

# LNG TRAFFIC IMPACT ASSESSMENT:



## NEWPORT/PELL AND MOUNT HOPE BRIDGES

SUBMITTED TO



### **AQUIDNECK ISLAND PLANNING COMMISSION**

321 EAST MAIN ROAD  
PORTSMOUTH, RI 02871

BY



### **THE LOUIS BERGER GROUP, INC.**

75 SECOND AVENUE, SUITE 700  
NEEDHAM, MA 02494

AUGUST 2005

<b><u>Table of Contents</u></b>	<b><u>Page Number</u></b>
Introduction	1
Traffic Analysis	1
Newport Bridge	3
Mount Hope Bridge	6
Emergency Access	10
Conclusions	14

**List of Figures**

Figure 1 – Project Study Area	2
Figure 2 – Queues at Newport (Pell) Bridge	5
Figure 3 – Queues at Mount Hope Bridge	9
Figure 4 – Facilities near Newport (Pell) Bridge	11
Figure 5 – Facilities near Mount Hope Bridge	12

**List of Tables**

Table 1 – Unadjusted Peak Hour Volumes, Newport Bridge	3
Table 2 – Adjusted Peak Hour Volumes, Newport Bridge	3
Table 3 – Queue Lengths, Newport Bridge	6
Table 4 – Delays Related to Closure, Newport Bridge	6
Table 5 – Unadjusted Peak Hour Volumes, Mount Hope Bridge	7
Table 6 – Adjusted Peak Hour Volumes, Mount Hope Bridge	7
Table 7 – Queue Lengths, Mount Hope Bridge	8
Table 8 – Delays Related to Closure, Mount Hope Bridge	10

**Appendix**

## **INTRODUCTION**

Weaver's Cove Energy proposes to bring a new Liquefied Natural Gas (LNG) supply to New England to serve the natural gas needs of the New England market, particularly in southeastern Massachusetts and Rhode Island. Natural gas is used in New England for home heating and cooking, commercial heating, a variety of industrial applications, and, increasingly, for electrical power generation. On an annual basis, about 50 percent of the natural gas currently delivered in New England comes from domestic sources, 35 percent from Eastern and Western Canada, and 15 percent from imported LNG sources.

On June 14, 2005, the Rhode Island Turnpike and Bridge Authority (RITBA) passed a resolution stating that the Newport (Pell) and Mount Hope Bridges would be closed to traffic while any LNG tanker is near or under either bridge. An LNG ship is expected to arrive at the terminal every 5 to 7 days. This equates to approximately one trip, either entering or exiting, every 2½ to 3½ days, and the corresponding bridge closures during the same times.

Title 33 of the Code of Federal Regulations (CFR) – Navigation and Navigable Waters, Ch. 1, §161.121 details the safety and security zone requirements for high-interest vessels in Narragansett Bay. High interest vessels include those carrying LNG. The United States Coast Guard's (USCG's) safety and security zone around each LNG tanker is defined as 2 miles ahead of the vessel, 1 mile behind the vessel, and 1,000 yards on either side. The dimensions of the safety and security zone were used to calculate the times during which each bridge would be restricted to traffic.

This study analyzes the impacts on traffic of closing the Newport Bridge and the Mount Hope Bridge while an LNG tanker ship is entering or exiting Narragansett Bay and the proposed LNG terminal in Fall River, Massachusetts. The project study area is shown in Figure 1.

## **TRAFFIC ANALYSIS**

Due to shallow passage in the waters toward Fall River, LNG tankers must begin their transit up the bay on a rising tide. Likewise, tankers must leave the Fall River LNG terminal at high tide. Nighttime transit is currently prohibited by the U.S. Coast Guard. Therefore, tidal conditions will dictate a variable schedule for LNG tanker passage and its subsequent closings. This traffic impact assessment considers both average-month and peak-month (worst case) traffic conditions. All calculations are given in the Appendix.

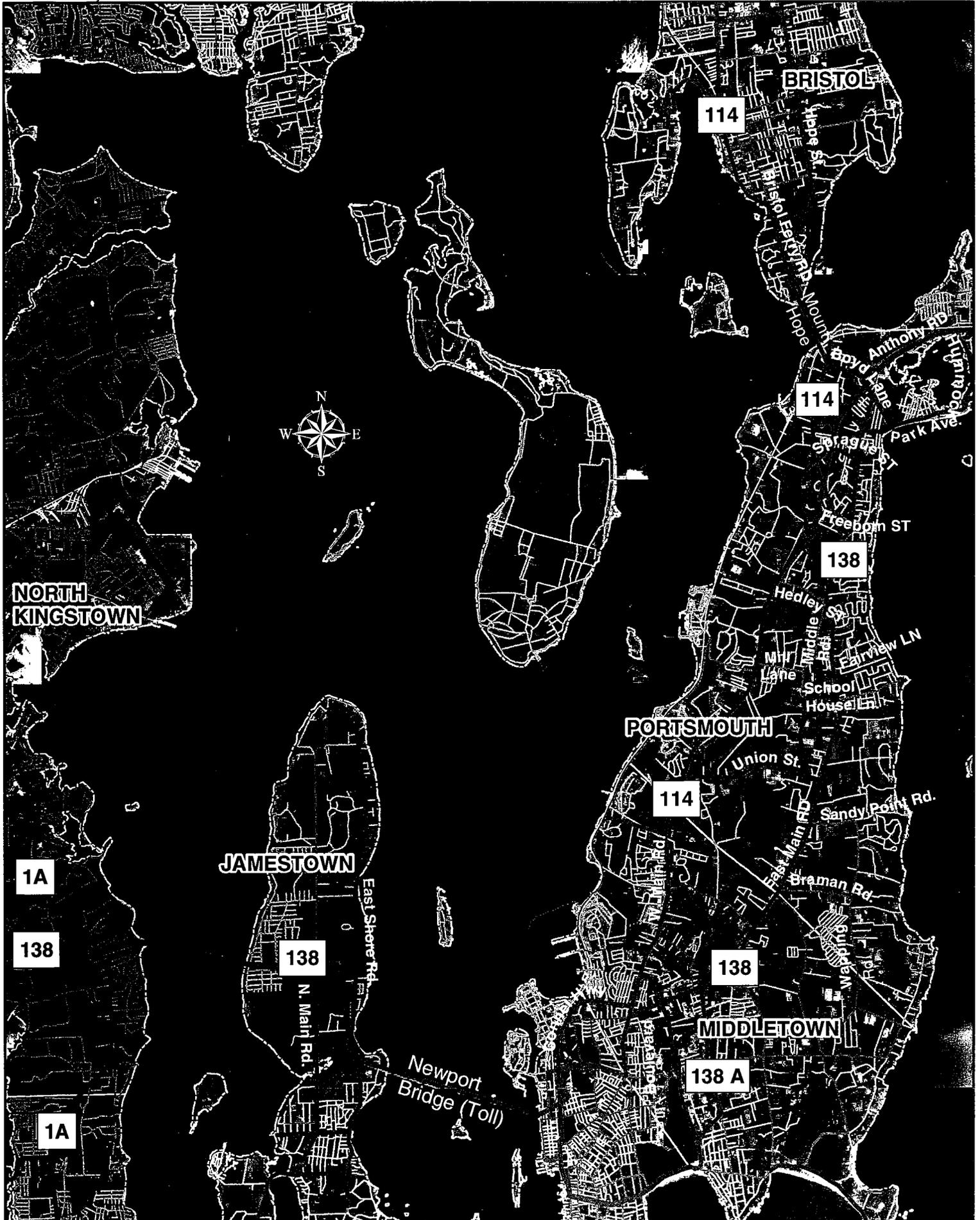


Figure 1: Project Area  
Aquidneck Island Planning Commission

Newport Bridge

Traffic volumes on the Newport Bridge were obtained from a recent study entitled, "Traffic Analysis – Bridge Transits," prepared by MDM Transportation Consultants, Inc., and dated December 2004. This study collected Automatic Traffic Counter (ATR) counts on both bridges in October 2004. The weekday daily traffic volume on the bridge was 30,950 vehicles per day (vpd). The Saturday daily traffic volume was 24,450 vpd. The unadjusted 2004 peak hour traffic volumes are shown in Table 1.

**Table 1 – Unadjusted Peak Hour Volumes, Newport Bridge**

Time Period	Traffic Volume (vph)	
	EB*	WB*
Weekday AM Peak Hour	1,604	1,026
Weekday PM Peak Hour	1,060	1,730
Saturday Midday Peak Hour	1,095	860

\*EB = eastbound, WB = westbound

Traffic data provided by RIDOT shows that October represents the average month for traffic volumes while September represents the peak month. The peak hour volumes shown in Table 1 were adjusted using monthly factors provided by RIDOT. The monthly factor for October is 100.2, meaning that the October volumes are typically 0.002 percent higher than the average. The monthly adjustment factor for September is 110.1, meaning that the volumes in September are typically 10.1 percent higher than the average. The months of June, July, August, and December are also typically 7.6 – 9.7 percent higher than the average.

The peak hour volumes, adjusted to reflect average month and peak-month conditions, are given in Table 2.

**Table 2 – Adjusted Peak Hour Volumes, Newport Bridge**

Time Period	Traffic Volume (vph)			
	Average Month		Peak Month	
	EB*	WB*	EB*	WB*
Weekday AM Peak Hour	1,601	1,024	1,763	1,127
Weekday PM Peak Hour	1,058	1,726	1,165	1,901
Saturday Midday Peak Hour	1,093	858	1,203	945

\*EB = eastbound, WB = westbound

It is estimated that the maximum speed at which an LNG vessel would travel while entering Narragansett Bay and transiting the Newport Bridge would be 10 knots, or 11.5 mph. Based on this speed, the lengths of time necessary for the bridge to be clear of the safety zone, thus allowing traffic to proceed over the bridge, were calculated as follows:

Leading edge of 2-mile safety zone	10 min, 26 sec
Vessel transit under bridge	58 sec
Trailing edge of 1-mile safety zone	5 min, 13 sec
Total closure time	16 min, 37 sec

Using these times and the traffic volumes given in Table 2, the queues under average and peak month conditions were calculated. In order to estimate vehicle arrival rates in either direction, the peak hour volumes were converted to arrival rates using the hourly volumes. It is assumed that vehicles arrive at a steady rate, as opposed to random arrivals.

In the eastbound direction, in Jamestown, the worst queues would occur during a weekday AM peak hour. In the eastbound direction, it is assumed that travel on the bridge would be restricted in the vicinity of the toll plaza in Jamestown, perhaps closing all toll lanes eastbound to control traffic. There are two lanes approaching the toll plaza. In addition, there is an entrance ramp from Canonicus Avenue in Jamestown. During an average month, the eastbound queues would extend approximately 1 mile in each lane, or nearly to Eldred Avenue, with additional queuing on the ramp from Canonicus Avenue. During peak month conditions, the longest queues in the eastbound direction would extend approximately 1.15 miles in each lane, approximately 850 feet farther west than the average month condition, with additional queuing on the Canonicus Avenue on ramp.

In the westbound direction from Newport, the worst queues would occur during a weekday PM peak hour. In the westbound direction, it is assumed that traffic would be restricted on the bridge above Second Street, just a few hundred feet west of the merge of the on ramps from Admiral Kalbfus Road (Route 138) and Farewell Street. Under average month conditions, the westbound queue in each lane, presuming an even distribution of traffic from each ramp, would extend approximately 1.13 miles. On Admiral Kalbfus Road, the queue would extend nearly to Sagamore Street, and on Farewell Street the queue would extend beyond America's Cup Boulevard. Under the peak month conditions, the westbound queues would extend 1¼ miles in each lane. On Admiral Kalbfus Road, the queue would extend to Rowland Road, just west of the intersection with Route 114. On Farewell Street, the queue would extend nearly to Marlborough Street and would probably impact other streets in Downtown Newport, such as America's Cup Avenue, Thames Street, and Broadway.

The queues at the Newport Bridge under average month and peak month conditions are summarized in Table 3. The longest average month and peak month queues in each direction are illustrated in Figure 2.

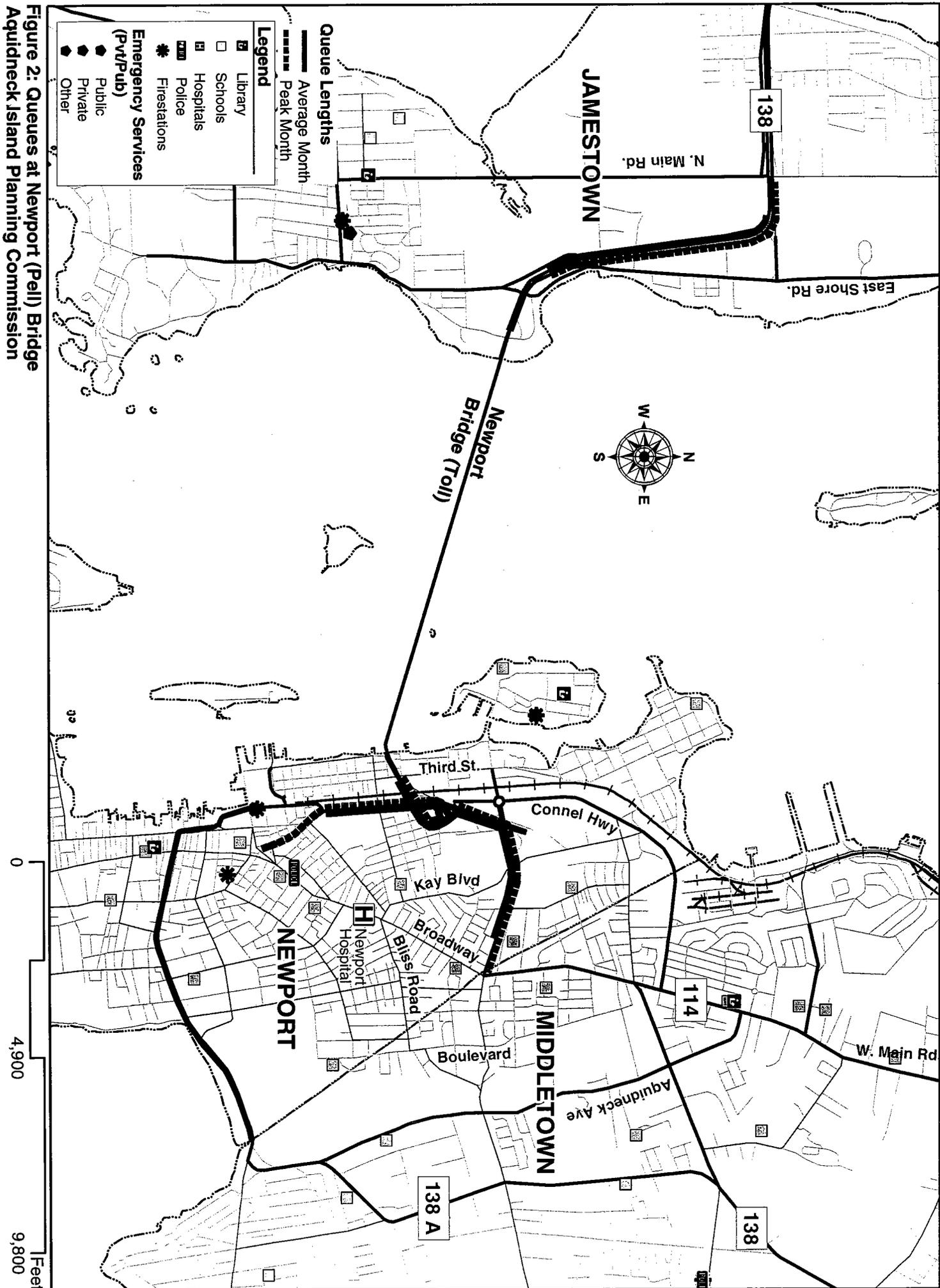


Figure 2: Queues at Newport (Pell) Bridge  
Aquidneck Island Planning Commission

**Table 3 – Queue Lengths, Newport Bridge**

Time Period	Queue Length per Lane (miles)			
	Average Month		Peak Month	
	EB*	WB*	EB*	WB*
Weekday AM Peak Hour	1.05	0.67	1.16	0.74
Weekday PM Peak Hour	0.70	1.13	0.76	1.25
Saturday Midday Peak Hour	0.72	0.57	0.79	0.62

\*EB = eastbound, WB = westbound

The delays to traffic while the Newport Bridge is closed include not only the time that the bridge is closed, but also the time for the queues to dissipate. The time for each queue to dissipate is calculated using Greenshield’s equation, which presumes a start-up reaction time and an even headway of 2.05 seconds between vehicles as the queue moves. Using this method, the times for the queues to dissipate are given in Table 4.

**Table 4 – Delays Related to Closure, Newport Bridge**

Time Period	Time (min:sec)							
	Average Month				Peak Month			
	EB*		WB*		EB*		WB*	
	Q**	Total*	Q**	Total*	Q**	Total*	Q**	Total*
Weekday AM Peak Hour	7:36	21:55	4:51	21:25	8:22	21:59	5:20	21:37
Weekday PM Peak Hour	5:01	21:38	8:11	21:48	5:32	22:09	9:00	25:36
Saturday Midday Peak Hour	5:11	21:45	4:05	20:42	5:42	22:19	4:29	21:03

Notes: \*EB = eastbound, WB = westbound

\*\*Q = time for queue to dissipate and traffic to return to “normal”

^Total delay = time while bridge is closed + time for queue to dissipate

Based on the calculations in Table 4, the total time before traffic flow returns to its “normal” state could be as long as 24 minutes and 59 seconds in the eastbound direction from Newport and as long as 25 minutes and 37 seconds in the westbound direction from Jamestown.

Mount Hope Bridge

Traffic volumes on the Mount Hope Bridge were also obtained from a recent study entitled, “Traffic Analysis – Bridge Transits,” prepared by MDM Transportation Consultants, Inc., and dated December 2004. This study collected Automatic Traffic Counter (ATR) counts on both bridges in October 2004. The weekday daily traffic volume on the bridge was 23,620 vehicles per day (vpd). The Saturday daily traffic volume was 21,260 vpd. The unadjusted 2004 peak hour traffic volumes are shown in Table 5.

**Table 5 – Unadjusted Peak Hour Volumes, Mount Hope Bridge**

Time Period	Traffic Volume (vph)	
	NB*	SB*
Weekday AM Peak Hour	1,099	566
Weekday PM Peak Hour	1,039	1,126
Saturday Midday Peak Hour	974	706

\*NB = northbound, SB = southbound

As with the Newport Bridge traffic volumes, the traffic volumes for the Mount Hope Bridge were adjusted using the RIDOT seasonal factors to reflect average month and peak month conditions. The adjusted peak hour volumes are given in Table 6.

**Table 6 – Adjusted Peak Hour Volumes, Mount Hope Bridge**

Time Period	Traffic Volume (vph)			
	Average Month		Peak Month	
	NB*	SB*	NB*	SB*
Weekday AM Peak Hour	1,097	565	1,208	622
Weekday PM Peak Hour	1,037	1,124	1,142	1,237
Saturday Midday Peak Hour	973	704	1,071	775

\*NB = northbound, SB = southbound

North of Sandy Point, LNG tankers must restrict their speed to 5 knots, or 5.75 mph. Based on this speed, the lengths of time necessary for the bridge to be clear of the safety zone, thus allowing traffic to proceed over the bridge, were calculated as follows:

Leading edge of 2-mile safety zone	20 min, 52 sec
Vessel transit under bridge	1 min, 54 sec
Trailing edge of 1-mile safety zone	10 min, 26 sec
Total closure time	33 min, 12 sec

Using these times and the traffic volumes given in Table 6, the queues under average and peak month conditions were calculated. In Portsmouth, the worst queues would occur during a weekday AM peak hour. In the northbound direction, it is assumed that travel on the bridge would be restricted in the vicinity of the intersection of Route 114 and Boyd's Lane. This location was chosen due to the Federal requirement that there be no activity within 1,000 yards on either side of the LNG tanker as it moves into and out of port. During an average month, the northbound queues would extend approximately 1.44 miles in each lane. The northbound average month queue on Route 114 would end approximately 300 feet north of Willow Lane. A queue would also extend south approximately 500 feet on Turnpike Road from the intersection of Route 114. On Boyd's Lane, which becomes Route 138 in Portsmouth, the northbound queue would extend from the intersection of Boyd's Lane and Route 114 to just south of Oliviera Way in Portsmouth. During peak month conditions, the longest queues

in the northbound direction would extend approximately 1.59 miles in each lane. The peak month queue on Route 114 in Portsmouth would extend from the intersection of Boyd’s Lane to approximately 200 feet south of Willow Lane. At the intersection of Route 114 and Sprague Street, the queuing would continue south on Turnpike Avenue to the on ramp to Route 24 North. On Boyd’s Lane, which becomes Route 138 in Portsmouth, the northbound queue would extend from the intersection of Boyd’s Lane and Route 114 to just south of Sprague Street in Portsmouth.

In the southbound direction, the worst queues would occur on a weekday PM peak hour. It is assumed that traffic would be restricted just north of the end of the bridge. Under average month conditions, the southbound queue on Route 114 in Bristol would extend to Summer Street, while the southbound queue on Metacom Avenue (Route 136) would extend midway between Mount Hope Avenue and Woodlawn Avenue. Under the peak month conditions, the southbound queue on Route 114 in Bristol would extend north of Pleasant Street, and the southbound queue on Metacom Avenue (Route 136) would extend approximately 1,200 feet north of Woodlawn Avenue. It should be noted that queuing on the main roads could induce traffic to use other routes to “cut-through” and avoid the congested routes. One such route in Bristol could include Ferry Road from Route 114. However, this route reconnects to Route 114. Wood Street, which intersects Route 114, could also experience queuing if motorists use it as an alternate route to either Route 114 or Route 136. In these instances further congestion is created as the “cut-through” intersects with the main road.

The queues at the Mount Hope Bridge under average month and peak month conditions are summarized in Table 7. The longest average month and peak month queues in each direction are illustrated in Figure 3.

**Table 7 – Queue Lengths, Mount Hope Bridge**

Time Period	Queue Length per lane(miles)*			
	Average Month		Peak Month	
	NB**	SB**	NB**	SB**
Weekday AM Peak Hour	2.88	1.48	3.17	1.59
Weekday PM Peak Hour	2.72	2.95	2.99	3.24
Saturday Midday Peak Hour	2.55	1.85	2.81	2.03

Notes: \*In Figure 3, it is assumed that this total queue length would be split over multiple routes.

\*\*NB = northbound, SB = southbound

The delays to traffic while the Mount Hope Bridge is closed were calculated using the same method that was used to calculate the delays at the Newport Bridge. The times for the queues to dissipate are given in Table 8.

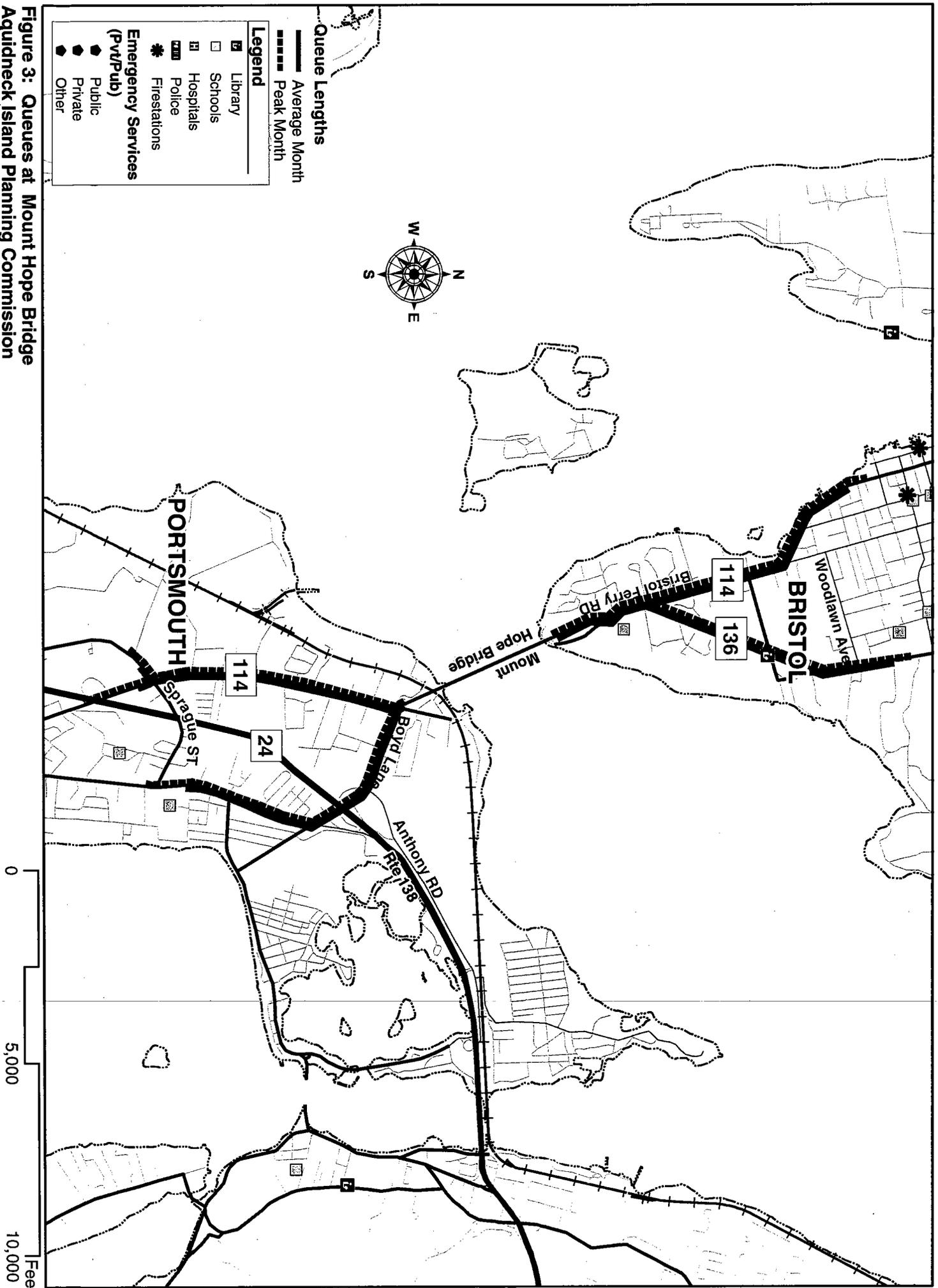


Figure 3: Queues at Mount Hope Bridge  
Aquidneck Island Planning Commission

**Table 8 – Delays Related to Closure, Mount Hope Bridge**

Time Period	Time (min:sec)							
	Average Month				Peak Month			
	NB*		SB*		NB*		SB*	
	Q**	Total <sup>^</sup>	Q**	Total <sup>^</sup>	Q**	Total <sup>^</sup>	Q**	Total <sup>^</sup>
Weekday AM Peak Hour	12:15	45:27	7:22	46:34	13:18	46:30	7:36	40:48
Weekday PM Peak Hour	11:40	44:52	12:48	46:00	12:39	45:51	13:35	46:47
Saturday Midday Peak Hour	11:03	44:15	8:31	41:43	12:00	45:12	9:10	42:22

Notes: \*NB = northbound, SB = southbound  
 \*\*Q = time for queue to dissipate and traffic to return to "normal"  
<sup>^</sup>Total delay = time while bridge is closed + time for queue to dissipate

Based on the calculation in Table 8, the total time before traffic flow returns to its "normal" state could be as long as 46 minutes and 30 seconds in the northbound direction from Portsmouth and as long as 46 minutes and 47 seconds in the southbound direction from Bristol.

**EMERGENCY ACCESS**

Figures 4 and 5 show the locations of emergency response and municipal facilities near both the Newport and Mount Hope Bridges, respectively. Based on the above calculated queue lengths, emergency access, particularly to Newport Hospital could be severely impacted. Access to and from any and all of the emergency response and municipal facilities could be severely restricted by queues on the bridges' approaches. Lights and sirens will not aid an emergency vehicle in moving through the queues because vehicles in the queue are stopped and have no space to move out of the way.

Access to Newport Hospital could be particularly critical, especially for any residents of Jamestown or emergencies traveling eastbound. With the Newport Bridge closed, the nearest hospital is South County Hospital located in South Kingstown. From the toll plaza on Jamestown Island, it is approximately 3.5 miles to Newport Hospital using the Pell Bridge. Using an average travel speed of 35 mph, this trip would take approximately 6 minutes. If the Newport Bridge were closed, emergency vehicles would have to travel across the Jamestown Bridge to South County Hospital, which is 14.5 miles from the toll plaza. Presuming an average travel speed of 45 mph by an emergency vehicle, this trip would take approximately 20 minutes, an additional 14 minutes that could mean the difference to a patient's health and safety.

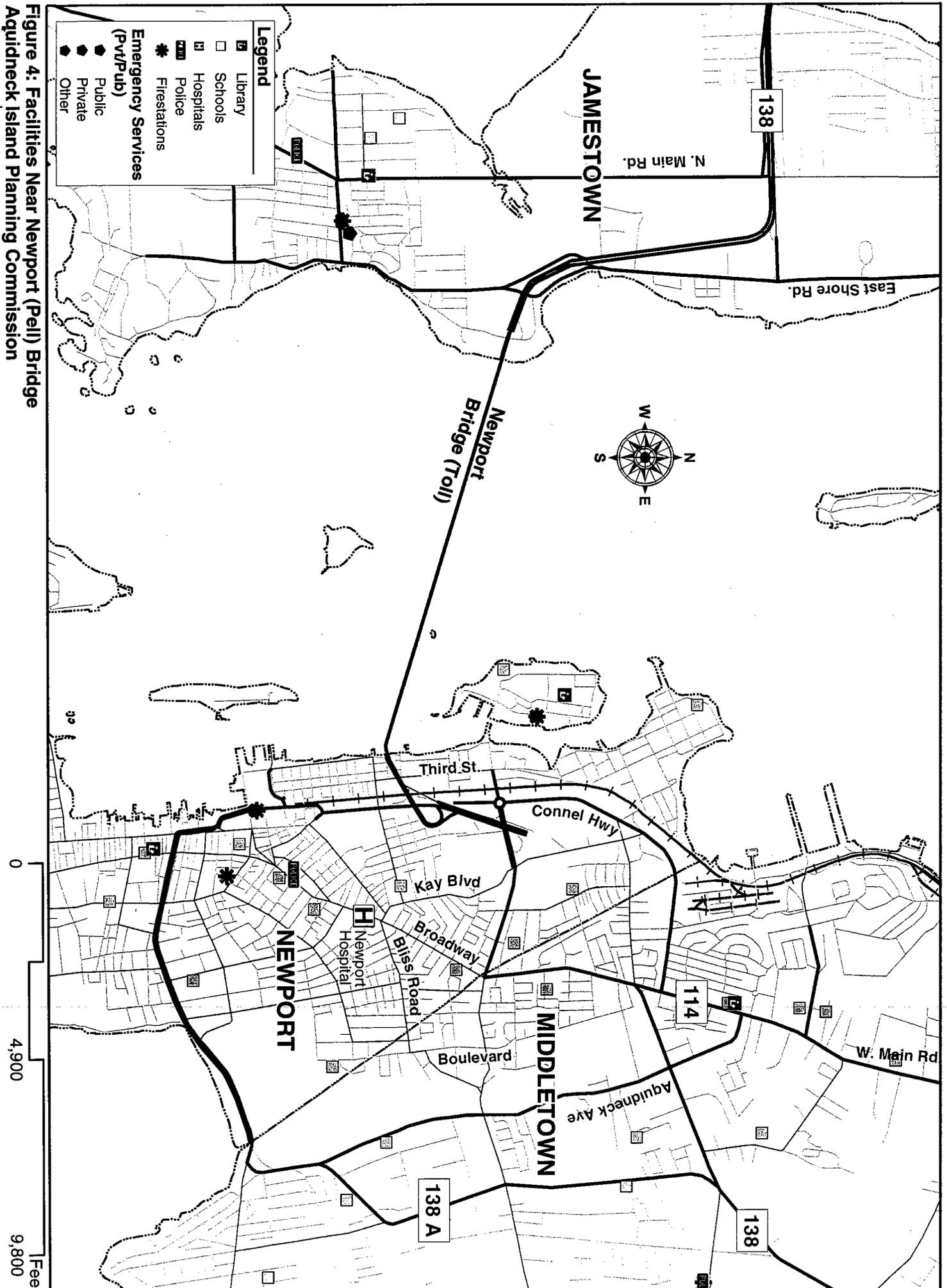


Figure 4: Facilities Near Newport (Pell) Bridge  
Aquidneck Island Planning Commission



Access to Newport Hospital by other communities to the north including Portsmouth, Middletown and especially Bristol would be affected by the queuing and delays. Access to the hospital from Downtown Newport could also be restricted, since the queues in peak months extend into the Downtown area. Access by police and fire personnel to the north side of Newport would be severely impacted by the queuing approaching the ramps to the Newport Bridge westbound. Farewell Street is the primary access for emergency responders; the possible alternate route from the stations includes Admiral Kalbfus Road, which would also have significant queuing. The ability of emergency personnel to respond in a timely fashion could be significantly compromised by the bridge closure. Further, the westbound bridge closure could also impact the ability of Newport Hospital to transfer critically ill or injured patients to other hospitals, including South County Hospital, Rhode Island Hospital, and other hospitals in Providence.

Although there is no hospital near either end of the Mount Hope Bridge to and from which access would be impacted as there is near the Newport Bridge, emergency services and emergency access could be profoundly affected there as well. The Bristol and Portsmouth Fire Departments have an agreement by which each routinely responds to calls in both towns. The ability of the Bristol Fire Department to respond to an incident in Portsmouth would be severely impacted by the closure of the Mount Hope Bridge, as would Portsmouth Fire Department's ability to respond to an incident in Bristol.

The Bristol Fire Department also routinely transports patients to Newport Hospital, which would be impossible while the bridge is closed. In addition, the emergency care of students at Roger Williams College would be severely impacted, since the student medical insurance plan requires that students be transported to Newport Hospital in order to receive insurance coverage.

## **CONCLUSIONS**

The closures of the Newport and Mount Hope Bridges could have severe impacts to the communities on either end of both bridges as well as other surrounding communities. The closures' impacts will be acutely felt by emergency responders as well as local residents and tourists.

At the Newport Bridge, the total delay before traffic returns to its "normal" state could be as long as 25 minutes in the eastbound direction, including stopped time and time for the queues to dissipate. In the westbound direction at the Newport Bridge, the total delay time could be comparable at nearly 26 minutes. The closures may have a profound impact on access to Newport Hospital, particularly by residents of Jamestown and those traveling eastbound, whose nearest hospital would then be South County Hospital, 14.5 miles away. The closure could also have a significantly detrimental impact on the ability of emergency personnel to respond to an incident in the northern portion of Newport.

The longer duration of closure necessary at the Mount Hope Bridge coupled with the one-lane approach roads on either side could mean that the impacts of the closure will be more acutely felt in the towns of Bristol and Portsmouth. During an average month, the total delay to vehicles approaching the Mount Hope Bridge from either direction could be nearly 47 minutes, including stopped time and time for traffic to return to "normal" flow conditions. The ability of the Bristol and Portsmouth Fire Departments to respond to incidents would be severely impacted by the closure since emergency responders would not be allowed passage over the bridge. Once the bridge re-opened, approximately 33 minutes after the initial closure, an emergency vehicle could bypass the queues using its lights and sirens. Access to hospitals would be even more severely impacted, particularly for Bristol, which uses the Mount Hope Bridge for access to Newport Hospital as well as for faster access to St. Anne's Hospital in Fall River, MA.

# APPENDIX

Safety Zone - 2 miles ahead, 1 mile behind, 1,000 yards both sides per 33 CFR 165.121

Transit under bridge – Newport/Pell Bridge

Vessel Speed = 10 knots ≈ 11.5 mi/hr

2 mi / 11.5 mph = 0.174 hr = 10.4 min = 10 min 26 sec

→ Bridge closed 10 minutes prior to vessel transit under bridge

Newport/Pell Bridge width = ~ 55 ft

LNG tanker length = 930 ft

Time for stern of boat to clear bridge

$$(930+55) = 985 \text{ ft} \times \frac{1 \text{ mi}}{5280 \text{ ft}} = 0.187 \text{ mi} \times \frac{\text{hr}}{11.5 \text{ mi}} = 0.0162 \text{ hr} = 0.973 \text{ min} = 58 \text{ sec}$$

Time for boat to move 1 mile away

$$1 \text{ mi} / 11.5 \text{ mph} = 0.087 \text{ hr} = 5.22 \text{ min} = 5 \text{ min } 13 \text{ sec}$$

TOTAL TIME FOR BRIDGE TO BE CLEAR OF SAFETY ZONE

10 min	26 sec
	58 sec
<u>5 min</u>	<u>13 sec</u>
16 min	37 sec

Transit under Mount Hope Bridge

Vessel Speed = 5 knots ≈ 5.75mph

2 mi / 5.75 mph = 0.348 hr = 20.87 min = 20 min 52 sec

→ Bridge closed 21 minutes prior to vessel transit under bridge

Mount Hope Bridge width ≈ 30 ft

LNG tanker length = 930 ft

Time for stern of boat to clear bridge

$$(930+30) = 960 \text{ ft} \times \frac{1 \text{ mi}}{5280 \text{ ft}} = 0.182 \text{ mi} \times \frac{\text{hr}}{5.75 \text{ mi}} = 0.0316 \text{ hr} = 1.897 \text{ min} = 1 \text{ min } 54 \text{ sec}$$

Time for boat to move 1 mile away

$$1 \text{ mi} / 5.75 \text{ mph} = 0.174 \text{ hr} = 10.43 \text{ min} = 10 \text{ min } 26 \text{ sec}$$

TOTAL TIME FOR BRIDGE TO BE CLEAR OF SAFETY ZONE

20 min	52 sec
1 min	54 sec
<u>10 min</u>	<u>26 sec</u>
33 min	12 sec





BY KP DATE 8/11/05CHKD BY \_\_\_\_\_ DATE \_\_\_\_\_ CW1451 - LNG STUDYSUBJECT QUEUE LENGTH - NEWPORT BRIDGE CLOSURESHEET NO 4 OF 8PROJECT CW1451AVERAGE MONTH QUEUESAM Peak

EB 1601/3600 = 0.445 veh/sec

WB 1024/3600 = 0.284 veh/sec

EB queue = 997sec (0.445 veh/sec) = 444 veh = 11,100 ft = 2.10 mi

WB queue = 997 (0.284) = 283 veh = 7,075 ft = 1.34 mi

PM Peak

EB 1058/3600 = 0.294 veh/sec

WB 1726/3600 = 0.479 veh/sec

EB queue = 997 (0.294) = 293 veh = 7,325 ft = 1.36 mi

WB queue = 997 (0.479) = 478 veh = 11,950 ft = 2.26 mi

Sat Peak

EB 1093/3600 = 0.304 veh/sec

WB 858/3600 = 0.238 veh/sec

EB queue = 997 (0.304) = 303 veh = 7,575 ft = 1.43 mi

WB queue = 997 (0.238) = 238 veh = 5,950 ft = 1.13 mi

LOUIS BERGER GROUP

BY KP DATE 8/11/05

SHEET NO 5 OF 8

CHKD BY DATE CW1451 - LNG STUDY

PROJECT CW1451

SUBJECT QUEUE LENGTH - MOUNT HOPE BRIDGE CLOSURE

MOUNT HOPE BRIDGE - OCTOBER 2004 VOLUMES

AWDT 23,620vpd AM Peak 1,665 vph 66% NB K=7.0%  
 PM Peak 2,165 vph 53% SB K=9.2%

Sat ADT 21,260 vpd Sat Peak 1,680 vph 58% NB K=8.0%

ADJUST ABOVE VOLUMES TO PEAK MONTH (SEPT.) USING RIDOT FACTORS

Peak ADT (weekday) = 25,954 vpd

Peak ADT (Saturday) = 23,361 vpd

AM Peak  $\left[ \frac{1,665 \text{ vph}}{1.002} \right] 1.101 = 1,830 \text{ vph}$  1,208 vph NB  
 622 vph SB

PM Peak  $\left[ \frac{2,165}{1.002} \right] 1.101 = 2,379 \text{ vph}$  1,142 vph NB  
 1,237 vph SB

Sat. Peak  $\left[ \frac{1,680}{1.02} \right] 1.101 = 1,846 \text{ vph}$  1,071 vph NB  
 775 vph SB

Worst - Case Scenario NB 1,208 vph AM Peak  
 SB 1,237 vph PM Peak

PEAK MONTH QUEUES - MT. HOPE BRIDGE Closing Time = 1,992 sec

AM Peak

NB 1208/3600 = 0.336 veh/sec

SB 622/3600 = 0.173 veh/sec

NB queue = 1992 sec (0.336 veh/sec) = 669 veh = 16,725 ft = 3.17 mi

SB queue = 1992 (0.173) = 335 veh = 8,375 ft = 1.59 mi

PM Peak

NB 1142/3600 = 0.317 veh/sec

SB 1237/3600 = 0.344 veh/sec

NB queue = 1992 (0.317) = 631 veh = 15,725 ft = 2.99 mi

SB queue = 1992 (0.344) = 685 veh = 17,125 ft = 3.24 mi

LOUIS BERGER GROUP

BY KP DATE 8/11/05

SHEET NO 6 OF 8

CHKD BY DATE CW1451 - LNG STUDY

PROJECT CW1451

SUBJECT QUEUE LENGTH - MOUNT HOPE BRIDGE CLOSURE

Sat Peak

NB 1071/3600 = 0.298 veh/sec

SB 775/3600 = 0.215 veh/sec

NB queue = 1992 (0.298) = 594 veh = 14,850 ft = 2.81 mi

SB queue = 1992 (0.215) = 428 veh = 10,700 ft = 2.03 mi

AVERAGE MONTH VOLUMES - MT. HOPE BRIDGE

AM Peak

$\frac{1665}{1.002} = 1,662$  vph

1,097 vph NB

565 vph SB

PM Peak

$\frac{2165}{1.002} = 2,161$  vph

1,037 vph NB

1,124 vph SB

Sat. Peak

$\frac{1680}{1.002} = 1,677$  vph

973 vph NB

704 vph SB

AVERAGE MONTH QUEUES - MT. HOPE BRIDGE Closing time = 1992 sec

AM Peak

NB 1097/3600 = 0.305(1992) = 608 veh = 15,200 ft = 2.88 mi

SB 565/3600 = 0.157(1992) = 313 veh = 7,825 ft = 1.48 mi

PM Peak

NB 1037/3600 = 0.288(1992) = 574 veh = 14,350 ft = 2.72 mi

SB 1124/3600 = 0.312(1992) = 622 veh = 15,550 ft = 2.95 mi

Sat. Peak

NB 973/3600 = 0.270(1992) = 538 veh = 13,450 ft = 2.55 mi

SB 704/3600 = 0.196(1992) = 390 veh = 9,450 ft = 1.85 mi

BY KP DATE 8/11/05

SHEET NO 7 OF 8

CHKD BY DATE CW1451 - LNG STUDY

PROJECT CW1451

SUBJECT TIMES FOR QUEUES TO DISSIPATEGreenshields Equation:  $T = 0.68 + 2.05(n)$ 

Where n = number of vehicles and T = time in seconds

NEWPORT BRIDGEPeak MonthAM Peak

EB  $T = 0.68 + 2.05 (489/2) = 502 \text{ sec} = 8.37 \text{ min} = 8 \text{ min } 22 \text{ sec}$

WB  $T = 0.98 + 2.05 (312/2) = 320 \text{ sec} = 5.34 \text{ min} = 5 \text{ min } 20 \text{ sec}$

PM Peak

EB  $T = 0.68 + 2.05 (323/2) = 332 \text{ sec} = 5.53 \text{ min} = 5 \text{ min } 32 \text{ sec}$

WB  $T = 0.68 + 2.05 (526/2) = 540 \text{ sec} = 9.0 \text{ min} = 9 \text{ min } 0 \text{ sec}$

Sat. Peak

EB  $T = 0.68 + 2.05 (333/2) = 342 \text{ sec} = 5.7 \text{ min} = 5 \text{ min } 42 \text{ sec}$

WB  $T = 0.68 + 2.05 (262/2) = 269 \text{ sec} = 4.49 \text{ min} = 4 \text{ min } 29 \text{ sec}$

Average MonthAM Peak

EB  $T = 0.68 + 2.05 (444/2) = 456 \text{ sec} = 7.60 \text{ min} = 7 \text{ min } 36 \text{ sec}$

WB  $T = 0.68 + 2.05 (283/2) = 291 \text{ sec} = 4.85 \text{ min} = 4 \text{ min } 51 \text{ sec}$

PM Peak

EB  $T = 0.68 + 2.05 (293/2) = 301 \text{ sec} = 5.02 \text{ min} = 5 \text{ min } 1 \text{ sec}$

WB  $T = 0.68 + 2.05 (478/2) = 491 \text{ sec} = 8.18 \text{ min} = 8 \text{ min } 11 \text{ sec}$

Sat. Peak

EB  $T = 0.68 + 2.05 (303/2) = 311 \text{ sec} = 5.18 \text{ min} = 5 \text{ min } 11 \text{ sec}$

WB  $T = 0.68 + 2.05 (238/2) = 245 \text{ sec} = 4.08 \text{ min} = 4 \text{ min } 5 \text{ sec}$

BY KP DATE 8/11/05

SHEET NO 8 OF 8

CHKD BY DATE CW1451 - LNG STUDY

PROJECT CW1451

SUBJECT TIMES FOR QUEUES TO DISSIPATEMOUNT HOPE BRIDGE

In Greenshield's Equation:

$$n = \frac{Q - 108}{2} + 108^*$$

Peak MonthAM Peak

$$\text{NB T} = 0.68 + 2.05(389) = 798 \text{ sec} = 13.3 \text{ min} = 13 \text{ min } 18 \text{ sec}$$

$$\text{SB T} = 0.68 + 2.05(222) = 456 \text{ sec} = 7.6 \text{ min} = 7 \text{ min } 36 \text{ sec}$$

PM Peak

$$\text{NB T} = 0.68 + 2.05(370) = 759 \text{ sec} = 12.65 \text{ min} = 12 \text{ min } 39 \text{ sec}$$

$$\text{SB T} = 0.68 + 2.05(397) = 815 \text{ sec} = 13.58 \text{ min} = 13 \text{ min } 35 \text{ sec}$$

Sat. Peak

$$\text{NB T} = 0.68 + 2.05(351) = 720 \text{ sec} = 120 \text{ min} = 12 \text{ min } 0 \text{ sec}$$

$$\text{SB T} = 0.68 + 2.05(268) = 550 \text{ sec} = 9.17 \text{ min} = 9 \text{ min } 10 \text{ sec}$$

AVERAGE MONTHAM Peak

$$\text{NB T} = 0.68 + 2.05(358) = 735 \text{ sec} = 12.25 \text{ min} = 12 \text{ min } 15 \text{ sec}$$

$$\text{SB T} = 0.68 + 2.05(211) = 433 \text{ sec} = 7.22 \text{ min} = 7 \text{ min } 13 \text{ sec}$$

PM Peak

$$\text{NB T} = 0.68 + 2.05(341) = 700 \text{ sec} = 11.67 \text{ min} = 11 \text{ min } 40 \text{ sec}$$

$$\text{SB T} = 0.68 + 2.05(365) = 749 \text{ sec} = 12.48 \text{ min} = 12 \text{ min } 29 \text{ sec}$$

Sat. Peak

$$\text{NB T} = 0.68 + 2.05(323) = 663 \text{ sec} = 11.05 \text{ min} = 11 \text{ min } 3 \text{ sec}$$

$$\text{SB T} = 0.68 + 2.05(249) = 511 \text{ sec} = 8.52 \text{ min} = 8 \text{ min } 31 \text{ sec}$$

\*Note: The first ~2700 ft (108 vehicles) is one lane, after which the queue splits to two routes.

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

	)	
WEAVER'S COVE ENERGY, LLC	)	Docket #CP04-36-000
	)	
MILL RIVER PIPELINE, LLC	)	Docket # CP04-41-000
	)	CP04-42-000
	)	CP04-43-000
	)	
	)	

**AFFIDAVIT OF JAMES R. BRYER, Jr.**

I, James R. Bryer, Jr. state on personal knowledge:

- 1) I am the Fire Chief for the Town of Jamestown, Rhode Island. I have been involved in providing firefighting and emergency services for 29 years.
- 2) If the proposed Weaver's Cove liquefied natural gas ("LNG") terminal is constructed and operated in Fall River, my duties will include the protection of the public from the dangers associated with the accidental or intentional escape of LNG from tankers during their 11-mile inland transit alongside the Jamestown coastline, including attempting to extinguish or contain a pool fire, evacuating the population from the thermal radiation zone, extinguishing structures ignited by the fire, and treating the burn victims of thermal radiation exposure. Because the fire department does not have capability to extinguish an LNG pool fire, the response would primarily entail an attempt to protect both lives and structures within the blast or incineration zone, as well as providing assistance in evacuating the public in the event of an LNG leak.
- 3) The Jamestown Fire Department is a volunteer fire department, consisting of 65 volunteer firefighters and 6 trucks. Most members of the department are residents of Jamestown. Most of the firefighters themselves live within the thermal radiation or second-degree burn zone.
- 4) The town commercial and residential center, or Village, is located on the eastern side of the island just south west of the Pell Bridge. The town center runs contiguous with and is approximately 2,000 feet west of the federal shipping channel. The Fire Department, where all the fire-protection equipment and vehicles are housed, is located in the center of the Village, also within the thermal radiation zone. In the Harbor, between the Pell Bridge and the Village, is Conanicut Marina where about

commercial and recreational power and sail boats are moored, including the department's marine rescue boat. The town does not have a marine firefighting vessel. The departments rescue boat is equipped with a small portable pump capable of delivering 125 gallons per minute.

- 5) I understand that, based upon the findings of the Sandia Report and other studies, were there a breach of an LNG vessel headed north in the east passage, just south of the Pell Bridge, the entire Village of Jamestown would be in the radiation burn zone (second degree burns in less than 30 seconds) from a pool fire and, if a combustible vapor cloud forms, the buildings and structures within one mile of the tanker might ignite. This assumes that only a portion of the LNG cargo escapes, not the worst-case scenario in which the entire cargo of a tanker erupts into flames.
- 6) The greatest population density is located in the Village area, directly adjacent to the route of the LNG tankers, consisting of approximately 3,000 residents. The Village area is also the business district and, were an LNG escape to occur during the daytime or business hours, the number of business owners, residents, and tourists affected by such an incident would dramatically increase this figure. The eastern side of the Village consists of the Jamestown Recreation Center, a facility housing a gymnasium and stage for youth sports and theatre, directly across the street from the water, a large hotel, a very large condominium complex in a former bayside hotel, two bed and breakfasts, thirteen restaurants and saloons, two banks, numerous retail shops for locals and tourists (generally featuring liquor, gourmet food, art, clothing and jewelry), and the offices for the marina and a number of realtors. I would estimate that over 90 percent of the residential and business structures on the island are wooden.
- 7) I am aware that LNG is highly volatile in the event of a spill on water. I understand that according to the recent report of the Sandia National Laboratory, a "pool fire" could ignite structures and burn exposed people approximately one mile away. This would encompass the entire Village of Jamestown.
- 8) I am also aware the United States Coast Guard has deemed LNG as "high interest" cargo and accordingly, issued a regulation after September 11, 2001 that imposes a security and exclusion zone around LNG tankers that extends 2 miles ahead, one mile behind, and 1000 yards on either side of the vessel. I understand the need for the exclusion zone given the devastating consequences that would ensue in the event of an accident or deliberate attack on the vessel. The 1,000-yard safety and security exclusion zone actually contains within it, not only the entire bay between certain points of Jamestown and Newport Harbor, but also overlaps large portions of the actual community of Jamestown, which at certain points is only about six hundred feet from the tanker route in the federal channel.

Order Granting Authority Under Section 3 of the Natural Gas Act and Issuing Certificate, par. 3, July 15, 2005.

“The Coast Guard recently completed a series of project – specific security workshops with port stakeholders and federal, state, and local agencies. The workshop participants identified measures that would be necessary to manage the risks associated with LNG traffic responsibly.”

Order Granting Authority Under Section 3 of the Natural Gas Act and Issuing Certificate, par. 85, July 15, 2005.

- 12) The Commission also states in its Order that this collaboration between the Coast Guard and local authorities resulted in a safety and security plan which is adequate to protect the public:

“As a result of its recently completed security workshops, the Coast Guard has designed a robust security plan that requires significant Coast Guard, public, and private resources necessary to implement security measures.”

Order Granting Authority Under Section 3 of the Natural Gas Act and Issuing Certificate, par. 95, July 15, 2005.

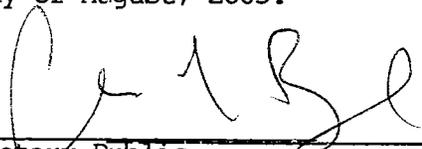
- 13) These statements imply that the Coast Guard’s security plan was developed in conjunction with local Jamestown authorities, and that Jamestown authorities support the plan. I do not believe this to be true.

Signed under the penalties of perjury this 5<sup>th</sup> day of August, 2005.

  
James R. Bryer, Jr.

State of Rhode Island  
County of Newport

Subscribed and sworn to before me in the County of Newport,  
State of Rhode Island on this 5<sup>th</sup> day of August, 2005.

  
Notary Public  
My Commission Expires 2/1/06  
**CHARLES S. BEAL, NOTARY PUBLIC**  
**MY COMMISSION EXPIRES 2/1/06**



2. I am highly familiar with the waterfront terrain along the coastline of Portsmouth. As a Detective Inspector and in my capacity as a police officer in Town of Portsmouth, I have been dispatched to address many incidents that occurred within the Town and along the coastline of the Aquidneck Island portions of Portsmouth. I was also the assigned officer to handle law enforcement issues on Prudence Island, a 3,486 acre island which lies across the east passage of Narragansett Bay. Prudence Island is contained within the township and consists of a very rural landscape where many residents live along the eastern shoreline in wooden structures in close vicinity to the federal navigation channel where liquefied natural gas (LNG) tankers would transit to the proposed LNG terminal in Fall River, Massachusetts. The estimated average distance between Prudence Island and Portsmouth is approximately 7,700 feet with the shortest distance being 6,500 feet. In my capacity as the assigned officer, I was responsible for answering calls to reported suspicious activity or loud noises coming from remote wooded areas located along the Portsmouth Abbey shoreline and marina area. Lastly, I have been a recreational boater for 30 years and I have spent considerable time out in Narragansett Bay, Mt. Hope Bay, and the areas along the coastline of Portsmouth.
3. As a member of the Portsmouth Town Council and due to my recent retirement from the Police Department, I have had a number of discussions with the Chief of the Department about the Town's ability to effectively secure waterfront areas along the LNG tanker route in order to prevent a successful attack on a LNG vessel. The Chief of Police has authorized me to present the Department's concerns on behalf of the Town, and accordingly, I am sponsoring this affidavit.
4. The southern-most peninsula of Prudence Island is undeveloped and highly wooded. It formally served as a ammunition depot for the United States Navy, but the location was abandoned due to strategic concerns about the lack of access to the depot in the event that the federal channel might become inaccessible as a result of an attack on the Newport Bridge or as a result of some other imposed obstructions along the narrow portions of the federal channel that lie to the south in the vicinity of Newport Harbor. In the early 1970s, this area was proposed as a location for a LNG receiving terminal, but the location was rejected by the Federal Power Commission. Today that local is designated by NOAA as a habitat restoration area and is currently managed by the Rhode Island Department of Environmental Management. It contains dense woods all the way to the shoreline for a length of approximately 1.36 miles and is adjacent to the federal channel.
5. I am aware that LNG is highly volatile in the event of a spill on water. I understand that according to the recent report of the Sandia National Laboratory, a "pool fire" could ignite structures and burn exposed people approximately one mile away. I am also aware the United States Coast Guard has deemed LNG as "high interest" cargo and accordingly, issued a regulation after September 11, 2001 that imposes a security and exclusion zone around LNG tankers that extends for two miles ahead of the tankers and one mile behind, and 1000 yards on either

side of the vessel. I understand the need for the exclusion zone given the devastating consequences that would ensue in the event of an accident or deliberate attack on the vessel. It is also quite clear to me that the scope of the exclusion zones would require similar protections on land, in particular those land areas that lie in close proximity to the federal channel. One such area is the eastern coastline of Prudence Island, where it would be difficult, if not impossible, to adequately secure the area to prevent a determined individual from mounting an attack on a LNG tanker using weapons that are described in the report that Richard Clarke submitted to Rhode Island Attorney General Patrick Lynch. At a minimum, Portsmouth would need numerous detectives to secure this remote area of coastline and even then, the Police Department would still not be confident that such security would prevent a well-planned attack. For example, there are numerous abandoned bunkers that could be used to hide weapons in preparation for an attack. Additionally, there are an infinite number of locations where an individual or individuals could hide out along the rocky coastline and/or thick woods. As a result, the ability of law enforcement officials to adequately secure the area is far from manageable, and indeed, practically impossible. Some of the bunkers are just a short walk to the beach line.

6. Along the Aquidneck Island portions of Portsmouth, the coastline is equally as challenging in terms of the Police Department's ability to secure and prevent an individual from mounting an attack on a LNG vessel. The coastline northward from the Middletown line to the Mount Hope Bridge is approximately 6.15 miles. Part of the coastline is rather wooded and overgrown and it too would offer countless hiding locations for an individual intent on launching an attack. In addition, we have determined that close monitoring of boat ramps would be necessary. The number of total personnel that would be needed in order to mitigate opportunities for an attack probably would exceed two dozen. However, despite this commitment of resources, there would remain a significant doubt that a well-planned attack could be prevented.
7. The north part of Aquidneck Island which comprises the Town of Portsmouth is connected to the mainland by the Mount Hope Bridge. This bridge consists of only two lanes, and I would suspect that both the State Police and the Rhode Island Bridge and Turnpike Authority would require the bridge to be closed for any transit of LNG tankers passing underneath it. It would be the Department's expectation (and certainly our recommendation) that no vehicles be allowed on the bridge while the tanker is within the range of one mile, since a mounted attack from the bridge would provide one of the best attack opportunities for a determined terrorist. Moreover, an attacker would be capable of obtaining a greater range for firing a rocket grenade launcher or other weapon due to the contributing effects of gravity. In this context, I am stunned that the Final Environmental Impact Statement would conclude that bridge closures are not necessary, particularly as they relate to the Mount Hope Bridge. I inquired of the Portsmouth Police Chief whether the Department ever recommended to FERC staff or the Coast Guard that bridge closures would not be a necessary security

protocol. He confirmed that neither the Police Department nor any Town official recommended or suggested that the Mount Hope Bridge not be closed as LNG tankers passed beneath.

8. I also have substantial experience with traffic control issues associated with the Mount Hope Bridge, a narrow, two lane bridge, opened in 1929. Having attended to many accidents and other issues over the years, the impacts of bridge closures are bound to create an enormous amount of traffic congestion. For example, if the bridge is closed even for one or two minutes, the immediate back-up of other vehicles typically causes motorists to attempt U-turns in an effort to abort an attempted passage over the bridge. This typically leads to other accidents that, in turn, create additional traffic congestion. I understand that the LNG vessels will slow down to a speed of approximately 5 knots (6 miles per hour) while passing under the bridge. Assuming that the bridge is closed before the vessel approaches within one mile of it, and likewise assuming that the bridge remains closed until after the vessel reaches a distance of one mile after passing underneath it, that would require that the bridge remain closed for approximately twenty (20) minutes ( $2 \text{ miles} \div 6 \text{ mph} = 1/3 \text{ hour}$  or 20 minutes). A bridge closure of 20 minutes or more would cause major traffic backups on all other major roads; Route 24 would be backed up to Tiverton, East Main Road would be backed up to Quaker Hill, and Turnpike Avenue would be backed up to Rte. 114. This would in essence cause a serious "grid lock" situation, resulting in an increase of response time for our police and fire personnel. East and West Main Roads were designed about fifty years ago to handle a traffic load of approximately 6,000 vehicles per day. This type of delay would cause absolute chaos given the consistently high volume of traffic over the bridge. Even if effective security were added to shorten the length of the bridge closure to perhaps 10 minutes, the resulting traffic congestion would continue to border on chaos, particularly given that Roger Williams University and its population of approximately 3,500 students is situated on the other side of the bridge. Many students reside in Portsmouth and frequently pass back and forth across the bridge via a shuttle in order to attend classes.
9. I am aware that ambulances and/or rescue vehicles pass across the bridges when bringing patients from Bristol and/or Jamestown to Newport. Bridge closures are bound to compromise patient care where in many instances the delay of even minutes can mean the difference between life and death.
10. In the event that there was ever an accident or attack on an LNG vessel, there would be serious emergency response concerns that affect the Town of Portsmouth. For instance, Prudence Island relies upon the Portsmouth Fire Department to transport patients from Prudence Island who may have life threatening injuries or illnesses and would effectively be separated from the mainland if a tanker mishap occurred in the federal channel. This should also be a concern while the tanker is entering or exiting the bay. With boating traffic

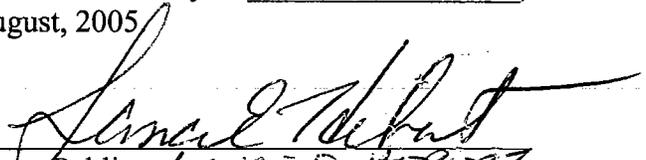
stopped, a person suffering a life threatening illness would not be able to removed from the island.

11. On the Aquidneck Island portion of the Town, Portsmouth Abbey, a private school for 9<sup>th</sup> -12<sup>th</sup> graders with a student population of approximately 340 students, lies on the Portsmouth waterfront, as does the Carnegie Abbey golf course. A new exclusive marina and housing development is also proposed for this waterfront area. These areas lie within the projected thermal radiation zone that would be created by an attack on a LNG tanker.
  
12. Hog Island is another island within the Township of Portsmouth. It is a private island that is situated directly adjacent to the federal channel before the Mount Hope Bridge. This island is a summer residence community. During the winter months, there are few, if any, people on the island. This island would require additional security due to its remoteness and the fact that it is very wooded and unsecured. It would be extremely difficult to provide the necessary security particularly during the winter months due to ice formation and inclement weather. The Town's police boat is not in the water during the winter and due to harsh weather conditions, it would be logistically difficult, if not impossible, to secure this area every time a tanker transits up the federal channel. No vessel carrying substantial amounts of high interest cargo should pass through these waters without providing real security along these shorelines so that opportunities for launching an attack are minimized. The resources necessary to secure Hog Island would be incremental to those discussed above. Even with those resources in place, there would remain a serious risk that a well-planned attack would be successful.

  
Dennis Canario

State of Rhode Island  
County of Newport

Subscribed and sworn to before me in the County of Newport,  
State of Rhode Island on this 5 day of August, 2005

  
Notary Public LANCE E. HEBERT  
My Commission Expires on: 7/3/2009

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

	)	
WEAVER'S COVE ENERGY, LLC	)	<b>Docket #CP04-36-000</b>
	)	
MILL RIVER PIPELINE, LLC	)	<b>Docket # CP04-41-000</b>
	)	<b>CP04-42-000</b>
	)	<b>CP04-43-000</b>
	)	
	)	

**AFFIDAVIT OF CLEMENT NAPOLITANO**

I, Clement Napolitano, state on personal knowledge:

- 1) I am the Director of EMS for Jamestown Emergency Medical Services. I have been involved in providing emergency services as an EMT for twenty-five years.
- 2) If the Weaver's Cove liquefied natural gas ("LNG") terminal, proposed by Hess LNG, is constructed and operated in Fall River, my duties will include the provision of emergency medical services to the public in the event of an accidental or intentional spill of LNG from tankers during their 11-mile inland transit alongside the Jamestown coastline, including the treatment of burn victims in the thermal radiation zone.
- 3) Jamestown Emergency Medical Services (JEMS) is a volunteer organization. JEMS consists of sixty-four part-time volunteers. JEMS has two ambulances, and has the ability to transport a maximum of four people, two in each of our two ambulances, to the hospital. The majority of the volunteers for the organization are residents of Jamestown. JEMS is a BLS system, basic life support. JEMS medics are not capable of providing advanced life support.
- 4) The town commercial and residential center, or Village, is located on the eastern side of the island just south west of the Pell Bridge. The town center runs contiguous with and is approximately 2,000 feet west of the federal shipping channel.
- 5) I understand that, based upon the findings of the Sandia Report and other studies, were there a breach of an LNG vessel headed north in the east passage, just south of the Pell Bridge, the entire Village of Jamestown would be in the radiation burn zone (second degree burns in less than 30

seconds) from a pool fire and, if a combustible vapor cloud forms, the buildings and structures within one mile of the tanker might ignite. This assumes that only a portion of the LNG cargo escapes, not the worst-case scenario in which the entire cargo of a tanker erupts into flames.

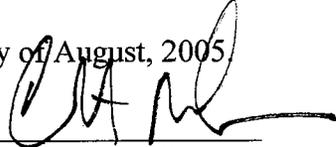
- 6) The Ambulance Building is located within 250 yards of the East Passage. It is located in the center of the Village and is also within the thermal radiation zone.
- 7) The greatest population density is located in the Village area, directly adjacent to the route of the LNG tankers, consisting of approximately 3,000 residents. The Village area is also the business district and, were an LNG escape to occur during the daytime or business hours, the number of business owners, residents, and tourists affected by such an incident would dramatically increase this figure. The eastern side of the Village consists of the Jamestown Recreation Center, a facility housing a gymnasium and stage used for youth sports and theatre, directly across the street from the water, a large hotel, a very large condominium complex in a former bayside hotel, two bed and breakfasts, thirteen restaurants and saloons, two banks, numerous retail shops for locals and tourists, and a number of offices where such businesses as the marina and a number of realtors are located.
- 8) I am aware that LNG is highly volatile in the event of a spill on water. I understand that according to the recent report of the Sandia National Laboratory, a "pool fire" could ignite structures and burn exposed people approximately one mile away. This would encompass the entire Village of Jamestown.
- 9) I am also aware the United States Coast Guard has deemed LNG as "high interest" cargo and accordingly, issued a regulation after September 11, 2001 that imposes a security and exclusion zone around LNG tankers that extends 2 miles ahead, one mile behind, and 1000 yards on either side of the vessel. I understand the need for the exclusion zone given the devastating consequences that would ensue in the event of an accident or deliberate attack on the vessel. The 1,000-yard safety and security exclusion zone actually contains within it, not only the entire bay between certain points of Jamestown and Newport Harbor, but also overlaps large portions of the actual community of Jamestown, which at certain points is only about six hundred feet from the tanker route in the federal channel.
- 10) I also understand from LNG experts that, were the entire cargo to erupt into flames, the damage and destruction would increase substantially in magnitude, inasmuch as a fire resulting from the catastrophic loss of the entire ship's cargo could be more than a mile wide, with flames so hot that people up to two miles away would experience second-degree burns

within seconds and buildings and people closer to the fire would be incinerated.

11) Under either scenario, JEMS could not adequately cope with the consequences of such an event. Most of the volunteers themselves live within the thermal radiation or second-degree burn zone and would require emergency medical treatment for burns. JEMS may also lose its transport and treating equipment, because the Ambulance Barn is located within the flammability zone. Assuming, however, that some medical workers were not incapacitated by exposure to the thermal radiation, these volunteers would be limited to maintaining basic life support and transporting two victims at a time to the hospital. Further, if the Pell Bridge were destroyed or otherwise closed due to such an accident or deliberate attack on an LNG tanker, rescue workers would be precluded from transporting the victims over the Pell Bridge to the closest hospital, the Newport Hospital, which is the usual destination for emergency medical treatment of Jamestown residents. Emergency responders from western communities, responding as mutual aid, would be required to transport victims over the remaining bridge to either South County or Rhode Island Hospital, both of which are located about 35 minutes north-west and south-west of the island. Because time is of the essence in treating burns, in light of the magnitude of such an event, the number of likely victims, and the transport problems outlined above, JEMS could not adequately manage the consequences of such an event.

12) Further, it would be my understanding that, even if we could transport all of the victims to these hospitals, they are not equipped to treat 3,000 burn victims, as evidenced by the tragedy of the Station Fire in Rhode Island.

Signed under the penalties of perjury this      day of August, 2005

  
Clement Napolitano

State of Rhode Island

County of Newport

Subscribed and sworn to before me in the County of Newport,  
State of Rhode Island on this 10<sup>th</sup> day of August, 2005.

Brian S. Thomas



Notary Public

My Commission Expires on: 10/9/2009

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

**WEAVER'S COVE ENERGY, LLC**

**Docket #CP04-36-000**

**MILL RIVER PIPELINE, LLC**

**Docket #CP04-41-000**

**CP04-42-000**

**CP04-43-000**

**AFFIDAVIT OF DIANE C. MEDEROS**

I, Diane C. Mederos, state on personal knowledge as follows:

1. I am the duly elected Town Administrator of the Town of Bristol, Rhode Island. In that capacity I serve as the Chief Health and Public Safety Officer of the Town.
2. This Affidavit is being submitted in connection with the proposed Weaver's Cove Liquefied Natural Gas ("LNG") Terminal to be constructed and operated in Fall River, Massachusetts.
3. I have received reports from my department heads, specifically, the Chief of Police, the Chief of Bristol Fire and Rescue Department, and the Bristol Harbormaster, with regard to the dangers associated with the accidental or intentional escape of LNG from tankers during their inland transit along the Bristol coastline, including attempting to evacuate the population from the thermal radiation zone, attempting to extinguish or contain a pool fire, and treating the burn victims of thermal radiation exposure.
4. Of greatest concern with this possibility is the area near Roger Williams University, with a population of approximately 4,100 students during the academic year and up to 1,000 individuals from various organizations when the University is not in session. There are also several hundred employees on staff. The potential pool fire relates not only to structure ignition, but the number of students who would possibly be injured. This would result in a Mass Casualty Incident. The Town operates with a volunteer fire and rescue department. Addressing such a Mass Casualty Incident would be overwhelming for a paid, full-time department, let alone our volunteer department.

5. Initial response to this type of incident would include the necessity of utilizing a foam type crash/rescue vehicle capable of conducting firefighting operations while moving. In concert with the attack vehicle would be a tanker truck capable of carrying up to ten thousand (10,000) gallons of water and a utility truck with additional foam and support equipment. Estimated cost of apparatus, support equipment, and the building to house same would be approximately \$4 Million. Additionally, a Disaster Medical Alert Team (DMAT) type vehicle would be required to support the incident response. The cost of a fully equipped vehicle is estimated to be \$500,000. The Town lacks such resources.
6. The Mass Casualty Incident would also require pre-staging and pre-planning. The location being discussed, near the Mount Hope Bridge, would eliminate the current Mutual Aid structure currently used by all East Bay communities. The portion of the mutual aid associated with Aquidneck Island would no longer be available making it impossible to have on hand the resources necessary to contain and respond to such a mass casualty.
7. As the LNG ship transit continues toward its docking space at Weaver's Cove, our assets would need to move in concert with the ship as a moveable pre-plan. The manning required to support a single transit will be significant. Our rescues could not transport to Newport Hospital for a 12 to 24 hour period prior to an LNG ship's passage. A brief study of our transports to Newport Hospital indicates approximately twenty percent (20%) of our patients are seen there. Although we do not transport any critical patients to Newport Hospital by state protocol, those patients transported to Newport Hospital would become an extra burden on the remaining state's hospitals.
8. Each of these operations will require a significant amount of manpower and a training regimen for those people to be certified to support the Town of Bristol's needs. The cost associated with the training and outfitting of these crews is estimated to be in the \$200,000 to \$300,000 range. Each transit through what can be considered Bristol's waters is estimated to cost \$5,000 depending on the length of time the team is in place. Again, the resources do not exist.
9. Furthermore, the ability of the Bristol Police to secure the shoreline of Bristol that is directly adjacent to Mount Hope Bay is impossible due to the terrain and the many areas of ingress and egress. There are in excess of thirty (30) rights-of-way and, of that number, at least half can be used to launch boats.
10. Mount Hope Farm, which is adjacent to Brown University property, can be accessed without notice at any time by a terrorist(s) who can hide himself, weapons, and boats undetected. The Bristol Police Department is considered a small department, under 50 sworn officers, and we do not have the personnel or resources to secure, at the very minimum, the Mount Hope Bridge for ten (10) minutes.

11. Security is not only a money issue but also the ability to muster enough manpower to provide a safe, secure waterway for any craft that could be compromised by terrorists. The Town of Bristol has a part-time harbor patrol manned by people with other full-time employment. They have little to no training in these areas. They could respond once an incident occurs but cannot be held to have a presence every time an LNG tanker appears on the horizon. It is critical to note that Bristol harbor contains 832 moorings and 175 slips at its marinas. There are 1,007 sail and motor boats moored and docked in Bristol harbor and the inland waters of the east passage of Narragansett Bay off of the Bristol coast. This does not include all of the boats moored and docked at Bristol Marine and Bristol Yacht Club as well as the Herreshoff Museum. All of these vessels would be at risk.
12. The closing of Mount Hope Bridge for any amount of time always creates traffic jams that last for hours after the problems are mitigated. Vehicle operators attempt other routes and only add to the already congested roadways of Bristol. As anyone familiar with the area already knows, the streets of Bristol are at capacity twenty (20) hours each and every day.
13. In conclusion, if an accident or attack is perpetrated against an LNG vessel, the Town of Bristol does not have adequate resources, both financial and manpower, to address a catastrophic conflagration. Even in the absence of such a scenario, the resources of the Town will be severely strapped to provide minimum security during the passage of an LNG vessel and would require additional equipment and manpower as set forth herein.



Diane C. Mederos  
Town Administrator  
Town of Bristol, Rhode Island

*BRISTOL* &  
Providence, Sc.

Subscribed and sworn to before me in the County of Bristol, State of Rhode Island, on this Tenth day of August, 2005.



Notary Public  
My Commission Expires: 4/20/06

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

\_\_\_\_\_  
WEAVER'S COVE ENERGY, LLC AND )  
MILL RIVER PIPELINE, LLC )  
\_\_\_\_\_)

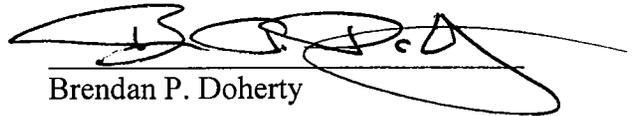
**Docket Nos. CP04-36-000;**  
**CP04-41-000; CP04-42-000;**  
**CP04-43-000**

**AFFIDAVIT OF BRENDAN P. DOHERTY**

I, Brendan P. Doherty, upon oath, depose and say as follows:

1. I am presently the Director of Public Safety at Roger Williams University and am responsible for the safety and security of the campus community.
2. I am recently retired after twenty-four (24) years of service with the Rhode Island State Police. I served in both the Uniform and Detective Bureau's and attained the rank of Major, second in command, upon my retirement. My duties included but were not limited to investigating and detecting Domestic Terrorism, Organized Crime, monitoring and mitigating Natural Disaster.
3. Roger Williams University is a regional, liberal arts university offering undergraduate and graduate programs in the arts and sciences, architecture, business, construction management, education, engineering, historic preservation, justice studies, legal studies, public administration, visual arts studies, and law. The University enrolls approximately 3588 full-time students and 880 graduate students. The main campus is located on 140 waterfront acres on Mt. Hope Bay and located approximately two-tenths of a mile from the Mt. Hope Bridge. There are approximately 1260 employees at the University.
4. I am aware that LNG is highly volatile in the event of a spill on water. I understand that according to the recent report of the Sandia National Laboratory, a "pool fire" could ignite structures and burn exposed people approximately one mile away. I am also aware the United States Coast Guard has deemed LNG as "high interest" cargo and accordingly, issued a regulation after September 11, 2001 that imposes a security and exclusion zone around LNG tankers that extends for two miles ahead of the tankers and one mile behind, and 1000 yards on either side of the vessel. I understand the need for the exclusion zone given the devastating consequences that would ensue in the event of an accident or deliberate attack on the vessel.

5. The Mount Hope Bridge, consisting of only two lanes, is located less than a mile from the center of the University campus and abuts the University campus property. Several student residence halls are located near the Bridge. Many students reside in Portsmouth and frequently pass back and forth across the bridge via a shuttle in order to attend classes. There are two dormitories located on the North side of the Bridge in the Town of Portsmouth. The Baypoint dormitory is approximately three-fourths of a mile from the Portsmouth side of the Bridge. Founder's Brook dormitory is approximately 0.5 miles from the Portsmouth side of the Bridge. The University utilizes this bridge throughout the entire day transporting students from the dormitories to the main campus and visa-versa. The University shuttles accommodate thirty (30) students per vehicle. During the daytime schedule, between the hours of 7:20 am until 6:35 pm, the shuttles leave from the main campus to Baypoint and Founder's Brook dormitories thirty-one (31) times, thus making sixty-two (62) round trips. The evening regular schedule begins from 7:00 pm through 11:10 pm and travels seven (7) times, thus making fourteen (14) round trips. There is an on-call evening schedule beginning on Sunday, Monday, Tuesday and Wednesday from 7:00 pm. until 1:00 am. Additionally, the on-call schedule continues between 12:00 am to 3:00 am on Thursday, Friday and Saturday. On Saturday, the shuttle service begins at 10:00 am and continues through 3:00 am. On Sunday and holidays, the shuttles begin at 10:00 am to 1:00 am. On Saturday, Sunday and holidays, on-call shuttle service begins from 12:00 am to 3:00 am. The impact of continual, potential bridge closures will severely and negatively impact our operations. In the event that there was ever an accident or attack on an LNG vessel, there would be serious emergency response concerns and the magnitude of injuries to the University's student population and employees would be catastrophic.

  
Brendan P. Doherty

State of Rhode Island  
County of BRISTOL

Subscribed and sworn to before me in the County of BRISTOL,  
State of Rhode Island on this 15<sup>th</sup> day of August, 2005.

Charlotte D. Soares  
Notary Public  
My Commission Expires on: 2/10/2009



RECEIVED

MAY 25 2005

RHODE ISLAND POLICE CHIEFS' ASSOCIATION

Executive Office  
Department of Attorney General

PRESIDENT

Peter T. Brousseau  
West Warwick Police Dept.

VICE PRESIDENT

Col. Steven M. Pare  
Rhode Island State Police

SECRETARY

Chief Thomas P. Tighe  
Jamestown Police Dept.

TREASURER

Chief Jamie Hainsworth  
Glocester Police Dept.

SERGEANT AT ARMS

Col. Russell Serpa  
Bristol Police Dept.

IMMEDIATE PAST PRESIDENT

Chief J. David Smith  
Narragansett Police Dept.

May 20, 2005

Attorney General Patrick Lynch  
Office of the Attorney General  
150 South Main Street  
Providence, RI 02904

Dear General Lynch,

I am writing this letter to you as President of the Rhode Island Police Chiefs Association. The Association is opposed to the proposed plan to convert the existing LNG tank at Fields Point in the City of Providence into a terminal capable of receiving 50 LNG supertankers each year. We also oppose the plan for Weaver's Cove in Fall River, Massachusetts that would create a terminal there that could receive up to 70 LNG supertanker shipments each year. These tankers would come right up Narragansett Bay enroute to their destination in Fall River.

These terminals and tankers are potential targets for terrorist attack. We also have to keep in mind the possibility of an industrial accident during normal day to day operations. In either case, law enforcement in the State, whether it is state or local would not be able to deal with the potential catastrophic explosion that would result. Thousands of people could be killed or seriously injured during the incident.

A second area of concern for us is the security zones and bridge closings that would result as these tankers are making their way up Narragansett Bay. These tankers would have to travel up the bay for twenty-nine (29) miles to Providence and twenty-six (26) miles to Fall River. Local and State Law Enforcement would have to create these security zones. Who is going to pay for the personnel needed for these zones, local and state budgets are already stretched thin. Major traffic problems and accidents would occur when the bridges over the bay

have to be closed as the tankers pass by. There are also a lot of unanswered questions, even with enhanced security measures, the risk of attack or accident is not significantly reduced.

Thank you for taking the time to consider the concerns of the Rhode Island Police Chiefs Association on this important issue.

Sincerely,

*Chief Peter T Brousseau*

Chief Peter T. Brousseau  
President, RIPCA



State of Rhode Island and Providence Plantations

DEPARTMENT OF ATTORNEY GENERAL

150 South Main Street • Providence, RI 02903

(401) 274-4400

TDD (401) 453-0410

*Patrick C. Lynch, Attorney General*

August 17, 2005

*Via Certified Mail*

The Honorable Gordon R. England  
Secretary of the Navy  
1000 Navy Pentagon  
Washington D.C. 20350-1000

Re: **Naval War College/Naval Undersea Warfare Center  
Newport, Rhode Island**

Dear Secretary England:

I am writing to request a meeting with you concerning the controversial proposal by Hess Energy and Weaver's Cove Energy to site a liquefied natural gas (LNG) terminal in Fall River, Massachusetts. The chosen location would require that LNG tankers carrying upwards of 37 million gallons of LNG navigate more than 24 miles through narrow coastal waterways in both Rhode Island and Massachusetts. Within Rhode Island waters, the LNG tankers would travel in close proximity to a number of Naval Commands, including the Naval Undersea Warfare Center (NUWC) and the Naval War College.

Recently, my office reached out to NUWC officials to ascertain what impact the requisite USCG security zones (see 33 C.F.R. § 165.121) would have on the research initiatives currently being conducted by the Navy in the waterways through which the LNG tankers would transit. In response, the Department of the Navy filed pleadings with the FERC citing "potentially significant adverse impact to NUWC DIVNPT's mission and to national security . . ." (see attached Motion to Intervene and Request for Rehearing). In addition, NUWC has indicated that it never received notice of the FERC licensing process as required by 40 C.F.R. § 1506.6(b)(2).

A much larger issue in my mind is the presence of critical naval installations in close proximity to the federal channel through which LNG tankers would transit 100-140 times per year. As confirmed by the Sandia National Laboratories' Study that examined the consequences of an intentional attack on an LNG vessel, it is now clear that a successful attack on a vessel transiting through Newport Harbor could produce a fire of sufficient intensity that would consume the entire Naval War College campus located on Coasters Harbor Island. The conclusions of the Sandia Report are depicted in the attached graphic.

The Honorable Gordon R. England

August 17, 2005

Page Two

A few months ago, I retained Richard Clarke, a counter-terrorism expert who previously served in the past three presidential administrations, to conduct a Threat and Consequence Analysis concerning the transit of LNG vessels through Newport Harbor. Mr. Clarke's analysis deemed the area to carry an "extremely high risk" for a terrorist attack for the following reasons:

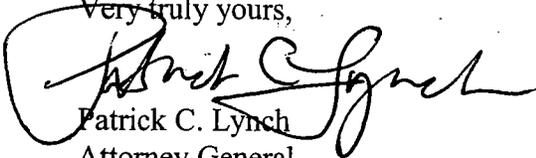
The Pell Bridge serves as a natural choke point and would be the perfect spot for a combined attack. The center span is less than 1500 feet wide and offers less than 194 feet of vertical clearance. A sea/shore attack initiated within this area combined with a mine-like object strike or a suspended shape charge, could potentially devastate the cargo of the ship, the Pell Bridge and the surrounding infrastructure. Casualties within this area would be significant. *LNG Facilities in Urban Areas (May 2005).*

Mr. Clarke's conclusion regarding the high threat level for areas in close proximity to the Naval War College are depicted in the attached graphic. Based upon the expected thermal radiation intensities extending outward from an LNG "pool fire," a successful terrorist attack in the vicinity of Newport Harbor would not only destroy the Naval War College, but would also inflict mass casualties on military and civilian populations, destroy substantial transportation infrastructure, and obstruct navigation access to a vital deep-water port on the east coast of the United States.

Given the existence of viable alternatives that are well documented in the dissenting opinion of FERC Commissioner Sudeen Kelly (attached), I stand firm in my belief, along with almost every other State and local official in Rhode Island and Massachusetts, that FERC has abdicated its public interest responsibility by approving this ill-conceived project. Accordingly, I respectfully request a meeting with you to discuss this matter of mutual concern, and I strongly urge you to use the power of your office to impress upon FERC the need to reconsider and reverse its short-sighted decision to approve a project that will clearly and unnecessarily jeopardize both public safety and national security.

I appreciate your attention to this important matter and I patiently await your response.

Very truly yours,



Patrick C. Lynch  
Attorney General

Enclosures

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

In the Matter of  
Weaver's Cove Energy, LLC

)  
) Docket No. CP04-36-0000  
)  
)

**MOTION TO INTERVENE,  
MOTION TO REOPEN, AND  
REQUEST FOR REHEARING  
IN THE APPLICATION OF WEAVER'S COVE ENERGY, LLC**

**Introduction**

The Naval Undersea Warfare Center Division, Newport (hereinafter "NUWCDIVNPT" or "Navy"), Newport, Rhode Island, hereby moves pursuant to Federal Energy Regulatory Commission (hereinafter "Commission") Rule 214 to intervene in the application docketed above and filed by Weaver's Cove Energy, LLC (hereinafter "Weaver's Cove" or "Applicant") in connection with the proposed siting, construction, and operation of a liquefied natural gas (LNG) terminal in Fall River, Massachusetts. Should intervention be granted, the Navy also moves, pursuant to Commission Rule 716, to reopen the evidentiary record in this proceeding to accept the information provided herein. Thereafter, pursuant to Commission Rule 713, the Navy requests a rehearing of the Commission's July 15, 2005, decision in this proceeding. As detailed below, the moving safety and security zone to be enforced around LNG tankers as they transit the lower Narragansett Bay to the proposed terminal will significantly and adversely impact in-water testing, conducted by NUWCDIVNPT, which is essential to the Navy and the security of the Nation.

**Correspondence and Communications**

NUWCDIVNPT consents to service of process by electronic means using e-mail addressed to the individuals at addresses identified below. In accordance with 18 CFR § 385.203(b)(3), the names, titles, mail, and e-mail addresses of the individuals to whom correspondence and communications concerning this proceeding are to be made are:

Richard C. Dale, II  
Counsel, Code 000C  
Naval Undersea Warfare Center Division  
1176 Howell Street  
Newport, RI 02841-1708

Office 401.832.3653  
E-mail: dalerc@npt.nuwc.navy.mil

David B. Mercier  
Associate Counsel, Code 00OC  
Naval Undersea Warfare Center Division  
1176 Howell Street  
Newport, RI 02841-1708  
Office 401.832.3653  
E-mail: mercierdb@npt.nuwc.navy.mil

### **Background**

NUWCDIVNPT is a U.S. Department of the Navy component of the Naval Sea Systems Command. NUWCDIVNPT, and its predecessors, have been located in coastal Rhode Island since the 1800s. NUWCDIVNPT performs functions associated with designing and building multi-million dollar submarines, torpedoes, and sonar systems to help ensure our nation is capable of protecting against emerging threats to our national security. NUWCDIVNPT's mission is to operate the Navy's full spectrum research, development, test and evaluation, engineering, and fleet support laboratory for submarines, autonomous underwater systems, heavy-weight and light-weight torpedo systems, and torpedo countermeasures associated with Undersea Warfare. Approximately 4,300 military, government civilian, and contractor workers are employed at NUWCDIVNPT. NUWCDIVNPT's annual revenue stream is in excess of \$1 billion, with direct local community impact of \$500 million. The NUWCDIVNPT public website can be found at: <http://www.npt.nuwc.navy.mil>.

Located on the western side of Aquidneck Island, NUWCDIVNPT borders on Narragansett Bay. One of NUWCDIVNPT's major assets is its Narragansett Bay Shallow Water Test Facility (NBSWTF). This facility is located just off the coast of Newport, Rhode Island, in the portion of the Bay generally referred to as the East Passage. The NBSWTF offers a variety of unique shallow water ranges contiguous to the laboratory which permit prototype underwater weapons systems to be exposed to real environments, thus providing low-cost test and evaluation of this hardware for the Navy. These prototype research and development systems evolve into the weapons used by current and future Naval warfighters. This facility is designed to support research and development work in advanced torpedoes and torpedo systems, torpedo

launchers, active and passive SONAR, and other similar weapon components and equipment. A portion of the NBSWTF includes a restricted area for NUWCDIVNPT within the lower Narragansett Bay when required for testing of weapons and weapon systems. Army Corps of Engineer regulations identifying this restricted area appear at 33 CFR § 334.80. Additionally, this restricted area is identified in Chapter 6 of the National Oceanic and Atmospheric Administration's Coast Pilot 2.

### **Statement of Facts**

The Applicant proposes to construct an LNG terminal in Fall River, Massachusetts. As a necessary part of the proposal, between 50 and 70 LNG tankers per year would transit from the mouth of Narragansett Bay to the Fall River site utilizing the East Passage. This would result in 100 to 140 inbound and outbound transits through the NBSWTF per year. During their transits, these tankers would be surrounded by a moving safety and security zone. Per the Coast Guard regulations at 33 CFR § 165.121, the safety and security zone would extend 2 miles ahead, 1 mile astern, and 1,000 yards on either side of the tankers. In effect, the zone would encompass the entire lower Bay as the tanker transited. Absent Coast Guard authorization, entry into or movement within the safety and security zone, both on and below the surface, would be prohibited.

As detailed further in Exhibit 1, the Navy has a very active in-water test schedule for the NBSWTF. Currently, approximately 3 to 4 test runs occur in or near the East Passage on a weekly basis. The Navy projects that by 2006-2007, test runs will increase to 5 to 7 per week. All of the current and projected test runs occur within the area of the Bay that would be impacted by the proposed safety and security zone. Many of the test runs consist of one-of-a-kind autonomous vehicles dependant upon developmental wireless communication links. All of these test runs would be subject to the Coast Guard prohibition against entry into or movement within the safety and security zone.

The Navy first learned of the status of the proposal, and the potential impact to its mission, in communication from the State of Rhode Island after the Commission's decision on July 15, 2005. NUWCDIVNPT was not included in the Applicant's scoping process for this proposal, nor was it invited to participate in any meetings or

associated discussions. NUWCDIVNPT did not directly receive copies of any application paperwork, the Draft Environmental Impact Statement (EIS), or the Final EIS. A review of the EIS and the Commission's July 15, 2005, decision on this proposal evidences no substantive mention of the Navy's presence or activities in Narragansett Bay, nor the potential impact of the proposal on the Navy.

The Navy, by virtue of NUWCDIVNPT's location and organizational mission, has an interest in the outcome of this matter. NUWCDIVNPT supports eight major programs that utilize the NBSWTF to meet developmental milestones. One of the Navy's major focuses is moving the sailor out of harm's way. This is being accomplished through the development of autonomous vehicles. NUWCDIVNPT is the lead activity in development, integration, and testing of both unmanned undersea and surface vehicles. The decision to allow LNG tankers to transit the East Passage with the restrictions proposed will significantly impact cost, schedule, program development risk, as well as fleet delivery of these critical Navy programs. This interest is sufficient to warrant the Navy's intervention herein. Absent the opportunity to intervene, the Navy's interest will be impaired.

#### **Statement of Law**

##### **(1) Navy's Motion To Intervene Should Be Granted (Rule 214)**

As demonstrated in the foregoing material, the Navy has a significant presence in the lower Narragansett Bay. That presence includes regular use of the waters in, and adjacent to, the East Passage. Authorization for a restricted area covering a large portion of these waters has been in existence since 1968 (see, 33 CFR § 334.80). The Applicant's proposal significantly impinges on the Navy's ability to conduct its mission and exercise its authority. As such, the Navy has a significant interest that may be affected by the outcome of this proceeding. In view of the significance of the Navy's presence in the local area, and the potential local and national impact of this proposal to the Navy's ability to continue its mission, the Navy's participation in the proceeding is in the national and public interests.

Under 18 CFR § 380.1, the Commission must comply with the regulations of the Council on Environmental Quality (CEQ) when those regulations are not inconsistent with the Commission's statutory requirements. The CEQ regulations,

specifically 40 CFR § 1501.7, address scoping. Subsection (a)(1) of that section requires the lead agency, in this case the Commission, to “[i]nvite the participation of affected Federal . . . agencies . . .” There is no evidence that such an invitation was ever made to the Navy. Per 40 CFR § 1506.6(b)(2), actions with effects of national concern shall include “. . . notice by mail to national organizations reasonably expected to be interested in the matter . . .” (Emphasis added.) The Navy has no record of having received any such notice. In combination, the Navy maintains that these administrative failures to provide proper notice to the Navy demonstrate the necessary showing of good cause for the granting of a motion to intervene at this time.

**(2) Navy’s Motion To Reopen Should Be Granted (Rule 716)**

The same showing of good cause that supports the Navy’s intervention also supports reopening the record in this proceeding for the purpose of taking additional evidence. As it currently stands, the record is absolutely silent even on the very existence of NUWCDIVNPT. Neither the EIS, nor the Commission’s decision, reflect the extent of the Navy’s activities in the lower Narragansett Bay. Those documents also fail to address the potentially significant adverse impact both to NUWCDIVNPT’s mission and to national security from the repeated implementation of the moving safety and security zone within the NBSWTF.

The decision-makers were not presented with all the relevant information. As addressed in 18 CFR § 385.716, these changes in conditions of fact currently reflected in the record warrant the Commission’s action to reopen the proceeding and receive additional information in this regard. The public interest, locally and nationally, would be served by such an action.

**(3) Navy’s Request For Rehearing Should Be Granted (Rule 713)**

The Commission’s final order granting Weaver’s Cove’s application is in error due to the incompleteness of the existing record as discussed above. At the time of its order, the Commission did not have all the facts. Under the circumstances, a rehearing is appropriate either subsequent to a reopening and the taking of additional information, or independently under 18 CFR § 385.713(c)(3) for matters described or provided elsewhere in this document that were not previously available to the Commission.

**Relief Sought**

For the reasons stated above, the Navy respectfully requests that its motion to intervene in the Weaver's Cove application to site, construct, and operate this LNG terminal be granted.

Upon successful intervention, the Navy further requests a reopening of the record in this proceeding for the purpose of taking additional evidence.

In conjunction with a reopening, the Navy requests a rehearing to allow the Commission to review and act upon the additional evidence.

Finally, the Navy requests such other relief from the Commission in support of this filing as may further the national and public interests and the purposes of this proceeding.

**Request for Hearing**

The Navy requests a hearing on the disposition of these motions and request.

**Certificate of Service**

I hereby certify that I have this day served the foregoing document upon the persons designated by the Secretary of the Federal Energy Regulatory Commission to receive service in this proceeding by depositing copies thereof in the United States Mail, first class postage prepaid.

Dated at Newport, RI, this 12<sup>th</sup> day of August, 2005.



RICHARD C. DALE, II  
Counsel



DAVID B. MERCIER  
Associate Counsel

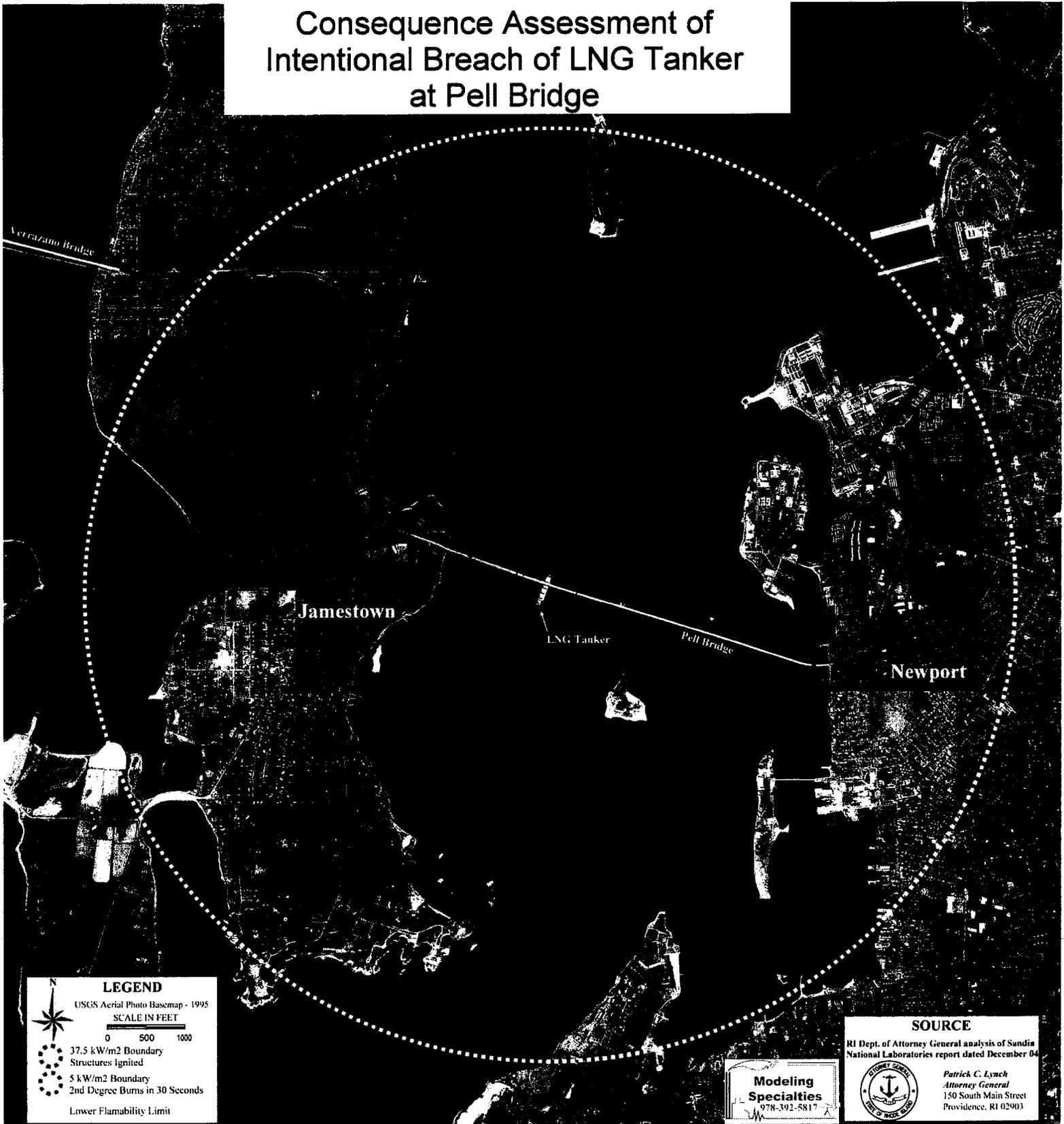
Naval Undersea Warfare Center Division  
1176 Howell Street  
Newport, RI 02841-1708  
Office 401.832.3653

Attachment: Exhibit 1

Exhibit 1

<u>Fiscal Year</u>	<u>Total Number of Runs</u>	<u>Total Runs in East Passage Only</u>
2003	206	196
2004	147	140
2005	199	189
2006	281	267
2007	381	362

# Consequence Assessment of Intentional Breach of LNG Tanker at Pell Bridge



## LEGEND

USGS Aerial Photo Base map - 1995

SCALE IN FEET

0 500 1000

37.5 kW/m<sup>2</sup> Boundary  
Structures Ignited

5 kW/m<sup>2</sup> Boundary  
2nd Degree Burns in 30 Seconds

Lower Flammability Limit

## SOURCE

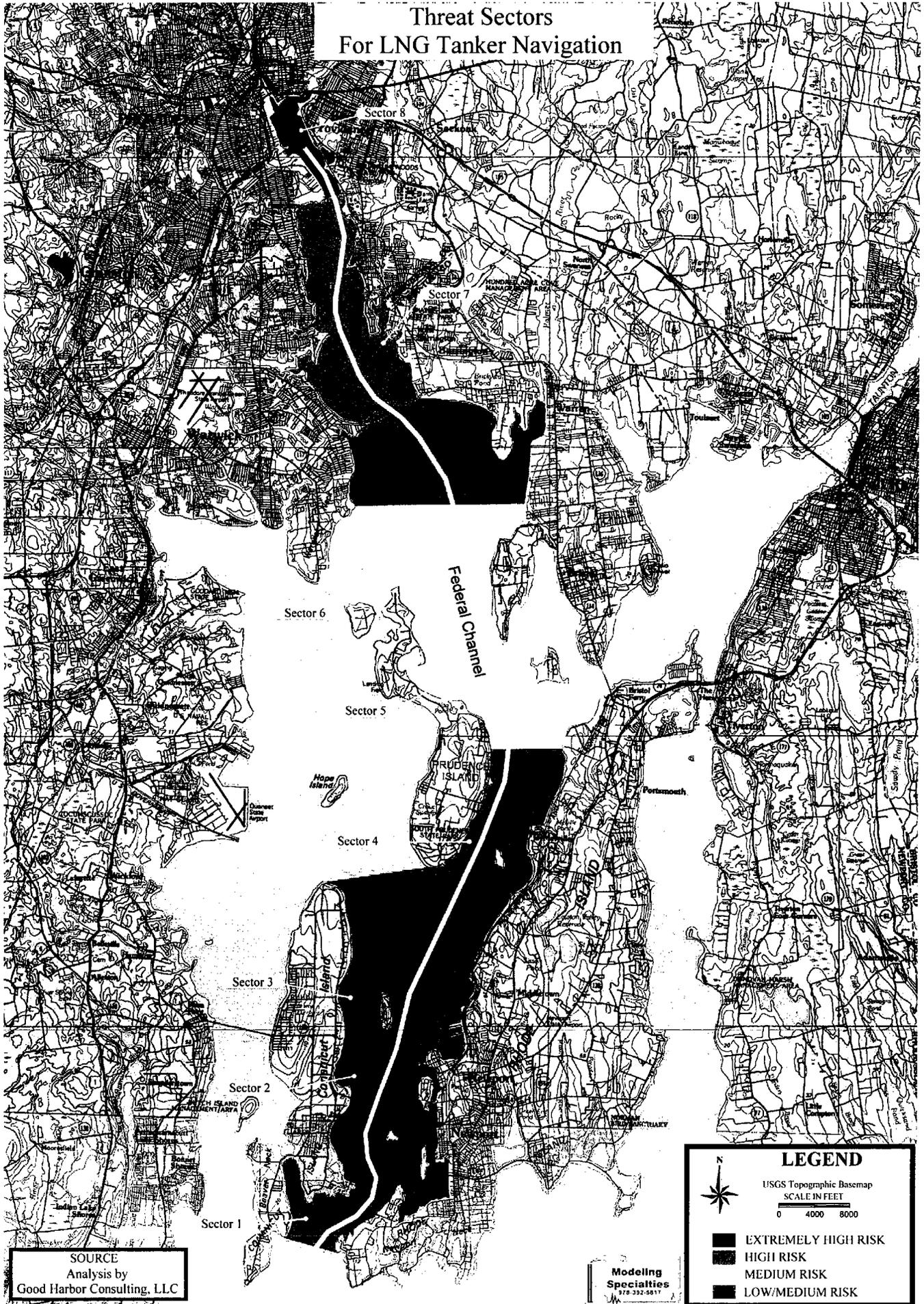
RI Dept. of Attorney General analysis of Sandia National Laboratories report dated December 04, 2004

Patrick C. Lynch  
Attorney General  
150 South Main Street  
Providence, RI 02903

Modeling  
Specialties  
978-392-5817



# Threat Sectors For LNG Tanker Navigation



**SOURCE**  
Analysis by  
Good Harbor Consulting, LLC

**Modeling  
Specialties**  
978-332-5817

**LEGEND**

USGS Topographic Basemap  
SCALE IN FEET  
0 4000 8000

- EXTREMELY HIGH RISK
- HIGH RISK
- MEDIUM RISK
- LOW/MEDIUM RISK

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Weaver's Cove Energy, LLC

Docket No. CP04-36-000

Mill River Pipeline, LLC

Docket Nos. CP04-41-000  
CP04-42-000  
CP04-43-000

(Issued July 15, 2004)

KELLY, Commissioner, *dissenting*:

This order authorizes Weaver's Cove Energy, L.L.C. to site, construct and operate an LNG terminal in Fall River, Massachusetts, under section 3 of the Natural Gas Act. The order finds that the proposed new LNG terminal will promote the public interest by increasing the availability of new natural gas supplies in the New England market. The order emphasizes that New England's demand for natural gas is expected to grow and the region should have adequate delivery infrastructure to meet winter cold peak demands only through 2010.<sup>62</sup>

I agree with the majority that New England needs more infrastructure for greater gas supplies to meet projected demand after 2010. However, I do not believe that the Weaver's Cove project is the way to meet this need. First, there are numerous projects under construction, as well as additional proposed projects, that can meet the region's growing demand for gas. Second, the safety, environmental, and socioeconomic concerns related to the Weaver's Cove project outweigh the benefit of the added natural gas to be supplied by it. Therefore, I find it to be inconsistent with the public interest to authorize the siting, construction and operation of this new LNG terminal in Fall River, Massachusetts.

**Alternatives Exist**

The proposed Weaver's Cove facilities include an LNG terminal and storage facility, which would be able to provide LNG for delivery via truck to peakshaving facilities in the region. Through pipe and truck, Weaver's Cove would transport up to 800 MMcf per day of natural gas to the Northeast market,

---

<sup>62</sup> Order at P 6 *citing* The Power Planning Committee of the New England Governors' Conference, Inc., *Meeting New England's Future Gas Demands: Nine Scenarios and Their Impacts*, March 1, 2005 (New England Governors' Conference Report).

beginning in 2010.<sup>63</sup> The FEIS concludes that no alternative projects would be able to meet all of the objectives of the Weaver's Cove project, since such projects would not be able to provide a new source of imported LNG for the New England peakshaving market.<sup>64</sup> However, I believe that there are numerous gas infrastructure projects proposed to serve the New England region that present reasonable alternatives to the Weaver's Cove facility. These planned and proposed projects would introduce new sources of natural gas into the New England area by 2010. As the New England Governors' Conference Report finds, "to avoid leaving some customers without space heat in 2010 and after, additional gas supply infrastructure (*either expanded pipeline capacity or expanded LNG storage capacity*) or resources that reduce gas demand would have to have been added to the system" (emphasis added).<sup>65</sup>

There are two already-approved Eastern Canadian LNG terminals that are currently under construction and are expected to start deliveries by 2008. Irving Oil Ltd.'s Canaport LNG Project in New Brunswick will be able to vaporize and send out about 1.0 Bcf per day of natural gas. Anadarko Petroleum Corporation's Bear Head LNG facility in Nova Scotia will be able to vaporize and send out about 750 MMcf per day of natural gas to the Maritimes & Northeast Pipeline system. Anadarko recently announced that it has signed agreements for nominated capacity on a planned expansion of the Maritimes & Northeast Pipeline to accommodate the initial Bear Head sendout capacity to markets in eastern Canada and the Northeast. In addition, Tennessee Gas Pipeline Company, another pipeline that delivers gas into New England, has announced a non-binding open season for its Atlantic Supply Expansion project, which is designed to respond to the development of LNG terminals in eastern Canada and the Northeast. This project could bring an additional 250 MMcf per day into Tennessee Gas Pipeline's system at its Dracut, Massachusetts interconnection with the joint facilities of Maritimes & Northeast Pipeline and Portland Natural Gas Transmission System.

There are other LNG import terminals being planned for the New England region. Neptune LNG and Excelerate Energy L.L.C. have independently proposed to build LNG import facilities off the coast of Massachusetts that would provide a new source of LNG into the New England market area. Neptune LNG's facility would have an average sendout capacity of 400 MMcf per day and a peak capacity of 750 MMcf per day.<sup>66</sup> Excelerate Energy L.L.C.'s Northeast Gateway Project

---

<sup>63</sup> The new/existing Brightman Street construction will delay the proposed schedule for the LNG terminal operations by at least two to three years until 2010. See Order at P 108 & n. 58.

<sup>64</sup> See pages 3-27-28.

<sup>65</sup> New England Governors' Conference Report at page viii.

<sup>66</sup> Neptune LNG filed a deepwater port application with the Coast Guard on

Docket No. CP04-36-000

3

would have a baseload capacity of 400 MMcf per day and a peak capacity of 800 MMcf per day.<sup>67</sup> Algonquin Gas Transmission, LLC has filed an application with the Commission to construct and operate a 16-mile pipeline that will connect Algonquin's New England-area natural gas pipeline system to the proposed Northeast Gateway Project.

In addition to these LNG terminals with associated pipeline expansion, Tennessee Gas Pipeline Company has completed a binding open season for its proposed Northeast ConneXion-New England project. This project would provide an additional 136 MMcf per day of natural gas from Texas and Louisiana by increasing compression capacity at existing compressor stations in New York and Massachusetts.

### **Significant Safety Issues Are Raised**

In my view, this project raises significant, unresolved safety issues, especially in the event of an intentional breach of an LNG vessel as it passes by densely populated shoreline communities en route to the LNG import terminal in Fall River. The LNG vessels must pass under or through four well-traveled bridges and transit 21 nautical miles from the entrance of Narragansett Bay at Brenton Point through the Mount Hope Bay and up the Taunton River. As detailed below, the vessels will present a potential hazard to the people and buildings located along the passageway during the 4-hour transit to the terminal and the 10 to 12 hours while the vessels are docked and unloading cargo. Further, I believe that the lack of adequate emergency resources<sup>68</sup> and the need for evacuation within a short time interval, in the event of an LNG cargo release, present serious obstacles to creating a viable Emergency Response Plan and evacuation plan.

The inbound transit through the East Passage of Narragansett Bay would

---

February 15, 2005.

<sup>67</sup> Excelerate Energy, L.L.C. and Algonquin Gas Transmission, LLC filed environmental notification forms for the Northeast Gateway LNG Project and associated pipeline projects with the Secretary of the Massachusetts Executive Office of Environmental Affairs on March 15, 2005. Excelerate Energy, L.L.C. has commenced commercial operations of its Gulf Gateway Project in the Gulf of Mexico, which uses the same technology as the proposed Northeast Gateway Project.

<sup>68</sup> See, e.g., June 9, 2005 comments from Fire Chief David L. Thiboutot, City of Fall River; Fire Chief Stephen Rivard, Town of Somerset; and Dr. Bruce S. Auerbach, the Vice President and Chief of Emergency and Ambulatory Services at Sturdy Memorial Hospital in Attleboro, Massachusetts.

pass by Newport, Middletown and Jamestown, Rhode Island. After turning at Sandy Point, the LNG vessels would pass by Bristol, Massachusetts, and in the vicinity of the Mount Hope Bridge. The LNG vessel would then travel within the 400-foot-wide channel through Mount Hope Bay and the Taunton River and would pass by Woodman Street and the south of Fall River, the State Pier near the center of Fall River, the Braga Bridge, and Somerset. The FEIS concludes that “[s]ome areas of development along the shoreline in the path of the LNG vessel transit in Rhode Island and Massachusetts could be within a potential transient hazard area, while parts of North Fall River would be exposed to a potential hazard while the LNG vessel is at the dock and unloading cargo.”<sup>69</sup> I agree with this assessment, and it is a significant concern to me.

Specifically, the FEIS states that, assuming an LNG vessel transits the Taunton River at 3 knots while under tug assist, the adjacent communities located within a 4,340 to 4,810-foot distance to the 1,600 Btu/ft<sup>2</sup>-hr thermal radiation level for a 2.5 and 3-meter diameter hole would be exposed to a potential transient hazard “for less than 30 minutes.”<sup>70</sup> While transiting the East Passage to Sandy Point at 10 knots, the transient hazard to shoreside communities would be “less than 10 minutes.”<sup>71</sup> A temporary hazard would also exist around the slip during part of the 10- to 12-hour period while the LNG vessel is at the dock and unloading cargo. For a spill in the vicinity of the dock, approximately 1,600 to 2,100 buildings, including single-family residences and multi-family units, would be within the temporary hazardous area.<sup>72</sup> Also located in this area are an elementary school, a rehabilitation and nursing center, a public housing project, an apartment building and a MassHighway facility.<sup>73</sup> I find the length of these exposures to the people along the transit route and the vicinity of the dock to be unacceptable.

The FEIS also evaluates the potential impact of an LNG spill on equipment and infrastructure. A thermal radiation level of 10,000 Btu/ft<sup>2</sup>-hr could potentially damage equipment and infrastructure. A fire associated with a potential spill in the vicinity of the Weaver’s Cove’s dock, resulting from a nominal cargo tank hole from an intentional event could expose the Somerset power plant, the proposed LNG storage tank, approximately one-half mile of Route 79 and one-half mile of proposed commuter rail to a thermal radiation level of 10,000 Btu/ft<sup>2</sup>-hr for 10 to 15 minutes.<sup>74</sup>

---

<sup>69</sup> See page 4-279.

<sup>70</sup> See *id.*

<sup>71</sup> See page 4-280.

<sup>72</sup> See *id.*

<sup>73</sup> See *id.*

<sup>74</sup> See *id.*

For potential spills at the new Brightman Street Bridge and the Braga Bridge, the number of residences, buildings, schools and other facilities located within the 1,600 Btu/ft<sup>2</sup>-hr transient hazard area would be approximately 1,600 to 2,300 and 1,200 to 1,600, respectively. At Fall River near Woodman Street, approximately 800 to 1,200 residences would be located in the transient hazard area. Approximately 100 to 300 residences and buildings would be located in the transient hazard area at the Mount Hope Bridge. The western-most portions of the U.S. Naval Station in Newport would also lie within a 1,600 Btu/hr-ft<sup>2</sup> transient hazard area. The transient hazard area from an LNG vessel spill in the main channel of the East Passage in the vicinity of Newport and Jamestown would not affect most shoreside areas. However, potential spill locations in deepwater areas outside the main channel and closer to shore were also evaluated. For a spill outside the normal route, an estimated 660 to 720 and 420 to 610 residences in Jamestown and Newport, respectively, would fall within these potential transient hazard areas.<sup>75</sup> Again, these threats present risks that should not be run, given that alternatives to the Weaver's Cove facility are available.

This order requires Weaver's Cove to develop emergency evacuation routes for the areas along the route of the LNG vessel transit prior to construction and to develop an initial Emergency Response Plan, including evacuation, prior to initial site preparation, in cooperation with local groups.<sup>76</sup> However, in light of the proposed transit of the LNG vessel past densely populated shoreline communities and well-traveled bridges, local officials' concerns about the lack of adequate emergency resources, and the need for evacuation within short time intervals in case of a release of LNG cargo, I believe that there are serious impediments to the development of a viable, effective Emergency Response Plan and evacuation plan in the area.

#### **Adverse Environmental Impacts Will Occur**

This project would have significant adverse environmental impacts due to dredging and LNG ship ballasting. To allow LNG ships to transit, dock and turn in the Taunton River, the existing navigation channel and a portion of the east channel must be permanently deepened to a depth of 37 feet below Mean Lower Low Water (MLLW). In addition, horizontal dredging would take place within the existing 400-foot wide channel and the turning basin would need to be permanently enlarged and deepened to 41 feet MLLW. The project would require the dredging of up to 2.6 million cubic yards of sediment from the Mount Hope Bay and Taunton River and a turning basin to enable LNG ships to transit, dock

---

<sup>75</sup> See *id.*

<sup>76</sup> See Order at P 98-99.

and turn in the Taunton River.<sup>77</sup> The dredging would disturb about 191 acres of river and bay bed.<sup>78</sup> At this time, it remains uncertain how Weaver's Cove will dispose of the contaminated dredged sediment from the Taunton River and the New Hope Bay.<sup>79</sup>

The proposed project area serves as an important winter flounder spawning and juvenile development habitat. The project would have adverse effects on this species, including the temporary loss of 6.2 acres of winter flounder spawning habitat and a permanent loss of 11 acres of winter flounder habitat due to the deepening and widening of the turning basin. Further, there would be entrainment or impingement of larvae and eggs during the operation of the LNG terminal when ballast water would be withdrawn from the river by ships during offloading of LNG. A total of 980 million gallons of water could be withdrawn each year from the river for ship ballast, which would entrain and/or impinge larvae and eggs. The cumulative impact of these losses, when combined with the numbers lost as the result of power plant operations in the area, will further stress the fish populations in Mount Hope Bay and Narragansett Bay.<sup>80</sup>

#### **Socioeconomic Impacts Will Affect the Communities**

This project will also cause socioeconomic impacts on the affected communities. Weaver's Cove estimates the arrival and departure of 50 to 70 LNG ships per year. Vehicle traffic delays resulting from the temporary closure of the Brightman Street Bridge could span 16 minutes per transit. The temporary closures of the Pell Bridge, Mount Hope Bridge, and Braga Bridge during the LNG vessel transit would result in delays ranging from 6 to 8 minutes per transit. The safety and security zone enforced around each LNG ship and around the ship unloading facility while it is docked could result in recreational boating delays of up to 60 minutes. For boaters near or upstream of the facility, there could be an additional 60-minute delay while the LNG ship is berthed or turned. In addition, recreational boaters could be prevented from boating or fishing in the vicinity of a moored LNG ship for approximately 24 hours.

---

<sup>77</sup> See FEIS at page 3-70.

<sup>78</sup> See page 2-25.

<sup>79</sup> The Massachusetts Department of Environmental Protection is still reviewing Weaver's Cove's proposal to dispose of the dredged sediment on the project site. The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency are still evaluating whether offshore disposal of some of the dredged sediment is suitable.

<sup>80</sup> See page 4-304.

Docket No. CP04-36-000

7

### Conclusion

In sum, the existence of reasonable alternatives for bringing much-needed natural gas supplies to New England, combined with safety concerns posed by the unique geography of the area and the close proximity of densely populated communities along the LNG vessel transit path and near the dock, the adverse impacts on the environment, and the socioeconomic impacts of this proposed LNG facility, lead me to conclude that the Weaver's Cove project is not consistent with the public interest under NGA section 3. Therefore, I respectfully dissent from this order.

	<hr/> <p>Suedeem G. Kelly</p>
--	-------------------------------



## ***RHODE ISLAND EMERGENCY MANAGEMENT ADVISORY COUNCIL***

### **Resolution opposing expansion of the KeySpan LNG Terminal in Providence, RI and the creation of a terminal in Fall River, MA**

WHEREAS, KeySpan LNG, L.P. proposes to convert its existing LNG storage tank at Fields Point in Providence to a marine terminal capable of receiving an estimated 50 LNG supertankers each year; and

WHEREAS, KeySpan LNG, L.P. proposes to construct a marine terminal at Weaver's Cove in neighboring Fall River, MA, along with a 50 million gallon storage tank capable of receiving an estimated 70 supertanker shipments each year; and

WHEREAS, the proposed projects are located in urban areas within close proximity of elementary schools, major interstate highways, centers of commerce, residential neighborhoods, or Rhode Island Hospital, the only Level I Trauma Center for southeastern New England; and

WHEREAS, the financial cost of compensating victims and rebuilding damaged or destroyed facilities following a catastrophic attack on an urban LNG facility and/or LNG tanker would likely exceed any insurance carried by the owners and operators of the LNG facility and tanker; and

WHEREAS, an expanded LNG capacity poses a number of substantial environmental concerns, including disruption to ecological systems in Narragansett Bay; and

WHEREAS, a security risk management analysis by Richard A. Clarke found that a terrorist attack on such a terminal is consistent with demonstrated intent and capability and the consequences of a major attack could include fires that would damage homes, hospitals, schools, fuel storage, a chemical plant, and other infrastructure; and

WHEREAS, the passage of LNG terminals and tankers in Narragansett Bay will place serious strains on the State of Rhode Island, including, the disruption of tourism and recreational boating industries, increased traffic caused by bridge closings, effects on the fishing and boating industries, costs to state and local law enforcement, and risks to plans for waterfront development; now be it hereby

RESOLVED that the Rhode Island Emergency Management Advisory Council opposes any expansion of the KeySpan LNG, L.P. terminal in Providence or the creation of a terminal in Fall River due to the extraordinary environmental, economic and public safety concerns associated with proposals in such densely populated urban areas.

Proposed by: Lt. Gov. Charles J. Fogarty, Chairman



Rhode Island Emergency Management Advisory Council

MINUTES

May 10, 2005

2:00 PM

The Rhode Island Emergency Management Headquarters  
645 New London Ave. – Cranston, RI

Agenda

**I. Call to Order/Attendance**

The Chairman called the meeting to order at 2:05 PM. In attendance were:

Representative Raymond E. Gallison, Jr.	Walter Combs, DOH
Cathy Duquette, HARI	Tom Gardner, TSA
Joe Salter, TSA	Col. Darren Delaney, RISP
William O'Neill, DHS	Representative Peter Ginaitt
Steven J. Kenney, Naval Undersea Warfare Center	Carolyn Cronin, WPRO
John Soscia, RIEMA	John Jackson, NE Gas Co
Albert Tardie, Gov. Commission. on Disabilities	Janice McClanaghan, RISEO
Al Araujo, Pawtucket EMA	Jim Ball, RIDEM
Leo Kennedy, Cranston Fire	Douglas Brown, RIPTA
Audra Dolan VCRI	James Lanni, RIDPUC
Peter Popko, USCG	

**II. Approval of Minutes from March 22, 2005**

The chairman requested the approval of the previous meeting minutes from March 22, 2005 pending any corrections. The minutes were approved.

**III. Introduction**

A. Comments from the Chairman  
*Lt. Governor Charles J. Fogarty*

Chairman Fogarty began the meeting by introducing Attorney General Lynch to discuss the Richard Clarke report on the KeySpan LNG proposal. He acknowledged the Attorney General's hard work to ensure this issue is looked at for what is best not only in terms of energy but public safety, health and welfare as well.

General Centracchio pointed out that federal homeland security funds cannot be used to pay for the cost of any local or state police that would be used as security for the tanker delivery. Representative Ginaitt then asked if it were true that funds were being taken away from smaller cities and rerouted to bigger cities with a greater risk for attacks. General Centracchio confirmed this and stated that RI lost about 37% of funds because it is not considered "high risk." The Attorney General noted that Rhode Island is the second most densely populated state in the nation.

Chairman Fogarty presented a resolution opposing the expansion of the KeySpan facility. A motion was made and seconded, the resolution passed. The United States Coast Guard and the TSA abstained from voting.

- II. End of Season Energy Update** – Janice McClanaghan, *Rhode Island State Energy Office*  
Janice McClanaghan reported that heating oil is 50-cents higher than the average last year at this time. RIHEAP program has 26, 697 clients during the last season. Emergency Fuel Program 64,019 households and provided over 5,600 emergency deliveries costing RI \$1million. The office is still waiting for legislation on the affordable heating program to be introduced in the House and Senate. They are anticipating high gas and electric shut offs this summer due to the high prices. The Chairman stated he wanted to study closely the issue of shut offs because the State doesn't have the resources to handle the problem on its own.

- III. Domestic Preparedness Subcommittee Update** – John Soccia, *RIEMA*  
The DPS met last month regarding the rollout of the FY05 grant process. The state homeland security planning has approximately \$10.2 million available for equipment, planning, exercise and training. Approximately \$8.2 million of that was set aside for local programs. Approximately \$6 million was allocated using a formula to each and every jurisdiction in the state. The remainder was used for local programs such as the state and regional response teams, hospitals, and homeland security initiative. Approximately \$970,000 of the state portion will be distributed through a competitive grant process to state level agencies and non-profit agencies. The law enforcement terrorism prevention program, a total of \$3.7 million, \$2.9 million of which comes out of the 80% that goes to the locals with cooperation of the police chiefs association, commit \$2 million to interoperable communications and the 800mhz project. The remaining \$900,000 will go to training for law enforcement deterrent, detection and prevention of terrorism programs. \$700,000 for state initiatives, distributed through competitive grants to law enforcement agencies at the state level. The citizens core program, at \$130,000 will be retained at the state level, there is no minimum pass through to administer and coordinate at the state level citizens core initiatives.

This year the state took a 37% cut in the total grant awarded from \$21 million to about \$16 million. It is important to note that two additional programs were wrapped under that umbrella. So from 2004-2005, \$21 million dropped to closer to \$14 million in 2005. The allocations have been made to jurisdictions. The end of April completed a federal requirement to forward initial spending implementation plans to the department of homeland security which indicates where every penny of this money will go and where it will be spent in the next year and a half. Awards will be handed out in the beginning of June.

Chairman Fogarty reiterated a concern that General Centracchio has from the very beginning. Rhode Island has some very real needs and we must increase state funding on top of federal funding.

**IV. Adjournment**

The Lt. Governor motioned to adjourn and the motion was seconded. The meeting adjourned at 3:20 P.M.

#### IV. KeySpan LNG Proposal

- A. Attorney General Patrick C. Lynch – Clarke Report
- B. Representative Raymond E. Gallison, Jr.

The Attorney General began by thanking the chair and vice-chair for their hard work in helping to make sure that the best and safest decision is made when it comes to the LNG proposal. He then briefly reviewed some of the highlights of the proposal by KeySpan and Richard Clarke's findings.

General Lynch then noted that the Clarke Report is available in its entirety online at ([http://www.riag.state.ri.us/LNG\\_Good%20Harbor2.pdf](http://www.riag.state.ri.us/LNG_Good%20Harbor2.pdf)). He reviewed the path of the LNG tankers up Narragansett Bay to the proposed site. It was noted that the path for the tanker to the Fall River site is 26 miles, 23 miles of which are Rhode Island waters. Sixty percent of the Mount Hope Bay is Rhode Island waters. It is 29 miles up the harbor to Providence. The deliveries will come during both the day and night, the schedule for delivery will be according to high tide. Security must be maintained for the tanker on the way in, on the way out and during the dislodging process, which takes 24 hours. The tankers range from 900-1,000 feet long. Because of the security zone, when the tanker is travelling up the bay, it shuts down the waterway. In comparison, when a tanker goes into Boston, it must travel up a bay of similar width for 6 miles of coastline, compared to 23+ miles for Providence and Fall River. A draft EIS statement has been issued by the Federal Energy Regulatory Commission, the final statement has not yet been released.

Representative Gallison was introduced to share information on the LNG proposal. The Representative noted that former Director of Homeland Security Tom Ridge stated the importance to not provide new targets of opportunity for terrorists. The Coast Guard has already said that they cannot guarantee the safety of the port or the tankers coming up the bay, given the capability of the terrorists. Gangs have now joined with the Al Qaeda network, providing some of the legwork for the terrorist activity. The terrorists have already stated that they want to hit our urban areas, disrupt our economic system, try to disrupt our oil and gas lines, in order to cause major devastation. Clearly, an expansion of the KeySpan facility and the tankers that come along with the expansion provide a new and larger target of opportunity for terrorists. Both the Representative and the Attorney General agreed on the need for LNG, but for it to be delivered in the right place. There are viable alternatives and they need to be explored. The floor was opened up to questions.

Chairman Fogarty asked what the timetable was for FERC's decision on the expansion proposal. The Attorney General said that if he had to pick a number today, that it would be within the next 30 – 60 days. Chairman Fogarty then asked who is responsible for security of the transport and who would be paying for the security. The Attorney General responded that in Everett, the cost is \$8,500 - \$10,000 for each tanker arriving. FERC has the most authority in who controls the security. Chairman Fogarty asked if an economic disruption analysis has been performed on the KeySpan proposal. The Attorney General responded that there is no hard number that he knows of, but that it is a good idea because of the future potential for development.

General Centracchio stated that in emergency planning and homeland security, you must assume that the possibility is 100% that you could have a catastrophic scenario. As our resources stand today, the security necessary for such a facility requires an inordinate amount of resources. An attack on a tanker or expanded facility would immediately exhaust consequence capability in all of our hospitals, as well as our ability to evacuate on the highway and air. In General Centracchio's opinion, it would be absolutely irresponsible to locate this facility in an urban area. It clearly exceeds our capacity to bring to bear the resources that would be required not only to mitigate it, but also to deal with consequences. General Centracchio stated that positioning of this site in the Port of Providence is not feasible and if the intent to commit a suicide attack is there, the (terrorist) will succeed and we will have to deal with the consequences.

1           **PREFILED TESTIMONY OF J. HOLT THAYER ARCHITECT, NCARB**

2           Q.     Please state your name and business address.

3           A.     My name is Jeffrey Holt Thayer. My business address is 246  
4           Commercial Street, Weymouth, Massachusetts, 02188.

5           Q.     What is your occupation?

6           A.     I am an architect.

7           Q.     On whose behalf are you testifying?

8           A.     I am testifying at the request of the Rhode Island Attorney  
9           General's office to describe an incident relating to the existence of high  
10          voltage transmission lines situated across navigable waterways.

11          Q.     Please describe the incident?

12          A.     In August of 1999 my forty-foot sailing vessel was totally destroyed  
13          when power arced from overhead transmission lines to the vessel's mast  
14          as I was heading out on an afternoon sail along the Weymouth Fore River.  
15          My boat's 57' mast was below the charted 60' safe clearance below the  
16          power lines.

17          Q.     Do you have any pictures of the damages that resulted to your  
18          vessel?

19          A.     Yes. Attached are photos of the resulting damage and  
20          documentation of the published "safe overhead clearance" at the site of  
21          my vessel's destruction. Please note that the sagging power lines above  
22          the Weymouth Fore River thrust a 120,000 volt bolt of electricity down to

1 my sailboat's mast simultaneously bringing every piece of wiring within  
2 my vessel's electrical system to extreme combustion temperature while at  
3 the same time blowing holes out of the side of my boat's lead keel which  
4 was the electrical ground for the mast. Within seconds, the boat was  
5 engulfed in flames from burning mahogany and fiberglass resin. Three  
6 crewmembers and myself jumped off the boat to save us from further  
7 injury as flames burst through the deck from stem to stern.

8 Q. Do you have any recommendations concerning the construction of  
9 power lines of high voltage power lines across navigable bodies of water?

10 A. This accident should be clear warning to regulators and safety  
11 officials as to the danger of arcing electricity, especially during periods of  
12 high energy demand, high outdoor temperatures and high humidity, all  
13 of which were present on the day my vessel was destroyed. Please note  
14 that I had crossed below those lines many times before without incident  
15 during the prior three years, to and from my dock upstream of the  
16 transmission line crossing. Please also note that there was no electrical  
17 damage to the head of my mast. All damage from the electrical arcing  
18 occurred to the mast as low as 8 feet below where the power company  
19 claims the bottom elevation of the wires actually was.

20 Q. Do you have any other comments regarding this incident?

21 A. Modern power transmission line crossings over navigable bodies of  
22 water should be required to cross below the river. Those permitted to

1 cross overhead must allow for the tallest possible vessel mast which  
2 would be likely to navigate, anchor, moor or dock in that portion of the  
3 river if there were no power line obstructions present. The overhead  
4 clearance must include more than adequate margins to account for wakes,  
5 sagging, heat, arcing, and extreme high tides.

6 Q. Did you suffer any injuries from the incident?

7 A. Yes. I was taken to the hospital and kept overnight where I  
8 received treatment to my injuries. For a lengthy time, up to and including  
9 the present, I have suffered emotional distress due to the incident.

10 Q. Does this conclude your pre-filed testimony?

11 A. Yes.

\_\_\_\_\_  
J. Holt Thayer Architect, NCARB  
246 Commercial Street  
Weymouth, MA 02188

**STATE OF RHODE ISLAND  
COUNTY OF PROVIDENCE**

Subscribed and sworn to before me on this \_\_\_\_\_ day of February, 2004.

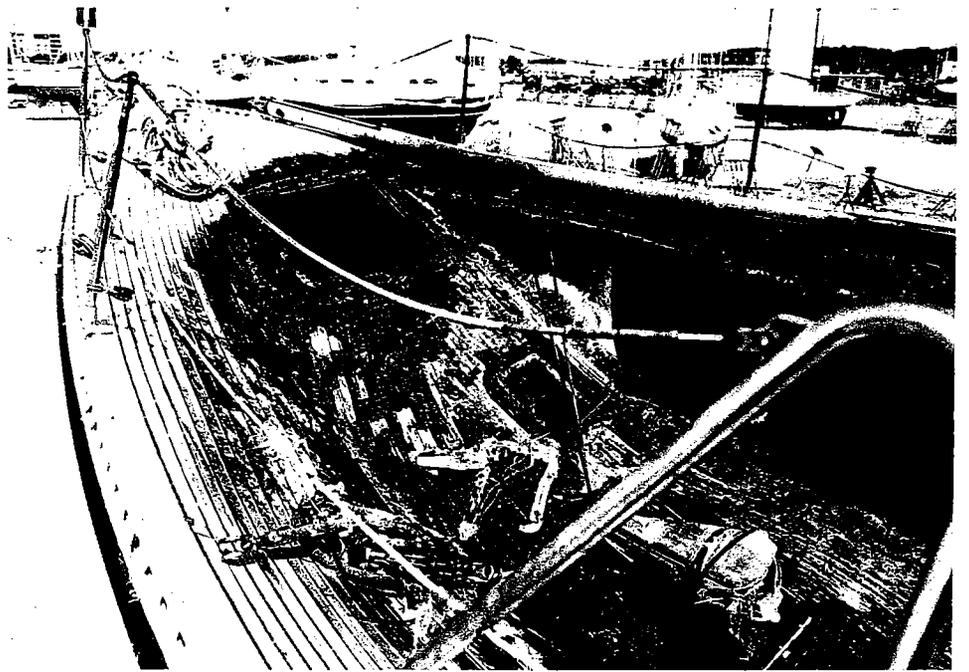
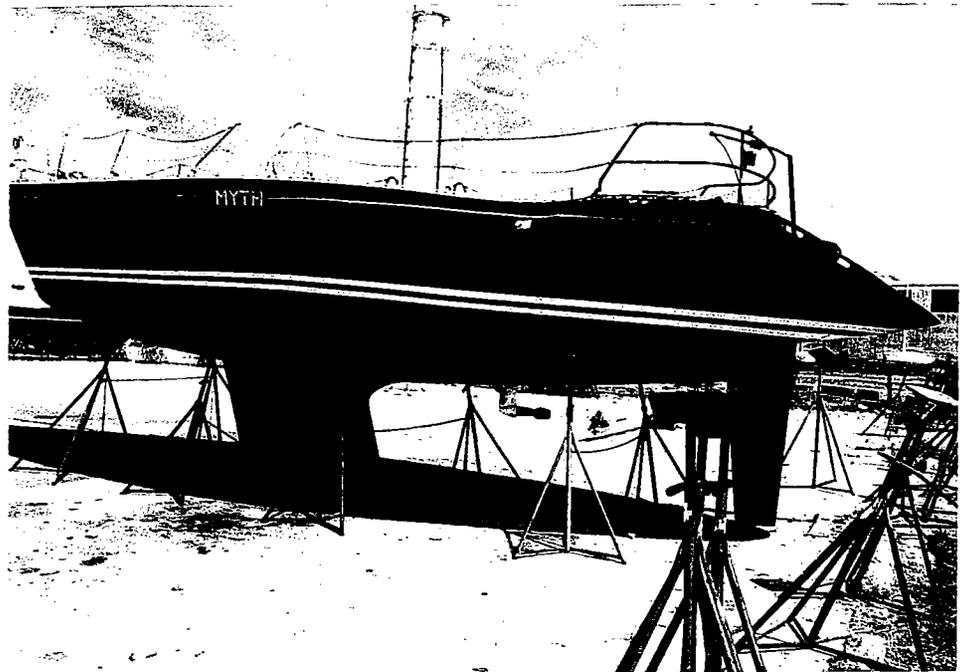
\_\_\_\_\_  
Notary Public  
Print Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_



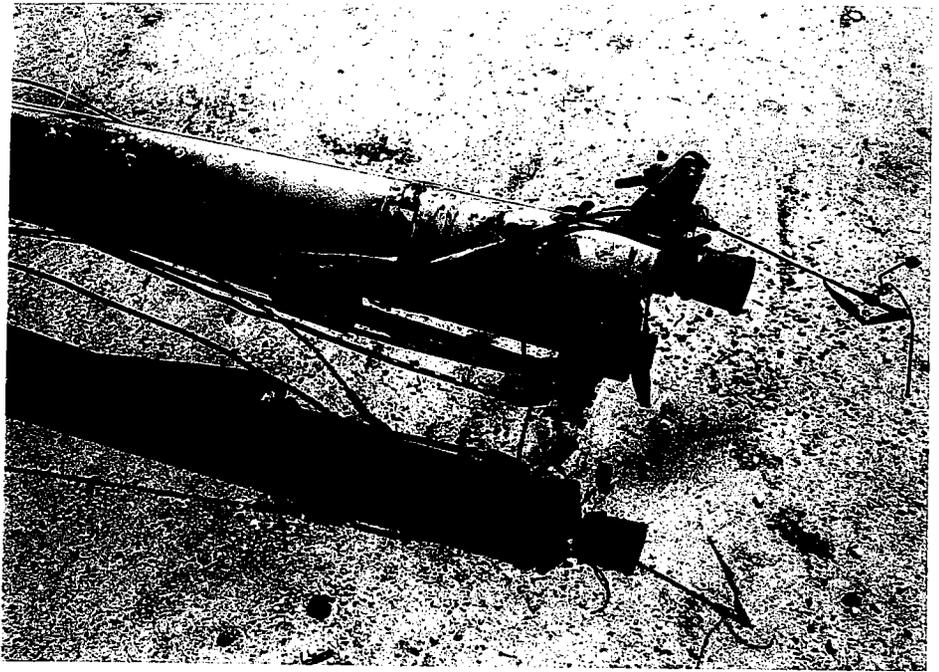


Final finished result of hull extension and transom work.





The electricity punched holes  
In the side and aft edge of  
the mast.



What was not destroyed by  
the intense heat of the fire  
was destroyed by the salt  
water after the boat sank.

