and operate a marine LNG terminal and subsea connecting pipeline for the importation, storage, regasification, and transportation of natural gas. The Broadwater LNG Project (the Project) will increase the availability of natural gas to the New York and Connecticut markets through an interconnection with the Iroquois Gas Transmission System (IGTS).

The LNG terminal facilitates the sea-to-land transfer of natural gas. It will be designed to receive, store, and regasify LNG at an average throughput of 1.0 billion cubic feet per day (bcfd) and will be capable of delivering a peak throughput of 1.25 bcfd. The Project will deliver the regasified LNG to the existing interstate natural gas pipeline system via an interconnection to the IGTS pipeline.

The proposed LNG terminal will consist of a floating storage and regasification unit (FSRU) that is approximately 1,215 feet (370 meters [m]) in length, 200 feet (60 m) in width, and rising approximately 80 feet (25 m) above the water line to the trunk deck, as shown on Figure 1-2. The FSRU's draft is approximately 40 feet (12 m). The freeboard and mean draft of the FSRU will generally not vary throughout operating conditions. This is achieved by ballast control to maintain the FSRU's trim, stability, and draft. The FSRU will be designed with a net storage capacity of approximately 350,000 cubic meters [m^3] of LNG (equivalent to 8 billion cubic feet [bcf] of natural gas) with base vaporization capabilities of 1.0 bcfd using a closed-loop shell and tube vaporization (STV) system. The LNG will be delivered to the FSRU in LNG carriers with cargo capacities ranging from approximately 125,000 m^3 up to a potential future size of 250,000 m^3 at the frequency of two to three carriers per week.

The FSRU will be connected to the send-out pipeline, which rises from the seabed and is supported by a stationary tower structure. In addition to supporting the pipeline, the stationary tower also serves the purpose of securing the FSRU in such a manner to allow it to orient in response to prevailing wind, wave, and current conditions (i.e., weathervane) around the tower. The tower, which is secured to the seabed by four legs, will house the yoke mooring system (YMS) allowing the FSRU to weathervane around the tower. The total area under the tower structure, which is of open design, will be approximately 13,180 square feet (1,225 square meters [m^2]).

A 30-inch-diameter natural gas pipeline will deliver the vaporized natural gas to the existing IGTS pipeline. It will be installed beneath the seafloor from the stationary tower structure to an interconnection location at the existing 24-inch-diameter subsea section of the IGTS pipeline, approximately 22 miles (35 kilometers [km]) west of the proposed FSRU site. To stabilize and protect the operating components, sections of the pipeline

will be covered with engineered back-fill material or spoil removed during the lowering operation. Figure 1-1 presents the proposed pipeline route.

The Project also contains an onshore facilities component. Broadwater does not anticipate that any permits will be required for the onshore facilities. However, if necessary, Broadwater will acquire any needed approvals and authorizations.

2.1 INTAKES AND DISCHARGES

Routine operation of the FSRU involves water intakes and discharges that have the potential to impact water quality. The intakes and discharge points remove and return water from the Sound at various rates based on FSRU operations.

FSRU Intakes

The intakes associated with continuous FSRU operations are comprised of two sea chests located port and starboard at the bottom of the FSRU hull. Water from these intakes is used primarily for all treated seawater systems, including:

- Ballast for the FSRU to maintain FSRU trim, stability, and draft depth during LNG transfer from the carrier to the FSRU, and during send-out operations;
- To make potable water (via a desalination unit);
- For the marine growth prevention system (MGPS); and
- Side-shell water curtain (to maintain hull integrity during LNG transfer from the carrier to the FSRU).

In addition to the daily uses, on an infrequent basis water from the sea chests will support the bilge and general services pump, the seawater cooling pump, and the inert gas (IG) scrubber cooling pump.

The sea chest seawater intake system consists of a cross-over pipe between port and starboard that allows all seawater-based operating systems on the FSRU to be supported from either intake. Only one intake will operate at any given time. Each sea chest would have an approximately 35-inch (88.9-cm) cross-over pipe leading to a 0.2-inch (5-mm) mesh screened intake. A coarse grate, flush with the FSRU hull, will exclude marine life larger than the grate size, which will be approximately 4 inches by 2 inches (10 by 5 cm). Sodium hypochlorite will be injected at a point in the sea chest between the course grate and small mesh screen at a continuous dose of 0.2 parts per million (ppm). The concentration of the sodium hypochlorite in the sea chest will quickly dilute to a concentration between 0.01 and 0.05 ppm. A positive pressure flow on the intake system of approximately 0.5 ft^3/second (0.15 m/s) will ensure that water treated with sodium hypochlorite does not re-enter the water column from the sea chest. Based on a gas send out of 1 bcfd, the sea chest intakes will supply approximately 6.6 million gallons (24,840 m^3) of treated seawater per day for all FSRU operations. The FSRU does have the

potential to operate at a peak gas send out of 1.25 bcfd for a short time, although the annual average will not exceed 1.0 bcfd. At this peak gas send out, the sea chest intakes will supply approximately 8.2 million gallons (31,050 m^3) of treated seawater per day for all FSRU operations.

Fire-Water Intake

The fire-water intake system consists of two intakes located fore and aft on the FSRU. These intakes are not treated with sodium hypochlorite. The fire-water intake structure will be similar to the sea chest intakes, but without the 5-mm screen. A coarse grate, flush with the FSRU hull, will exclude marine life larger than the grate size, which will be approximately 4 inches by 2 inches (10 by 5 cm). The maximum rate for seawater intake at the fire-water suction is 0.74 million gallons/hour (2,800 m^3/hr) based on peak fire-water pump operation. These pumps will operate at this level if there is a fire emergency onboard the FSRU. Otherwise, this system will be operationally tested for one hour every 30 days, with a total seawater intake of 0.74 million gallons (2,800m^3) per test.

Intake Volume

The total daily water intake by the sea chests to support all FSRU operations will be approximately 6.6 million gallons (24,840 m^3). This assumes an intake volume 21,600 m^3 of ballast water over a 24-hour period, which equates to 5.7 MGD and a 15% contingency for all other systems that require seawater, which equates to 0.9 MGD.

The sea chest seawater suctions will operate continuously to supply treated water to various systems on the FSRU, while the fire pump suctions will be utilized only one out of every 30 days for monthly fire-water testing. Typical total water intake volumes for the FSRU during normal operations are approximately 6.6 MGD, which will increase to approximately 7.3 MGD once a month during fire-water testing. All FSRU operations contributing to water intake volumes are described in detail below.

A process flow diagram outlining the intakes described above and the intake locations on the FSRU are provided as Figure 2-1 and 2-3.
FSRU Operations

FSRU Ballast System

To maintain draft, trim, and stability and limit hull stresses, the FSRU will load and discharge seawater ballast in the same way as other commercial vessels. The ballast tanks are located in the double-hull space surrounding the cargo tanks and are connected to the ballast pumps via a ring main piping system. The pumps are situated in the machinery space, with seawater suctions located at the bottom of the FSRU, flush with the hull. The ballast discharge point is located at the side of the machinery space, slightly below the waterline on both port and starboard sides of the FSRU.

The density of LNG relative to seawater is approximately 0.45, and ballast water is either taken on or discharged based on this density ratio. During normal gas send-out operations when an LNG carrier is not offloading, the FSRU will take in ballast water at

a rate of approximately 900 m^3/hr (approximately 238,000 gallons/hr) to compensate for the reduction in LNG inventory of 2,000 m^3/hr. When an LNG carrier is offloading, the FSRU will deballast at approximately 3,600 m^3/hr (0.9 million gallons/hr) to compensate for the weight of LNG being loaded, less the normal gas send-out quantity.

To control the growth of marine organisms, the FSRU seawater intakes will include the ability to inject a continuous dose of sodium hypochlorite at a concentration of 0.2 ppm. That dose will result in a residual chlorine concentration between 0.01 to 0.05 ppm at the sea chest and at the ballast water discharge. This residual chlorine concentration is not expected to have an affect on water quality since dilution at the discharge point will occur quickly due to the influence of tides and general water circulation within Long Island Sound.

Sodium hypochlorite will be produced from the intake sea water by an electro-chlorination unit that, by passing an electric current through a seawater cell via two concentric titanium electrode tubes, converts the sodium chloride in the seawater to safe, low concentration sodium hypochlorite, which is re-injected into the sea chest. Water is treated in this way to prevent the growth of marine organisms on the FSRU seawater systems.

The temperature of the ballast water discharged from the FSRU will be ambient. Water will 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. Some slight heat leakage though the cargo tank insulation will reduce the ballast water temperature adjacent to the inner hull surfaces, but convection currents within the tank will cause mixing, and contact with the outer hull will ensure that ambient temperatures are maintained. In addition, due to the minimal residence time of water in the ballast tanks, dissolved oxygen levels are not expected to fall and will not be lower at the discharge point. The discharge of ballast water will occur an estimated 118 days per year, based on the delivery schedule of LNG carriers at the FSRU, with a maximum discharge volume of 17.2 MGD (62,250 m^3) during LNG loading operations. No contaminants will be introduced into the ballast water system prior to discharge into the Sound.

FSRU Discharges

Operation of the FSRU will result in up to seven point-source discharges into the Sound, including:

- Two ballast water discharge points (port and starboard) located approximately 3 feet (1 m) below the water line;
- One wastewater discharge point (either port or starboard) located approximately 3 feet (1 m) below the water line;
- One desalinization overboard (starboard) located approximately 13 feet (4 m) below the water line;

- One seawater cooling discharge (port) located approximately 13 feet (4 m) below the water line;

- One IG scrubber cooling pump overboard (starboard) located approximately 3 to 6 feet (1 to 2 m) below the water line; and

- One emergency bilge overboard (port) located approximately 13 feet (4 m) below the water line.

If wastewater cannot be effectively treated to comply with New York State discharge requirements, then black and gray water will be routed to holding tanks and shipped to shore for disposal at an approved treatment facility. The emergency bilge overboard is not discussed in detail, as Broadwater does not anticipate any discharge through this overboard for the lifespan of the Project.

FSRU operations also will include three non-point-source discharges into the Sound, including:

- One side-shell water curtain to discharge treated seawater between the FSRU and any moored LNG carrier as a hull integrity measure during offloading operations;

- Uncontaminated deck runoff from storm events; and

- Fire-water bypass system water.

Since all discharges are anticipated to meet NYSDEC discharge requirements for contaminant levels and other physical water quality parameters, the need for an extensive mixing zone analysis was not pursued. A process flow diagram outlining the discharges described above and the discharge locations on the FSRU are provided as Figure 2-2 and 2-4.

Most discharges from the FSRU will have a low residual sodium hypochlorite concentration. Sodium hypochlorite concentrations will be monitored through sampling of overboard water collected from internal FSRU systems before it is discharged to the Sound. The chlorine concentrations of samples will be determined through a colorimetric assay. The production and injection rate of the sodium hypochlorite added to the system at the sea chest will be adjusted as necessary.

Ballast Water System

As discussed above, the discharge of ballast water will occur 118 days per year based on the delivery schedule of LNG carriers at the FSRU, with a maximum discharge volume of 17.2 MGD (62,250 m^3) during offloading operations. No contaminants will be introduced into the ballast water system prior to discharge into the Sound.

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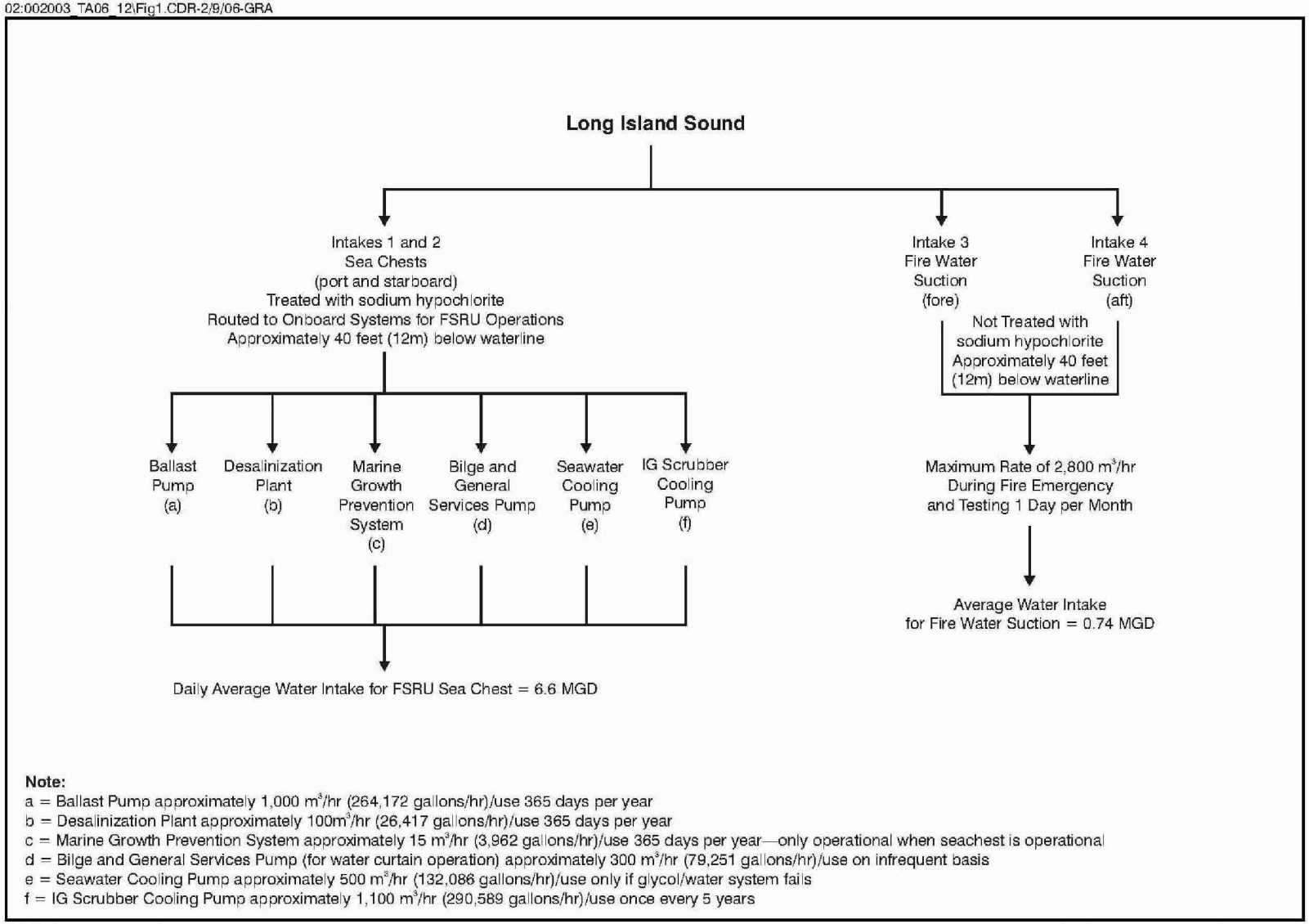

SOURCE: Broadwater 2006

Figure 2-1 Process Flow Diagram – FSRU Intakes

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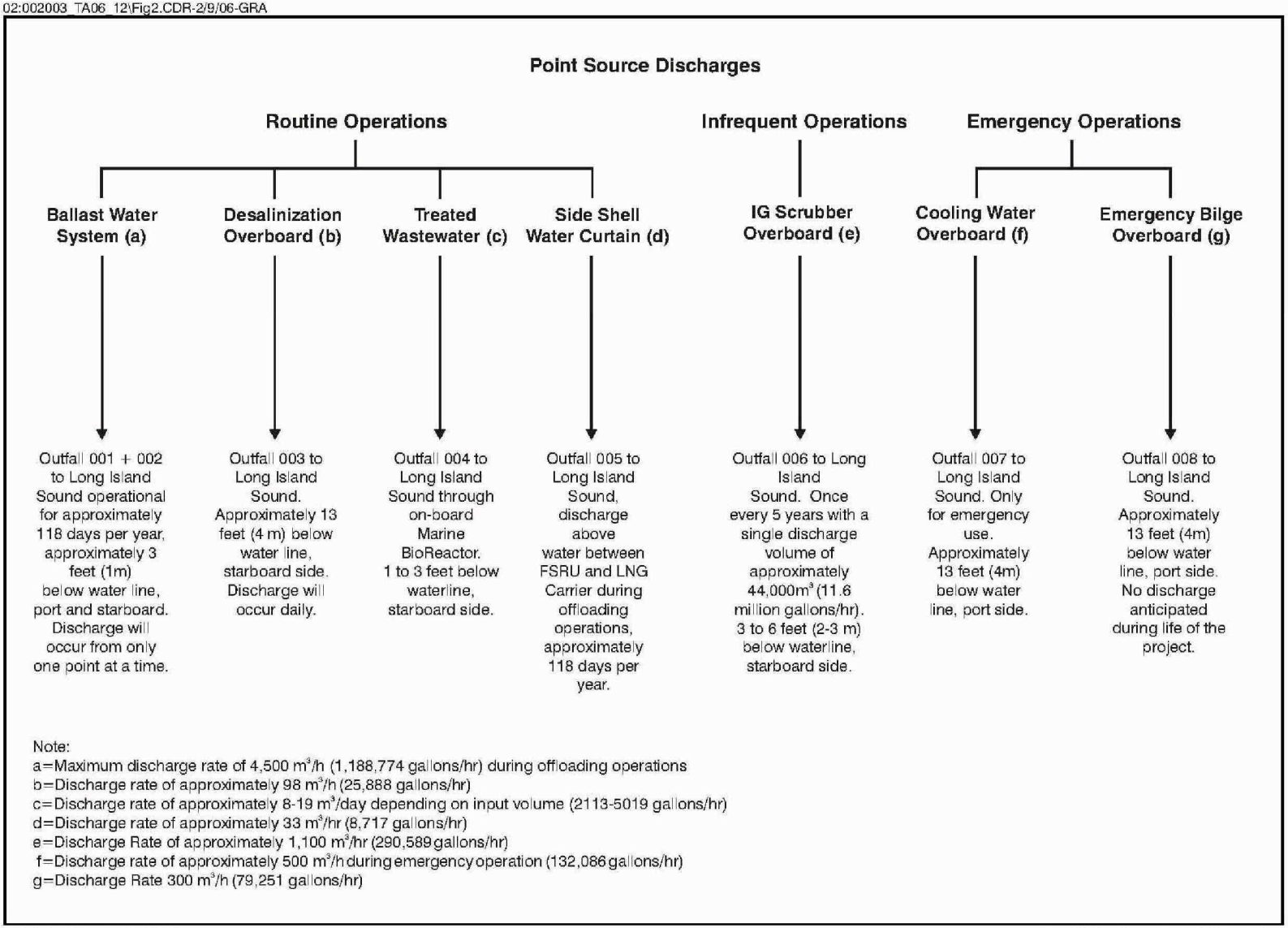

SOURCE: Broadwater 2006

Figure 2-2 Process Flow Diagram – FSRU Point Source Discharges

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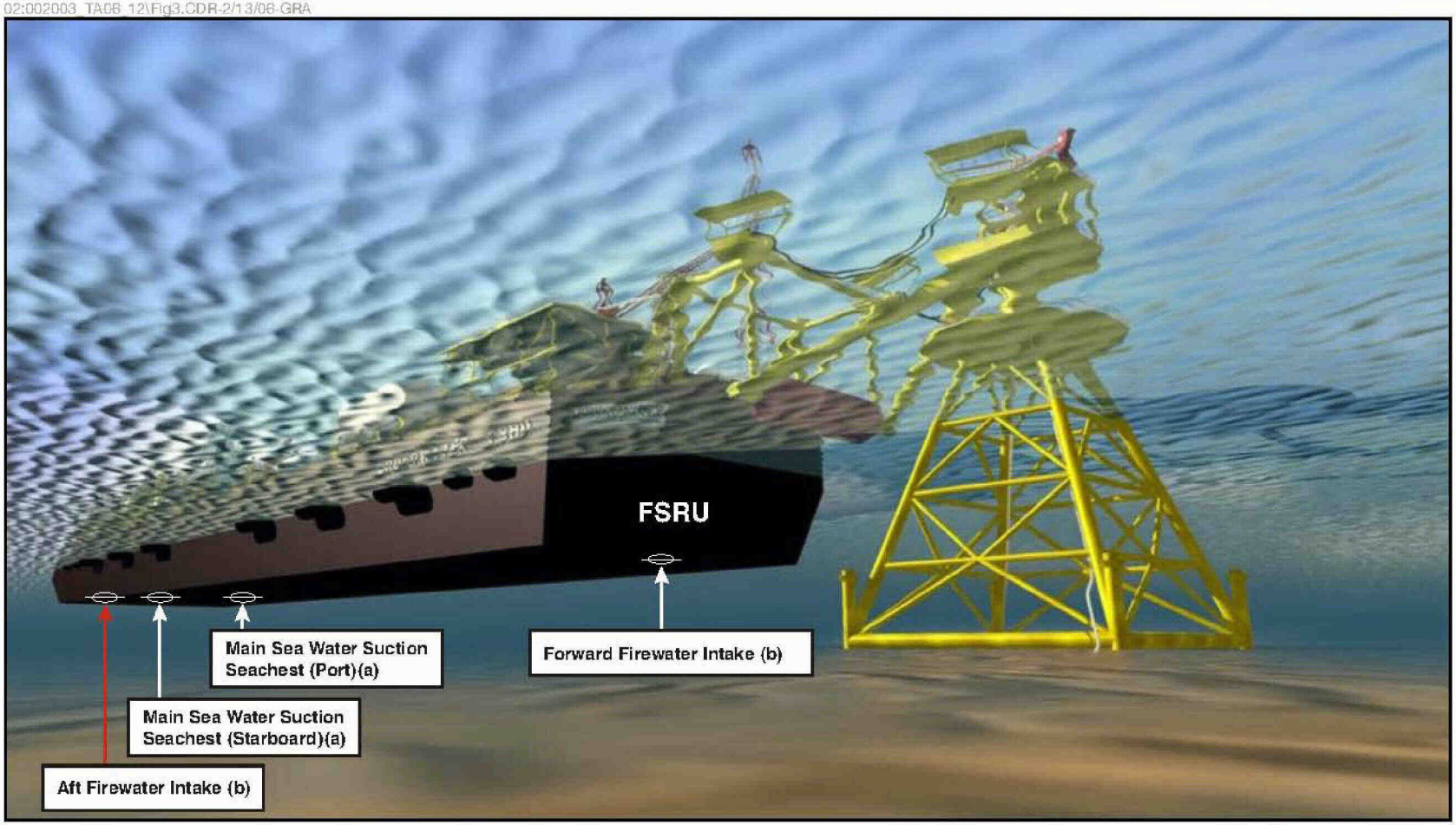
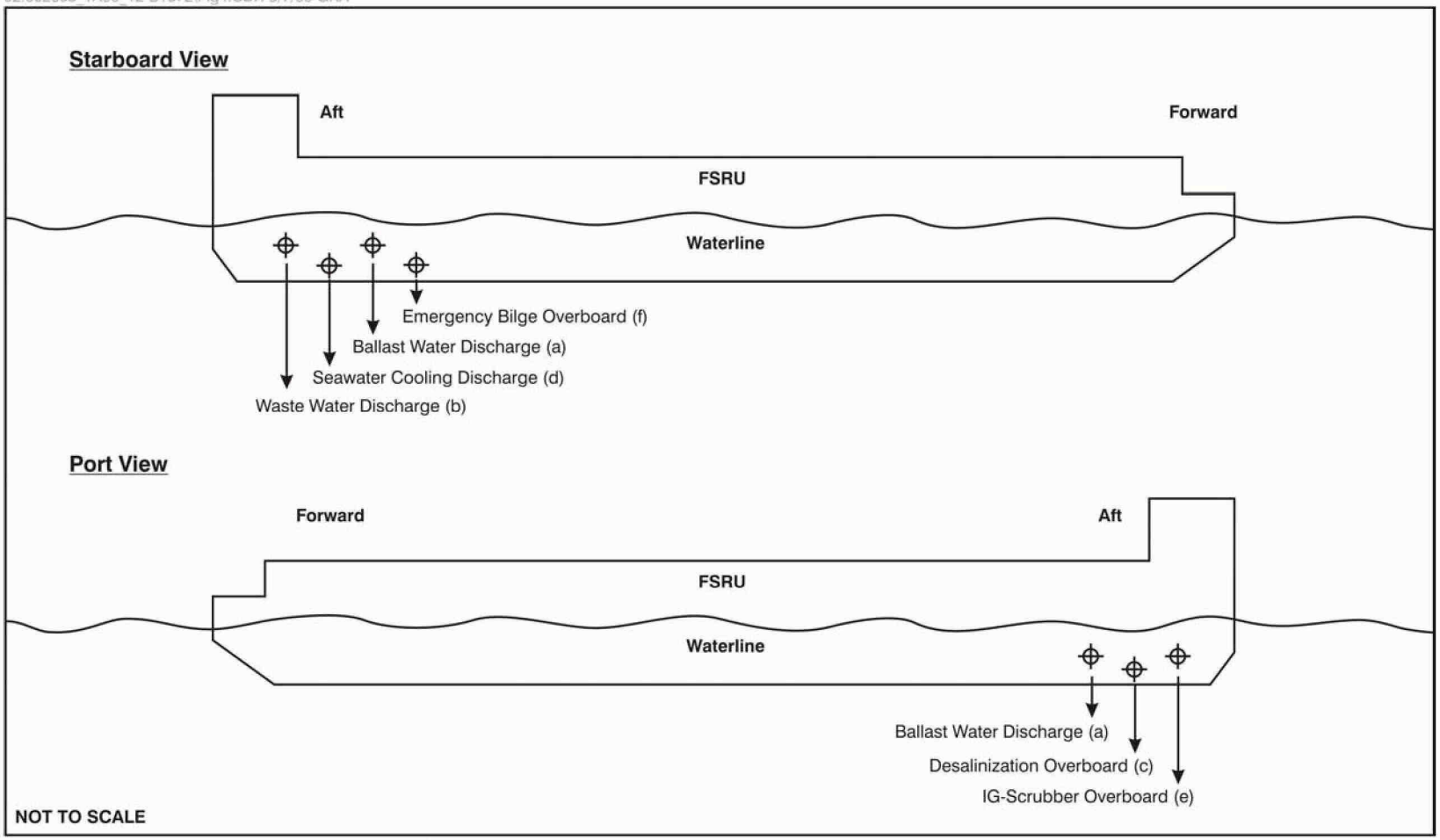


Note: a - Only one seachest will operate at a time. Contain a 35 inch (88.9 cm) cross over pipe leading to a 0.2 inch (5-mm) mesh screened intake. Contain a course grate flush with the hull approximately 4 inches by 2 inches (10 by 5 cm).
b - Contain a course grate flush with the hull approximately 4 inches by 2 inches (10 by 5 cm).

Figure 2-3 FSRU Intake Locations



Note: a - Ballast water discharge located approximately 3 feet (1m) below the waterline.
b - Waste water discharge located approximately 3 feet (1m) below the waterline.
c - Desalinization overboard located approximately 13 feet (4m) below the waterline.
d - Seawater cooling discharge located approximately 13 feet (4m) below the waterline.
e - IG scrubber overboard located approximately 3 to 6 feet (1 to 2m) below the waterline.
f - Emergency bilge overboard located approximately 13 feet (1m) below the waterline.

Figure 2-4 FSRU Discharge Locations

Treated Wastewater from the Onboard Treatment Plant

Based on the current design, the FSRU will be equipped with a membrane bioreactor (MBR) with the capability of treating both blackwater and greywater discharges. Based on the typical specifications for an MBR, it is anticipated that the discharge will comply with NYSDEC discharge standards. However, if it is determined that, based upon review and consideration by NYSDEC, the discharges will not comply with applicable regulations, all blackwater and graywater generated by systems on the FSRU (e.g., sinks, shower drains, and floor drains) that may contain increased levels of detergents and nutrients will be routed to a holding tank and shipped to shore for disposal at an approved facility.

The discharge from the MBR, which would be located approximately 3 feet (1 m) below the water line, is anticipated to be approximately 2,000 to 5,000 gallons per day (8 to 19 m^3/d). The MBR provides an advanced treatment process that produces a discharge of much higher quality than a United States Coast Guard (USCG) treatment device, and it provides Broadwater with the ability to be consistent with the Long Island Sound Comprehensive Conservation and Management Plan.

A typical USCG treatment device can achieve the following effluent quality standards:

- Suspended solids: 150 mg/L; and
- Fecal coliform: 200 counts/100mL.

Biological oxygen demand, pH, and chlorine are not parameters typically addressed by treatment in this type of system.

The MBR system proposed by Broadwater produces a much higher effluent quality and addresses more water quality parameters than a USCG treatment device. The MBR effluent quality standards include:

- Suspended solids: 3.1 mg/L;
- Biological oxygen demand: 2.6 mg/L;
- Fecal coliform: 10.6 counts/100mL;
- pH within acceptable limits for the original water source; and
- Chlorine: 0 µg/L.

Discharge from the MBR will be tested weekly using an assay for the most probable number (MPN) of viruses. The sample for this assay will be collected from the internal FSRU treatment system and sent off site for analysis. In addition, water quality monitoring plans will be prepared and implemented to ensure adherence to discharge

standards in accordance with NYSDEC requirements as determined during the SPDES permitting process

Desalination Unit Overboard

The desalination unit overboard will be used to discharge water generated by the desalination unit, which will be used to make potable water onboard the FSRU. The approximate volume of this discharge is 0.6 MGD (2,355 m^3/d). The discharge will be comprised of seawater that had been taken in by sea chest, but with a slight salinity increase of approximately 2%. This equates to a salinity increase of less than 0.5 ppt which is not significant and not likely measurable since salinity values in the Sound range from 24 to 25 ppt. Based on these values, no impacts on water quality will occur.

Central Cooling Water (Non-Routine Operations Only)

The central cooling water overboard will be used only if the FSRU's glycol/water system fails. The actual capacity of the cooling water system, and the associated discharges, will be determined during the final design stage of the Project. While this system will have a permitted discharge point, no discharge will occur under routine operating conditions. The seawater used for cooling will not come into direct contact with machinery onboard the FSRU. Therefore, no impacts on water quality will occur.

Inert Gas (IG) Scrubber Overboard

The IG scrubber is used only infrequently when a cargo tank needs to be purged for cleaning and/or inspection. The use of the IG scrubber would occur approximately once every 5 years. Water from the sea chest is used to "clean" and cool the inert gas stream used to purge the tanks. Water usage is estimated to be approximately 290,000 gallons/hr (1,100 m^3/hr), with a total of approximately 11.6 million gallons (44,000 m^3) required for a single purge of the entire FSRU.

Side-Shell Water Curtain

To maintain hull integrity of the FSRU and LNG carrier, a constant curtain of water will be directed overboard during LNG transfer from the carrier to the FSRU. Both the FSRU and the LNG carrier will generate side-shell water curtains.

This water will be supplied by the two sea chest intakes and thus will contain residual chlorine levels. The side-shell water curtain will discharge directly into the Sound between the FSRU and the LNG carrier. It is anticipated that water from the side shell water curtain will be discharged at an approximate rate of 8,718 gallons/hr (33 m^3/hour). Discharges from the side-shell water curtain will occur for an estimated 118 days per year and will be at ambient temperature.

Increases in side-shell curtain water will occur during offloading by larger LNG carriers (up to future concept 250,000 m^3) since the offloading time will increase. For example, a 145,000 m^3 LNG carrier will require approximately 15 hours for cargo transfer. The side-shell curtain will also be operational for a minimal time before and after the actual cargo transfer. For larger carriers, the side-shell water curtain discharge is expected to occur at similar discharge rates. As with the ballast water discharge, minimal residual

chlorine (0.01 to 0.05 ppm) will be present in the water curtain discharge, which will not impact water quality in the Sound.

Drainage Systems and Deck Runoff

The fire-water bypass system will not be treated with sodium hypochlorite. Seawater for this system will be utilized only in the event of a fire onboard the FSRU (or testing of the fire-water system) and will be supplied by seawater intakes that are independent of the main seawater intake system. Discharge during any testing of the fire-water bypass system will be overboard via scupper drains, which will return the seawater directly back to the Sound. The volume of water to be used for testing is estimated to be 0.74 million gallons (2,800 m^3), and the testing will occur only once a month. Runoff from the testing of the fire-water system will not impact the temperature, salinity, or dissolved oxygen content of water in the Sound.

Uncontaminated storm water runoff from the FSRU will be comprised of rainwater and will be directed overboard via scupper drains. The volume of this runoff will be based on local levels of precipitation and will be at ambient temperature when drained to the Sound. Runoff from any on-deck location that has the potential for oil and grease contamination will be collected and routed to the bilge holding tank for shipment to shore. This discharge is not presented for evaluation as part of this permit package but has been prepared under a separate SPDES general permit application for discharge of Stormwater and will be submitted to NYSDEC under separate cover for review and approval.

Other Discharges – Hydrostatic Test Water

In addition to the discharges outlined above which are part of the routine actions that will be permitted by this SPDES application, there will be a one time discharge event of hydrostatic test water that will take place.

Hydrostatic testing ensures the operational integrity of the pipeline and all connecting assemblies and will be performed following installation and prior to complete tie-in with the FSRU and IGTS system for full pipeline operation. Best industry practices will be used to minimize potential impacts on surrounding water quality. Hydrostatic testing involves flooding of the pipeline with seawater infused with a biocide material to prevent microbiologically influenced corrosion on the pipeline interior. The total volume of seawater required to fill the proposed 21.7-mile-long (35-km), 30-inch-diameter pipeline is approximately 3,909,520 gallons (14,799 m_3). This represents less than 0.00000028% of the water present in the entire Sound and, therefore, is not expected to have an impact on water quality.

During the testing process, clean seawater will be filtered through a 200 size mesh screen (mesh opening = 0.0029 inches [0.07 millimeters]). The filtering prevents debris and foreign material from entering the pipeline. The suction head or submersible pump will take in water at a depth of approximately 20 to 40 feet below the water surface to minimize the introduction of more highly oxygenated water and microorganisms into the

pipeline. The fill rate for the hydrostatic test water into the pipeline will be approximately 4,000 gallons/minute.

To protect the pipeline from excessive corrosion, a biocide will be added to the hydrostatic test water. As long as there is water in the pipeline, there are many types of microorganisms that can begin the process of corrosion, impacting the integrity of the pipeline. Since test water will likely remain within the pipeline for greater than 14 days, a biocide must be added to reduce corrosion in the pipe. The pipeline will remain flooded between the installation and testing of the pipeline in spring of 2010 until final tie-in and dewatering at the end of 2010, thus requiring the need for a biocide.

The toxicity of biocides will be neutralized to avoid adverse effects on the environment after discharge. Prior to pipeline commissioning, the hydrostatic test water will be pumped to holding tanks on a support vessel on the surface for treatment/neutralization with a neutralizing chemical (e.g., hydrogen peroxide). After allowing time for adequate neutralization, the hydrostatic test water will be re-oxygenated (e.g., through use of a diffuser) and discharged into the Sound. The rate of discharge back into the sound is estimated to be 2,000 gallons/minute (7.6 m^3/minute). No swabbing chemicals/drying agents will be used during the dewatering process. Only clean, filtered, oil-free air will be used for the displacement of dewatering pigs.

The hydrostatic test water will not be directly discharged from the pipeline into the marine environment; it will be neutralized prior to discharge. Therefore, the hydrostatic testing and dewatering process will have no impact on the water quality of the Sound and only represents a one time water exchange that will be removed and returned over a seven-month period.

It is important to note that none of the discharges associated with the Broadwater project will occur on Indian Lands.

2.2 FACILITY OWNERSHIP

This facility will operate under the ownership of a sole proprietorship. The Broadwater contact information for permit correspondence is:

Broadwater Energy, LLC
c/o LeBoeuf, Lamb, Greene and MacRae LLP
One Commerce Plaza
99 Washington Avenue, Suite 2020
Albany, NY 12210-2820

Robert J. Alessi, Attorney at Law
(518)626-9400

2.3 OTHER ENVIRONMENTAL PERMITS

The federal and state entities and the environmental permits, consultations, and clearances that may be required for approval to construct and operate the Project are identified below in Tables 2-1 and 2-2.

Table 2-1 List of Federal Permits, Approvals and Consultations

Agency	Act	Permit/Approval
FERC	• Natural Gas Act (NGA) 15 U.S.C. 717 et seq., 18 CFR Part 153, Subpart B (2002)	• Sections 3 and 7 approvals to site, construct and operate the LNG terminal and to construct and operate the subsea connecting pipeline facilities, including the pipeline riser and mooring tower, respectively
USCG	• The Maritime Transportation Security Act of 2002 • 33 CFR § 127	• Review process – project must be compatible with National and Area Marine Security Plans • Letter of Recommendation
Advisory Council on Historic Preservation	• National Historic Preservation Act, Section 106	• Review of project effects on cultural resources
EPA	• Clean Water Act, Section 401 and 404 • Clean Air Act	• Review of Section applications • Prevention of Significant Deterioration, New Source Review
NOAA Fisheries	• Marine Mammal Protection Act, 16 U.S.C. 1361 et seq. • Magnuson-Stevens Fisheries Conservation and Management Act – Sustainable Fisheries Act • National Fishing Enhancement Act of 1984	• Consultation • Consultation regarding Essential Fish Habitat • Consultation regarding the National Artificial Reef Plan and commercial/recreational fisheries
USACE	• Clean Water Act (CWA), 33 U.S.C. § 1344 et seq. • Rivers and Harbors Act of 1899 (RHA) 33 U.S.C. § 403 et seq.	• Section 404 – dredge and fill permits • Section 10 permit
USFWS	• Marine Mammal Protection Act, 16 U.S.C. 1361 et seq.	• Consultation
Federal agencies	• National Environmental Policy Act (NEPA) 42 U.S.C. § 4321 et seq., particularly 42 U.S.C. § 4332, 40 CFR Part 1500	• Procedural statute, not a permitting statute. Requires federal agencies to consider environmental impacts of proposed action
Federal agencies consultation with USFWS and NOAA Fisheries	• Section 7, Endangered Species Act, 16 U.S.C. 1531 et seq.	• Consultation regarding federally listed threatened or endangered species. If potential adverse impact identified, then a Biological Opinion must be issued by responsible agency. Primarily a procedural statute. No permit required unless an incidental take of protected species is involved (then Section 10 permit required)
FAA	• 49 CFR Part 77	• Review of construction or alteration that might affect navigable airspace

Table 2-2 List of State Permits and Approvals

Agency	Act	Permit/Approval
NYSDEC	• Clean Water Act 33 U.S.C. § 1342(a) – delegated from EPA • Clean Water Act 33 U.S.C. § 1341 • Clean Air Act Title V 40CFR 70 – delegated from EPA; implementing NYS regulations: 6 NYCRR 201 • 6 NYCRR Part 596 and Part 612	• State Pollutant Discharge Elimination System (SPDES) General permit for storm water • State Pollutant Discharge Elimination System (SPDES) permit for industrial discharges • Section 401 – State certification of water quality • Certificate to operate air contamination sources • Hazardous Substances and Petroleum Bulk Storage Permits
NYSDOS	• New York State Coastal Zone Management Act - delegated from the Federal DOC	• Coastal Zone Consistency Determination
NYSDPS	• Natural Gas Pipeline Safety Act, 49 U.S.C. §§ 60101, et seq. (2000) - as agent for USDOT OPS	• Requirement to certify that Broadwater will design, install, inspect, test, construct, operate, replace, and maintain a gas pipeline facility under the standards and plans for inspection and maintenance under section 60108 of 49 U.S.C. §60108.
NYSOGS	• New York Public Lands Law	• Submerged Lands easement/lease
NYSOPRHP	• Section 106, National Historic Preservation Act	• Review of project effects on cultural resources

3. SPDES INDUSTRIAL PERMIT FEES

The Broadwater FSRU qualifies as a facility with an average of 10,000,000 gallons or more of industrial discharge. This equates to a fee of $37,500 each year for the SPDES Industrial Permit. In addition, there is a $500.00 fee each year for ballast discharge in excess of 1,000,000 gallons in a 24-hour period, which occurs on the FSRU.

CERTIFICATE OF SERVICE

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

Dated at Washington, D.C. this 31st day of March, 2006.

/s/ Brett A. Snyder
Brett A. Snyder