EXECUTIVE SUMMARY

This final environmental impact statement (EIS) for the Weaver's Cove LNG Project has been prepared by the staff of the Federal Energy Regulatory Commission (FERC or Commission) to fulfill the requirements of the National Environmental Policy Act (NEPA) and the Commission's implementing regulations under Title 18, Code of Federal Regulations, Part 380. The purpose of this document is to inform the public and the permitting agencies about the potential adverse and beneficial environmental impacts of the proposed project and its alternatives; and to recommend mitigation measures that would avoid or reduce any significant adverse impact to the maximum extent possible.

The vertical line in the margin identifies text that has been modified in the final EIS and differs from the corresponding text in the draft EIS.

Weaver's Cove Energy, L.L.C. indicates that its proposal would specifically provide: a new liquefied natural gas (LNG) import terminal and competitive source of imported LNG in the New England market area; a new facility for the storage of LNG; access to natural gas reserves in production areas throughout the world that are inaccessible by conventional pipelines; a new supply of natural gas to New England; strengthened gas supply to southeastern Massachusetts and Rhode Island; and a competitive source of LNG delivered by truck to LNG storage facilities throughout the region. To accomplish these purposes Weaver's Cove Energy, L.L.C. proposes to construct and operate an LNG terminal, and Mill River Pipeline, L.L.C. proposes to construct and operate two new natural gas pipelines and ancillary facilities in the Commonwealth of Massachusetts. Hereafter, Weaver's Cove Energy, L.L.C. and Mill River Pipeline, L.L.C. are referred to collectively as Weaver's Cove Energy. Weaver's Cove Energy's proposed facilities would transport up to 800 million cubic feet per day (MMcfd) of imported LNG to the United States market. In order to provide these services, Weaver's Cove Energy has requested the Commission's authorization to construct, install, and operate the following facilities.

The LNG terminal facilities would include:

- a ship unloading facility with a single berth capable of receiving LNG ships with cargo capacities of up to 145,000 cubic meters (m^3);
- a 200,000 m^3 (equivalent to 4.4 billion standard cubic feet of gas) full containment LNG storage tank;
- vaporization equipment, sized for a normal sendout of 400 MMcfd and a maximum sendout of 800 MMcfd;
- four LNG truck loading stations; and
- ancillary utilities, buildings, and service facilities.

The natural gas pipeline facilities would include:

- two 24-inch-diameter natural gas sendout pipelines (Northern and Western Pipelines), totaling approximately 6.1 miles in length; and
- two meter and regulation stations.

The Massachusetts Executive Office of Environmental Affairs (EOEA) issued a Certificate to Weaver's Cove Energy on August 28, 2003 that established a Special Review Procedure (SRP) to guide the Massachusetts Environmental Policy Act (MEPA) review of the Weaver's Cove LNG Project. This SRP provided for a coordinated NEPA/MEPA review. It also allowed the draft and final EISs to serve as the draft and final Environmental Impact Reports (EIRs) required under MEPA, provided the EISs address MEPA's EIR requirements, as specified in the MEPA scope for the project that was issued concurrently with the SRP on August 28, 2003. Pursuant to the established SRP, the EOEA reviewed the draft EIS and issued a Certificate on October 1, 2004 following the close of the comment period. In the Certificate, the Secretary of the EOEA determined that the draft EIS did not sufficiently address several issues critical to understanding the project design and how the project meets state regulatory requirements and thus required Weaver's Cove Energy to prepare a supplemental draft EIR. The Secretary of the EOEA stated that its decision was directed at the deficiencies of the joint federal\state document only as it relates to the state requirements under MEPA. Weaver's Cove Energy responded and submitted a supplemental draft EIR to the Secretary of the EOEA on November 1, 2004. On December 17, 2004, the Secretary of the EOEA determined that the supplemental draft EIR did not adequately and properly comply with the MEPA and its implementing regulations. Because the decision of the Secretary of the EOEA was based on the inadequacy of the supplemental draft EIR to meet state regulatory requirements, the FERC continued to complete its analysis of the project for federal review purposes and to prepare this final EIS pursuant to the Council on Environmental Quality's (CEQ) NEPA implementing guidelines. Nevertheless, we believe this final EIS will help satisfy the requirements of the MEPA.

PROJECT IMPACTS

The environmental issues associated with construction and operation of the Weaver's Cove LNG Project are analyzed in this final EIS using information provided by Weaver's Cove Energy and further developed from data requests; field investigations by the Commission staff; literature research; alternative analyses; comments from federal, state, and local agencies; and input from legislators, public groups, and individual citizens.

Geology

Construction and operation of the project would have minimal impact on geologic resources in the area, and the potential for geologic hazards or other natural event to significantly impact the project is low. The LNG storage tank and other critical structures at the terminal site would be designed to address predicted ground shaking associated with a seismic event. The elevation of the southern parcel of the site would be raised and the existing seawall would be fortified, which would minimize the potential for impacts associated with ocean-derived flooding and flash flooding associated with a hurricane or tsunami.

Soils and Sediments

Construction of the project facilities would increase the potential for erosion and loss of soil productivity. Weaver's Cove Energy would minimize the impacts on soils through its implementation of the erosion and sedimentation control measures contained in the FERC's *Upland Erosion Control, Revegetation, and Maintenance Plan* (FERC Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (FERC Procedures), as well as a site-specific erosion and sedimentation control plan and stormwater management plan.

The 2.6 million cubic yards of sediment dredged from the Taunton River and Mount Hope Bay would be transported to the LNG terminal site in barges, processed and stabilized with portland cement, and then utilized on the LNG terminal site as general fill material. Our analysis indicates that the concentration of oils and other hazardous materials in the dredged material would not pose a significant

risk to human health. As requested by the Massachusetts Department of Environmental Protection (DEP), Weaver's Cove Energy conducted additional testing of the soils at the LNG terminal site to provide a further basis for compliance with the anti-degradation provision of the Massachusetts Contingency Plan (MCP). Based on the results of this testing, we have concluded that use of the stabilized dredged sediment on the LNG terminal site would not significantly degrade site conditions. The DEP has not yet made a final determination regarding the upland placement of the dredged materials. If the DEP does not verify Weaver's Cove Energy's compliance with the anti-degradation provision of the MCP, Weaver's Cove Energy would not be able to use the proposed site for upland placement of the dredged material. If this occurs, Weaver's Cove Energy would need to identify an alternative disposal site. For this reason, we have recommended that Weaver's Cove Energy provide a revised sediment placement plan if it is unable to verify the consistency of the proposed plan with the MCP.

Weaver's Cove Energy conducted Tier III testing of the sediments to determine their suitability for open water disposal. Weaver's Cove Energy's analysis of these results indicates that most of the proposed dredged material would be suitable for open water disposal. However, the U.S. Army Corps of Engineers (COE) and U.S. Environmental Protection Agency (EPA) are currently reviewing the Tier III testing results and have not concurred with Weaver's Cove Energy's determination regarding the suitability of the material for offshore disposal. Any alternative disposal options, including open water disposal, identified by Weaver's Cove Energy would require additional environmental review and FERC approval prior to dredging or construction of any of the proposed facilities.

Water Resources

Groundwater

There are no private or public drinking supply wells near the proposed facilities and there are no federal or state sole-source aquifers, protected aquifers, or wellhead protection areas in the project vicinity. Groundwater and soil at the LNG terminal site are contaminated with petroleum from prior petroleum storage and distribution activities, and an active groundwater remediation plan is being implemented at the site in accordance with the MCP. We do not expect the physical effects of placing a large volume of dredged material on the LNG terminal site, modification to the existing timber bulkhead, or the installation of stone columns beneath the LNG tank, would have a significant impact on the groundwater flow regime or the configuration of the existing petroleum plumes. In accordance with the MCP, Weaver's Cove Energy would need to monitor groundwater levels and the effectiveness of remediation system during construction and would implement measures to prevent the migration of petroleum products to the Taunton River. The DEP has stated that if the construction of this facility requires Weaver's Cove Energy to conduct a response action, Weaver's Cove Energy must be included on the Tier 1B Permit as a responsible party, potentially responsible party, or other party. Modifications to the existing remediation system may require that a revised Phase IV Remediation Plan, Phase V Operations and Maintenance Plan, and Remedial Operations Status Plan be submitted to the DEP.

Construction of the proposed pipelines could temporarily affect groundwater along the pipeline routes but these effects would be mitigated by Weaver's Cove Energy's plan to backfill the trench with native material and restore natural contours and drainage patterns in accordance with the FERC Plan and the FERC Procedures. Because the pipelines would be constructed near several known contaminated sites, there is a potential to encounter contaminated soils or groundwater during construction. We have recommended that Weaver's Cove Energy prepare a plan for the discovery and management of contaminated soils or groundwater to address potential impacts if contaminated groundwater or soil is encountered during construction. There is also a potential for a spill of hazardous material during construction that could impact groundwater. Weaver's Cove Energy would minimize the potential impact of a spill by implementing a Spill Prevention, Containment, and Countermeasure Plan (SPCC Plan).

Surface Water

The proposed dredging activities and shoreline modifications would impact the Taunton River and Mount Hope Bay by suspending sediment into the water column. Sediment fate and transport modeling indicates that suspended sediment impacts would be temporary and primarily localized to the dredging areas. Our analysis indicates that contaminants associated with the dredged sediment would not likely pose a significant hazard. Elutriate test results indicate that most of the chemicals in the sediments would remain tightly bound to the sediments and would not be released in significant quantities into the water column. The proposed pipelines would cross the Taunton River and 14 other perennial or intermittent streams using an open-cut construction technique. Weaver's Cove Energy would minimize impacts on these waterbodies by implementing a SPCC Plan, adhering to the protective measures contained in the FERC Procedures, and complying with the requirements of its National Pollutant Discharge Elimination System permits. Impacts on the Taunton River would also be minimized by Weaver's Cove Energy's implementation of a Stormwater Management Plan.

Wetlands

The proposed shoreline stabilization and construction of the ship unloading facility offshore of the southern parcel would result in the filling of 0.04 acre of estuarine salt marsh, 0.94 acre of other intertidal habitat, and 0.19 acre of subtidal habitat. The administration building and parking lot on the northern parcel would fill 1.9 acres of palustrine emergent/scrub shrub wetlands. Dredging would impact another 191 acres of subtidal habitat and about 0.23 acre of intertidal habitat. Construction of the Northern and Western Pipelines would temporarily disturb 2.82 acres of wetlands, of which approximately 0.47 acre would be converted to other wetland types. Weaver's Cove Energy would minimize impacts on wetlands by implementing the FERC Procedures and proposes to compensate for permanent wetland impacts that cannot be avoided by implementing a wetland mitigation plan. This plan includes the restoration and creation of about 0.74 acre of salt marsh on the site and the creation of about 0.18 acre of freshwater wetland in an upland area on the site. About 0.13 acre of tidal creek would be constructed in the restored and created salt marsh to connect this area with the Taunton River. We have recommended that Weaver's Cove Energy consult with the COE and the National Oceanic and Atmospheric Administration (NOAA) Fisheries regarding mitigation of wetlands as well as intertidal and subtidal habitats and file with the Secretary the results of these consultations and the COE-approved Wetland Mitigation Plan prior to construction.

Aquatic Resources

The proposed dredging activities (disturbing 191 acres subtidal habitat) and shoreline modifications would have both direct and indirect impacts on aquatic resources, including fish, shellfish, and benthic organisms. Direct alteration of the benthic substrate via dredging would remove the existing benthic community and may adversely affect prey species, suitable cover, settlement structure, and/or nursery and spawning habitat. Dredging would also directly and permanently impact an estimated 21 acres of quahog habitat. To reduce impacts on quahogs, Weaver's Cove Energy would coordinate with federal and state resource agencies to harvest and relay quahogs from the proposed dredging footprint prior to dredging and develop and fund a plan to reseed quahogs in the areas where quahogs were harvested.

Dredging, construction of the ship unloading facility, and proposed shoreline modifications would also resuspend sediment in the water column, which along with site runoff and prop wash associated with the transit of LNG ships during operations could affect aquatic organisms. Weaver's Cove Energy conducted elutriate tests and computer simulation modeling to determine the potential effects of dredging on aquatic organisms. As mentioned above, the elutriate test results suggest that some

chemicals could be released from the sediments into the water column. However, the concentrations of these chemicals would be diluted by the surrounding water and thus are unlikely to pose a significant risk to aquatic organisms, particularly since the DEP would require a water quality monitoring program during construction. Sediment modeling results indicate that the maximum suspended sediment concentration during dredging would not exceed the minimum effects concentration for any species at any life stage. The modeling also indicates that the deposition of suspended sediment on the river bed would not exceed the minimum effects threshold for any life stage of any species except winter flounder eggs. According to the results of the modeling, the redeposition of sediments from the current proposed dredging would impact about 6.2 acres of winter flounder egg habitat. In addition, dredging of the existing turning basin wider and deeper could directly affect another 11 acres of winter flounder egg habitat.

NOAA Fisheries reported that the Taunton River and Mount Hope Bay have been designated as Essential Fish Habitat (EFH) for 14 federally managed fish species. The draft EIS included an EFH Assessment as necessary for compliance with the Magnuson-Stevens Fishery Conservation and Management Act. The EFH Assessment determined that the proposed project could affect water column, benthic habitat, and man-made structure EFH, and has the potential to affect anadromous fish and shell fish, two of the primary prey groups for the managed fish species. Based on its review of the EFH Assessment in the draft EIS, NOAA Fisheries provided conservation recommendations to further avoid, minimize, and mitigate adverse effects on EFH. These recommendations include: prohibiting in-water, silt-producing activities between January 15 and May 31 to protect winter flounder spawning and juvenile development; requiring mitigation to offset permanent loss of winter flounder spawning and juvenile development habitat resulting from expansion of the turning basin; and requiring mitigation to offset for the placement of fill within intertidal, salt marsh, and subtidal areas during site development. We agree with these conservation recommendations and believe additional measures would be necessary to mitigate for benthic habitat destruction and alteration, including direct and indirect impacts on winter flounder spawning habitat. For this reason, we have recommended that Weaver's Cove Energy avoid in-water, silt disturbing construction activities during the winter flounder spawning period (January 15 through May 31), develop a mitigation plan in consultation with federal and state agencies to offset permanent loss of winter flounder spawning and juvenile habitat, and continue developing its proposed wetland mitigation plan to compensate for permanent impacts on wetlands and intertidal and subtidal habitats.

Vegetation and Wildlife

Development of the LNG terminal would result in the permanent clearing of about 10.7 acres of forest land and the disturbance of 5.1 acres of vegetated open land. Following construction, previously vegetated areas that are not covered by buildings, roads, or other permanent structures would be restored and revegetated in accordance with a landscape design plan that would include plantings native to the area. Construction of the Northern and Western Pipelines would disturb 56.6 acres of vegetation consisting of 5.4 acres of upland forest, 39.6 acres of upland shrub land, 6.6 acres of upland fields, 2.8 acres of wetlands (discussed above), and 2.2 acres of landscaped lawns. Impacts on fields and lawns would be temporary and short term. Impacts on trees and other woody vegetation would be longer term. Additionally, woody vegetation on the permanent right-of-way and meter and regulation station sites, which includes 3.9 acres of forest land, would be permanently removed.

Construction of the proposed facilities and associated vegetation clearing would affect wildlife by removing habitat and temporarily displacing wildlife from the construction work areas into surrounding areas. The removal of forest land would result in a long-term loss of habitat. Weaver's Cove Energy would minimize the effect of forest clearing by collocating its facilities in mostly open areas or along existing, previously cleared rights-of-way.

Threatened and Endangered Species

The U.S. Fish and Wildlife Service reported that one federally listed species under its jurisdiction, the bald eagle, could potentially occur near the proposed project. NOAA Fisheries identified four additional federally listed endangered or threatened sea turtle species that could potentially occur in the general vicinity of the proposed project. We have determined that the project would have no effect on the bald eagle and is not likely to adversely affect the four sea turtle species.

In its comments on the draft EIS for a nearby proposed LNG project (i.e., the KeySpan LNG Facility Upgrade Project), NOAA Fisheries stated that an increase in vessel traffic in Narragansett Bay could potentially affect federally listed marine mammals as a result of vessel strikes. Of particular concern is the North Atlantic right whale. NOAA Fisheries has developed a Strategy to Reduce Ship Strikes of Right Whales, which is not yet finalized, but would establish speed restrictions within 20 to 30 miles of the approaches in specific areas. In addition, the U.S. Coast Guard (Coast Guard) has been coordinating with NOAA Fisheries on various measures to reduce vessel strikes. We have determined that these measures are important for the protection of right whales from ship strikes. Because the proposed rule has not yet been finalized or implemented, we have recommended that Weaver's Cove Energy coordinate with NOAA Fisheries to determine appropriate speed and seasonal restrictions or other applicable measures to avoid or minimize impacts on right whales and to file the results of that coordination with the FERC. Such protective measures may also facilitate avoidance and/or minimization of impacts on other federally protected marine animals such as other whale species and sea turtles with the potential to occur in the project area. With the adherence to restrictions developed through coordination with NOAA Fisheries, we conclude that the project is not likely to adversely affect North Atlantic right whale (or other federally listed species) and are requesting NOAA Fisheries' concurrence with this finding.

The draft EIS (which served as a Biological Assessment) was sent to NOAA Fisheries along with a letter that initiated consultation under section 7 of the Endangered Species Act. We have not yet received a concurrence letter from NOAA Fisheries on our determinations.

Land Use, Recreation, and Visual Resources

The LNG terminal would be developed on 73 acres of industrially zoned property (consisting of a 55-acre southern parcel and an 18-acre northern parcel) that Weaver's Cove Energy has an option to purchase from the current landowner. The 55-acre southern parcel of the LNG terminal site is a contaminated site which was previously used as a petroleum products storage and distribution facility from the 1920s to the 1990s. Construction of the terminal would affect a total of 69.3 acres of the 73-acre property. Construction of the Northern and Western Pipelines would affect another 65.5 acres of land. The project would also require the dredging of up to about 2.6 million cubic yards of sediment from the Taunton River and Mount Hope Bay to facilitate LNG ship transit. This dredging would disturb about 191 acres of the bed of the river and bay. Following construction, about 54.3 acres of the LNG terminal site would be retained as industrial/developed land. Approximately 38.3 acres of the land used to construct the pipelines and meter and regulation stations would be retained as permanent right-of-way.

The mayor, city councilors of Fall River, and town councils and boards of selectmen of Swansea, Somerset, and several other towns along the ship route have expressed opposition to the project. However, based on our review, we have found that the project would be consistent with the existing plans, policies, designations, and guidelines that have been established for land use development in the project area by state, regional, and local entities. The Weaver's Cove LNG Project is subject to a federal coastal zone consistency review because it would involve activities within the coastal zones of Massachusetts and Rhode Island and would require several federal permits and approvals. Weaver's

Cove Energy has not yet completed the process for the federal consistency certification with either the Massachusetts Office of Coastal Zone Management (OCZM) or Rhode Island Coastal Resources Management Council (CRMC). Weaver's Cove Energy will need to demonstrate consistency with each state's Coastal Zone Management Plan and obtain concurrence of consistency from both agencies prior to the FERC approving the start of any construction.

There are approximately 12,000 people living in 5,100 housing units within 1 mile of the proposed LNG storage tank. Of these, about 1,200 units are located within 0.5 mile of the proposed tank. There are another 35 residences along the pipeline routes that would be within 50 feet of construction work areas. Impacts on residences near the LNG terminal could include visual impacts, increased traffic and noise during construction, changes in air quality, and potential safety hazards. Residences near the pipelines could experience similar effects during construction. The LNG storage tank would be the most prominent visual feature at the proposed terminal site. Weaver's Cove Energy's construction of an earthen landform on the southern parcel of the site would partially reduce the visibility of the LNG facilities and the LNG storage tank. Weaver's Cove Energy would also implement a landscape design plan at the LNG terminal that would include plantings that are native to the area. To minimize construction related impacts on residences along the pipeline routes, Weaver's Cove Energy would prepare site-specific residential mitigation plans. Weaver's Cove Energy has also incorporated two additional route variations into the proposed route since issuance of the draft EIS to avoid or minimize residential impacts and visual resources.

We have determined that project would not have a substantial adverse affect on the Taunton River's potential designation as a Wild and Scenic River, although we have not yet received a concurrence letter from the U.S. Department of the Interior on our determination.

Overall, construction and operation of the project facilities are not expected to significantly affect recreational activities in the project area. Recreational boaters could experience temporary impacts as a result of human activity and noise associated with construction of the proposed ship unloading facility and the pipeline across the Taunton River, but these impacts would be temporary and localized to the area of construction. Weaver's Cove Energy would schedule the dredging activities in coordination with the COE, NOAA Fisheries, the Massachusetts Division of Marine Fisheries and other regulatory agencies to minimize disruption and conflicts with other uses of the river. Weaver's Cove Energy would also develop a Navigation Work Plan in consultation with the COE, Coast Guard, local harbor masters, and the Northeast Marine Pilots Association. The Navigation Work Plan would include measures to ensure the safe passage of waterborne transportation and recreational use of the waterway during construction activities.

Operation of the LNG terminal would not affect recreational boating during periods between LNG deliveries. However, recreational boats, fishermen, and others engaged in marine-based activities could be affected by the safety and security zones that would be imposed by the Coast Guard during periods when an LNG ship is in transit to or berthed at the LNG terminal. Many recreational boats should be able to go around the LNG ships at points in the river that are sufficiently wide for them to be outside of the safety and security zone. In locations were the waterway is narrow, a recreational craft attempting to travel in the opposite direction of an LNG ship may experience a delay; however, because the safety and security zone would be a moving zone around the ship, the delays would be temporary as the ship passes. We estimate that delays of up to 60 minutes may result depending on the travel speed of the LNG ship. For boaters near or upstream of the facility, an additional 60 minute delay may be experienced while the LNG ship is berthed or turned. Weaver's Cove Energy would be in regular contact with the Coast Guard and other waterway users to ensure that the arrivals of the LNG ships are coordinated with other ship traffic to minimize disruption on waterway users. The Coast Guard would routinely provide Notice to Mariners prior to the arrival and departure of LNG ships as the Coast Guard currently does for

liquefied petroleum gas vessels and for other activities. In addition, Weaver's Cove Energy has indicated that it would be willing to consider limiting LNG ship transits during peak weekend hours and using early morning periods, subject to tidal conditions. With the agreement of the Coast Guard and pilots, Weaver's Cove Energy would also explore the possibility of eventually using nighttime transits for the LNG ships to minimize impacts on recreational boating.

Socioeconomics

Construction of the project would result in a temporary increase in population, traffic, and the demand for temporary housing and public services. These effects would be temporary and limited to the period of construction. Construction and operation of the project would have a beneficial impact on local tax revenues and economies, although some of the tax benefits of the project could be eroded by the additional costs required to provide security during LNG ship transit and offloading. Operation of the LNG terminal facilities would result in minor long-term impacts on vehicle and shipping transportation, but is not expected to have a major impact on most public services. There is, however, a concern that an incident at the LNG terminal could exceed the current response capacity of the Fall River police and fire departments. Weaver's Cove Energy would coordinate with local fire departments to develop an emergency response plan to be used in the event of an incident. Weaver's Cove Energy has also indicated that it would be willing to provide funding for the local emergency response services and stated that it would be willing to cover the costs of security in Fall River at a level similar to what the existing Distrigas LNG facility has been providing to the City of Everett, where it is located.

There is also concern about the potential for bridge closures to result in significant traffic delays during the passage of LNG ships. Weaver's Cove Energy has committed to adjust ship transit plans, as necessary, to prevent the simultaneous closing of the Braga and Brightman Street Bridges, which would minimize the impact of any bridge closures that are required. Although bridge closures are one of the tools available, the Coast Guard has determined that it would not normally be necessary to close the Pell (Newport) Bridge, Mount Hope Bridge, and Braga Bridge every time an LNG ship passes. The potential impacts on vehicular traffic in the event that these bridges, including the Brightman Street Bridge, are completely closed during passage of LNG ships would include maximum average traffic delays ranging during peak use periods from 4.9 minutes at the Pell Bridge to 12.1 minutes at the Brightman Street Bridge. The impacts on traffic at the bascule-type Brightman Street Bridge would be similar to those that currently occur during the transit of coal vessels and the previous transit of large oil tankers. Weaver's Cove Energy has stated that it would develop a Traffic Management Program in consultation with the Massachusetts Highway Department, the Rhode Island Department of Transportation, the Coast Guard, the Massachusetts State Police, and other local authorities if it receives approval from the FERC and the EOEA.

We have determined that the potential impacts of the project would not have a disproportionately high or adverse effect on environmental justice areas near the proposed LNG terminal and federal navigation channel.

Cultural Resources

Weaver's Cove Energy conducted aboveground cultural resource surveys, terrestrial archaeological reconnaissance and intensive surveys, site examination archaeological surveys, and underwater reconnaissance surveys for the LNG terminal, pipeline facilities, and the turning basin. The aboveground cultural resource surveys documented seven aboveground resources that are listed in or recommended eligible for listing in the National Register of Historic Places (NRHP) within the viewshed of the LNG terminal, and a historic cemetery near the terminus of the Northern Pipeline. The terrestrial archaeological reconnaissance and intensive surveys and site examination surveys documented nine sites

along the pipeline facilities. Weaver's Cove Energy characterized all nine of these sites as either not significant or not eligible for listing in the NRHP. No sites were identified during the underwater archaeological surveys.

Additional consultation with the Massachusetts State Historic Preservation Office (SHPO) is required to assess project effect, and additional information is needed on some of the identified resources. As a result, we have recommended that Weaver's Cove Energy defer construction of the project facilities until these tasks have been completed, and any additional required survey reports or treatment plans, and the SHPO's comments on the reports and plans are filed with the Commission for review and approval by the Director of the Office of Energy Projects.

Air Quality and Noise

Construction and operation of the proposed LNG terminal and pipelines would result in air emissions. The fugitive dust and tailpipe emissions associated with construction activities would be temporary and intermittent, and would not result in a long term impact on air quality. Dust emissions would be minimized by the application of water during the construction of the LNG terminal. To reduce tailpipe emissions, we have recommended that Weaver's Cove Energy use transportation grade or better diesel fuel in all construction equipment. The operational air emissions from the LNG terminal would not cause or significantly contribute to a violation of an ambient air quality standard. The primary pollutants emitted during operation of the LNG terminal would be nitrogen oxide (NO_x) and carbon monoxide. These operational air emissions would be minimized by using ultra dry low NO_x water/glycol heaters, and Weaver's Cove Energy would meet the federal and state air emission requirements by implementing best available control technology and undergoing an air plan approval process through the DEP. The operational air emissions from the LNG terminal, including the facility stationary sources and LNG trucks and ships, would not exceed an ambient air quality standard. To address potential odor issues related to the dredged material, we have recommended that Weaver's Cove Energy prepare a nuisance odor complaint and abatement plan for implementation during the dredging operations.

Noise receptors in the immediate vicinity of construction activities would experience an increase in noise levels. In most areas, the increase in noise would be localized, temporary, and limited primarily to daylight hours. Noise associated with dredging operations, however, could occur up to 24 hours a day for a period of three years. To address this impact, we have recommended that Weaver's Cove Energy prepare a noise mitigation plan that would ensure that the dredging and stabilization operations do not contribute more than 55 decibels of the A-weighted scale (dBA) day-night sound level (L_{dn}) to the ambient noise level at any noise sensitive areas (NSA). The predicted operational noise from the LNG terminal would be below the FERC's 55 dBA L_{dn} criterion at the nearest NSAs and in compliance with Massachusetts noise regulations. We have recommended that noise surveys be conducted after the LNG terminal is in service to ensure that the LNG terminal operates in compliance with these guidelines.

Reliability and Safety

We evaluated the safety of both the proposed LNG import terminal facility and the related LNG vessel transit through Narragansett Bay to Fall River. With respect to the onshore facility, we completed a cryogenic design and technical review of the proposed terminal design and safety systems. Several areas of concern were noted and specific recommendations to be addressed prior to construction have been identified. We evaluated the thermal radiation and flammable vapor dispersion exclusion zones of the proposed LNG terminal. The analysis found that no excluded uses were within the exclusion zones, although a small section of the 1,600 British thermal unit per feet squared per hour ($Btu/hr\text{-}ft^2$) zone would extend off the property and we have recommended that Weaver's Cove Energy demonstrate legal control over this area, or secure a waiver, before we allow any construction.

Thermal radiation and flammable vapor hazard distances were also calculated for an accident or an attack on an LNG vessel. For 2.5-meter and 3-meter diameter holes in an LNG cargo tank, we estimated distances to range from 4,340 to 4,810 feet for a thermal radiation level of 1,600 Btu/hr-ft^2, the level which is hazardous to unprotected persons located outdoors. However, the evaluation of safety is more than an exercise in calculating the consequences of worst case scenarios. Rather, it is a determination of the acceptability of risk which considers: the probability of events; the effect of mitigation; and the consequences of events. Based on the extensive operational experience of LNG shipping, the structural design of an LNG vessel, and the operational controls imposed by the Coast Guard and the local pilots, the likelihood of a cargo containment failure and subsequent LNG spill from a vessel casualty – collision, grounding, or allision – is highly unlikely. For similar reasons, an accident involving the onshore LNG import terminal or LNG trucking from the terminal is unlikely to affect the public. As a result, the risk to the public from accidental causes should be considered negligible.

Unlike accidental causes, historical experience provides little guidance in estimating the probability of a terrorist attack on an LNG vessel or onshore storage facility. For a new LNG import terminal proposal, having a large volume of energy transported and stored near populated areas, the perceived threat of a terrorist attack is a primary concern of the local population and requires that resources be directed to mitigate possible attack paths. While the risks associated with the transportation of any hazardous cargo can never be entirely eliminated, they can be managed.

Several commentors have expressed the concern that local communities would have to bear some of the costs of ensuring the security of the LNG facility and the LNG vessel while in transit and unloading at the dock. As a result of its recently completed security workshops, the Coast Guard has identified a robust security plan that requires significant Coast Guard, public, and private resources that would be necessary to implement security measures. To meet its anticipated security responsibilities, the Coast Guard has initiated a formal proposal for additional resources through its internal budgeting process for inclusion in the 2006 appropriations bill. A determination on that proposal is pending. Weaver's Cove Energy has committed to providing funding for direct transit-related security costs; the potential costs to the states and local communities have not been estimated. As an indication of these costs, another proposed LNG import terminal near Providence, Rhode Island (KeySpan LNG, L.L.C.'s KeySpan LNG Facility Upgrade Project) estimated state and local security costs for its LNG deliveries at $40,000 to $50,000 per vessel port call. In addition to these direct transit-related state and local security costs, there may be a need to fund additional capital costs associated with security and emergency response, such as equipment and personnel. Therefore, we have recommended that Weaver's Cove Energy provide a comprehensive plan identifying the mechanisms for funding all project-specific security and emergency response/management costs that would be imposed on state agencies and local communities, including capital costs.

ALTERNATIVES CONSIDERED

Alternatives

We evaluated the alternatives of no action or postponed action, system alternatives, alternative LNG terminal sites, LNG terminal layout alternatives, pipeline route alternatives, and dredging/dredge disposal alternatives. While the no action or postponed action alternative would eliminate the environmental impacts identified in this EIS, the project objectives of providing LNG tanker discharge services to LNG suppliers and providing a new source of natural gas and LNG deliveries to the New England market would not be met.

Given the no action or postponed action alternative could also lead to the development of other natural gas infrastructure projects, we also considered existing or proposed LNG facilities and natural gas

pipelines as alternative systems that could be used to meet the objectives of the Weaver's Cove LNG Project. This included consideration of existing and proposed facilities (including other new offshore LNG import terminals) within and outside of the New England region. At this time, it is not possible to foresee which (if any) of the LNG import projects proposed in the New England region will move forward and be constructed. Regardless, when considered independently, none of the LNG import projects in the region would be capable of serving as an alternative to the Weaver's Cove LNG Project. In any event, we expect that new pipelines or proposals to modify existing pipelines will continue to increase the capacity of existing systems delivering natural gas to the New England region. This will allow access to new or growing sources of natural gas outside of the region, including new LNG import terminals that will likely be constructed outside of the region (e.g., Canadian LNG facilities). Nevertheless, projects outside of the region would not be able to meet all of the objectives stated for the Weaver's Cove LNG Project. When considered together, however, several of the projects in or outside of the region could meet many of the project objectives. As discussed in the EIS, construction or expansion of alternative natural gas infrastructure facilities would result in specific environmental impacts that would be less than, similar to, or greater than those associated with the Weaver's Cove LNG Project.

We considered alternative locations for an LNG import terminal in the New England region, and determined that there are no alternative LNG terminal sites at onshore locations that are reasonable and/or would be environmentally preferable to the proposed project. Difficulties associated with identifying suitable locations in the New England region include finding property available for industrial development in an area accessible to LNG ships where there would be fewer environmental impacts.

One of the site alternatives that was identified during the EIS scoping process and received several specific comments in response to the draft EIS is located at Brayton Point in Somerset, Massachusetts. This site includes a number of potential environmental and economic advantages compared to the proposed site. Even the disadvantages of LNG trucking or dredging at this site could conceivably be managed depending on the specific design of an LNG facility. However, an LNG terminal at Brayton Point can only be considered conceptually and may never be a practicable and feasible alternative for the Weaver's Cove LNG Project because the property was recently purchased by Dominion. Because of this new ownership of the property, it would appear that Weaver's Cove Energy cannot reasonably pursue developing an LNG terminal at this location.

To minimize potential visual and wetland impacts, we also considered alternative LNG terminal layouts. We concluded that reducing the size, profile, and/or location of the LNG tank while still maintaining the project storage capacities could not be reasonably achieved. Additionally, we considered an alternative site layout that would not include the landform created by the disposal of dredged materials on the LNG terminal site.

Our alternatives analysis included the evaluation of alternative pipeline routes that would allow delivery of natural gas to the Algonquin natural gas pipeline system. Because of the limited capacity of the Algonquin system laterals, no single pipeline from the LNG terminal would be able to accommodate the project volumes. Alternative pipeline routes to the east and south of the LNG terminal would both result in greater environmental impacts than either the Northern or Western Pipeline. To avoid or minimize environmental impacts from construction of the pipelines, we also examined route variations to the proposed pipelines. Since issuance of the draft EIS, Weaver's Cove Energy adopted three minor route variations along the Northern Pipeline that would reduce residential impacts and potential impact on the riparian areas of the Taunton River.

Finally, we reported on dredging and dredge disposal alternatives that might avoid or minimize impacts associated with dredging up to about 2.6 million cubic yards of sediment from the Mount Hope Bay/Taunton River federal navigation channel and turning basin. Alternatives requiring less dredging

would not be able to safely accommodate LNG ships. Additionally, we summarized disposal alternatives including offsite upland reuse, offsite upland disposal (landfill or dewatering), offshore disposal, confined aquatic disposal cells, confined disposal facilities, and island/habitat creation. Based on consultations with other agencies, we analyzed the impact of restricting dredging during times of the year when sensitive aquatic organisms (e.g., winter flounder, anadromous species) could be adversely affected and we considered offshore disposal of dredged materials in more detail. Based on the new/existing Brightman Street Bridge construction delays, we believe that our recommended time-of-year restriction to avoid dredging from January 15 to May 31 to minimize impacts on winter flounder would not impact the in-service date of the project or necessitate offshore disposal. Additionally, we believe that the offshore, open water disposal alternative would be environmentally acceptable if the COE and EPA determine that a significant volume of sediments are suitable for offshore, open water disposal. However, we have also determined that offshore disposal of suitable dredged material is not without impacts and is not clearly environmentally preferable to Weaver's Cove Energy's proposed reuse of the dredged material as general site fill at the LNG terminal site. This conclusion assumes that Weaver's Cove Energy is able to resolve the regulatory and legal disputes of its proposed sediment reuse plan at the LNG terminal site.

PUBLIC INVOLVEMENT AND AREAS OF CONCERN

On July 11, 2003, the FERC issued a *Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Weaver's Cove LNG Project, Request for Comments on Environmental Issues, and Notice of Joint Public Scoping Meeting* (NOI). The NOI announced that the FERC staff was initiating its NEPA Pre-filing review of the Weaver's Cove LNG Project under Docket No. PF03-4-000.[1] The NOI was sent to 1,241 interested parties including federal, state, and local officials; agency representatives; conservation organizations; Native American tribes; local libraries and newspapers; residents within a 1/2 mile of the proposed LNG terminal; and property owners along the proposed pipeline routes and adjacent to the utility corridors in which the pipelines would be located. On December 31, 2003, the FERC issued a *Notice of Status Change of Environmental Review and Expiration of Scoping Period for the Proposed Weaver's Cove LNG Project*. This second notice announced the filing of an application by Weaver's Cove Energy and a final opportunity to submit comments. The EOEA established a closing date in August 2003 for receiving comments while the FERC's comment period closed on January 30, 2004. Due to errors and omissions in the mailing list provided by Weaver's Cove Energy, the FERC sent the second notice to an additional 64 landowners along the pipeline routes on January 23, 2004 and provided a 30-day comment period for these landowners ending on February 23, 2004. FERC staff continued to receive, accept, and consider scoping comments until June 28, well beyond the February 23 deadline. In total, 805 comment letters were received either by the EOEA, Massachusetts Energy Facility Siting Board (EFSB), and/or FERC in response to the notices.

On July 29, 2003, staff of the FERC and EOEA conducted a joint public scoping meeting in Swansea, Massachusetts to provide an opportunity for the general public to learn more about the proposed project and to participate in our analysis by commenting on issues to be included in the EIS. Twenty-two people commented at the meeting. A transcript of these comments is part of the public record for the Weaver's Cove LNG Project. The EFSB conducted a public hearing on January 27, 2004 in Fall River to receive comments on the proposed project. The EFSB submitted a transcript of this hearing, its comments on the project, and written comments it received to the FERC on January 30, 2004.

On May 4, 2004, the FERC conducted a site review of the proposed terminal site that was open to and attended by the public, including several state and local officials. The next day, the FERC conducted a cryogenic design and technical conference in Swansea, Massachusetts to discuss design and engineering

[1] The purpose of the pre-filing process is to involve interested stakeholders early in project planning and to identify and resolve issues before an application is filed with the Commission.

aspects of the Weaver's Cove LNG Project. The meeting was limited to existing parties to the proceeding (i.e., anyone who specifically requested to intervene as a party). Attendees included agency representatives (U.S. Department of Transportation Office of Pipeline Safety, EFSB, EPA), elected officials and their representatives, industry representatives, and other interested parties.

In addition to the public notice and scoping process discussed above, the FERC conducted numerous interagency meetings with representatives of federal and state resource agencies to identify issues that should be addressed in this EIS. These agencies included the COE, Coast Guard, DEP, EFSB, EOEA, CRMC, and Rhode Island Department of Environmental Management.

The most frequently identified concerns about the project during the public involvement period have been related to the safety of operating an LNG facility in a populated urban setting. Specific safety concerns have been expressed regarding the impacts on the surrounding area if there is a fire at the proposed terminal, or a fire associated with an LNG ship spill in route to the terminal. Considerable concern has also been raised about the potential for the terminal and LNG ships to be targets of a terrorist attack and the impact of such an attack on surrounding communities. We have also received numerous comments regarding alternatives; environmental justice; the impacts of potential bridge closures during LNG ship transit; the effect of the proposed facilities on surrounding property values and insurance rates; the demand of the project on local services, especially the costs of providing police and fire protection; and a variety of other environmental issues, including the impact of dredging on water quality and aquatic resources, the risk of contamination associated with placing the dredged sediments on the terminal site, and the compatibility of the project with existing land uses and development plans.

The FERC prepared a draft EIS for the Weaver's Cove LNG Project and issued a Notice of Availability (NOA) of the draft EIS and the draft General Conformity Determination on July 30, 2004. In accordance with CEQ's regulations implementing NEPA, the NOA established a 45-day comment period ending on September 20, 2004; described procedures for filing comments on the draft EIS; and announced the time, date, and location of public comment meetings. The NOA also indicated that additional project information could be obtained from the Commission's Office of External Affairs and on the FERC's Internet website. The EOEA noticed the issuance of the draft EIS (serving as its draft EIR) in the Environmental Monitor on August 25, 2004 and established a comment period ending on September 24, 2004. A formal notice was also published in the Federal Register on August 6, 2004, indicating that the draft EIS was available and had been mailed to individuals and organizations on the mailing list prepared for the project.

The FERC mailed 1,891 copies of the draft EIS to interested parties, including federal, state, and local officials and agencies; special interest groups; parties to the proceedings; area libraries and newspapers; and individuals and affected landowners who requested a copy of the draft EIS. The FERC also conducted public comment meetings in Swansea, Massachusetts on September 8 and in Middletown, Rhode Island on September 9, 2004. A total of 67 people provided comments at these two meetings. In addition, the FERC received 729 comment letters (554 of these letters were mass mailings such as comment cards or form letters) and the MEPA received another 38 comment letters regarding the draft EIS. Transcripts of the public meeting comments and the comment letters are part of the public record for the Weaver's Cove LNG Project. The final EIS was mailed to the agencies, individuals, and organizations on the mailing list and submitted to the EPA for formal issuance of a NOA.

Even though the proposed LNG terminal would meet federal safety standards and have limited adverse environmental impact, we recognize that the project would introduce a new risk to the public in Fall River, Massachusetts and to the shoreline communities adjacent to the LNG vessel route through Narragansett Bay, Mount Hope Bay, and the Taunton River. In this regard, there has been considerable opposition to the proposed project by elected and public officials, municipality representatives, special interest groups, and some of the public near the LNG terminal site and along the federal navigation

channel. Based on public meeting comments and comment letters on the draft EIS, elected and public officials that have identified themselves or have been identified by others as opposed to the project include, but are not necessarily limited to, the following: U.S. Senator Jack Reed, U.S. Senator Edward M. Kennedy, U.S. Senator John F. Kerry, U.S. Congressman Barney Frank, U.S. Congressman James McGovern, U.S. Congressman Edward Markey, Massachusetts Governor Mitt Romney, Massachusetts State Representative David Sullivan, Rhode Island State Representative Bruce Long, Rhode Island State Representative Joseph Amaral, Rhode Island State Representative Raymond Gallison, Massachusetts Attorney General Tom Reilly, Rhode Island Attorney General Patrick Lynch, Mayor Edward Lambert of Fall River, the Fall River City Council, the Swansea Board of Selectmen, the Somerset Board of Selectmen, the Newport City Council, the Bristol Town Council, the Portsmouth Town Council, the Jamestown Town Council, the Little Compton Town Council, the Town of Narragansett Planning Board, the Conservation Commission of Somerset, and the Massachusetts House Committee on Homeland Security and Federal Affairs. Additionally, on May 24, 2004, the Massachusetts Senate, and on May 27, 2004, the Massachusetts House of Representatives, passed non-binding resolutions in opposition to the Weaver's Cove LNG Project which were sponsored by Senator Joan Menard and House Representative Robert Correia. On March 15, 2005, six Rhode Island representatives proposed a resolution in opposition to the proposed Weaver's Cove LNG and KeySpan LNG Facility Upgrade Projects and the associated LNG ship traffic in Narragansett and Mount Hope Bays.

MAJOR CONCLUSION

Review of the proposed action indicates that Weaver's Cove Energy has designed its proposal to mitigate most of the adverse environmental impacts that could result from the construction and operation of its project. Where we have identified remaining adverse impacts, we have developed, as appropriate, specific mitigation measures to reasonably avoid or minimize those impacts. We are recommending that these mitigation measures be attached as conditions to any authorization issued by the Commission. We conclude that if it is constructed and operated in accordance with Weaver's Cove Energy's proposed mitigation and our recommended mitigation measures, the proposed action would meet federal safety standards, can be operated safely, and would have limited adverse environmental impact. Also, the implementation of the Coast Guard's security plan that controls the LNG vessels operating through Narragansett Bay to/from the proposed terminal will further ensure the public safety.

The primary reasons for our conclusion are:

- the project would make use of an existing industrialized site within a designated port area, which was previously used as a petroleum products storage and distribution terminal;
- the proposed LNG terminal would meet the federal safety regulations regarding the thermal radiation and flammable vapor dispersion exclusion zones;
- Weaver's Cove Energy has incorporated appropriate safety features into the design and operation of the LNG import terminal and the LNG vessels;
- Weaver's Cove Energy would develop appropriate emergency evacuation and emergency response plans, and would ensure that Weaver's Cove Energy provides a means for funding state and local agencies for project-specific security/emergency response costs;
- the proposed maintenance and improvement dredging would primarily occur within an existing federal navigation channel and adjacent to the existing turning basin;

- Weaver's Cove Energy has verified that the proposed LNG terminal site could accommodate the reuse of all the dredged sediments (including 2-feet of overdredged material);

- the sediments would not pose a significant risk to human health and placement of the stabilized dredged sediment on the site would not significantly degrade site conditions;

- use of the dredged material to construct a landform, and our recommendation for a landscaping plan, would reduce visual impacts associated with the LNG facilities and storage tank;

- Weaver's Cove Energy would implement the FERC staff's Plan and Procedures to mitigate impacts on soils, wetlands, and waterbodies;

- the majority of the Northern Pipeline and Western Pipeline routes would either overlap or be adjacent to existing pipeline or other linear rights-of-way;

- implementation of our aquatic resource recommendations would avoid or minimize impacts on winter flounder by prohibiting dredging during the spawning period and would mitigate the permanent loss of winter flounder habitat and impacts on quahog within the proposed turning basin;

- Weaver's Cove Energy would develop a noise mitigation plan to ensure that both dredging operations and operation of the LNG facility are in compliance with our noise level criteria;

- the appropriate consultations with the NOAA Fisheries, the National Park Service, SHPO, Massachusetts OCZM and Rhode Island CRMC would be completed before Weaver's Cove Energy would be allowed to start construction;

- operational controls would be imposed by the local pilots and the Coast Guard to direct the movement of LNG vessels, and security measures would be employed to deter attacks by potential terrorists and to ensure the safe passage of LNG vessels;

- the Coast Guard's December 2004-March 2005 workshops with federal, state, and local agencies to mitigate specific risks resulted in the development of a Vessel Transit Security Plan, which will be the basis for appropriate security measures; and

- our environmental inspection and mitigation monitoring program would ensure compliance with all mitigation measures that become conditions of any FERC authorization.

While a majority of the physical environmental impacts described in the final EIS would be temporary and most significant during the construction period, there are several adverse impacts associated with project operations that are unavoidable. These include:

- vehicle traffic delays resulting from temporary closure of the Brightman Street Bridge (as long as 16 minutes), and the possible temporary closures of the Pell Bridge, Mount Hope Bridge, and the Braga Bridge (ranging from as long as 6 to 8 minutes) during LNG vessel transit;

- recreational boating delays of up to 60 minutes as a result of the anticipated LNG vessel safety and security zones imposed by the Coast Guard would occur during the arrival and departure of the 50 to 70 LNG ships per year;

- the LNG storage tank (280 feet in diameter and about 195 feet high) and the proposed landform would introduce new prominent visual features into the Fall River and Somerset landscape, and the large LNG ships (950 feet in length) would also result in visual impacts while in transit and docked at the LNG terminal; and

- the impact on aquatic resources due to ballast water withdrawals during the LNG unloading and due to prop wash associated with the transit of LNG ships in Narragansett Bay, Mount Hope Bay, and the Taunton River.