



SAVE BRISTOL HARBOR

Save Bristol Harbor is a grass-roots, non-profit 501(c)(3) environmental organization. **Our mission** is to preserve the health, safety and integrity of the coastal waters and other natural resources of Bristol, Rhode Island.

We provide informed leadership for the promotion of responsible environmental practices, the support of educational initiatives, and the formation of strategic partnerships to ensure that the long-term interests of our community are protected.

Preface

Consistent with our mission statement, Save Bristol Harbor is **vehemently opposed to the LNG project** proposed for Mount Hope Bay for reasons detailed in the following slides.



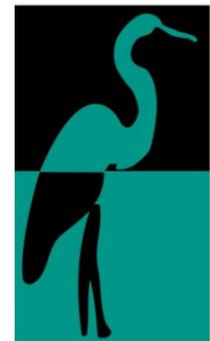
Save Bristol Harbor is **not** opposed to:

- liquified natural gas (LNG) as an energy source
- Weaver's Cove or Hess Corporations
- local job creation
- economic development
- sound siting of LNG facilities off-shore away from populated areas & recreational waters.

The Threat of LNG in Mount Hope Bay



Prepared by
Save Bristol Harbor
February 2010



Critical Concerns

➤ Environmental

- Impacts of dredging on water quality
- Lost winter flounder habitat
- Disruption to shellfish



➤ Quality of life

- Mount Hope & Newport-Pell Bridge closings
- Restricted recreational access to waterways

➤ Security costs

- Burden to local fire & police services
- Taxpayer costs
- Risk of catastrophic events



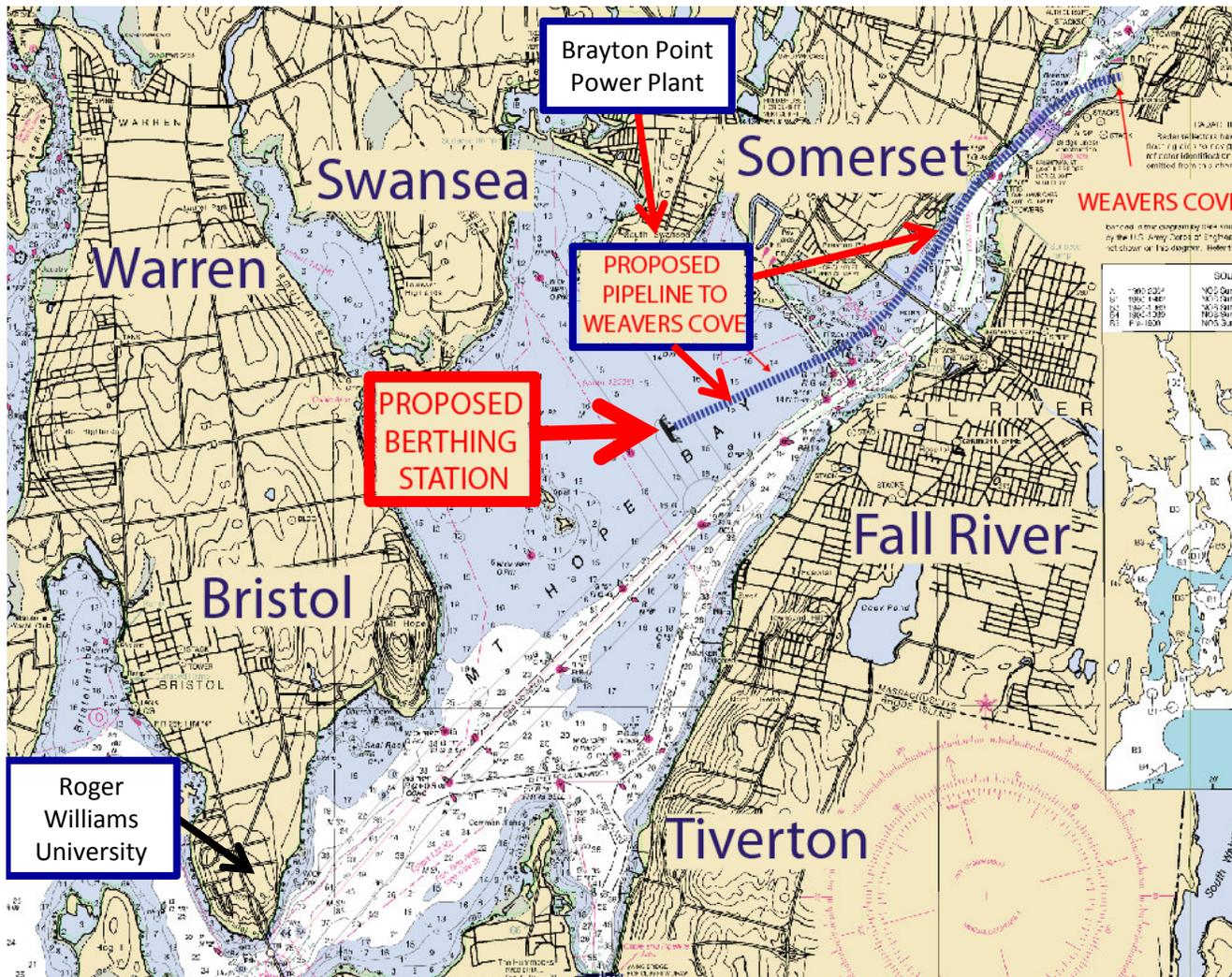
➤ Basic Planning Issues

- Need & long-term viability
- Sound siting practice
- Consideration of alternatives



The proposed LNG plan

Hess-Weaver's Cove Energy Corporation seeks to place a Liquefied Natural Gas (LNG) berthing station in Mount Hope Bay.

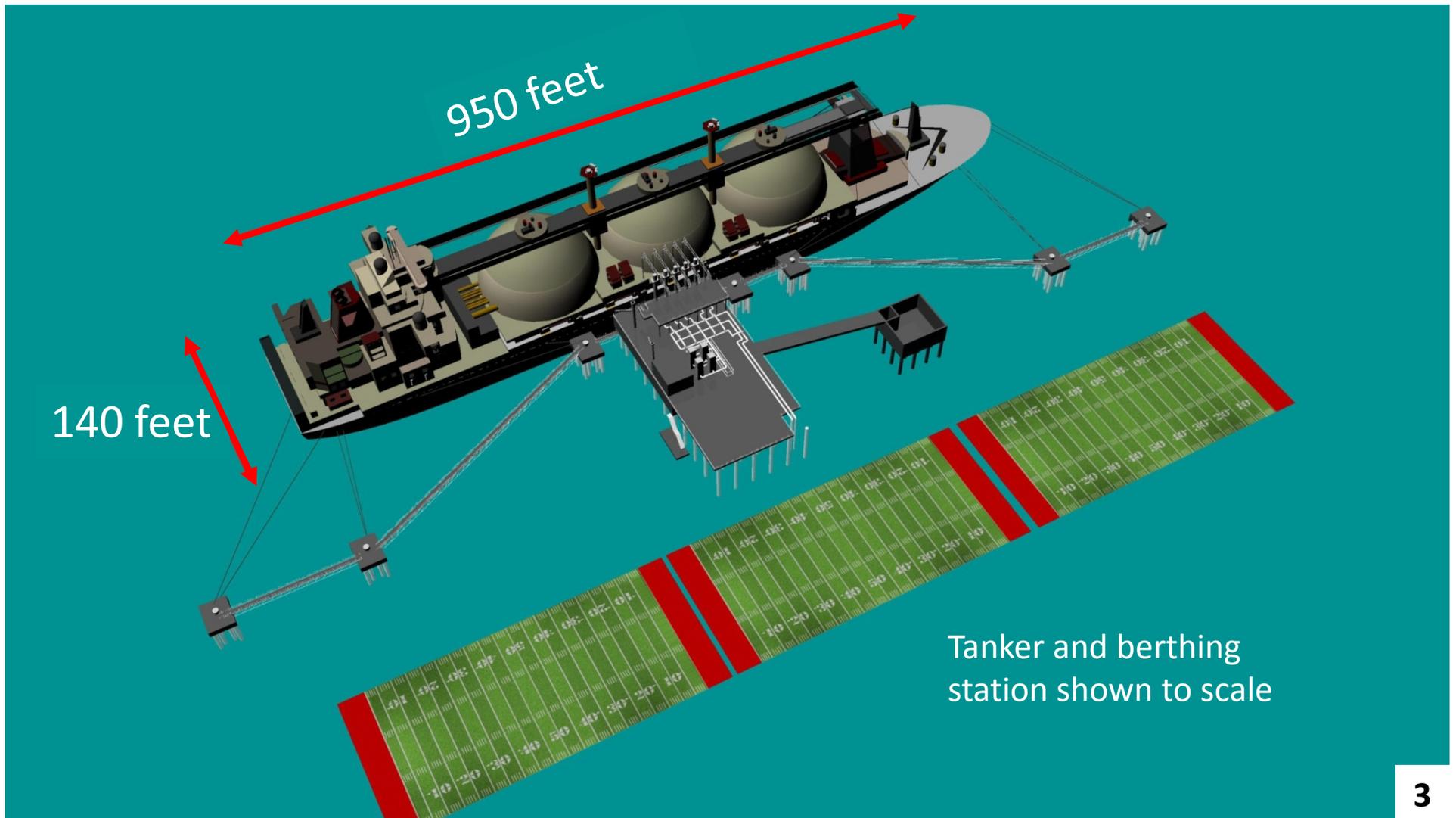


➤ LNG would be brought to the station 70 times per year (**140 transits**) via large tankers passing through Narragansett Bay

➤ 4.2 miles of underwater pipe would link station to facility in Fall River

The LNG tankers

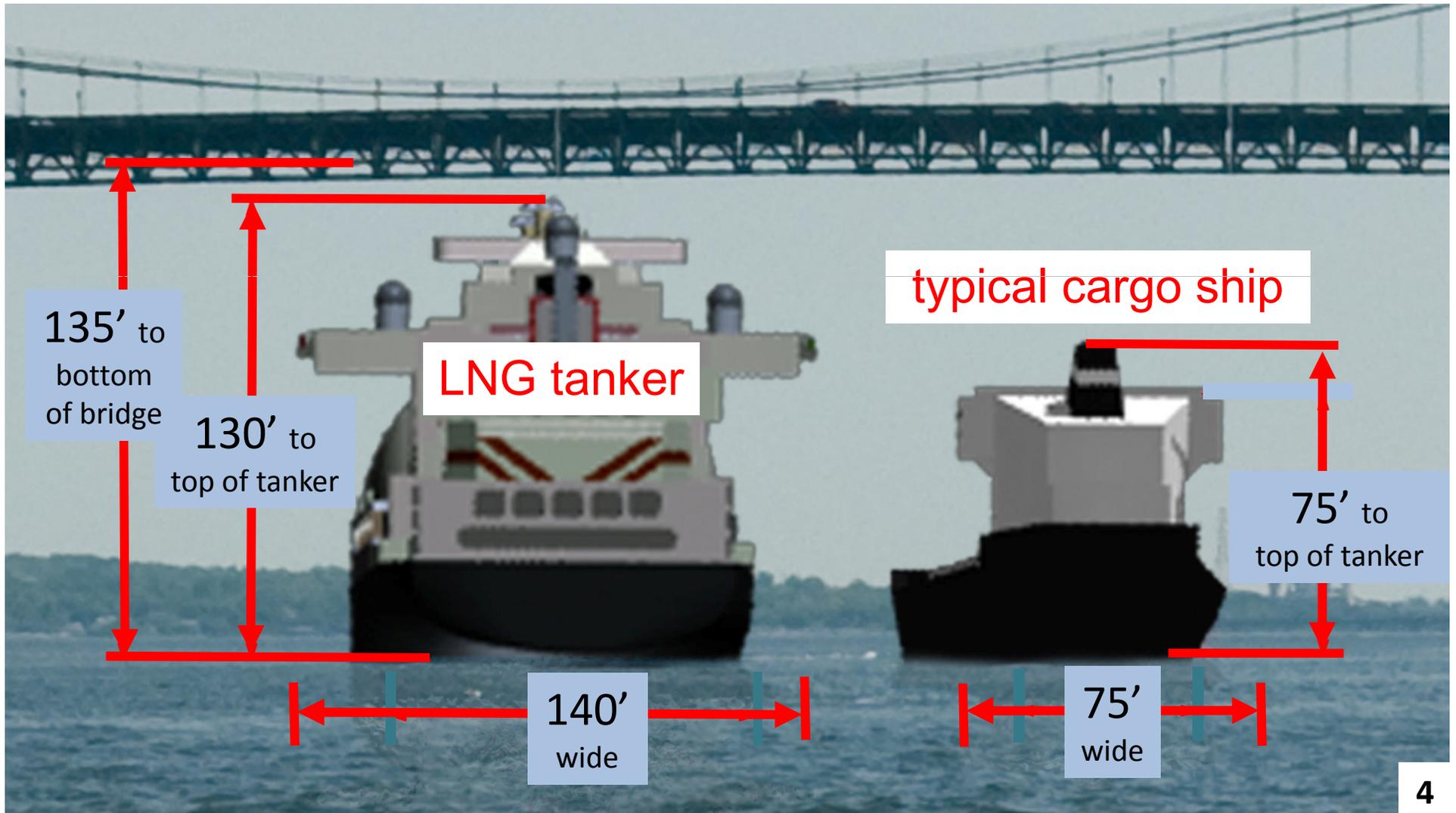
- Nearly 3 football fields long
- Can carry approximately 5 million cubic feet of LNG



The LNG tankers

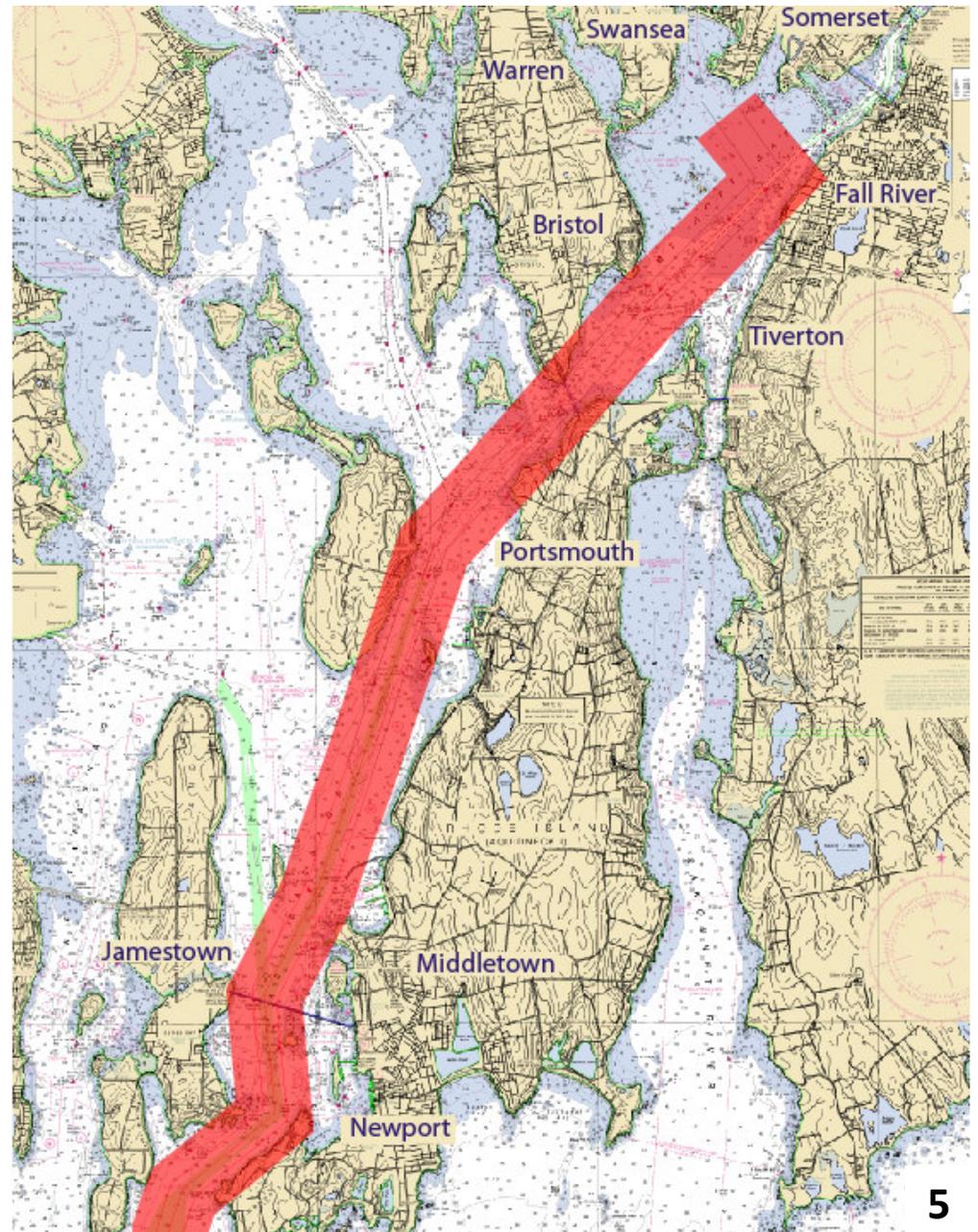
To scale comparison of LNG tanker & cargo ship under the Mount Hope Bridge

All transits must occur at high tide to accommodate the tanker's laden draft.



LNG tankers' route to the berthing station

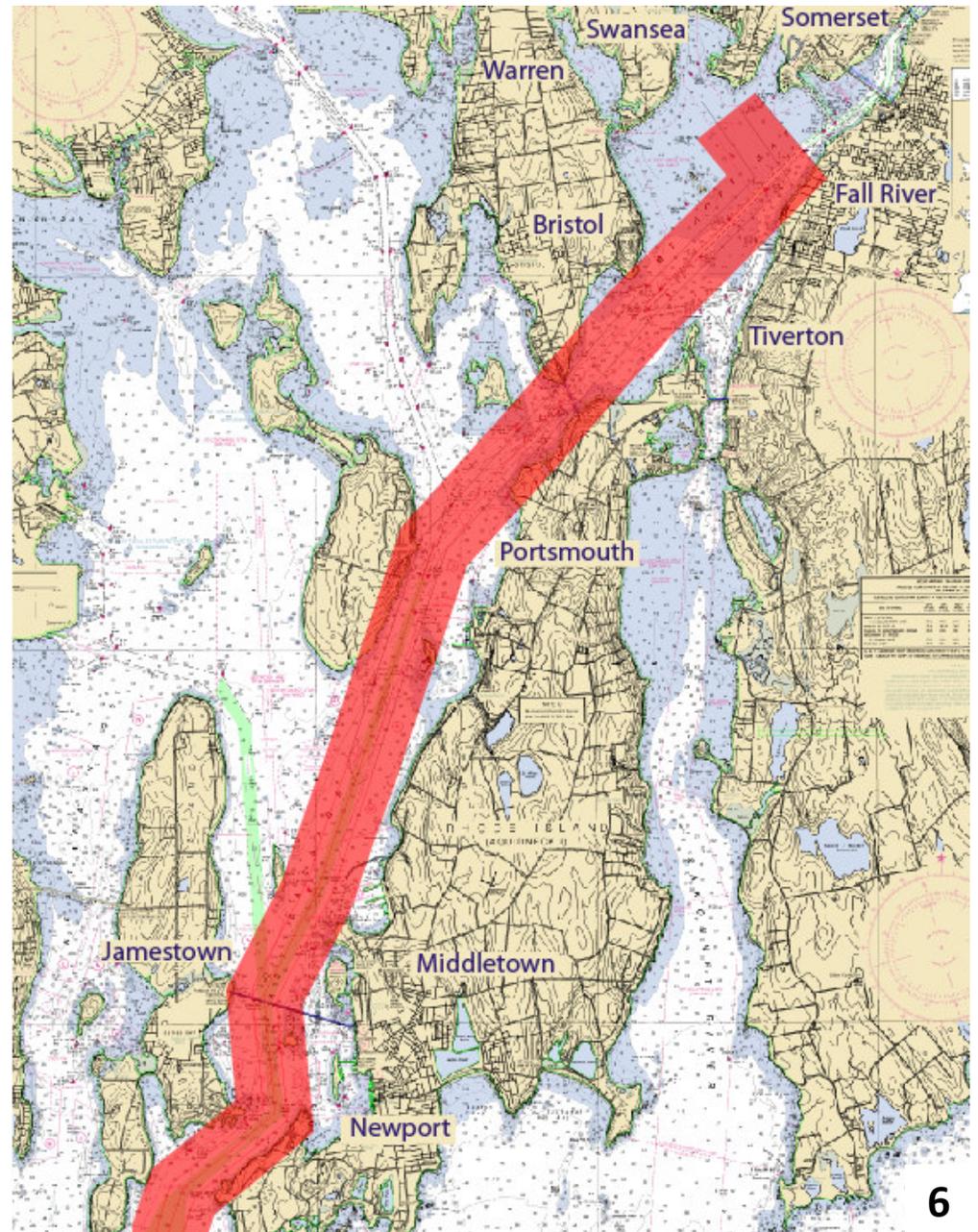
- Under the Newport-Pell Bridge
- Past the Naval War College & Naval Base
- Between Newport & Jamestown
- Along the west coast of Aquidneck Island
- Past Portsmouth & Carnegie Abbeys & St. Philomena School
- By Prudence Island & under the Mount Hope Bridge
- By Roger Williams University
- Into Mount Hope Bay



LNG tankers' route to the berthing station

The red area depicts the
“**Exclusion Zone**”
that may surround the
tanker as it moves
along its route:

- 2 miles ahead
- 1 mile behind
- 1000 yards on each side

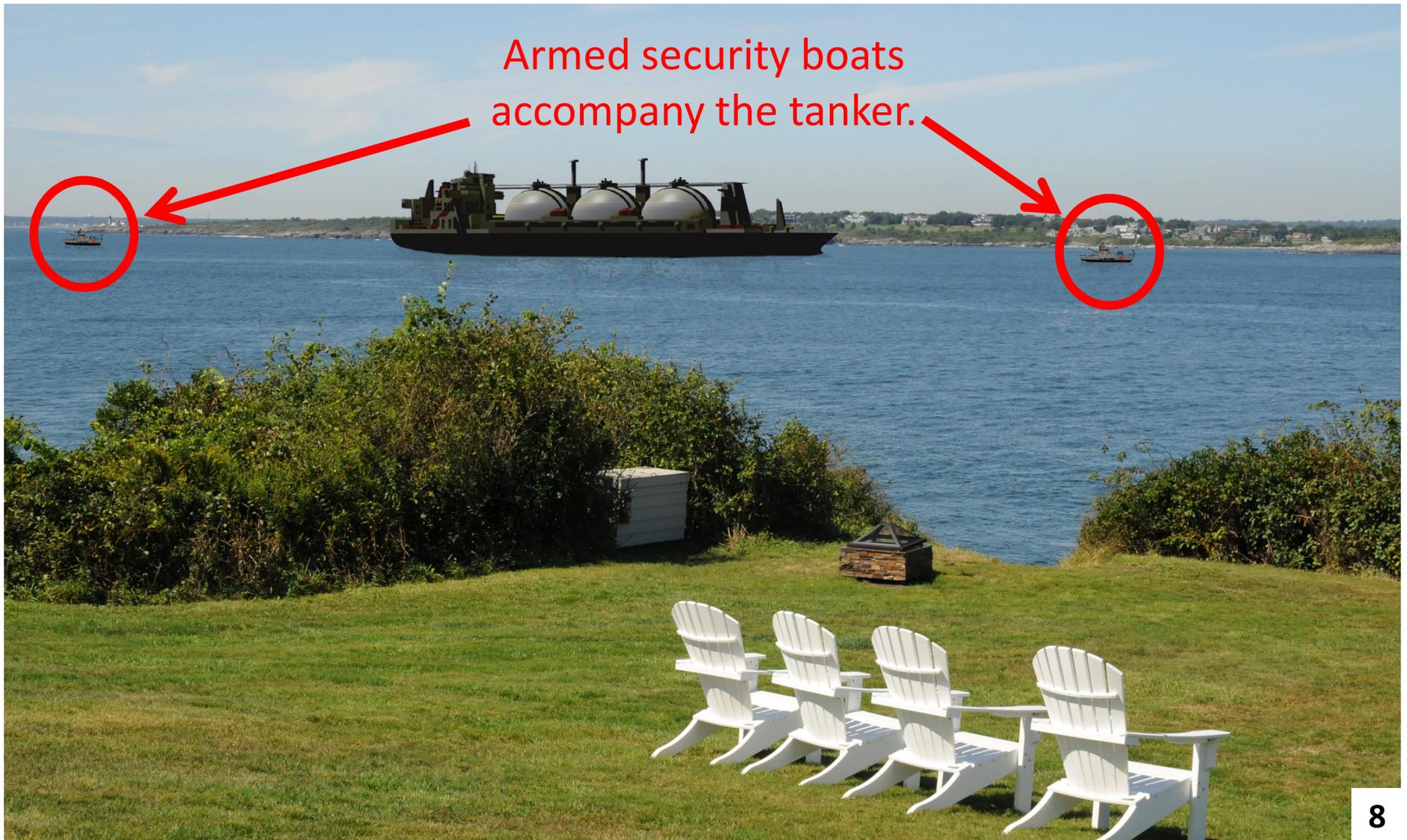


Images of LNG tanker in transit

The following slides show simulated images of an LNG tanker as it would travel along the route to the berthing station.

LNG tanker in transit

View from Castle Hill



LNG tanker in transit

View from Castle Hill toward the Newport–Pell Bridge



LNG tanker in transit

View from southeast as tanker passes under Newport-Pell Bridge



LNG tanker in transit

View from northwest toward Mount Hope Bridge



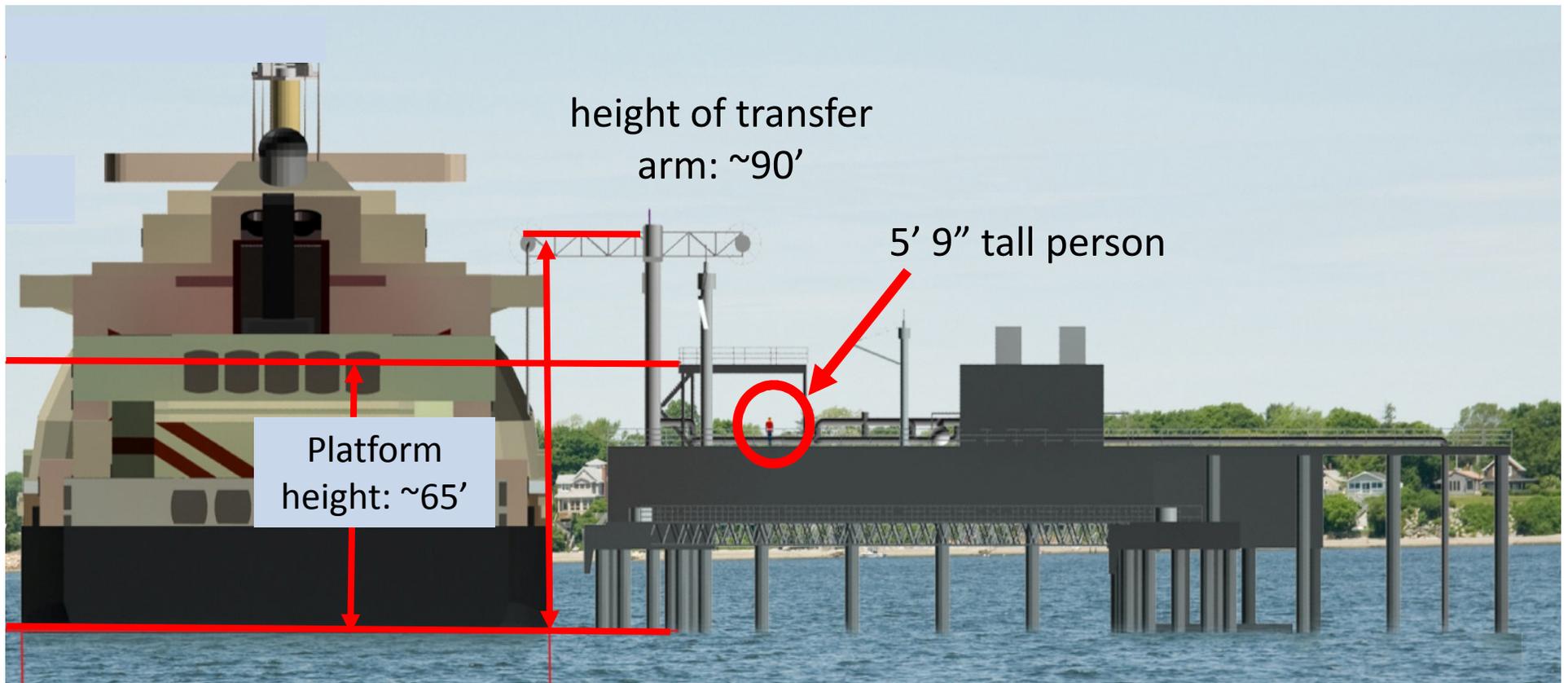
LNG tanker at berthing station

View toward the north



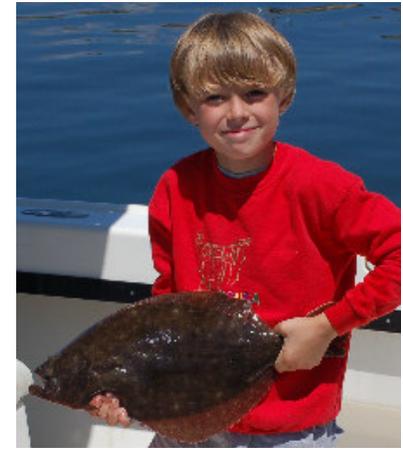
LNG tanker at berthing station

The platform is about 6 stories high.
The LNG tanker is about 13 stories high.



Critical Concerns

➤ Environmental



➤ Quality of life



➤ Security costs

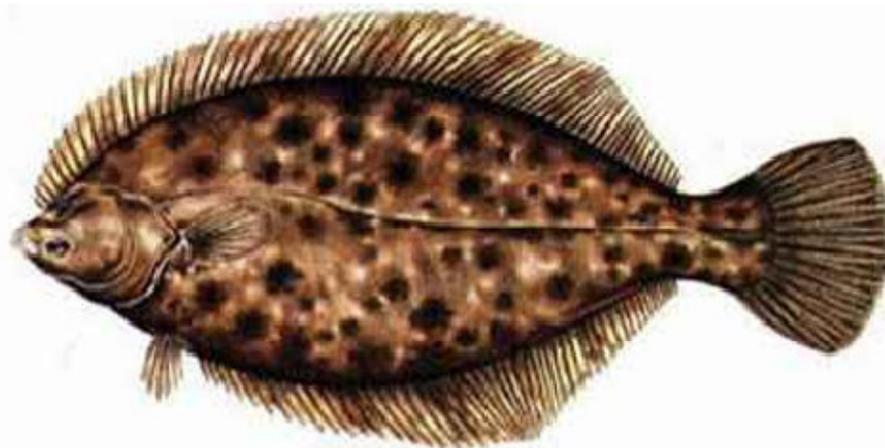
➤ Basic Planning Issues



Environmental concerns: *Negative impacts on fisheries*

Mount Hope Bay is designated as “essential fish habitat” for 17 species by the N.E. Fisheries Management Council.

Dredging for the LNG berthing station and tanker route will result in the **permanent loss** of *at least* 73 acres of fish & shellfish **habitat**.



Environmental concerns: *Negative impacts on fisheries*

Winter flounder is an economically-important, bottom-dwelling species that would be especially impacted by habitat loss due to dredging.

- Local populations are already stressed & additional habitat loss will hinder their recovery
- Potential for successful habitat restoration after dredging is unknown.



Quality of life concerns: *Bridge closings*

By order of the Rhode Island Turnpike & Bridge Authority, the Newport-Pell & Mount Hope Bridges would **close** as the tankers approach & pass underneath during **140 unannounced** transits per year.

- Traffic may back-up 3 miles
- Time **delays** before traffic returns to normal:
 - up to **26 min.** at Newport Bridge
 - up to **47 min.** at Mt Hope Bridge



Quality of life concerns: *Bridge closings*

For Bristol residents, access to **St. Anne's Hospital** in Fall River & **Newport Hospital** would be disrupted.

“The ability of the Bristol and Portsmouth **Fire Departments** to respond to incidents (across the bridge) would be **severely impacted.**”

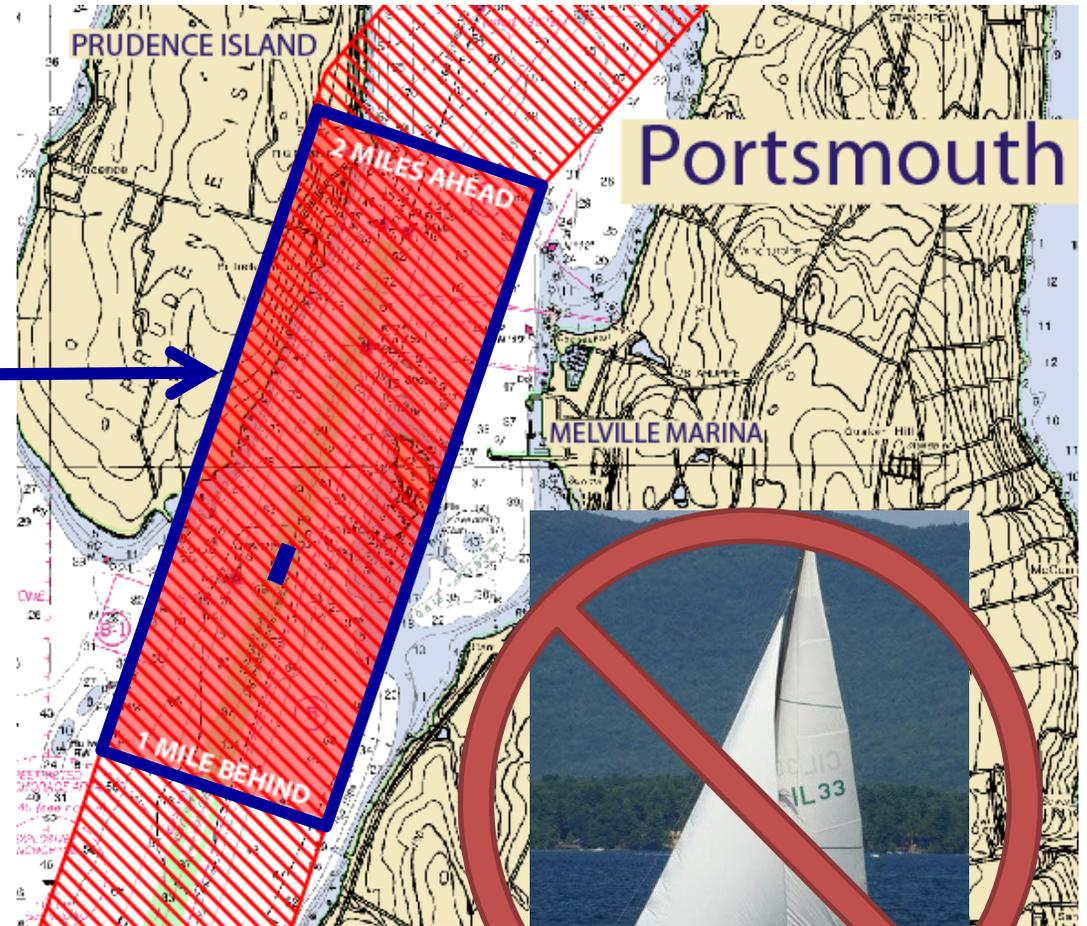
- *Aquidneck Island Planning Commission: LNG Traffic Impact Assessment Report*



Quality of life concerns: *Restricted access to waterways*

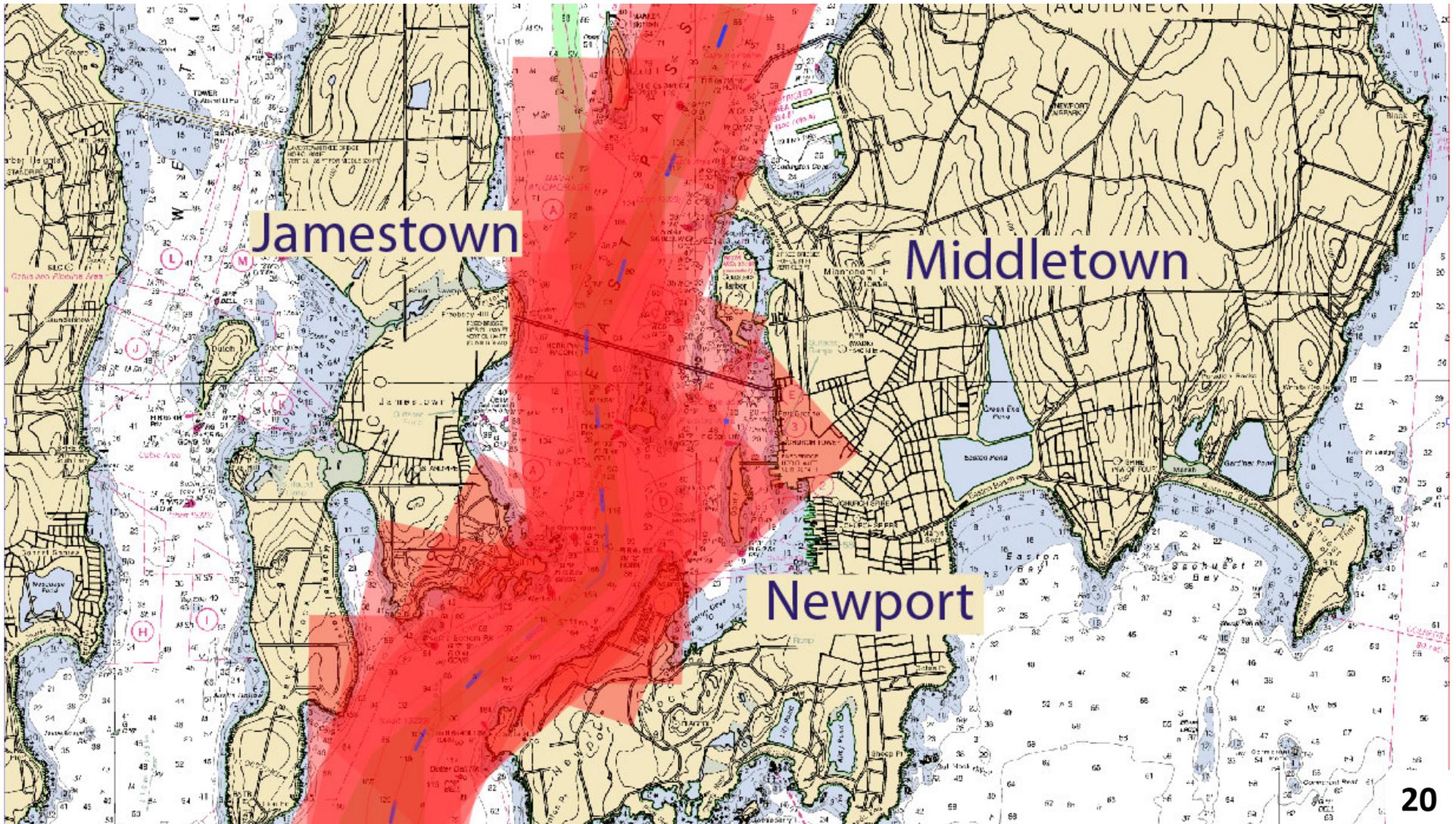
As tankers move through the Bay, boats may be forced to leave the moving, secured **Exclusion Zone** surrounding the tanker:

- 2 miles ahead
- 1 mile behind
- 1000 yards on each side



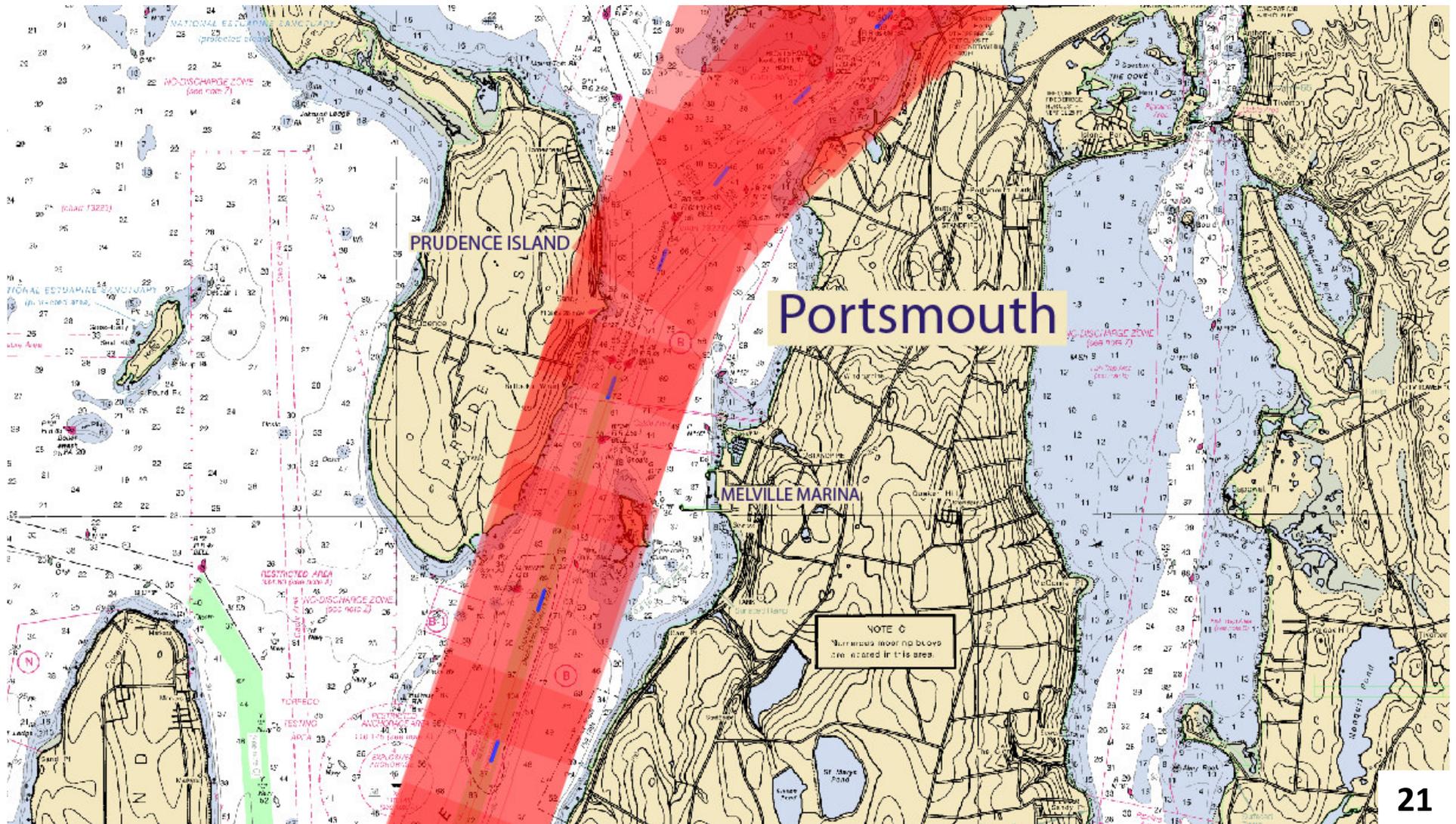
Restricted access to waterways

Footprint of the overlapping exclusion zones (red) as the tanker moves from Castle Hill to Newport-Pell Bridge



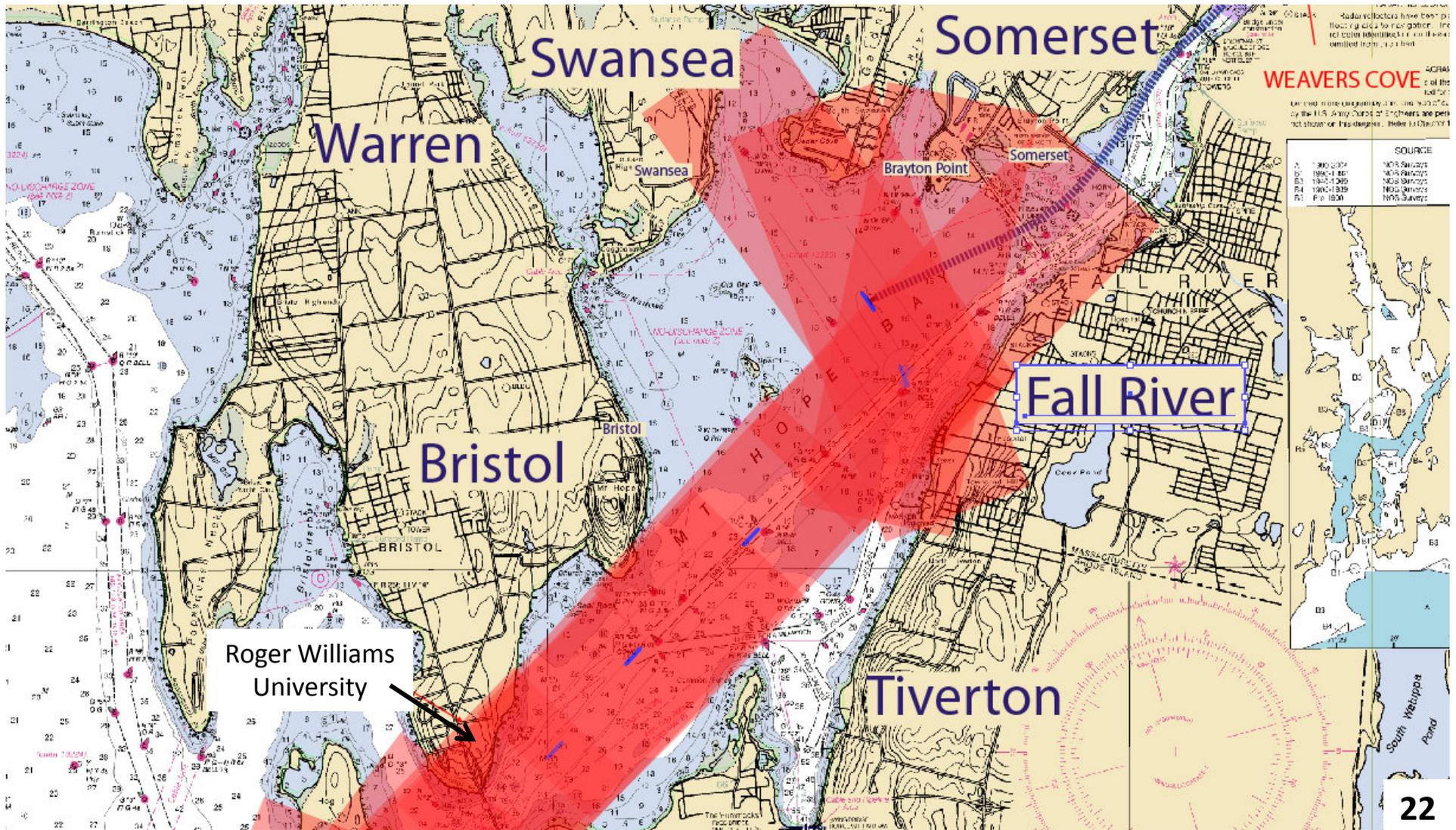
Restricted access to waterways

Footprint of the overlapping exclusion zones (red) as the tanker moves between Prudence Island & Portsmouth



Restricted access to waterways

Footprint of the overlapping exclusion zones (red) as the tanker moves through Mount Hope Bay to the berthing station



Security concerns:
*Potential burden on
local police & fire companies*

Possible security measures used for each tanker trip coordinated by the Coast Guard:

- local, state and/or environmental police
- patrol & police boats
- firefighting tugs
- helicopter patrol
- divers for surveillance inspections

Security concerns:

Burden on local fire & police companies

Potential taxpayer costs

Local communities **lack** the security equipment, personnel & monetary **resources** required to deal with LNG tanker shipments.

Estimated costs for Bristol to create emergency infrastructure:

- \$4,000,000 for necessary equipment
- \$500,000 for Disaster Medical Alert Team vehicle
- \$300,000 to train & equip emergency personnel

*An additional **\$700,000 per year** will be required for the operation & maintenance of the emergency infrastructure.*

Security concerns: *Risk of accidents*

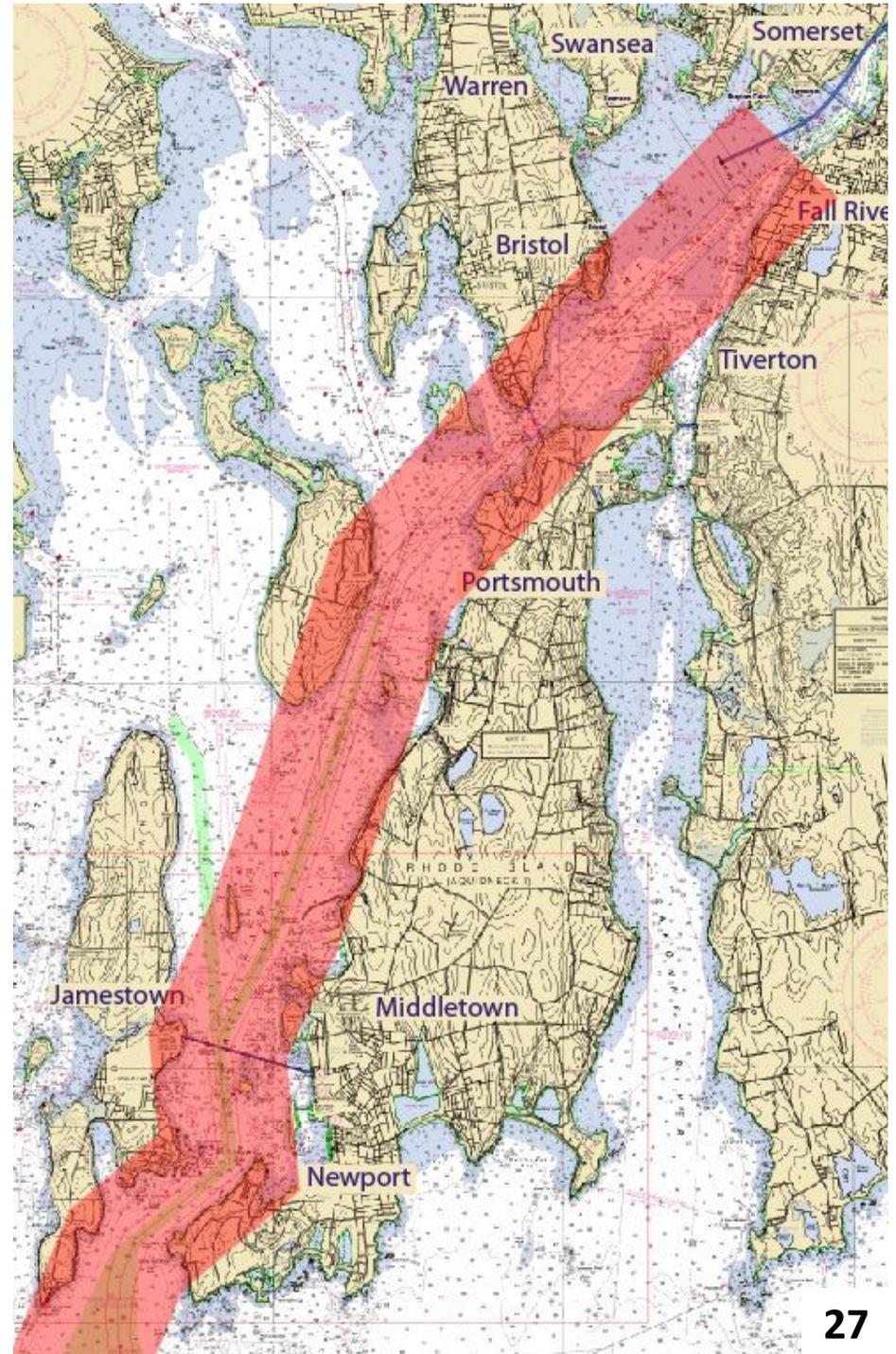
*Hess Corporation acknowledged the risks
in their 2008 annual report:*

“... our oil and gas operations are subject to **unforeseen occurrences** which may damage or destroy assets or interrupt operations. Examples of **catastrophic risks** include hurricanes, fires, ***explosions*** and blowouts. These occurrences **have affected us** from time to time.”

Risk of accidents

In the event of an LNG tanker explosion, the impact zone could reach up to one mile from the tanker.

The two mile-wide impact zone along the tanker's route is the red area in this image.



Security concerns:

Burden on local fire & police companies

Potential taxpayer costs

“It would be **impossible for Bristol to provide** even the minimum **security requirement** for the passage of an LNG ship due to the terrain of the shoreline, more than 30 rights-of-way, and insufficient funds and manpower in its police department and harbor patrol.”

“Addressing such a mass casualty incident (as an LNG accident) would be **overwhelming** for a paid, full-time department, let alone (Bristol’s) volunteer department.”



- Diane Mederos, Bristol Town Administrator

Similar concerns apply to all communities along the LNG tankers proposed route:
Jamestown, Newport, Middletown, Portsmouth, Tiverton, Fall River, Somerset

Basic Planning Concerns

Is another LNG facility needed?

The National Environmental Protection Act (NEPA) *requires* that Hess-Weaver's Cove Energy **demonstrate a need** for an LNG terminal at the proposed site.

Recent, large discoveries of natural gas in the U.S. severely reduce or eliminate the need for foreign-imported LNG.

*The MA Dept. of Energy asserts that “it is **unclear to what extent, if any, (Hess Corporation’s) LNG supply is needed** either to meet the region’s gas supply needs or to reduce fossil fuel use in the region.”*

Basic Planning Concerns

Is more LNG even needed?

“We have **more gas than we know what to do with** in the U.S.,” contends energy consultant Stephen Schork of Schork Group Inc., an international energy consulting agency.

“It’s the **worst possible moment to increase production**, because the world is in recession and prices are so low,” said Tony Regan, a former executive in Royal Dutch Shell Plc’s LNG business.

In a 2010 report, Denis Blair, U.S. Director of National Intelligence, reported to the U.S. Senate:

"Recent developments in the US gas sector, primarily shale gas, have made the United States essentially gas independent for at least a decade or two, if not longer. The increase in US natural gas resources has added downward pressure on gas prices worldwide; sharp declines in US imports of liquefied natural gas cargos, coupled with an increase in liquefaction export capacity, have produced ***a glut of liquefied natural gas available on the market.***"

Basic Planning Concerns

Is Mount Hope Bay the best place for an LNG facility?

The Society of International Gas Tanker and Terminal Operators (SIGTTO) lists standards that define **best practices** for siting LNG terminals, including locations where:

- There is no acceptable probability for a catastrophic LNG release
(i.e., avoid population centers)
- They are far from the ship transit fairway
- They do not conflict with other waterway uses
- No long, narrow inland waterways are present, due to navigation risk
- They are not on the outside curve of the waterway, since other transiting vessels would at some time be headed toward the berthed LNG ship.

Does the HESS-Weaver Cove Energy's proposal meet any of these criteria?

Basic Planning Concerns

Have alternatives been properly considered?

Sound planning incorporates a fair consideration of alternatives to assure interested parties that the plan under consideration is the best available. Those alternatives include:

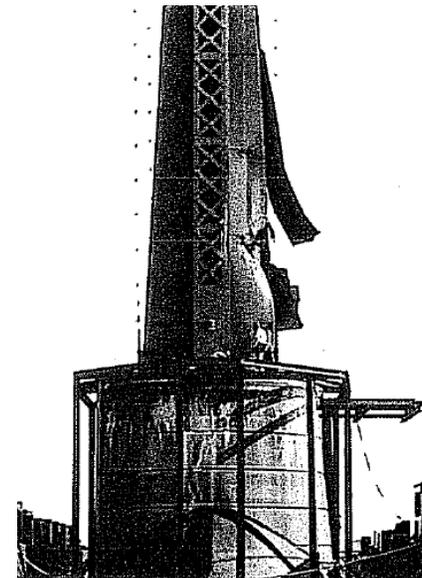
- Expansion of existing natural gas pipeline infrastructure
- Increasing the volume of LNG delivered to existing terminals in New England (e.g., Canaport LNG, Northeast Gateway, Neptune LNG). The unused capacity of these facilities far exceeds the planned capacity of the proposed Mount Hope Bay berthing station.
- Building an off-shore LNG facility away from populated areas & recreational waterways.

Hess-Weaver Cove Energy's proposal fails to show why their plan is superior to these more cost-effective alternatives.

Other Concerns

- There may be **negative impacts on the local economy** via potential loss of revenue & jobs relating to tourism & fisheries.
- **No funds for decommissioning** the berthing station & environmental restoration have been planned in case the LNG facility is unprofitable, becomes obsolete or is abandoned.
- The pipeline for LNG transport to Weaver's Cove would cross known **earthquake** faults & use pipe-in-pipe **technology** that has **never been tested** for the proposed 4.2 mile length.
- LNG tankers & facilities are possible targets for **terrorist** acts.
- An LNG tanker **collision with the Mount Hope Bridge** would cause severe damage requiring extended bridge closure, as happened in 1975 with a smaller vessel.

(See additional photos of bridge damage in the Appendix).



Community Opposition to this LNG project

- *Virtually all* local, state and federal elected officials in RI & MA are on record as opposing this facility
- State agencies including RI Turnpike & Bridge Authority, RI Dept. of Environmental Management, & RI Coastal Resources Management Council are all *opposed to* this LNG project.

Summary:

Cost-benefit analysis

Costs & risks

- Financial burdens on taxpayers
- Loss of local tourism & fisheries jobs
- Irreversible damage to the local environment
- Diminished local quality of life
- Restrictions on recreational use of waterways
- Bridge closures during tanker transit
- Bridge damage due to tanker collision
- Accidents or acts resulting in injuries or lives lost
- Security costs for tankers, facility & pipeline
- Imported natural gas is more expensive than domestic natural gas
- Continued investment in and reliance on foreign energy sources
- Eventual abandonment of LNG facility

Proposed benefits

- Profit for Weaver's Cove/Hess
- Short-term job creation for facility's construction
- Minimal long-term job creation
- More natural gas in a saturated market



These lists point to a clear conclusion:

With local costs & risks far outweighing potential benefits, it would be flagrant negligence & dereliction of duty to approve this LNG proposal.

Conclusion:

We vehemently oppose this LNG project.

- It will have dire & irreversible impacts on the environmental & recreational quality of Narragansett & Mount Hope Bays.
- The safety & security of our communities & institutions cannot be fully ensured.
- Closed bridges will cause significant traffic & safety concerns.



Conclusion:

We vehemently oppose this LNG project.

Approval of this project would forever alter the character & use of Narragansett & Mount Hope Bays.

**A predominantly public water way
will become an industrial one.**

*Should Hess' pursuit of
profits trump the
public's right to the waters
of Narragansett &
Mount Hope Bays?*



What can you do?

➤ Sign Save the Bay's online petition

- <http://www.savebay.org>

➤ Spread the word

- Tell your friends & neighbors
- Forward this slideshow to them



➤ Stay informed & be engaged

- Visit Save Bristol Harbor's website for more information & updates:

www.savebristolharbor.com



What can you do?

➤ Contact Your Government Officials

- Our federal congressional representatives are opposed to this project but they need our support to continue fighting it.
- *Please share your specific concerns with them in a letter.*

The Honorable Jack Reed
1000 Chapel View Boulevard
Suite 290
Cranston, RI 02920

The Honorable Patrick J. Kennedy
249 Roosevelt Avenue
Suite 200
Pawtucket, R.I. 02860

The Honorable Sheldon Whitehouse
170 Westminster Street
Suite 1100
Providence, RI 02903



Sources of Information

- Most information about the proposed LNG project is from documents submitted to the Federal Energy Regulatory Commission (FERC), docket # CP04-36. These can be downloaded here:
http://elibrary.ferc.gov/idmws/docket_search.asp
- Slides 15 & 16, fisheries & impacts: Massachusetts Division of Marine Fisheries; the federal Magnusson Act designates the Bay as essential fish habitat
- Slides 17 & 18, bridge closings: The RITBA LNG Terminal Resolution from June 14, 2005 states:
“The movement of tankers carrying large amounts of LNG under or in proximity of the Pell-Newport and Mt. Hope Bridges will require the bridges to be closed to traffic. Closure of the bridges is expected to create safety hazards including delays in the response time of emergency vehicles...”
- Slides 17 & 18, bridge closings & delays: Aquidneck Island Planning Commission’s LNG Traffic Impact Assessment Report. Available here: <http://www.aquidneckplanning.org/images/Lngtraffic.pdf>
- Slide 25, Bristol’s potential taxpayer costs:
Affidavit submitted to FERC by Diane Mederos for Bristol, RI
- Slide 26, Hess 2008 Annual Report available here:
http://media.corporate-ir.net/media_files/irol/10/101801/2008_AnnualReport/our-company/index.shtml
- Slide 27, Explosion impact zone: 2004 Sandia Laboratory report, “Guidance on Risk Analysis and Safety Implications of a Large Liquefied Natural Gas (LNG) Spill Over Water,” available here:
http://fossil.energy.gov/programs/oilgas/storage/lng/sandia_lng_1204.pdf

Sources of Information

- Slide 29, Information about LNG needs: Nov. 16, 2009 letter from the MA Dept of Energy Regulation
- Slide 29, NEPA considerations: From a white paper by the LNG Terminal Siting Standards Organization. Available here:
www.quoddyloop.com/lngtss/documents/whitepapers/2008mar26_states_trump_ferc.html
- Slides 29, 32, Existing LNG terminals serving New England and their capacity :
www.lngfacts.org/resources/lng-approved-terminals-9-18-08.pdf
www.ferc.gov/industries/lng/indus-act/terminals/lng-existing.pdf
www.excelerateenergy.com/northeast.html
www.suezenergyna.com/ourcompanies/lngna-domac.shtml
<http://www.ferc.gov/industries/lng/indus-act/terminals/lng-proposed.pdf>
- Slide 30, quotations:
First two from a Bloomberg News article available at:
<http://www.bloomberg.com/apps/news?pid=20601109&sid=aiUK2YSomg7s&pos=14>
Third available from the report “Annual Threat Assessment of the US Intelligence Committee for the Senate Select Committee on Intelligence,” available here:
<http://intelligence.senate.gov/100202/blair.pdf>
- Slide 31, Sound siting standards according to SIGTTO’s Information Paper No. 14: “Site selection and design for LNG ports and jetties.” For more information see here: www.sigtto.org

For additional information on LNG, see the website of the Center for Liquefied Natural Gas: www.lngfacts.org

Appendix

Photo of an Off-Shore Berthing Station With Tanker



Appendix

Photo of a Berthing Station With Tanker



Appendix

Photos of damage & repair work to a tower of the Mount Hope Bridge in 1975 due to a ship collision.

