EXECUTIVE SUMMARY

This final environmental impact statement (EIS) for the Cove Point Expansion 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.[1] The U.S. Army Corps of Engineers (Corps); and the U.S. Coast Guard (Coast Guard) Sectors Baltimore and Hampton Roads cooperated in the preparation of this EIS. 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 significant adverse impacts.

The FERC is the federal agency responsible for authorizing applications to construct and operate onshore LNG import and interstate natural gas transmission facilities. The U.S. Coast Guard (Coast Guard) is the federal agency responsible for issuing a Letter of Recommendation (LOR) regarding the suitability of the waterway for increased LNG marine traffic. The Coast Guard exercises regulatory authority over LNG facilities that affect the safety and security of port areas and navigable waterways under Executive Order 10173; the Magnuson Act (50 USC section 191); the Ports and Waterways Safety Act of 1972, as amended (33 USC Section 1221, et seq.); and the Maritime Transportation Security Act of 2002 (46 USC Section 701). The Coast Guard is responsible for matters related to navigation safety, vessel engineering and safety standards, and all matters pertaining to the safety of facilities or equipment located in or adjacent to navigable waters up to the last valve immediately before the receiving tanks. The Coast Guard also has authority for LNG facility security plan review, approval and compliance verification as provided in Title 33 CFR Part 105, and siting as it pertains to the management of marine traffic in and around the LNG facility.

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.

Dominion Cove Point LNG, L.P. and Dominion Transmission, Inc. (collectively Dominion) propose to expand the existing Cove Point liquefied natural gas (LNG) import terminal in Calvert County, Maryland; construct 48 miles of new natural gas pipeline in Maryland; and construct 113 miles of natural gas pipeline and associated facilities in Pennsylvania, Virginia, West Virginia, and New York. The purpose of the Cove Point Expansion Project would be to deliver new gas supplies to where they are needed in the Mid-Atlantic and Northeastern states. The proposed facilities in Maryland would bring additional winter supplies to the Mid-Atlantic region; and the proposed facilities in Pennsylvania, Virginia, West Virginia, and New York would allow additional supplies to be stored in the summer and moved to the Northeast for use during periods of peak need in the winter.

The proposed LNG terminal expansion facilities include:

- two new 160,000 cubic meter single containment LNG storage tanks;
- additional vaporization capacity consisting of shell and tube vaporizers and associated equipment;
- additional power generation equipment consisting of two 21.7 megawatt gas turbine generators and three emergency generators;
- increase in LNG tanker visits from 90 to 120 ships per year to approximately 200 per year; and
- infrastructure associated with the LNG terminal expansion including roads and storage and work areas at the existing site.

The proposed natural gas pipelines and associated facilities would include:

- about 48 miles of 36-inch-diameter loop[1] pipeline in Calvert, Prince Georges, and Charles County, Maryland (TL-532 Pipeline);
- about 81 miles of 24-inch-diameter pipeline lateral in Juniata, Mifflin, Huntingdon, Centre, and Clinton Counties, Pennsylvania (PL-1 EXT2 Pipeline);
- two new compressor stations in Juniata County (Perulack Station) and Centre County (Centre Relay Station), Pennsylvania;
- about 11 miles of 24-inch diameter pipeline loop in Wetzel County, West Virginia and Greene County, Pennsylvania (TL-492 EXT3 Pipeline);
- about 12 miles of 24-inch-diameter pipeline loop in Potter County, Pennsylvania (TL-453 EXT1 Pipeline);
- about 10 miles of 20-inch-diameter pipeline loop in Potter County, Pennsylvania (TL-536 Pipeline);
- replacement of about 0.6 mile, and pressure testing and possible replacement of about 0.4 mile of 30-inch-diameter pipeline in Franklin County, Pennsylvania (PL-1 Pipeline Pressure Restoration Sites);
- minor modifications to the existing Loudoun Measuring and Regulating (M&R) Station in Loudoun County, Virginia;
- about 2,800 horsepower (hp) of additional compression at the existing Mockingbird Hill Compressor Station in Wetzel County, West Virginia;
- minor modifications to the existing Leesburg Compressor Station in Loudoun County, Virginia;
- minor modifications to the existing Chambersburg Compressor Station in Franklin County, Pennsylvania;

[1] A loop is a segment of pipeline that is installed adjacent to an existing pipeline and connected to it on both ends. The loop allows more gas to be moved through the pipeline system.

- additional facilities and pipeline replacement at the existing Leidy M&R Station located at the Leidy Hub complex in Clinton County, Pennsylvania;
- about 3,550 hp of additional compression at Dominion's Wolf Run Compressor Station in Lewis County, West Virginia;[2] and
- minor modifications to Dominion's Quinlan Compressor Station in Cattaraugus County, New York.[2]

PROJECT IMPACTS

The environmental issues associated with construction and operation of the Cove Point Expansion Project are analyzed in this final EIS using information provided by Dominion and further developed from data requests; field investigations by the Commission staff; literature research; alternative analyses; our consultations and comments received from federal, state, and local agencies; and input from public organizations and individual citizens.

The transit corridor for the LNG vessels calling on the Cove Point LNG terminal would traverse open water and estuarine habitats on the Chesapeake Bay. Many of the habitats along the Chesapeake Bay are previously disturbed because of industrial, commercial, and maritime development. We included a discussion of impacts from increased LNG tanker traffic and potential impacts to shoreline and estuarine habitats if LNG were released from its cargo tank during an incident while in transit. Because the LNG would vaporize and is a cryogenic liquid, we conclude that the greatest threat to aquatic life from an LNG spill would be thermal stress.

However, if the Coast Guard issues a LOR that the proposed waterway is suitable for LNG marine traffic, the operational controls which would be imposed by the Coast Guard and local pilots, such as moving LNG vessel safety/security zone in narrow channels, are specifically designed to prevent collisions or intentional breach scenarios that could result in an LNG cargo tank breach. Given these considerations, an LNG spill is both unlikely to occur and unlikely to result in significant impacts to shoreline habitats and wildlife that may occur along the vessel transit route.

The construction and operation of this expansion proposal would result in an increase of shipment of LNG via ships at the existing terminal. Currently the terminal receives approximately 90 LNG ships annually. The maximum number of ships that could presently be accommodated at the facility on an annual basis is about 120. Dominion would expect to receive about 200 ships per year should the proposed facilities be placed in service which would be a substantial increase in the number of LNG ships arriving at the terminal. However, considering the total number of deep draft vessels that traverse Chesapeake Bay past Cove Point, the increase in LNG ship traffic over time would be a modest increase in overall ship traffic, and is not likely to significantly affect the open water, estuarine habitats that occur in the bay.

[2] Dominion received authorization to construct the Wolf Run and Quinlan Compressor Stations as proposed in the Northeast Storage Project in Docket No. CP04-365-000. These facilities are currently under construction.

Construction of the Cove Point Expansion Project would disturb a total of about 1,900 acres of land, including 175 acres for aboveground facilities and 1,725 acres for the pipelines. Following construction, Dominion would maintain about 59 acres for new aboveground facilities, and 1,078 acres of new permanent pipeline right-of-way. Construction of the Cove Point Terminal expansion facilities would affect a total of about 49 acres, all of which would be within land currently owned by Dominion and within the existing Cove Point Terminal property. Operation of the terminal expansion facilities would require an additional 30.6 acres within the existing terminal property.

Construction and operation of the project would have minimal impact on geologic resources in the project area, and the potential for geologic hazards or other natural events to significantly impact the project is low. An estimated 54 miles of the proposed pipeline routes in Pennsylvania may require mechanical excavation or blasting for excavation of the pipeline trench because of the potential to encounter bedrock within the depth of the trench. Dominion would minimize the potential impact of blasting by adhering to applicable federal, state and local blasting regulations, and Dominion has also prepared a blasting plan that it would follow where blasting would be required. Dominion identified karst features underlying the Centre Relay Compressor Station and has modified the station layout to avoid those features. The LNG storage tanks and other critical structures included in the proposed terminal expansion would be designed to address predicted ground shaking associated with a seismic event.

Construction of the project facilities would increase the potential for soil erosion within areas affected by construction and sedimentation in adjacent waterbodies and wetlands. Soils within the Cove Point Terminal site and other aboveground facility sites would be permanently affected by new facilities, and soils along the pipeline routes would be subject to various impacts, including compaction and erosion. Dominion would minimize impact on soils through its implementation of the erosion and sedimentation control measures contained in our Upland Erosion Control, Revegetation, and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures). Dominion would also prepare Erosion and Sediment Control Plans as required for different states, and would submit the state- or county-specific plans to the respective offices of the U.S. Department of Agriculture, Natural Resources Conservation Service. We[3] have recommended that Dominion incorporate additional measures into its easement negotiations for agricultural properties that have easement agreements with the Maryland Agricultural Land Preservation Foundation.

Construction and operation of the project would not have a significant impact on groundwater resources. Dominion has identified 27 public groundwater wells within 1 mile of its proposed facilities, and numerous private water supply wells within 150 feet of proposed construction areas, the majority of which are along the PL-1 EXT2 Pipeline. The greatest potential for impact on groundwater would be from spills, leaks, or other releases of hazardous substances during construction or operation. Dominion has agreed to implement our Procedures, which would include use of a Spill Prevention, Control, and Countermeasure Plan for construction activities. To further minimize potential impact on groundwater supply wells, Dominion would seek written permission from affected landowners to conduct pre- and post-construction well water quality testing and water system yield evaluations for wells within 150 feet of construction areas.

[3] "We," "us," and "our" refer to the environmental staff of the FERC's Office of Energy Projects (OEP).

In the event that any well is damaged by construction, Dominion would provide a temporary source of drinking water and would restore the well to its original capacity.

Construction of the proposed pipeline facilities would cross 97 perennial waterbodies. Three perennial waterbodies would be crossed by the permanent access road to the new Perulack Compressor Station. Numerous intermittent or ephemeral waterbodies would also be affected, including four within the site of the Cove Point Terminal expansion facilities. We have recommended that Dominion conduct additional agency consultation to determine if site-specific mitigation plans are appropriate to avoid or minimize the potential impacts from acid rock drainage along the PL-1 EXT2 Pipeline in Pennsylvania. Dominion proposes to cross six major waterbodies, including the Patuxent River and St. Leonard's Creek, using the horizontal directional drilling (HDD) technique. We have recommended that Dominion revise its HDD Contingency Plans to include specific agency contacts in the event of a HDD failure. Other waterbody crossings would be by the open-cut technique. To minimize impact on surface waterbodies, Dominion would implement the protective measures in the FERC's Procedures, which were developed to avoid or minimize impacts. Operation of the LNG terminal expansion facilities would have minor impacts on several ponds within the existing Cove Point Terminal; however, these impacts would be in accordance with Dominion's permit for existing operation of the terminal.

No wetlands would be affected by the addition of the two new tanks and other facilities at the Cove Point terminal. Construction of the proposed pipeline facilities would disturb about 83.3 acres of wetlands. Approximately 38.7 acres (46 percent) of the wetlands that would be affected by construction are classified as non-forested wetlands, and about 42.5 acres (54 percent) are classified as forested or mixed wetland type with a forest component. About 63 acres would be restored and allowed to revert to previous conditions following construction. About 20 acres of wetlands would be within the permanent operational right-of-way of the proposed facilities, of which about 8.6 acres are classified as forested wetland and would be affected by periodic right-of-way vegetation maintenance activities.

Dominion would minimize impacts on wetlands by implementing our Procedures and any additional mitigation required in appropriate state and federal wetland and waterbody permits. The TL-532 Pipeline would cross portions of the Chesapeake Bay Critical Area in Calvert County, Maryland. To minimize impacts to vegetation within the Critical Area Buffers, Dominion would cross these areas by HDD. We have included recommendations that would further minimize the need for vegetation clearing in areas crossed by HDD, and would require Dominion to consult with the Chesapeake Bay Critical Area Commission regarding additional mitigation to further reduce or minimize impacts within the Critical Area.

Construction of the LNG terminal expansion facilities would disturb about 18 acres of forestland, of which 14 acres would be permanently affected by operation of the facilities. The remaining area affected at the LNG terminal would be existing industrial lands. Construction of the remaining facilities would disturb about 1,666 acres of vegetation consisting of 964 acres of agricultural and open lands, 21 acres of range and scrub lands, and 681 acres of forests. Impacts on most of these vegetation communities would be temporary and short term. About 460 acres of forestland on the permanent right-of-way would be permanently cleared and maintained in an herbaceous state. All disturbed areas would be restored and revegetated in accordance with our Plan and Procedures.

The primary impact on terrestrial wildlife associated with the project would be due to the clearing of vegetation and the temporary displacement of wildlife from the construction work areas into surrounding areas. The removal of forestland would result in a long-term loss of habitat. Dominion would minimize permanent impacts on forest habitat by constructing about 88 percent of the proposed pipelines adjacent to other existing rights-of way. The primary impact on fisheries would be temporary, occurring during the short-term pipeline crossings of streams. Dominion would minimize impacts on fisheries by following our Procedures during waterbody crossings. We have included recommendations that would further minimize potential impacts on fisheries that could result from instream blasting and from withdrawal of hydrostatic test water from sensitive fisheries.

The U.S. Fish and Wildlife Services (FWS) reported that four federally listed endangered or threatened species potentially occur within the project area. These include the Indiana bat, bald eagle, and the northeastern bulrush that potentially occur within the vicinity of the PL-1 EXT2 Pipeline, and the bog turtle that potentially occurs within the vicinity of the PL-1 Pressure Restoration Sites. Dominion also identified the bald eagle as occurring near the proposed TL-532 Pipeline. Dominion has filed results of additional surveys and correspondence for these species and based on these results we believe the project would not affect the bog turtle and northeastern bulrush, and would not likely adversely affect the Indiana bat and bald eagle. We have recommended additional mitigation measures for the bald eagle to prohibit disturbance from December 15 through June 15 within one quarter mile of a bald eagle nest near the TL-532 Pipeline if the nest is active. This EIS serves as a Biological Assessment which is necessary for compliance with section 7 of the Endangered Species Act.

NOAA Fisheries has reviewed and commented on federally listed species that could potentially be affected by the increased LNG tanker traffic calling on the Cove Point Terminal. NOAA Fisheries concurred that the proposed expansion project is not likely to adversely affect shortnose sturgeon or listed sea turtles that could occur within Chesapeake Bay. However, NOAA Fisheries requested that the final EIS address the potential for the increased number of LNG ships to affect marine mammals, in particular the northern right whale. Section 4.7.1 of this final EIS includes a discussion of marine mammals.

Thirty nine state-listed endangered, threatened, or rare species could potentially occur within the project area. Dominion has conducted field surveys for most of these species and received concurrence and recommendations from the respective state agencies regarding the potential for species to be affected by specific project facilities. We have included recommendations to ensure that Dominion completes necessary consultations and additional surveys, as appropriate.

The nearest residence to the proposed LNG terminal expansion facilities is 0.4 mile southwest of the Cove Point Terminal. Fifty-eight residences, one camp, and one local business would be within 50 feet of the proposed pipeline construction rights-of-way and work areas, all of which would be along the TL-532 and PL-1 EXT2 Pipelines. Dominion has also identified two residential developments that are currently under construction and six residential developments planned for future development that would be within 50 feet of the TL-532 Pipeline. Dominion has attempted to minimize impact on residential areas by deviating away from the existing pipelines at several locations where there is dense residential development along the existing rights-of-way.

Dominion would implement a number of mitigation measures to minimize construction-related impact on residences within 50 feet of work areas and would prepare site-specific mitigation plans for all residential areas within 25 feet of construction work areas. Because construction of the pipelines is not scheduled to begin until 2007, and new residences may be constructed or identified before then, we have recommended that Dominion file with the Commission an updated listing of all residences within 50 feet of the construction work areas and the site-specific residential plans before the start of construction.

Development of the land surrounding the existing Cove Point Terminal has been restricted by certain past conservation easements agreed to by the previous owners of the terminal and various conservation organizations. In March 2005, Dominion, the Sierra Club, and the Maryland Conservation Council entered into a new agreement that replaces all previous agreements and easements. Among other items, the March 2005 agreement allows for construction and operation of the proposed expansion facilities, but states that the proposed project is to be the final expansion of the fenced area for the duration of LNG operations. It also indicates that Dominion shall maintain all of the Cove Point site that is not included in the LNG terminal as open space in its natural state.

Portions of the proposed project in Maryland would be within the designated coastal zone. We have recommended that Dominion file with the Commission a copy of the Maryland Department of the Environment's determination of consistency with the Coastal Zone Management Program.

Operation of the project facilities would impact recreational boating and fishing during the arrival, unloading, and departure of the LNG ships. If the Coast Guard issues a LOR finding the waterway suitable for LNG marine traffic, the Coast Guard would impose a moving safety zone around LNG ships during transit up the Chesapeake Bay and a moored security zone while berthed at the LNG terminal. If moving safety zones, security zones at the terminal were implemented, they would affect other commercial, ferry, and recreational traffic using the bay and river. The moving safety zones, if implemented, may have the effect of temporarily limiting some commercial shipping route in the Chesapeake Bay. This presently occurs with LNG vessels. This could cause impacts on recreational boating and fishing but the impacts would be temporary while the boat is in transit or moored at the ship unloading facility. Because the safety zone would be a moving zone around the ship, the impacts would be of short duration at any given point along the shipping route.

A number of state-owned lands or other special use lands would be crossed by the proposed pipelines. For the majority of the crossings, the new pipelines would be immediately adjacent to existing pipeline rights-of-way which would minimize impact on these areas. Dominion would continue to conduct consultations with each of the respective landowner or management agencies. We have recommended that Dominion develop, in consultation with the affected landowners or land managing agencies, site-specific construction and restoration plans for each of these areas as necessary.

The most prominent visual features of the proposed LNG terminal expansion would be two new LNG storage tanks, each 161 feet high, and located closer to Cove Point Road, therefore potentially visible from areas surrounding the terminal. We evaluated simulated views of the storage tanks from four land-based observation points south and west of the terminal and one offshore point east of the terminal using visual simulations prepared by Dominion. Based on

these simulations, the view of the proposed LNG storage tanks from areas surrounding the existing terminal would be very minimal, and limited to just the tops of the tanks. The views would be consistent with the existing terminal facilities and would not be a significant change from current views.

Construction of the Cove Point Expansion Project would result in a temporary increase in population, traffic, and the demand for temporary housing and public services in the area of the Cove Point Terminal and in communities located along the proposed pipelines. 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.

During operation of the LNG terminal, there would be safety zones around transiting LNG ships. The moving safety zone enforced around each LNG ship and moored vessel security zone around the ship unloading facility while a ship is docked would be restricted to other commercial traffic unless permission to enter the zone is obtained from the Captain of the Port. Since the existing facility's original commissioning in 1978, a RNA has been posted in 33 CFR Section 165.502. As a result of the reactivation of the terminal in 2001, the RNA was altered to its current configuration of 500 yards in all directions from the Cove Point LNG terminal structure. Entry into or movement within this safety and security zone is prohibited unless authorized by the Coast Guard.

Dominion has conducted cultural resource surveys and filed reports with the FERC and the various State Historic Preservation Offices (SHPO) documenting investigations covering the LNG terminal expansion facilities and the proposed pipeline routes. The Pennsylvania, Virginia, West Virginia, and New York SHPOs have provided comments indicating the proposed facilities in those states would not affect cultural resources, and we agree. Two historic properties on the TL-532 Pipeline cannot be avoided and would be adversely affected. These two historic properties would be mitigated through data recovery. We sent a Notification of Adverse Effect for the project to the ACHP and the ACHP has decided not to participate. Dominion has provided data recovery plans for these sites and on March 15, 2006, the Maryland SHPO approved the plans and so do we. We have initiated a Memorandum of Agreement (MOA) to resolve the project's adverse effects, and the MOA is currently under review by the Maryland SHPO and Dominion. Because we have not completed the process of complying with section 106 of the NHPA we have recommended that Dominion defer construction until we authorize Dominion to proceed with data recovery or construction to ensure the Commission's responsibility under the NHPA and its implementing regulations are met.

Construction and operation of the proposed LNG terminal expansion facilities and pipelines and associated aboveground facilities would result in emissions or air pollutants. Emissions from construction activities, such as fugitive dust and tailpipe emissions would be temporary, intermittent, and would not result in a long-term impact on air quality. Proposed modifications at the Cove Point LNG Terminal include natural gas-fired combustion turbines equipped to reduce emissions during operation, installation of additional vaporization capacity and additional miscellaneous emission generating equipment. These modifications would constitute a significant modification to a major source, and a non-attainment review is required for the terminal facilities. In addition, there would be an increase in emissions from LNG ships and associated support vessels. We have analyzed the modeling results from both marine-based and land based air emissions and determined that the project, with required mitigations, would not

result a significant deterioration of local air quality. In addition, we are required to prepare a Draft General Conformity Determination (DGCD) to determine whether the project would conform to the Maryland State Implementation Plan and not result in a violation of the National Ambient Air Quality Standards. We have included the DGCD as appendix H.

Dominion has filed a permit application with the Maryland Department of the Environment Air and Radiation Management Administration that is currently under review by that agency. Based on the estimated annual emissions from operation, none of the other proposed new or modified compressor stations would constitute a significant modification for air emissions.

Noise receptors in the immediate vicinity of construction activities would experience an increase in noise levels. Noise associated with construction activities would be the most noticeable with a potential noise impact of 89 decibels (dBA) under peak conditions for short periods of time (when construction equipment is close to a residence). In most areas the increase in noise would be temporary, localized, and limited primary to daylight hours. We asked Dominion to conduct a noise analysis for each HDD site and prepare mitigation plans to reduce impact on residences that are located near HDD drilling activities. Dominion has filed these plans and in most cases the proposed mitigation would result in acceptable noise levels. We have recommended additional mitigation to reduce construction related noise at the proposed HDD crossings of Hunting Creek and the Patuxent River on the TL-532 Pipeline in Maryland.

With our recommended noise mitigation measures, the operational noise from the LNG terminal expansion facilities and from the proposed new or modified equipment at each of the new or modified compressor stations would be less than the FERC's limit of 55 dBA L_{dn}.

We evaluated the safety of both the proposed facilities and the related LNG vessel transit through the Chesapeake Bay. With respect to the onshore facility, we performed a cryogenic design and technical review of the proposed terminal expansion facilities design and safety systems. Several areas of concern were noted with respect to the proposed expansion facilities, and we have made specific recommendations that Dominion would be required to address prior to construction or operation of the new facilities at the LNG terminal site.

Thermal radiation and flammable vapor hazard distances were calculated for an accident or an attack on an LNG vessel. For 1.0, 2.5, 3.0, and 3.9-meter-diameter holes in an LNG cargo tank, we estimated distances to range from 2,200 to 5,360 feet for a thermal radiation level of 1,600 British thermal units per hour per foot squared, 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[4] – is highly unlikely. For similar reasons, an accident involving the onshore LNG import terminal is unlikely to affect the public. As a result, the risk to the public from accidental causes should be considered negligible.

[4] "Allision" is the action of dashing against or striking upon a stationery object (e.g., the running of one ship upon another ship that is docked) - distinguished from "collision", which is used to refer to two moving ships striking one another.

As part of our marine safety analysis, we considered how vessel security requirements for increased LNG ships calling on the Cove Point LNG Terminal might affect other ship and boat traffic in the Chesapeake Bay. Based on the Coast Guard's longstanding experience in controlling the movements of dangerous cargo vessels in the Chesapeake Bay and in other ports, potential impacts can be evaluated for several general security requirements: 1) moving safety zone for inbound and outbound LNG vessels; 2) one-way vessel traffic during LNG vessel transit; 3) security zone around a moored LNG vessel; and 4) other measures as deemed appropriate. The moving safety zone or the moored vessel security zone at the terminal would affect other commercial and recreational traffic using the bay.

The extent of the impact on recreational boaters would depend on the number of boats in the project area during the additional two to three LNG vessel transits per week when LNG ships would call on the LNG terminal, and on several other variables such as the size of the Coast Guard-imposed safety and security zones and the width of the channel at the point where a boat encounters the LNG ship. To minimize potential impacts on other marine traffic, the Coast Guard is expected to use a program of announcements to give advance notice of each moving safety and moored vessel security zones schedule and could schedule the transit of LNG ships for times of day less likely to affect recreational boaters.

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 an LNG import terminal proposal that would involve 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.

The Coast Guard, in consultation with both the Hampton Roads and Baltimore Area Maritime Security Committees, recently completed a review of Dominion's Water Suitability Assessment (WSA). Following the guidance provided in NVIC 05-05, the Coast Guard's review focused on the navigation safety and maritime security risks posed by the additional LNG marine traffic associated with the proposed project and the measures needed to responsibly manage these risks. Based on this review, the Coast Guard has preliminarily determined that the Chesapeake Bay, from Cape Henry, VA, to Cove Point, MD, may be suitable for accommodating the type and frequency of LNG vessel traffic referred to in the WSA. This determination is merely a preliminary assessment and does not constitute agency action because the Coast Guard NEPA analysis has not been completed.

Furthermore, the WSA indicates that currently employed risk management strategies developed for each MARSEC level appear to offer the necessary protection for the safety and security risks associated with increased LNG tanker traffic in the Chesapeake Bay.

An issue that has developed for several LNG terminal projects is a concern that local communities would have to bear some of the costs of ensuring the security/emergency management of the LNG facility and the LNG vessel while in transit and unloading at the dock.

While the LOR would address the suitability of the Chesapeake Bay for increased LNG ship transportation, it would not constitute a final authority to commence these additional LNG

operations. Issues related to the public impact of safety and security zones would be addressed later in the updated version of the Coast Guard's *LNG Operating Management Plan*. In addition, the Coast Guard would establish a moving safety zone and moored vessel security zone under 33 CFR 165 for LNG vessels in transit and while docked. Only personnel or vessels authorized by the Captain of the Port are permitted within these zones.

Section 311 of the Energy Policy Act of 2005 stipulates that the FERC must require the LNG operator to develop an Emergency Response Plan that includes a Cost-Sharing Plan before any final approval to begin construction. The Cost-Sharing Plan shall include a description of any direct cost reimbursements to any state and local agencies with responsibility for security and safety at the LNG terminal and near vessels that serve the facility.

ALTERNATIVES CONSIDERED

This EIS addresses alternatives to the proposed actions before the FERC, Coast Guard, and Corps. The proposed action before the FERC is to consider issuing to Dominion a Section 3 authorization for expansion of the LNG facility and for Section 7 Certificate of Public Convenience and Necessity for the new pipeline and above-ground facilities. The proposed action before the Coast Guard is issuance of a LOR finding the waterway suitable for increased LNG marine traffic, with certain conditions. The proposed action before the Corps is to consider issuing Dominion permits pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Section 3 of this EIS clearly describes the criteria for alternative selection.

We evaluated the alternatives of no action or postponed action, system alternatives, alternative LNG terminal projects, and pipeline route alternatives. While the no action or postponed action alternative would eliminate the environmental impacts identified in this EIS, the project objectives of providing additional volumes of natural gas to the Mid-Atlantic and Northeast markets would not be met. This in turn could lead to higher natural gas prices, conservation, use of alternative sources of energy, or alternative proposals to develop natural gas delivery and storage infrastructure. Conservation and the development of other sources of energy are anticipated to play a part in meeting the future energy needs of the country but are not expected to significantly reduce the long-term requirement for additional natural gas supply.

For the Coast Guard's proposed action, the no action alternative would be issuance of a LOR finding the waterway not suitable for increased LNG marine traffic. Similar to the no action alternative to the FERC proposed action, the no action alternative for the Coast Guard would avoid any project related environmental effects; however, it would also prevent additional LNG vessels from delivering LNG to an import terminal and the project objectives would not be met. Reasonable alternatives to the Coast Guard action of issuing a LOR include: 1) issuance of a LOR finding the waterway suitable for additional LNG marine traffic without any conditions, and 2) postponing the issuance of a LOR pending further analysis and study.

Similarly, the Corps has three courses of action. It may: 1) deny the project; or 2) issue a permit with or without conditions; or 3) postpone the issuance of the permit pending further analysis or study.

Our analysis included an evaluation of existing LNG facilities and pipelines as alternative systems that could be used to meet the objectives of the Cove Point Expansion Project. We considered most of these facilities to be either too far from the project area to effectively serve the Mid-Atlantic market without substantial expansions or modifications that would likely result in as much if not more environmental impacts, than the proposed project. We also examined the potential for recently approved, proposed, or planned projects to meet the objectives of the proposed project. Similar to the existing terminal facilities, we considered the majority of the recently approved, proposed, or planned projects too far away to effectively serve the Mid-Atlantic market. Additionally, most of these projects would require substantial expansion or modification, which could result in significant environmental impacts.

An alternative to the Coast Guard action of issuing a favorable LOR with certain conditions is to issue a LOR without any conditions. This would avoid the environmental effects related to any safety and/or security zones, or other related LNG safety and security activities, which the Coast Guard will determine is necessary prior to the commencement of additional LNG vessels transiting the waterway. If the Coast Guard postpones issuance of a LOR pending further analysis or study, the effect is expected to be similar to the FERC postponing its action. That is, although it is speculative to predict the resulting effects, postponing issuance of a LOR may lead to Dominion deciding to delay its entire project.

We examined the five proposed or planned projects that are closest to the Mid-Atlantic area and are substantially developed enough to conduct an analysis but determined that none of these projects would provide the storage and sendout capacity proposed by Dominion. We also concluded that although it is possible that a combination of these projects could provide a sendout and storage capacity at least equal to the proposed project, it seems likely that much of the capacity of these projects would likely be used to satisfy the growing demand for natural gas in the New England and New York area and would be unavailable for the Mid-Atlantic region.

We evaluated an LNG delivery alternative that would include barging LNG to water-side delivery points on other pipelines systems, and that could potentially replace the need for the proposed TL-532 Pipeline. Although LNG delivery by barge may be implemented at some point in the future, we determined barging LNG at a scale that could replace the need for the TL-532 Pipeline is not a reasonable alternative. We also evaluated several alternative pipeline and compressor station configurations that Dominion identified in its application or that were suggested in comments received during scoping. We evaluated these alternatives to see if they could avoid or minimize the need for pipeline construction in Maryland. We found that none of these alternatives would reduce environmental impacts to such an extent that they would be environmentally preferable to the facilities as proposed.

Our alternatives analysis included the evaluation of major pipeline route alternatives and minor pipeline route variations. We evaluated seven major route alternatives and 10 minor route variations that were either identified in Dominion's application or were identified during the scoping process. All of these alternatives were on either the TL-532 or the PL-1 EXT2 Pipelines. We determined that none of the pipeline route alternatives or variations would reduce environmental impacts to such an extent that they would be environmentally preferable to the proposed route.

Our alternatives analysis also included evaluation of the need for alternative sites for the two new compressor stations proposed as part of the project. We identified no environmental issues with the proposed site of the Perulack Compressor Station that would warrant review of alternative sites. Dominion indicated that it evaluated a potential alternative site for the Centre Relay Compressor Station, but has not provided enough information on the site for us to complete our evaluation. We have recommended that Dominion provide additional information on that alternative site.

Dominion identified the Start Point Compression Alternative as a potential system alternative to its proposed PL-1 EXT2 Pipeline and Centre Relay Compressor Station. The alternative would eliminate the need for the Centre Relay Compressor Station, but would increase the size of the 81-mile PL-1 EXT2 Pipeline from 24 to 36 inches in diameter.

Construction of a pipeline, even at 36-inch diameter size, is considered a temporary, but long-term impact, compared to the permanent impact of constructing of new compressor station, which is a fixed, aboveground facility, permanently altering the use of the land. In general, the long-term impacts of forest clearing associated with the pipeline construction are preferred to the permanent impact of constructing and operating the Centre Relay Compressor Station. However, section 4 of this EIS fully discloses the environmental impacts of Dominion's PL-1 EXT2 pipeline and the Centre Relay Station. Dominion also selected the proposed compressor station site (which is currently farmed) in consultation with the Centre County planning officials. We conclude that construction of the facilities as proposed, with appropriate mitigation measures and our recommendations, would be an environmentally acceptable action.

In response to our request for comment on the use of the Start Point Alternative in the draft EIS, Dominion indicated that use of a 36-inch-diameter pipeline would significantly increase initial project cost. Dominion also stated some further benefits of the proposed facility design. After further consideration, we do not object to the construction and operation of the Centre Relay Compressor Station, as proposed in Dominion's application, and we do not recommend use of the Start Point Compression Alternative.

In conclusion, we determined that the Cove Point Expansion Project, as modified by our recommended mitigation, is the preferred alternative that can meet the project's objectives.

PUBLIC INVOLVEMENT

On August 17, 2004, we approved Dominion's request to use the Commission's Pre-Filing Process for this project. The Pre-filing Process allows and encourages early involvement by citizens, governmental entities, and other interested parties, to identify and resolve issues prior to filing an application with the Commission.

On October 14, 2004, the FERC issued a Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Cove Point Expansion Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meetings and Site Visits (NOI). The NOI was sent to approximately 1,500 interested parties including federal, state, and local officials; agency representatives; conservation organizations; local libraries and newspapers; and property owners along the proposed pipeline routes. The NOI established a 45-day comment period for scoping. On November 1, 2004, we identified additional stakeholders in the project area and

extended the public comment period until December 10, 2004. On March 16, 2005, in response to Dominion's inclusion of additional facilities in its proposed project, the FERC issued a Notice of New Public Comment Period in order to provide adequate opportunity for newly identified stakeholders that may have an interest in the additional facilities to become involved in our Pre-Filing Process. The Commission staff opened a new 30-day public comment period for the newly identified facilities.

Four public scoping meetings were held during the Pre-Filing Process to receive comments on issues to be included in the draft EIS. Meetings were held on November 3, 4, 16, and 18, 2004, in Lewistown, Pennsylvania; State College, Pennsylvania; Solomons, Maryland; and Waldorf, Maryland, respectively. The locations and times of each meeting were announced in the NOI. The Corps and U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, also participated in the scoping meetings. Statements were made by 36 people at the scoping meetings, including 4 in Pennsylvania and 32 in Maryland. Transcripts of each scoping meeting have been entered into the public record for the project. On November 4 and 17, 2004, June 1, 2005, and July 28, 2005, the FERC also conducted site visits, open to the public, of portions of the proposed pipeline routes. On July 27, 2005 FERC staff conducted a cryogenic design and technical conference with Dominion personnel in Solomons, Maryland to discuss design and engineering aspects of the Cove Point Expansion Project. The meeting was limited to existing parties to the proceeding (*i.e.*, anyone who specifically requested to intervene as a party).[5] Attendees included agency representatives (U.S. Department of Transportation (DOT) Office of Pipeline Safety (OPS) and Coast Guard), industry representatives, and other interested parties.

In response to the NOI and Notice of New Public Comment Period, we received seven letters from U.S. Senators and/or Congressmen, one letter from a Native American group, five letters from state agencies, two from county and local municipal offices, and 87 from individuals and organizations. With the exception of project need and general support or opposition to the project, the issues identified during scoping, as well as others that we have identified or that we routinely analyze during our review, are addressed in this EIS. Project need and gas quality issues will be addressed by the Commission when it considers whether or not to authorize the project.

The FERC issued the draft EIS and a notice of availability on October 28, 2005 and filed it with the EPA. A formal notice indicating that the draft EIS was available was also published in the Federal Register, and the document was mailed to approximately 1,550 individuals and organizations on the mailing list prepared for the project. In accordance with the Council on Environmental Quality (CEQ) regulations implementing NEPA, the public had the opportunity to comment on the draft EIS in the form of written comments up through December 21, 2005.

[5] Intervenors are officials to the proceeding and have the right to receive copies of case-related Commission documents and filings by other intervenors. Likewise, each intervenor must provide 14 copies of its filings to the Secretary of the Commission and must send a copy of its filings to all other intervenors. Only intervenors have the right to seek rehearing of the Commission's decision.

We received 11 written comment letters from federal and state agencies; 4 letters from federal and state representatives; 6 letters from county and local municipalities; 4 letters from the applicant and its primary customer for the project; and 13 letters from individuals and organizations. Public meetings to hear comments on the draft EIS were held in the project area on December 7, 2005 in Lewistown, Pennsylvania and Solomons, Maryland; and on December 8 in State College, Pennsylvania and Waldorf, Maryland. The locations and times of each meeting were announced in the notice of availability. The Corps, Coast Guard, and DOT Office of Pipeline Safety also participated in the public meetings. Statements were made by 34 people at the public meetings, including 1 in Pennsylvania and 33 in Maryland. Transcripts of each public meeting have been entered into the public record for the project. All timely comments received on the draft EIS are addressed in this final EIS, either as revisions to the text as appropriate, and/or as direct responses to each comment (see Section 6 of this EIS).

This final EIS was mailed to the agencies, individuals, and organizations on the mailing list for the project, and submitted to the EPA for formal public notice of availability. In accordance with CEQ regulations implementing NEPA, no agency decision on a proposed action may be made until 30 days after the EPA publishes a notice of availability of the final EIS. However, the CEQ regulations provide an exception to the rule when an agency decision is subject to a formal internal process that allows other agencies or the public to make their views known. In such cases, the agency decision may be made at the same time the notice of the final EIS is published, allowing both periods to run concurrently. Should the FERC authorize Dominion's proposed action, it would be subject to a 30-day rehearing period. Therefore, FERC could issue its decision concurrently with the EPA's notice of availability.

On January 17, 2006 Dominion submitted a Waterway Suitability Assessment to the Coast Guard, Sectors Baltimore and Hampton Roads, and on February 14, 2006 the Coast Guard issued a public notice and request for comments to solicit input it considered during preparation of recommendations to FERC for inclusion in this EIS. The comment period ended March 16, 2006. If the Coast Guard decides to issue a LOR which finds that the waterway is suitable for the proposed increase in LNG marine traffic, it will then identify what actions and resources are necessary to make the proposed waterway suitable for increased LNG traffic to Cove Point.

MAJOR CONCLUSIONS

As part of our review, we developed measures we believe would appropriately and reasonably avoid, minimize, or mitigate for environmental impacts resulting from the construction and operation of the proposed project. We are recommending that these mitigation measures be attached as conditions to any authorization issued by the Commission. We conclude that if the project is found to be in the public interest and is constructed and operated in accordance with Dominion's proposed mitigation and our recommended mitigation measures, the proposed facilities would have limited adverse impacts.

The primary reasons for our decision are:

- the LNG terminal facilities would be an expansion of an existing, fully operating LNG import terminal with an established deep water dock and established exclusion zones;

- the additional LNG ship traffic that would result from the expansion would utilize an existing shipping corridor used by existing LNG vessels as well as other deep draft vessels;
- the proposed pipeline facilities would follow existing rights-of-way for about 90 percent of the proposed pipeline routes;
- Dominion has routed the pipeline facilities to avoid placement of the construction work area near residences to the maximum extent practicable;
- Dominion would implement the FERC's Plan and Procedures to minimize impacts on soils, wetlands, and waterbodies;
- sensitive waterbodies, such as St. Leonard Creek, Patuxent River, Hunting Creek, and Mattawoman Creek in Maryland; and the Juniata River and Bald Eagle Creek in Pennsylvania, would be crossed using horizontal directional drill methodology;
- noise impacts resulting from the aboveground facilities can be adequately mitigated with our recommended measures;
- appropriate consultations with the FWS, the Corps, SHPOs, the Maryland Department of Environment (for coastal zone management plan consistency plan determination) would be required before Dominion would be allowed to begin construction;
- safety features would be incorporated into the design and operation of the LNG terminal expansion facilities and LNG vessels;
- if the Coast Guard issues a LOR finding the waterway to be suitable for increased LNG marine traffic, the operational controls that would be imposed by the local pilots and the Coast Guard to direct movement of LNG ships, and security provisions would deter attacks by a potential terrorist; and
- the environmental and engineering inspection and mitigation monitoring program for this project would ensure compliance with all mitigation measures that become conditions of any FERC authorization.
- all federal, state, and local authorizations would be required prior to project construction (see table 1.3-1).