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CAPE COD COMMISSION

DEVELOPMENT OF REGIONAL IMPACT DECISION

Date:	November 19, 2026
Project:	Algonquin Pipeline Relocation
Project Location:	Town of Bourne
Project Applicant/ Property Owner :	Algonquin Gas Transmission, LLC 890 Winter Street, Suite 300 Waltham, MA 02451
Project Address:	0 Meetinghouse Lane Sagamore Beach, MA 02562
Assessor's ID:	Map 11.0 Page 172
Title Reference:	BCRD Book 37507 Page 81

SUMMARY

The Cape Cod Commission ("Commission") hereby grants Development of Regional Impact ("DRI") approval, with Conditions, for the Algonquin Pipeline Relocation project to modify existing interstate natural gas transmission facilities to accommodate the planned replacement of the Bourne and Sagamore Bridges by the Cape Cod Bridges Program by removing, abandoning, and relocating portions of existing natural gas pipelines and associated metering and regulating facilities that interact with bridge-supported and bridge-adjacent infrastructure in the Town of Bourne, pursuant to a vote of the Commission at its meeting on November 19, 2026.

FINDINGS

The Cape Cod Commission hereby finds and determines as follows:

F1. The Applicant proposes to modify existing interstate natural gas transmission facilities to accommodate the planned replacement of the Bourne and Sagamore Bridges by

the Cape Cod Bridges Program ("CCBP") by removing, abandoning, and relocating portions of existing natural gas pipelines and associated metering and regulating facilities that interact with bridge-supported and bridge-adjacent infrastructure ("Project"). The Applicant has legal standing to pursue the Project through easements documented with their DRI Application. As proposed, the development and construction of the Project consists of:

- Relocation and replacement of existing natural gas pipeline and metering and regulating (M&R) infrastructure that conflicts with the CCBP
    - Construction of a new Pave Paws Road M&R Station.
    - Construction of a new Bourne Rotary M&R Station.
    - Relocation of the existing Sagamore M&R Station to the terminus of the relocated G-11 pipeline.
    - Relocation of the existing Bourne M&R Station to the new termini of the G-8L and G-8C pipelines.
- Approximately 5.86 miles of new 16-inch- and 18-inch-diameter pipeline.
- Approximately 0.45 miles of 8-inch and 6-inch-diameter pipelines.
- Removal of approximately 2.02 miles of existing pipeline.
- Abandonment in place of approximately 1.44 miles of existing pipeline.
- Approximately 209 acres affected during construction, of which about 56 acres would be permanently affected during operation.
- Approximately 43.6 acres of clearing, of which approximately 18.3 acres would remain within the operational footprint.
- Horizontal Directional Drilling (HDD) for the Cape Cod Canal crossing of the G-31 pipeline.
- Mitigation including:
    - Wetland restoration;
    - Workspace restoration and revegetation;
    - Traffic management;
    - Construction noise controls;
    - Stormwater management at aboveground facilities;
    - Species-specific Natural Heritage and Endangered Species Program (NHESP) protection plans;
    - Continued NHESP coordination and preparation of a Conservation & Management Permit (CMP), including species-specific avoidance, protection, restoration, and net benefit mitigation measures;
    - Invasive plant management;
    - Coordination with affected landowners and state agencies regarding Article 97 approvals, combined with use of existing corridors, temporary restoration commitments, and proposed off-site habitat preservation; and
    - Acquisition and permanent protection of undeveloped forestland adjacent to Joint Base Cape Cod (JBCC) and Camp Edwards WMA.

F2. The Project is located within both Suburban Development Area and Natural Area Placetypes. Suburban Development Areas are characterized by moderately dense residential neighborhoods as well as automobile-oriented commercial development. Natural Areas are generally the region's least developed and most sensitive areas.

DRI Jurisdiction

F3. The Project requires mandatory DRI review pursuant to Section 2(d)(i) of the Commission's Chapter A: Enabling Regulations Governing Review of Developments of Regional Impact ("Enabling Regulations"), revised November 2021, because the Project required the preparation of an Environmental Impact Report ("EIR") pursuant to the Massachusetts Environmental Policy Act, M.G.L. c. 30, §§ 61-62I ("MEPA").

Procedural History

F4. The Project required a mandatory EIR under MEPA because it would result in the direct alteration of 50 or more acres of land. On June 29, 2026, the Secretary of the Executive Office of Energy and Environmental Affairs issued a Certificate on the Final EIR stating that the Project adequately and properly complies with MEPA and its implementing regulations.

F5. The Applicant submitted a DRI application for the Project to the Commission on July 24, 2026. A staff hearing officer opened the DRI hearing period procedurally on August 13, 2026. The Applicant submitted additional materials on August 31, 2026 and November 4, 2026.

F6. A Subcommittee of the Commission held the first substantive public hearing on the Project on October 28, 2026. The Subcommittee held a continued public hearing on November 12, 2026 and a public meeting on November 17, 2026.

F7. At its meeting on November 17, 2026, the Subcommittee further discussed the Project and voted 5 in favor, 0 opposed to recommend to the full Commission that it grant DRI approval for the Project, with conditions, as set out in the draft written DRI decision reviewed by the Subcommittee.

F8. At its meeting on November 19, 2026, the full Cape Cod Commission conducted a continued public hearing, discussed the Project, and voted to approve the Project with conditions.

Natural Gas Act and Federal Energy Regulatory Commission

F9. The Project consists of interstate natural gas transmission facilities subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act (NGA), 15 U.S.C. §§ 717 et seq. Pursuant to Section 7(c) of the NGA, FERC has authority to determine whether the construction and operation of interstate natural gas transportation facilities are required by the present or future public convenience and necessity and, if so, to authorize such facilities through a Certificate of Public

Convenience and Necessity. Section 7(b) of the NGA similarly requires FERC authorization before an interstate natural gas company may abandon jurisdictional facilities.

F10. In evaluating an application for authorization of a pipeline project, FERC conducts a review under the National Environmental Policy Act (NEPA), which requires federal agencies to consider the potential environmental effects of proposed federal actions before making a decision. As part of its NEPA review, FERC evaluates the proposed project and its potential environmental impacts, including impacts to natural resources, cultural resources, and other environmental considerations.

F11. On October 29, 2026, FERC issued an Order Issuing Certificate and Approving Abandonment in Docket No. CP25-552-000[1], authorizing Algonquin to construct the proposed replacement facilities and abandon the existing facilities, subject to the conditions contained in the order ("FERC Certificate"). Accordingly, FERC has exercised its federal jurisdiction over the need for, location, configuration, and construction of the jurisdictional pipeline facilities, as well as the proposed abandonment.

F12. The NGA establishes a comprehensive federal regulatory framework governing the transportation of natural gas in interstate commerce. FERC addressed the limitations on state and local regulatory authority directly in the FERC Certificate, stating: "Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate."[2] Accordingly, the Commission may not use its regulatory authority to reconsider or override FERC's determinations, nor may the Commission impose DRI conditions that conflict with the FERC Certificate or otherwise prohibit or unreasonably delay construction or operation of the authorized facilities.

F13. During the federal review, questions were raised regarding whether the Project's proposed increase in pipeline diameter and maximum allowable operating pressure would result in an increase in natural gas transportation capacity. In the FERC Certificate, FERC specifically considered these concerns and determined that the Project "would not result in a capacity increase."

F14. The FERC Certificate includes the explanation that, although certain replacement pipeline segments would have larger diameters, the proposed pipelines are also longer than the existing bridge-mounted pipelines, resulting in additional pressure loss. The larger diameter was selected to compensate for this pressure loss and maintain the pressure necessary to deliver the currently contracted volume of natural gas. FERC further considered upstream capacity constraints on the Applicant's system, which physically prevent additional gas from being delivered to National Grid, and

[1] 197 FERC ¶ 61,063 (2026) ("FERC Certificate Order")
[2] FERC Certificate, page 24

hydraulic modeling submitted by the Applicant. Based on this information, FERC concluded that the Project was appropriately sized to provide National Grid "the same level of service as currently contracted."

F15. The Commission adopts FERC's finding that the Project will not increase pipeline capacity.

DRI Review Standards

F16. Section 13(d) of the Cape Cod Commission Act (the "Act") and Section 7(c)(viii) of the Enabling Regulations contain the standards to be met for DRI approval, which include, as applicable, consistency with the Cape Cod Regional Policy Plan (RPP), the Act, municipal development bylaws, District of Critical Planning Concern (DCPC) implementing regulations and Commission-certified Local Comprehensive Plans. The Commission must also find that the probable benefit from the Project is greater than its probable detriment.

F17. Generally, the Commission evaluates a DRI's consistency with the Act by determining whether the project is consistent with the Goals and Objectives in Section 6 of the applicable RPP, as particular goals and objectives are deemed applicable and material to the project. DRI review of the Project is subject to the 2025 RPP, which is the version of the RPP in effect at the time of the Commission's first substantive public hearing on the Project.

F18. Findings as to the Project's consistency with the standards for DRI approval, including the 2025 RPP, are made only to the extent those standards are not preempted by federal law or committed to FERC's exclusive jurisdiction.

F19. This Decision addresses the Project's potential regional impacts without reconsidering determinations made by FERC or imposing requirements that conflict with, interfere with, or unreasonably delay construction or operation of the facilities authorized by the Certificate.

Cape Cod Regional Policy Plan

Applicable and Material RPP Goals and Objectives

F20. The Commission reviewed the DRI Application Materials and finds that the following RPP Goals are applicable, material, and regionally significant and are thus subject to RPP consistency review: Ocean Resources, Wetlands Resources, Wildlife and Plant Habitat, Open Space, Coastal Resiliency, Water Resources, Community Design, Cultural Heritage, Climate Change, Energy, Capital Facilities and Infrastructure, and Transportation.

Ocean Resources

F21. The Ocean Resources Goal is to protect, preserve, or restore the quality and natural values and functions of ocean resources. The following objectives are applicable, material, and regionally significant:

- Objective OR1 – Locate development away from sensitive resource areas and habitats
- Objective OR2 – Preserve and protect ocean habitat and the species it supports
- Objective OR3 – Protect significant human use areas and vistas

F22. A section of the proposed G-31 pipeline will cross beneath the Cape Cod Canal ("Canal"). The pipeline will be installed using Horizontal Directional Drilling (HDD). As described in the Project application, the HDD method involves boring a hole beneath the Canal from land-based workspaces on opposite sides of the Canal and pulling the pipe through the bored hole. The entry and exit sites are more than 1,000 feet inland of the Canal, within an abandoned sand and gravel pit and within Eversource's existing utility right-of-way, respectively. The HDD will install the pipe approximately 87 feet below the bed of the Canal. This method avoids dredging, in-water trenching, fill placement, and direct disturbance to Canal sediments. Further, noise associated with HDD would be at the land-based workspaces and is not anticipated in the Canal. No pipeline infrastructure will be located within the Canal, avoiding direct impacts to ocean resources.

F23. FERC reviewed the Project's environmental impacts under the National Environmental Policy Act (NEPA), including potential effects associated with HDD construction and inadvertent returns of drilling fluid. FERC reviewed Algonquin's HDD Monitoring, Inadvertent Return, Response, and Contingency Plan and found it acceptable. A copy of this plan was included with the DRI Application (Attachment 4, dated June 2025). FERC concluded that the potential effects of HDD construction and inadvertent returns on groundwater and surface water would not be significant. The Project will be constructed in accordance with the environmental procedures and mitigation measures incorporated into the FERC Certificate, including the HDD monitoring and inadvertent return response procedures.

F24. Additional proposed minimization measures are outlined in the Spill Prevention, Control, and Countermeasure Plan and the Waste Management Plan included with the DRI application (Attachment 3 and Attachment 8, respectively). These include implementation of spill prevention and response procedures, proper handling and storage of fuels and hazardous materials, environmental inspection and monitoring during construction, and adherence to all applicable federal, state, and local permit requirements.

F25. Objective OR1 is to locate development away from sensitive resource areas and habitats. Projects must locate development away from rare species habitat and designated prohibited areas and exclusionary areas identified in the Cape Cod Ocean Management Plan (CCOMP). The proposed G-31 pipeline will cross beneath the Cape Cod Canal between the Bourne and Sagamore Bridges. The section of the Canal where the pipeline will cross is not in mapped Natural Heritage and Endangered Species Program (NHESP) rare species habitat or CCOMP prohibited or exclusionary areas, thus the Project is consistent with Objective OR1.

F26. Objective OR2 is to preserve and protect ocean habitat and the species it supports. Applicants for ocean-based projects must design projects such that their construction and operation protects identified ocean habitat and species, including, but not limited to, whales, fish resources, coastal waterbirds, marine mammals, and eelgrass. Projects must also evaluate cumulative impacts and demonstrate that the development furthers a substantial public purpose.

F27. The section of the G-31 pipeline crossing the Canal is not in mapped habitat for whales, NHESP rare species, or eelgrass. Through the MEPA and federal review processes, the National Marine Fisheries Service determined the Project did not require Essential Fish Habitat (EFH) consultation and the Massachusetts Division of Marine Fisheries determined that no time-of-year restrictions or additional seasonal construction measures were necessary to protect marine resources, as no in-water work will occur. FERC confirmed that consultation under Section 7 of the Endangered Species Act with the U.S. Fish and Wildlife Service and National Marine Fisheries Service was complete, with both agencies concurring that the Project was not likely to adversely affect listed species under their respective jurisdictions.[3]

F28. FERC evaluated potential impacts of HDD noise and vibration on ocean resources and determined that the approximately 87-foot depth of the HDD beneath the Canal bed would likely reduce noise and vibration effects to negligible levels, ultimately concluding that significant effects to ocean resources are not anticipated. FERC also acknowledges that nighttime lighting could alter migratory behavior of birds.[4] To minimize and mitigate the potential impact of noise and lighting, the Applicant will minimize construction activities between dawn and dusk to the extent practicable.

F29. The Project furthers a substantial public purpose by relocating existing natural gas infrastructure to accommodate the Cape Cod Bridges Program while maintaining uninterrupted natural gas service to National Grid's distribution system on both sides of the Canal.

F30. The use of HDD avoids direct in-water construction activities and is designed to minimize potential effects to marine resources. Based on the mapped resource

[3] FERC Certificate, page 17
[4] FERC Certificate, page 14

information, agency consultations, and environmental review conducted by FERC, the Project is consistent with Objective OR2.

F31. Objective OR3 is to protect significant human use areas and vistas. To demonstrate consistency with this Objective, projects may minimize impacts to ocean-based recreational activities, provide buffers to navigation, and design projects to avoid adverse visual impacts to the Cape's cultural, historic, and scenic resources. The use of HDD will avoid in-water work, and the crossing will have no visible infrastructure located within the Canal. The Project will not have permanent impacts on navigation, public access, or commercial or recreational activities. The Canal service road near the Sagamore Bridge and a portion of Bourne Scenic Park may be temporarily affected, with restoration proposed after construction. As the Project poses no permanent impacts to human use area and vistas, it is consistent with Objective OR3.

Wetlands Resources

F32. The Wetlands Resources Goal is to protect, preserve, or restore the quality and natural values and functions of inland and coastal wetlands and their buffers. The following objectives are applicable, material, and regionally significant:

- Objective WET1 – Protect Wetlands and their buffers from vegetation and grade changes.
- Objective WET2 – Protect Wetlands from changes in hydrology, including those associated with stormwater discharges.
- Objective WET3 – Promote the restoration of degraded Wetland resource areas.

F33. Wetlands are scattered throughout the Project area and include coastal and inland wetlands associated with the Cape Cod Canal, Nightingale Pond, and freshwater depressions within existing utility rights-of-way. In the DRI Application (Attachment 1), Figure 5.3-4 shows the locations of the wetlands that would be impacted by the Project. The Project will not result in permanent surface alterations to wetlands but will result in approximately 7,712 square feet (0.18 acres) of permanent easements or maintenance areas within wetland buffers. Most wetland impacts will be temporary, associated with construction activities within existing utility corridors and previously disturbed areas, and restored following construction.

F34. The Project was reviewed by the Bourne Conservation Commission pursuant to the Massachusetts Wetlands Protection Act. An Order of Conditions (OOC) approving the Project with conditions was issued by the Bourne Conservation Commission on August 7, 2026. A copy of the OOC was submitted with the Applicant's supplemental filing (8/31/2026 Supplemental Filing, Attachment 4). The Project was also reviewed by the Massachusetts Department of Environmental Protection (MassDEP) for a Section 401 Water Quality Certification. MassDEP issued a Section 401 Water Quality Certification on July 10, 2026, with conditions.

F35. FERC considered potential effects on wetlands and other natural resources, including certified vernal pools, and concluded that the Project's environmental impacts, as mitigated, would not be significant. FERC incorporated the Applicant's construction and environmental mitigation commitments into the FERC Certificate, with ongoing oversight by FERC's environmental staff and designated environmental inspectors. The FERC Certificate also expressly incorporates all conditions of MassDEP's Water Quality Certification.[5]

F36. Objective WET1 is to protect wetlands and their buffers from vegetation and grade changes. Under Objective WET1, wetlands and their buffers must not be altered except in limited circumstances, including where development currently exists and for the installation of new utility services, and where the applicant can show that there is a public benefit, there is no feasible alternative to alteration, and that the impacts from the alteration are minimized and mitigated.

F37. The Project proposes alteration of wetlands associated with relocation and replacement of existing utility service, providing a public benefit to the region. The Applicant has demonstrated there is no feasible alternative to the proposed route for such utilities. The Applicant considered alternative routes and refined the proposed alignment through the MEPA review process to minimize impacts to wetland resources. FERC subsequently reviewed and authorized the proposed facility locations and construction methods. Approximately 90 percent of the G-31 and G-32 pipeline rights-of-way will be located within or immediately adjacent to existing utility easements, minimizing additional disturbance to previously undisturbed areas.

F38. The Project will avoid, minimize, and mitigate impacts from alterations to wetlands resources through multiple methods including collocation within existing infrastructure corridors, reduced construction workspace widths, temporary construction matting where necessary, erosion and sedimentation controls, dewatering management procedures, soil segregation and replacement where appropriate, minimization of construction duration within wetlands, removal of temporary construction materials, environmental monitoring, and restoration of temporarily disturbed areas. These construction procedures and mitigation measures are incorporated into conditions of the FERC Certificate, which requires Algonquin to follow the procedures and mitigation measures described in its application.[6]

F39. The Project is consistent with Objective WET1 because the Applicant has demonstrated that there is a public benefit, there is no feasible alternative to alteration, and that the impacts from the alteration are minimized and mitigated, as evidenced in the DRI Application, the MEPA FEIR, and the FERC Certificate.

[5] FERC Certificate, page 31

[6] FERC Certificate, Environmental Condition 1, page 27

F40. Objective WET2 is to protect Wetlands from changes in hydrology, including those associated with stormwater discharges. To demonstrate consistency with this Objective, projects should direct stormwater discharges away from wetlands and their buffers and ensure that any withdrawals or discharges will not adversely affect wetlands.

F41. The Project proposes a comprehensive list of measures to protect wetland hydrology and recharge areas during construction and operation including erosion and sedimentation controls, dewatering management procedures, spill prevention measures, HDD monitoring protocols, stormwater management systems, and restoration commitments.

F42. FERC found that hydrostatic test water would be discharged in vegetated upland areas in accordance with the Applicant's Erosion and Sediment Control Plan and FERC's Wetland and Waterbody Construction and Mitigation Procedures, which include requirements for energy dissipation and erosion controls during discharge activities. FERC considered the Applicant's anticipated water requirements for HDD construction and potential contaminants in discharge and noted that its Wetland and Waterbody Construction and Mitigation Procedures require the Applicant to obtain state-issued water withdrawal permits and that no additives or chemical agents would be used in the hydrostatic test water.

F43. Due to the proposed stormwater and erosion control measures, the water management and discharge procedures reviewed by FERC, and the environmental protection measures incorporated into the FERC Certificate,[7] the Project has been designed to maintain existing wetland hydrology and avoid long-term changes to drainage patterns, groundwater recharge, flood storage capacity, and surface water flow within wetland resource areas. Thus, the Project is consistent with Objective WET2.

F44. Objective WET3 is to promote the restoration of degraded wetland resource areas. The Project is not a wetland restoration project; however, the Applicant proposes to restore temporarily disturbed wetland resource areas following construction to minimize long-term effects on wetland functions and values.

F45. The Applicant's Erosion and Sedimentation Control Plan and Spill Prevention, Control, and Countermeasure Plan (Attachment 3 in the application materials) include procedures for revegetation and restoration of disturbed areas. The Applicant also proposes specialized seed mixes for areas within rare species habitat and other sensitive areas, developed in coordination with NHESP. These restoration and

[7] FERC Certificate, page 21; FERC Environmental Assessment for the Cape Cod Canal Pipeline Relocation Project, Docket No. CP25-552-000 (May 29, 2026)("Environmental Assessment"), page 12; FERC *Wetland and Waterbody Construction and Mitigation Procedures*, section II.B.7

revegetation measures are incorporated into the construction and environmental mitigation commitments subject to FERC oversight under the FERC Certificate.[8]

F46. The FERC Certificate requires the Applicant to submit an Implementation Plan identifying how the required construction, mitigation, and restoration measures will be implemented, including schedules for the commencement and completion of restoration activities.[9] The Applicant must also employ environmental inspectors responsible for monitoring compliance with the FERC Certificate's environmental conditions and applicable environmental permit requirements. Based on the Applicant's restoration commitments and the restoration requirements and oversight established by the FERC Certificate, the Project is consistent with Objective WET3.

Wildlife and Plant Habitat

F47. The Wildlife and Plant Habitat Goal is to protect, preserve, or restore wildlife and plant habitat to maintain the region's natural biodiversity. The following objectives are applicable, material, and regionally significant:

- Objective WPH1 – Maintain existing plant and wildlife populations and biodiversity
- Objective WPH2 – Restore degraded habitats through use of native plant communities
- Objective WPH3 – Protect and preserve Rare Species habitat, Vernal Pools, 350-foot buffers to Vernal Pools
- Objective WPH4 – Manage Invasive Species
- Objective WPH5 – Promote best management practices to protect wildlife and plant habitat from the adverse impacts of development

F48. Consistent with the requirements of the Cape Cod Commission's Wildlife and Plant Habitat Technical Bulletin, a Natural Resources Inventory (NRI) was provided with the DRI application. The Project area includes existing utility corridors, transportation corridors, forested areas, and portions of mapped NHESP rare species habitat. Two vernal pools are located in proximity to proposed construction activities. The Project will result in both temporary and permanent impacts to vegetation and wildlife habitat, including approximately 43.6 acres of tree clearing.

F49. FERC considered the Project's potential effects on vegetation, wildlife, and protected species. FERC concluded that effects on most resources would be temporary, with certain resources experiencing long-term effects, including forested habitat and soils in some areas, but that these impacts would not be significant.[10] The FERC Certificate incorporates the Applicant's construction and environmental mitigation commitments

[8] FERC Certificate, Environmental Conditions 1, 2, 6–8, 10, and 13.
[9] FERC Certificate, Environmental Condition 6, page 29
[10] FERC Certificate, page 16

and establishes requirements for environmental inspection, monitoring, and restoration.[11]

F50. Objective WPH1 is to maintain existing plant and wildlife populations and biodiversity. To demonstrate consistency with this Objective, DRIs are required to minimize vegetation clearing and alteration of natural topography, minimize habitat fragmentation, maximize protection of large, contiguous unfragmented areas, and protect standing specimen trees.

F51. The Project has been designed to minimize new habitat disturbance through collocation within existing utility corridors, transportation corridors, access roads, and other previously disturbed areas, and away from sensitive resources. Approximately 90 percent of the G-31 and G-32 pipeline rights-of-way are collocated with existing utility corridors that are already subject to routine management and maintenance activities, thereby minimizing additional habitat fragmentation and concentrating disturbance within previously altered areas.

F52. Temporary disturbance areas will be restored following construction, and long-term mitigation measures will be implemented through permit-required restoration plans and the Project's forthcoming NHESP Conservation & Management Permit (CMP).

F53. Based on the use of existing utility corridors, minimization of proposed tree clearing, and measures to minimize habitat fragmentation, the Project is consistent with Objective WPH1.

F54. Objective WPH2 is to restore degraded habitats through use of native plant communities. Consistent with WPH2, the Project incorporates restoration measures designed to return temporarily disturbed areas to stable, functioning plant and wildlife habitat conditions following construction. Temporary construction workspaces will be regraded, stabilized, and revegetated using native seed mixes appropriate to Barnstable County to promote successful re-establishment of native plant communities.

F55. Within NHESP rare species habitat and other environmentally sensitive areas, restoration will utilize specialized seed mixes approved by NHESP staff and JBCC natural resource managers. Restoration work within JBCC will be coordinated with JBCC environmental staff to ensure compatibility with ongoing habitat management and ecological restoration objectives. Restoration activities will also include long-term monitoring of revegetation success and adaptive management practices to promote native species establishment. According to the supplemental information submitted, restoration plans being finalized with NHESP will focus on re-establishing the pre-construction habitats that support state-listed butterflies and moths and will include salvage and replanting of small oak and blueberry shrubs.

[11] FERC Certificate, Environmental Condition 6, page 29

F56. Based on the proposed restoration of temporarily disturbed areas, use of native and specialized seed mixes, and coordination with NHESP and JBCC natural resource managers, the Project is consistent with Objective WPH2.

F57. Objective WPH3 is to protect and preserve Rare Species habitat, Vernal Pools, and 350-foot buffers to Vernal Pools.

F58. Portions of the Project occur within mapped NHESP rare species habitat. To demonstrate consistency with WPH3, projects located within mapped state or federal rare species habitat must be submitted to NHESP for review and comment, and impacts to rare species and their habitats must be avoided or mitigated. Development within mapped Priority Habitat for Rare Species may be permitted where NHESP provides written comment that the work will not adversely affect rare species, including through an approved Conservation & Management Permit (CMP).

F59. The FERC Certificate confirms that consultation under Section 7 of the federal Endangered Species Act with the U.S. Fish and Wildlife Service and National Marine Fisheries Service is complete. Both agencies concurred that the Project was not likely to adversely affect federally listed species under their respective jurisdictions.[12] FERC separately acknowledged that the Applicant continues to coordinate with NHESP regarding a CMP for impacts to state-listed species.[13] Through the ongoing CMP process, the Applicant is developing species-specific protection, monitoring, restoration, and compensatory mitigation measures in coordination with NHESP.

F60. Proposed mitigation measures include seasonal clearing restrictions, reduced workspaces in environmentally sensitive areas, biological monitoring, species-specific protection plans, and restoration using specialized native plant mixes. The Applicant is also pursuing permanent protection of approximately 60 acres of rare species habitat adjacent to JBCC and Camp Edwards Wildlife Management Area, as well as approximately 2.8 acres of wooded land in Bournedale. The locations of these parcels are shown in figures included in Attachment 2 of the supplemental materials. The 60-acre parcel is wooded, mapped for NHESP rare species habitats and BioMap Core Habitat, Critical Natural Landscape, and Regional Rare Species, overlaps portions of Potential Public Water Supply Area (PPWSA) and Prime Farmland Soils, and abuts permanently protected open space. The 2.8-acre parcel is wooded, mapped for Prime Farmland Soils, and adjacent to other wooded lands that are being permanently protected. These are parcels of high wildlife and plant habitat quality and their permanent protection is appropriate to help offset project impacts.

F61. In addition, the Applicant proposes a financial contribution to The Nature Conservancy's Eastern Box Turtle Mitigation Fund to help offset impacts to eastern box

[12] FERC Certificate, page 17
[13] FERC Certificate, page 18

turtle habitat. These measures are Applicant-proposed mitigation commitments being developed through the NHESP process and should not be characterized as independently approved by FERC or NHESP until the applicable determinations and permits are finalized.

F62. Two vernal pools are located within 350 feet of the project area. One is located north of the proposed G-31 pipeline construction within the existing Eversource transmission line corridor south of Bournedale Road. The second is located south of the proposed G-32 pipeline construction workspace on JBCC, also within an existing utility corridor. Temporary work within the 350-foot buffers to these vernal pools is limited to small sections of the outer edge of the buffers within existing maintained utility corridors, and temporary construction-related disturbances within these buffers will be restored following construction.

F63. The Wildlife and Plant Habitat Technical Bulletin requires projects located adjacent to or containing a certified or certifiable vernal pool to maintain a 350-foot undisturbed buffer. Per the Wildlife and Plant Habitat Technical Bulletin, alterations may be permitted within vernal pool buffers where development currently exists, there is no feasible alternative to alteration, the project will provide a public benefit, and the impacts from the alteration are minimized and mitigated.

F64. The proposed work within the vernal pool buffers is limited to existing maintained utility corridors, and the Applicant considered alternative routes and workspace configurations during the MEPA process. The Project serves a public purpose by relocating existing utility facilities to accommodate the Cape Cod Bridges Program and maintaining existing natural gas service. Temporary disturbances are proposed to be minimized and restored following construction. The use of existing utility corridors and limited workspaces is also intended to reduce additional habitat fragmentation and disturbance to surrounding upland habitat.

F65. Based on the Applicant's ongoing coordination with NHESP, proposed species-specific protection and mitigation measures, and the limited nature of temporary work within existing maintained utility corridors, the Project is consistent with Objective WPH3.

F66. Objective WPH4 is to manage Invasive Species. According to the DRI Application, the Applicant is preparing an Invasive Plant Management Plan (IPMP) as part of the NHESP CMP process to provide a framework for invasive species prevention, monitoring, treatment, and long-term management. During construction, the Applicant proposes implementing a variety of invasive species prevention measures, including:

- minimizing the duration and extent of exposed soils;
- stabilizing disturbed areas as quickly as practicable following construction;
- retaining and replacing existing topsoil where feasible to preserve native seed banks and reduce opportunities for invasive species establishment;

- cleaning construction equipment when moving between infested and non-infested areas to reduce the transport of invasive plant material and seeds;
- implementing erosion and sediment controls that prevent the movement of invasive species propagules with sediment;
- using clean, weed-free mulch and other revegetation materials; and
- restoring disturbed areas with NHESP-approved native seed mixes and vegetation appropriate to Barnstable County and JBCC habitat management objectives.

F67. Following construction, the Applicant proposes to monitor disturbed areas and maintained utility corridors to assess revegetation success and identify invasive species populations. Where invasive species are identified, proposed management actions include mechanical removal, targeted herbicide treatment, or other control measures consistent with the approved IPMP and other applicable permit requirements, and implemented with particular attention to rare species habitat, wetlands, and conservation lands.

F68. Based on proposed measures and with the implementation of the NHESP-approved IPMP to prevent the introduction and spread of invasive species during construction and operation, the Project is consistent with WPH4.

F69. Objective WPH5 is to promote best management practices to protect wildlife and plant habitat from the adverse impacts of development. The Wildlife & Plant Habitat Technical Bulletin requires the Project to limit the extent of alterations and disturbance to those minimum areas needed for the Project. The Technical Bulletin also recommends, to the maximum extent feasible, respecting seasonal restrictions to minimize impacts to wildlife, avoiding unnecessary pesticide use, and minimizing nighttime lighting impacts to nocturnal and migratory species. The Applicant proposes to comply with seasonal vegetation clearing restrictions to avoid impacts to migratory birds and protected bat species. FERC also considered potential effects of nighttime construction lighting on migratory birds and noted that Algonquin would reduce artificial nighttime lighting by minimizing construction activities between dusk and dawn to the extent practicable.[14]

F70. Where impacts cannot be fully avoided, the Applicant is proposing several measures to minimize direct and indirect effects on wildlife and plant habitat during construction and operation. General habitat protection measures proposed include:

- reduced construction workspaces in environmentally sensitive areas;
- compliance with seasonal vegetation clearing restrictions to avoid impacts to migratory birds and protected bat species;
- implementation of erosion, sedimentation, and water-quality controls to protect terrestrial and aquatic habitats;
- environmental inspection and compliance monitoring throughout construction;

[14] FERC Certificate, page 15

- clearly identified no-disturbance areas around sensitive resources;
- temporary exclusion fencing and protective barriers; and
- environmental awareness training for contractors and construction personnel.

F71. The Applicant is also finalizing species-specific protection measures in consultation with NHESP that will be incorporated into its CMP and are anticipated to include:

- Turtle Protection Plan;
- Rare Plant Protection and Avoidance Plan;
- Clam Shrimp Protection and Avoidance Plan;
- Species-specific construction monitoring and environmental inspection; and
- Adaptive management measures developed in consultation with NHESP.

F72. Provided the proposed measures are implemented and the final CMP and species-specific protection plans are implemented, the Project is consistent with WPH5.

Open Space

F73. The Open Space Goal is to conserve, preserve, or enhance a network of open space that contributes to the region's natural and community resources and systems. The following objectives are applicable, material, and regionally significant:

- Objective OS1 – Protect and preserve natural, cultural, agricultural, and recreational resources
- Objective OS2 – Maintain or increase the connectivity of Open Space
- Objective OS3 – Provide protected Open Space appropriate to context

F74. Most impacts from the Project occur within existing utility and transportation corridors, access roads, and previously disturbed areas, some of which traverse Article 97-protected open space lands and overlap with other mapped resources including rare species habitats, wetland resource areas, Wellhead Protection Areas, floodplain areas, and portions of the Herring River Watershed Area of Critical Environmental Concern.

F75. FERC considered the Project's effects on land use, open space, and recreational resources. The FERC Certificate identified approximately 209 acres of land that would be affected during construction, of which approximately 56 acres would be permanently affected during operation.[15] FERC also acknowledged that certain impacts to forested habitat would be long-term, although it concluded that these impacts would not be significant under its NEPA analysis.[16] The Certificate incorporates construction mitigation and restoration commitments and establishes requirements for environmental monitoring and compliance.

[15] FERC Certificate, page 9
[16] FERC Certificate, page 16

F76. Objective OS1 is to protect and preserve natural, cultural, agricultural, and recreational resources. Through route refinement to reduce the amount of anticipated tree clearing, temporary workspace requirements, and overall land disturbance, collocation within existing infrastructure corridors, and implementation of project-specific avoidance and mitigation measures, the Project has been designed to avoid and minimize impacts to protected open spaces and other high value resources. Most impacts will be temporary and within existing disturbed and maintained infrastructure corridors, minimizing the development footprint and impacts and avoiding permanent impacts to high value resources. Approximately 7.16 acres of land are anticipated to be permanently converted to M&R stations, pavement, gravel, or permanent access roads, primarily within the Natural Areas Placetype.

F77. Where impacts cannot be avoided, the Applicant proposes measures to minimize effects on open space resources, recreational facilities, and conservation lands, including:

- reduction and consolidation of temporary construction workspaces, contractor yards, and access requirements;
- minimizing tree clearing through route refinements and workspace modifications;
- limitation of permanent right-of-way widths in sensitive locations to the minimum width necessary for safe operation;
- reduction of permanent corridor widths to approximately 50 feet in portions of certain Article 97 properties; and
- use of temporary easements and revocable permits where feasible to reduce long-term land-use impacts.

F78. Following construction, all temporary work areas located within open space, conservation, and recreational lands will be restored to preconstruction conditions. Proposed restoration activities include:

- removal of temporary construction materials and facilities;
- regrading and stabilization of disturbed areas;
- revegetation with appropriate vegetation communities;
- restoration of temporarily disturbed recreational areas; and
- monitoring and follow-up restoration measures.

F79. The FERC Certificate incorporates the Applicant's construction and restoration commitments and requires compliance with the environmental mitigation measures identified in the Application.[17] Additionally, the Certificate requires the Applicant to reduce permanent easement widths to 60 feet in locations on non-USACE lands where

[17] FERC Certificate, Environmental Condition 6, page 29

the G-24 and G-11 pipelines parallel one another and are offset by 10 feet, thereby reducing the permanent land area affected in those locations.[18]

F80. Construction activities may result in temporary restrictions on public access within localized portions of the Cape Cod Canal recreation corridor and other recreational resources located adjacent to the Project. In addition to avoidance of the Canal through the use of HDD, temporary impacts to recreational resources, including the Canal service road near the Sagamore Bridge and a portion of Bourne Scenic Park, will be restored following construction and returned to their previous recreational use.

F81. Based on the use of existing infrastructure corridors, reduction of temporary and permanent disturbance, proposed restoration measures, and the mitigation requirements incorporated into the FERC Certificate, the Project is consistent with Objective OS1.

F82. Objective OS2 is to maintain or increase the connectivity of Open Space. By collocating proposed pipelines and facilities within existing infrastructure corridors, the Project avoids creating substantial new clearings through contiguous protected open space and minimizes fragmentation of forested landscapes. The Project does not introduce new barriers that would interrupt regional open space connections, wildlife movement patterns, or ecological linkages between protected lands. Large blocks of contiguous forest and upland habitat will remain connected following construction. The Project will not impact recreational connectivity within the Cape Cod Canal corridor.

F83. The Project is consistent with Objective OS2 as it maintains regional open space connectivity, minimizes fragmentation through collocation within existing infrastructure corridors, preserves recreational and transportation connections along the Cape Cod Canal corridor, and will restore temporary disturbances following construction.

F84. Objective OS3 is to provide protected Open Space appropriate to context. The Project is proposed within both Natural Area and Suburban Development Area Placetypes. Tree clearing primarily occurs adjacent to existing utility corridors, access roads, and previously disturbed areas, which frequently overlap with Natural Areas due to the presence of high value resources including protected open space, wetlands and their buffers, wildlife and plant habitats, and drinking water protection areas. Impacts will be both permanent and temporary.

F85. Temporary impacts are areas disturbed during construction that will be restored following construction and allowed to revegetate or otherwise resume their prior use. Once restored, work within temporarily disturbed areas will not substantially alter the overall open space character, ecological value, or conservation function of the

[18] FERC Certificate, Environmental Condition 12, page 31

surrounding landscape. Permanent impacts are areas that will remain in long-term project use or will be maintained in a different cover condition after construction.

F86. The Open Space Technical Bulletin provides that the only way a DRI proposed in a Natural Area can meet RPP Open Space objectives is to permanently restrict land in the same or higher ecological value Natural Areas, in a minimum ratio of three parts Open Space to one part development. Post construction, the Project will permanently impact 7.16 acres of land, primarily within the Natural Areas Placetype. These areas will be permanently converted to M&R stations, pavement, gravel, or permanent access roads. Thus, the required Open Space requirement is approximately 21.48 acres.

F87. The Applicant is pursuing permanent protection of approximately 60 acres of undeveloped forest land adjacent to JBCC and the Camp Edwards Wildlife Management Area. Protection of this property will expand the region's protected open space network, strengthen habitat connectivity, preserve groundwater recharge areas, and support long-term conservation objectives associated with Camp Edwards and surrounding conservation lands. The 60-acre parcel is wooded, mapped for NHESP rare species habitats and BioMap Core Habitat, Critical Natural Landscape, and Regional Rare Species, overlaps portions of Potential Public Water Supply Area and Prime Farmland Soils, and abuts permanently protected open space.

F88. The Applicant also proposes to transfer approximately 2.8 acres of replacement conservation land to the Town of Bourne, under the care, custody and control of the Town's Conservation Commission for conservation purposes. The parcel consists of wooded, undeveloped land mapped for Prime Farmland Soils adjacent to other wooded lands that are permanently protected.

F89. Together, the Project as currently proposed is expected to provide approximately 62.8 acres of permanently protected open space consisting of parcels of equal or higher wildlife and plant habitat quality as compared with areas to be disturbed. This exceeds the Technical Bulletin's Open Space requirement of 21.48 acres. Thus, the Project is consistent with Objective OS3.

Coastal Resiliency

F90. The Coastal Resiliency Goal is to prevent or minimize human suffering and loss of life and property or environmental damage resulting from storms, flooding, erosion, and relative sea level rise, including but not limited to that associated with climate change. The following objectives are applicable, material, and regionally significant:

- Objective CR1 – Minimize development and risk within areas vulnerable to flooding
- Objective CR2 – Plan for erosion

- Objective CR3 – Restore coastal resource areas to promote their natural beneficial functions

F91. Several proposed Project activities occur within or close to the floodplain, including the section of the G-31 pipeline under the Cape Cod Canal, removal of existing pipelines proximate to Nightingale Pond, and temporary workspace near the Sagamore Bridge.

F92. Objective CR1 is to minimize development and risk within areas vulnerable to flooding. The Project has been designed to minimize development within areas vulnerable to flooding and avoid increases in flood risk through project siting, engineering design, and construction methods. All DRIs within present and future floodplains must avoid exacerbating flood conditions, accommodate the predicted path of wetland migration, use appropriate vertical datums, employ construction best management practices to prevent materials from being dislodged into floodwaters, and store hazardous materials outside the present floodplain. DRIs must avoid development or redevelopment in FEMA A Zones (Minimal Wave Action areas) and the Future Floodplain, subject to specified exceptions.

F93. The Project has been designed to minimize development within areas vulnerable to flooding and avoid increases in flood risk through project siting, engineering design, and construction methods. Although limited portions of the Project are located within FEMA A Zones, none of the Project is within a FEMA V Zone, and activities in the A Zones will not result in permanent impacts to the floodplain. The G-31 pipeline will be installed beneath the Cape Cod Canal using HDD, avoiding direct impacts to the floodplain and coastal wetland resource areas associated with the Canal. Disturbance associated with the removal of existing pipelines within the floodplain of Nightingale Pond will be temporary, restored after removal, and not alter floodplain function.

F94. All new and relocated M&R stations are located outside mapped present and future floodplains and are designed to withstand extreme weather conditions, including flooding events.

F95. The FERC Certificate authorizes the proposed pipeline alignments and construction methods and incorporates the Applicant's environmental mitigation commitments, including restoration of disturbed areas.[19]

F96. Based on the proposed avoidance of permanent development within flood-prone areas, use of HDD beneath the Cape Cod Canal, and restoration of temporarily disturbed areas, the Project is consistent with Objective CR1.

F97. Objective CR2 is to plan for erosion. New development is only permitted on or within the 150-foot buffer to a coastal bank for specified exceptions, including for underground utility crossings that do not disturb protected coastal resources. The Project intersects coastal bank in two locations along the Cape Cod Canal, where the

[19] FERC Certificate, Environmental Condition 6, page 29

G-31 pipeline will be installed beneath the Canal via HDD and near the Sagamore Bridge where temporary access is required to remove an existing cathodic protection anode bed. The Project is consistent with Objective CR2 as the Project proposes no new permanent aboveground development on the coastal bank or within its 150-foot buffer.

F98. Objective CR3 is to restore coastal resource areas to promote their natural beneficial functions. To demonstrate consistency with this Objective, projects are encouraged to remove existing development from coastal resource areas and to restore or rehabilitate salt marshes, beaches, dunes, and floodplains, including restoration of the ability of coastal resources to migrate naturally.

F99. The Applicant proposes to restore all temporarily disturbed areas within coastal resource areas following construction. The FERC Certificate incorporates the Applicant's environmental mitigation and restoration commitments and requires implementation of the approved construction and environmental mitigation procedures.[20] The FERC Certificate also requires satisfactory rehabilitation and restoration of the right-of-way and other affected areas before the facilities may be placed into service[21] and requires the Applicant to file a determination of consistency with the Massachusetts Office of Coastal Zone Management[22].

F100. Based on the proposed restoration of temporarily disturbed coastal resource areas and the restoration requirements incorporated into the FERC Certificate, the Project is consistent with Objective CR3.

Water Resources

F101. The Water Resources Goal of the RPP is to maintain a sustainable supply of high-quality drinking water and protect, preserve or restore the ecological integrity of Cape Cod's fresh and marine surface water resources. The following objectives are applicable, material, and regionally significant:

- Objective WR1 – Protect and preserve groundwater quality
- Objective WR2 – Protect, preserve and restore fresh water resources
- Objective WR3 – Protect, preserve and restore marine water resources
- Objective WR4 – Manage and treat stormwater to protect and preserve water quality
- Objective WR5 – Manage groundwater withdrawals and discharges to maintain hydrologic balance and protect surface and groundwater resources

F102. Objective WR1 is to protect and preserve groundwater quality. To demonstrate consistency with this Objective, projects must limit site-wide nitrogen loading to a

[20] FERC Certificate, Environmental Condition 6, page 29
[21] FERC Certificate, Environmental Condition 10, page 31
[22] FERC Certificate, Environmental Condition 16, page 33

maximum concentration of 5 ppm-N, except for projects located in Commission-mapped Potential Public Water Supply Areas (PPWSA) or mapped Wellhead Protection Areas (WHPA), which must limit site-wide nitrogen loading to less than 1ppm-N. Where applicable, development, construction, clearing, and staging must occur at least 400 feet from identified future public well sites. Within WHPAs and PPWSAs, projects must provide secondary containment for potentially hazardous fluids.

F103. The primary nitrogen loading from the Project will be from stormwater and there is no wastewater treatment or fertilizer use proposed aside from the establishment period. Nitrogen loading calculations worksheets were provided in the DRI Application for each M&R station.

F104. The Pave Paws Road M&R station is located in PPWSA, requiring the station meet the 1ppm-N standard. The Project meets this requirement with a site-wide nitrogen load of 0.969 ppm.

F105. A portion of the Bourne (Cape side) M&R station is located in PPWSA, requiring the station meet the 1 ppm-N standard. After being redesigned to reduce impervious cover, the station meets the 1 ppm-N requirement with a site-wide nitrogen load of 0.988 ppm-N.

F106. Neither the Bourne (land side) M&R station nor the Sagamore M&R station are located in PPWSA, requiring the stations meet the 5 ppm-N requirement. Both meet this standard with site-wide nitrogen loads of 0.838 ppm-N and 0.78 ppm-N, respectively.

F107. Each M&R station has 500 gallons of natural-gas odorant. As odorants may be classified as hazardous and a risk to groundwater, secondary containment for 100% of fluid volume is proposed as part of the Project.

F108. Based on Findings above, the Project is consistent with Objective WR1.

F109. Objective WR2 is to protect, preserve and restore freshwater resources. To demonstrate consistency with this Objective, projects within Contributing Areas to Ponds (CAPs) must prevent loading of nutrients and other contaminants to freshwater resources from new development and to maintain or reduce existing loading from redevelopment.

F110. A limited amount of disturbance is proposed within a Contributing Area to Nightingale Pond. The impact will be temporary disturbance to remove a segment of pipeline. The Applicant has proposed adequate BMPs and erosion control measures to mitigate potential impacts to the pond, thus the Project is consistent with Objective WR2.

F111. Objective WR3 is to protect, preserve and restore marine water resources. To demonstrate consistency with this Objective, projects within a Marine Water Recharge Area (MWRA) where a critical nitrogen load has been established through a MassDEP-accepted scientific evaluation must not add nitrogen mass to the affected watershed,

except under specified circumstances. Where water quality problems have been documented through a MassDEP-accepted scientific study but a critical load has not been established, projects must maintain or reduce nitrogen mass loading relative to existing conditions using the best available nitrogen-reducing technology.

F112. A small portion of the Project near Route 25 and Nightingale Pond is located within Buttermilk Bay Marine Water Recharge Area. The Town of Bourne recognizes this embayment as a nitrogen-impaired water body, however the Commission's 208 Plan watershed report classifies the water quality threat as low and a Massachusetts Estuary Project (MEP) report for the embayment is not being developed. The primary impact at this location will be removal of sections of existing pipeline, which will not result in permanent impacts. Disturbed areas will be revegetated and will not generate nitrogen. Thus, the Project is consistent with Objective WR3.

F113. Objective WR4 is to manage and treat stormwater to protect and preserve water quality. To demonstrate consistency with this objective, all DRIs must provide stormwater management systems that prevent adverse impacts to water and natural resources, prevent untreated stormwater discharges to marine and freshwater resources and wetlands, and maintain at least two feet of separation between new infiltration systems and the maximum high groundwater table.

F114. Stormwater management at the M&R stations will rely on a combination of vegetated swales, pretreatment forebays, and infiltration basins to provide stormwater management, groundwater recharge onsite, and water quality treatment. The Applicant has provided site-specific Stormwater Management Reports and erosion and sedimentation control plans for the M&R stations. The Project also includes erosion and sedimentation controls during construction and restoration activities.

F115. FERC incorporated the Applicant's Erosion and Sedimentation Control Plan and environmental mitigation measures into the FERC Certificate.[23] FERC also determined that hydrostatic test water would be obtained from municipal sources, would not contain additives or chemical agents, and would be discharged in vegetated upland areas in accordance with the Applicant's Erosion and Sediment Control Plan and FERC's Wetland and Waterbody Construction and Mitigation Procedures.[24] FERC determined that additional contaminant testing of this water was unnecessary because of its municipal source and the absence of chemical additives. FERC also reviewed the Applicant's HDD monitoring and inadvertent return response plan and concluded that potential effects on groundwater and surface water would not be significant.[25] These findings and the associated construction procedures are incorporated into the FERC Certificate.

[23] FERC Certificate, pages 23-34
[24] FERC Certificate, page 21
[25] FERC Certificate, pages 21-22

F116. Erosion control will be important during the construction phase and after the M&R stations are constructed and pipelines removed, abandoned or relocated. The exposed soil will be prone to erosion by wind and water during construction. The Applicant has provided an Erosion and Sedimentation Control Plan that will be critical during construction and after construction until seed mixes are established. The Erosion Control and Spill Prevention Control and Countermeasure and Preparedness, Prevention, and Contingency (PPC) plan provides general guidelines. Site-specific Erosion and Sedimentation Control plans are included in the Stormwater Management Reports for each M&R station.

F117. Based on the Findings above, the Project is consistent with Objective WR4.

F118. Objective WR5 requires water withdrawals be planned in a manner that protects surface water and wetland habitat from groundwater pumping. To demonstrate consistency with this Objective, projects discharging more than 10,000 gallons per day (gpd) or withdrawing greater than 20,000 gpd of water from the site must provide a groundwater study that demonstrates the Project will not have adverse impacts on groundwater levels or adjacent surface waters and wetlands.

F119. The Project will require a total of 423,550 gallons of water; however, this volume will be used over the course of the entire construction period. The Applicant states that water will be used in a phased approach over the construction period to limit stress on local water sources. Water use will be coordinated directly with the Buzzards Bay, North Sagamore, and Bourne Water Districts.

F120. Water for pipeline hydrostatic testing and HDD will come from local public water suppliers, and no water supply wells or long-term groundwater withdrawals are proposed. Discharges will be limited to trench dewatering and hydrostatic test water, released to vegetated upland areas so the water can infiltrate and recharge local groundwater. The controls below apply in all work areas, including where work overlaps Cape Cod Commission Potential Public Water Supply Areas (PPWSAs) or MassDEP-approved Wellhead Protection Areas (WHPAs).

- Dewatering activities will require groundwater removal only where it is encountered during trenching. Dewatering will be localized, temporary, and limited to active work areas, and will not be a long-term groundwater withdrawal. Water will be discharged through filter bags, filter socks, or a dewatering structure with energy dissipation under the Erosion and Sedimentation Control Plan and the FERC Wetland and Waterbody Construction and Mitigation Procedures (the "FERC Procedures").

- Test water for hydrostatic testing will come from municipal supplies and will contact only new pipe. No additives are anticipated, and no desiccants or chemical drying agents will be used. Water will be discharged through energy-dissipation devices to approved upland locations in accordance with Section VII of the FERC

Procedures, the Erosion and Sedimentation Control Plan, and applicable permit approvals, including the EPA General Permit for Dewatering and Remediation Discharges. Final discharge locations will be set with the construction contractor and consistent with those approvals. The Applicant states that within a PPWSA, only clean municipal test water would be released, if necessary.

F121. HDD drilling fluid will consist of municipal water, bentonite, and non-toxic additives. It will not be intentionally discharged to the ground, wetlands, or surface waters. It will be recycled during drilling where practicable, and residual fluid will be hauled off site to an approved disposal facility. HDD will follow the Best Drilling Practices, Monitoring, and Clean-up of Horizontal Directional Drilling Inadvertent Returns Plan, which includes inadvertent return monitoring and response procedures.

F122. Significant water use is proposed in three locations that are within or adjacent to areas mapped for Water Resources:

- G-24/G-11 Pipeline is mapped for PPWSA, WHPA, and wetlands
    - Work within PPWSA BS-150 includes removing the existing G-24 and G-11 pipelines by excavating to approximately 7-10 feet and installing the relocated pipelines by conventional trenching, with an HDD beneath Route 6 approaching the Sagamore Bridge. Work near the Canal consists of removing the pipelines beneath the bridge. With the controls above, no impacts to PPWSA BS-150 or direct impacts to wetlands are anticipated, and there will be no in-water work in the Canal. Temporary work in the 100-foot wetland buffer and in the Coastal Bank and its buffer near the Sagamore Bridge will be protected with erosion and sediment controls and restored after construction. The work areas are not within a WHPA.
- G-31 Pipeline is mapped for WHPA and wetlands
    - The G-31 pipeline crosses a WHPA north and south of Bournedale Road by conventional trenching and a bore crossing. The Canal will be crossed by HDD. The pipeline will temporarily disturb two isolated vegetated wetlands (W2 and W5, the latter also isolated land subject to flooding), and any trench dewatering in those wetlands will be conducted to prevent silt-laden water from entering a wetland or waterbody. With the controls above, no impacts to the WHPA or the Canal are anticipated.
- G-32 Pipeline may have impacts to PPWSA
    - The G-32 pipeline intersects a PPWSA at the Pave Paws M&R Station and at its connection with the Bourne Rotary M&R Station. Work includes conventional trenching and M&R station construction. With the controls above, no impacts to the PPWSA are anticipated.

F123. The FERC Certificate notes that the Applicant would coordinate with the three local water districts and obtain any necessary permits before withdrawing water.[26] The Certificate incorporates the Applicant's environmental procedures and mitigation measures and requires compliance with applicable water withdrawal and discharge requirements.[27] FERC's findings regarding municipal water sources and hydrostatic test water discharge address the Commission's prior concerns regarding HDD construction and are incorporated in the FERC Certificate.

F124. Based on the Applicant's phased water use, coordination with local water districts, and FERC's findings and condition regarding the source and discharge of hydrostatic test water, the Project is consistent with Objective WR5.

Community Design

F125. The Community Design goal of the RPP aims to protect and enhance the unique character of the region's built and natural environment based on the local context. The following objectives are applicable, material, and regionally significant:

- Objective CD1 – Promote context-sensitive building and site design
- Objective CD2 – Minimize the amount of newly disturbed land and impervious surfaces
- Objective CD3 – Avoid adverse visual impacts from infrastructure to scenic resources

F126. Objective CD1 is to promote context-sensitive building and site design. To demonstrate consistency with this Objective, development should relate to existing site and building patterns, follow the scale and character of the surrounding area, use regionally appropriate forms and materials, and provide appropriate landscaping and screening.

F127. Objective CD3 is to avoid adverse visual impacts from infrastructure to scenic resources. To demonstrate consistency with this Objective, infrastructure projects should be sited and designed to fit the natural or built character of the surrounding area, considering the scale of buildings as well as nearby cultural resources.

F128. The Project limits new buildings to four M&R Stations. Three of the stations are located in areas that are fully screened from adjacent properties and public ways by existing vegetation. The proposed Sagamore M&R Station may be visible from adjacent properties and public ways, therefore the Applicant has provided a detailed landscape plan to show how the station will be screened from view. Due to the limited visibility of new buildings and the introduction of vegetative buffers, the Project is consistent with Objectives CD1 and CD3.

[26] FERC Certificate, pages 21, 27
[27] FERC Certificate, Environmental Condition 1

F129. Objective CD2 is to minimize the amount of newly disturbed land and impervious surfaces. To demonstrate consistency with this Objective, projects are encouraged to reuse existing structures and sites, cluster development, use pervious materials, preserve existing native vegetation, and revegetate disturbed sites.

F130. Permanent components of the Project, including pipelines and access roads, have been sited primarily within existing utility corridors, roadways, or previously disturbed areas to avoid expanding the development footprint. Temporary construction workspaces will be fully restored following construction with appropriate native species and should not result in permanent land conversion. Where permanent access is required, the Applicant will use existing roads where practicable or design access roads with gravel or other pervious surfaces to maintain infiltration and minimize stormwater runoff. The Project is consistent with Objective CD2.

Cultural Heritage

F131. The Cultural Heritage goal is to protect and preserve the significant cultural, historic, and archaeological values and resources of Cape Cod. The following objectives are applicable, material, and regionally significant:

- Objective CH1 – Protect and preserve forms, layouts, scale, massing, and key character defining features of historic resources, including traditional development patterns of villages and neighborhoods
- Objective CH2 – Protect and preserve archaeological resources and assets from alteration or relocation

F132. Objective CH1 is to protect and preserve forms, layouts, scale, massing, and key character-defining features of historic resources, including traditional development patterns of villages and neighborhoods.

F133. The Applicant conducted a survey of historic architectural properties that identified a total of 27 such properties within the Project study area. Of the 27 properties, five historic architectural properties were evaluated as being eligible for the National Register of Historic Places (NRHP). None of the identified historic properties will be affected by the Project. A copy of the Project's Massachusetts Historical Commission (MHC) Project Notification Form was included in the Applicant's supplemental filing. The Applicant has provided procedures for the discovery of unanticipated historic properties and human remains.

F134. FERC's environmental review included consultation under Section 106 of the National Historic Preservation Act (NHPA). At the time of the Certificate Order, consultation with the Massachusetts State Historic Preservation Office (MA SHPO) and federally recognized Tribes was ongoing. FERC acknowledged that the Applicant had submitted cultural resource survey results to the MA SHPO and continued coordination with

identified Tribes. FERC required completion of outstanding consultation and cultural resource review before construction or abandonment may proceed.[28]

F135. Based on the Applicant's historic resource surveys and the outstanding consultation and approval requirements incorporated into the FERC Certificate, the Project is consistent with Objective CH1.

F136. Objective CH2 is to protect and preserve archaeological resources and assets from alteration or relocation. To demonstrate consistency with this Objective, development should be located away from significant archaeological sites to avoid disturbance.

F137. A cultural resources investigation was conducted by the Applicant, and the results were documented in a report authored by Public Archaeology Laboratory, Inc. (PAL), which was then submitted to MHC. None of the identified archaeological sites were recommended as eligible for listing on the National Register of Historic Places (NRHP). The FERC Certificate incorporates the outstanding cultural resource survey, consultation, avoidance, and treatment requirements.[29] The Applicant must complete the required consultation and obtain FERC approval of any necessary avoidance or treatment measures before construction or abandonment activities may proceed.

F138. Based on the Applicant's archaeological investigation and the cultural resource consultation and protection requirements incorporated into the FERC Certificate, the Project is consistent with Objective CH2.

Climate Change

F139. The Climate Change goal is to increase the region's resiliency to climate change impacts and mitigate climate change by supporting and contributing as a region to the Commonwealth's greenhouse gas reduction goals and initiatives, including a statewide net-zero carbon target by 2050.

F140. The Project involves the replacement and relocation of existing natural gas transmission infrastructure to accommodate the Cape Cod Bridges Program. FERC determined that the proposed facilities are properly sized to deliver National Grid the same level of service as currently contracted.[30]

F141. The Project will result in greenhouse gas emissions associated with the operation of the proposed facilities. The FERC Environmental Assessment ("FERC EA") estimates that operation of the proposed Project facilities would result in approximately 37,244 metric tons of CO_2e annually, primarily from natural-gas-fired water bath heaters at the four M&R stations, as well as emergency generators, piping components, and fugitive gas releases;[31] however, this represents the estimated emissions of the

[28] FERC Certificate, Environmental Condition 14, page 32
[29] FERC Certificate, Environmental Condition 14, page 32
[30] FERC Certificate, pages 16-17
[31] FERC Environmental Assessment, Table B.8-2

proposed facilities and does not, by itself, quantify the net change from the replacement of the existing M&R stations.

F142. The following objective is applicable, material, and regionally significant:

- Objective CC3 – Promote carbon sequestration and other emissions removal practices as appropriate to context

F143. Objective CC3 is to promote carbon sequestration and other emissions removal practices as appropriate to context. To promote carbon sequestration consistent with Objective CC3, projects may propose restoration with native vegetation and permanent protection of forest or other naturally vegetated areas. The FERC EA identifies approximately 43.6 acres of forestland affected during construction, of which approximately 18.3 acres would remain within the operational footprint.[32] Forested areas within permanent pipeline rights-of-way and M&R station footprints would be cleared and maintained as herbaceous or shrub habitat or mowed lawn for the life of the Project.[33] The Applicant proposes to restore temporarily disturbed areas following construction using native seed mixes and invasive species control measures. The Applicant is also pursuing permanent protection of approximately 60 acres of undeveloped forestland adjacent to JBCC and the Camp Edwards Wildlife Management Area, and proposes to transfer approximately 2.8 acres of replacement conservation land to the Town of Bourne. These measures would contribute to carbon sequestration through restoration of native vegetation and permanent protection of naturally vegetated areas, consistent with Objective CC3.[34]

Energy

F144. The Energy goal is to provide an adequate, reliable, and diverse supply of energy to serve the communities and economies of Cape Cod. The following objective is applicable, material, and regionally significant:

- Objective EN2 – Increase resiliency of energy generation and delivery

F145. The relocation of the existing facilities underground will reduce reliance on bridge-mounted pipeline infrastructure and support the continued reliability of natural gas delivery to the region. Thus, the Project is consistent with Objective EN2.

[32] FERC Environmental Assessment, Table B.4-1

[33] FERC Environmental Assessment, page 28

[34] The Final Environmental Impact Report (FEIR) prepared under the Massachusetts Environmental Policy Act evaluated the carbon impacts associated with vegetation clearing and soil disturbance over a 50-year period. The FEIR estimated a net impact of approximately 7,755 metric tons of CO_2e after accounting for anticipated revegetation and reforestation. The Applicant proposes to permanently protect approximately 60 acres of forestland adjacent to Joint Base Cape Cod, which the FEIR estimates would retain approximately 11,678 metric tons of CO_2e over the same period.

Capital Facilities and Infrastructure

F146. The Capital Facilities and Infrastructure goal is to guide the development of capital facilities and infrastructure necessary to meet the region's current and demonstrated future needs. The following objectives are applicable, material, and regionally significant:

- Objective CAP1 – Ensure capital facilities and infrastructure promote efficiency, sustainability, and resiliency
- Objective CAP2 – Enhance the coordinated provision of services and facilities that respond to the needs of the region

F147. Objective CAP1 is to ensure capital facilities and infrastructure promote efficiency, sustainability, and resiliency. The Project locates capital facilities and infrastructure outside of areas vulnerable to flooding, uses existing utility easements and rights-of-way, and locates infrastructure underground. Thus, the Project is consistent with Objective CAP1.

F148. Objective CAP2 is to enhance the coordinated provision of services and facilities that respond to the needs of the region. To demonstrate consistency with this Objective, projects should improve the quality or availability of services, provide site sharing or space for other infrastructure providers, and coordinate construction with other planned or needed infrastructure projects.

F149. The Project is being coordinated with the Cape Cod Bridges Replacement Program, which requires relocation of existing pipeline infrastructure from the Bourne and Sagamore Bridges. The FERC Certificate recognizes the need to relocate the facilities to accommodate the bridge replacement program and authorizes the replacement infrastructure to maintain uninterrupted transportation service to National Grid's distribution system. Thus, the Project is consistent with Objective CAP2.

Transportation

F150. The Transportation goal is to provide and promote a safe, reliable, and multi-modal transportation system. The following objective is applicable, material, and regionally significant:

- Objective TR1 – Improve safety and eliminate hazards for all users of Cape Cod's transportation system

F151. Objective TR1 is to improve safety and eliminate hazards for all users of Cape Cod's transportation system. The Project, once constructed, will have no permanent effect on traffic. The FERC Certificate states that the Applicant will prepare a construction period traffic management plan for review and approval by MassDOT, JBCC, the US Army Corps of Engineers, and the Town of Bourne. FERC's EA concludes that traffic

effects would be short-term and minor, which is affirmed in the FERC Certificate.[35] Based on these requirements, the Project is consistent with Objective TR1.

F152. Based upon Findings above, the proposed project is consistent with the 2025 Regional Policy Plan.

OTHER DRI STANDARDS OF REVIEW

Municipal Development Ordinances, Bylaws, and Districts of Critical Planning Concern (DCPC)

F153. The Applicant has obtained an Order of Conditions from the Town of Bourne Conservation Commission. The Project will also require Building Permits for structures associated with the M&R stations. No other local permits have been identified as necessary for the Project.

F154. No DCPC implementing regulations apply to the Project.

F155. The proposed development is consistent with municipal development ordinances/ bylaws.

Bourne's Local Comprehensive Plan

F156. The Town of Bourne has a Local Comprehensive Plan which has been certified as consistent with its Regional Policy Plan.

F157. The Commission received a letter from Jennifer Copeland, Bourne Town Planner, which states in part:

> "The proposed development appears consistent with the Town of Bourne Local Comprehensive Plan (LCP) energy goal to assure an uninterrupted supply of electricity, natural gas, and communications services to all Bourne residents and businesses, despite changes in climate and weather patterns. The LCP states that Bourne's planning should remain flexible enough to enable use of new energy sources while continuing to encourage conservation and more efficient use of all types of energy."

F158. The Commission finds that the proposed development is consistent with Bourne's Local Comprehensive Plan.

Probable Benefits and Probable Detriments

F159. Probable benefits of the Project identified include:

- The Project will relocate and replace aging existing utilities from the Cape Cod Bridges to underground pipelines, reducing the risk of interruptions to Cape Cod's supply of natural gas.

[35] FERC Certificate, page 11

- The Project is largely located along existing utility rights of way or underground via HDD, reducing impacts to forested areas, benthic habitat in the Cape Cod Canal, maritime use of the Cape Cod Canal, and scenic coastal vistas.

F160. Probable detriments of the Project identified include:

- The Project will result in the clearing of approximately 43.6 acres of forested area.
- The Project may result in temporary construction-period traffic disturbances.

F161. The Commission finds that the Probable Project Benefit of the Project is greater than the Probable Project Detriment.

CONCLUSION

F162. Based on the Findings above and subject to the Conditions set out herein, the Commission further determines, finds, and concludes that the Project is consistent with the 2025 Cape Cod Regional Policy Plan, the Cape Cod Commission Act, applicable provisions from the Bourne Local Comprehensive Plan, and applicable municipal development bylaws; the probable benefit of the Project is greater than the probable detriment; and the Commission hereby grants DRI approval for the Algonquin Pipeline Relocation Project described herein.

CONDITIONS

C1. This Decision shall be final when the appeal period set out in Section 17 of the Cape Cod Commission Act has elapsed without appeal (or if such an appeal has been filed, when the appeal has been finally settled, dismissed, adjudicated, or otherwise disposed of in favor of the Applicant). Thereafter, this Decision shall be valid and in effect, and local development permits may be issued pursuant hereto for a period of seven years from the date of this Decision, or for such extended period as may be permitted by the Commission pursuant to the *Enabling Regulation*s.

C2. A copy of the Decision, when final and prior to commencement of the Project, shall be recorded with the Barnstable Registry of Deeds.

C3. This Decision shall be appurtenant to and run with the Property. The Decision shall bind and be enforceable against, and inure to the benefit of, the Applicant, its heirs, successors, and assigns.

C4. The Applicant shall obtain all required federal, state, and local permits, licenses, and approvals for the Project. Consistency with municipal development bylaws shall be confirmed by the Applicant and provided to the Commission staff after obtaining all said required local permits, licenses, and approvals for the Project. Prior to commencement of the Project, the Applicant shall provide the Commission with copies of all required state and local permits, licenses, and approvals for the Project.

C5. The Project shall be constructed, operated, and maintained consistent with the following documents ("Approved Project Plans"), attached hereto as Exhibit A. Plans, protocols, and other documents received or required to be submitted as Conditions of this Decision shall be treated as incorporated into the Approved Project Plans once received, reviewed, and approved for consistency with this Decision by Commission staff, and the Project shall thereafter be constructed, operated, and maintained consistent with the Approved Project Plans, as so supplemented.

C6. The Applicant shall provide a copy of this Decision and the Approved Project Plans to the Project's general contractor prior to commencement of the Project. The Applicant shall maintain a copy of this Decision and the Approved Project Plans on the Project Site throughout Project construction.

C7. Prior to completion of the Project, the Applicant shall request and obtain from the Commission a Certificate of Compliance; the issuance of such Certificate of Compliance evidences that the Applicant has satisfied all Conditions in this Decision required to have been satisfied and shall confirm that the Project was constructed or implemented in accordance with this Decision.

C8. The Applicant hereby authorizes Commission staff to make site visits as necessary, at reasonable times and upon reasonable notice to the Applicant, to confirm that the Project has been implemented in accordance with this Decision, including upon an Applicant's request for a Certificate of Compliance hereunder.

C9. Prior to and as a condition to issuance of a Certificate of Compliance by the Commission, the Applicant shall provide to the Commission documentation evidencing the permanent restriction of no less than 21.48 acres of land for conservation purposes.

C10. The Applicant shall utilize wildlife-safe erosion control materials to the greatest extent practicable.

SIGNATURE PAGE FOLLOWS

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SIGNATURE PAGE

Executed this 19th day of November 2026

For the Cape Cod Commission by:

_____
Thomas Wilson, Chair
Cape Cod Commission

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss November 19, 2026

Before me, the undersigned notary public, personally appeared Thomas Wilson whose name is signed on the preceding or attached document, and such person acknowledged to me that he/she signed such document voluntarily for its stated purpose in his capacity as Chair of the Cape Cod Commission. The identity of such person was proved to me through satisfactory evidence of identification, which was [ ] photographic identification with signature issued by a federal or state governmental agency, [ ] oath or affirmation of a credible witness, or [**X**] personal knowledge of the undersigned.

_____
Notary Public
My Commission Expires: _____

SEAL

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Exhibit A – Approved Project Plans

- DRI Application, consisting of 2,382 pages, prepared by SWCA Environmental Consultants, dated July 2026, including the following plans:
  - Attachment 1, *Figures*, prepared by SWCA Environmental consultants, consisting of 66 pages, dated July 2026
  - Attachment 2, *Enbridge - Cape Cod Canal Pipeline Relocation Project, Proposed 8'' G-11, 18'' G-24, 18'' G-31, 16'' G-32 Pipelines, and Removal of 8'' G-8c & 8'' G-8l Pipelines*, prepared by Clay Willis, P.E., Wood Group USA, Inc., consisting of 49 sheets including Cover Sheet, dated 4/4/2025, as revised 3/25/2026
  - Attachment 3, *Erosion and Sedimentation Control Plan*, prepared by Enbridge, dated 6/6/2014, as revised December 2024
  - Attachment 3, *Spill Prevention, Control, and Countermeasure (SPCC) Plan & Preparedness, Prevention, and Contingency (PPC) Plan for Construction Projects*, prepared by Enbridge, as revised October 2017
  - Attachment 4, *Cape Cod Canal Pipeline Relocation Project, Best Drilling Practices, Monitoring and Clean-up of Horizontal Directional Drilling Inadvertent Returns*, prepared by Enbridge, dated June 2025
  - Attachment 5, *Stormwater Report for the PAVE PAWS Meter Station*, prepared by Paul Baker, P.E., Audubon Companies, LC, dated 7/8/2026
  - Attachment 5, *Stormwater Report for the Bourne Meter Station*, prepared by Paul Baker, P.E., Audubon Companies, LC, dated 7/8/2026
  - Attachment 5, *Stormwater Report for the Mainland Sagamore Meter Station*, prepared by Paul Baker, P.E., Audubon Companies, LC, dated 6/24/2026
  - Attachment 5, *Stormwater Report for the Bourne Rotary Meter Station*, prepared by Paul Baker, P.E., Audubon Companies, LC, dated 7/8/2026
  - Attachment 6, Traffic Management Plan, prepared by VHB, dated 11/26/2025
  - Attachment 7, *Cape Cod Canal Pipeline Relocation Project Dust Control Plan*, prepared by Enbridge, dated June 2025
  - Attachment 8, *Waste Management Plan for Construction Projects*, dated January 2011, as revised May 2019
  - Attachment 9, *Cape Cod Canal Pipeline Relocation Project, Nighttime Construction Management Plan*, prepared by Enbridge, dated February 2026
  - Attachment 10, *Wetland Protection Act Resource Areas, Buffer Zones, and Isolated Vegetated Wetland Alterations*, consisting of 2 pages
  - Attachment 11, *Cape Cod Canal Pipeline Relocation Project, Landscape Plan*, prepared by Anthony Somers, R.L.A., SWCA Environmental Consultants, consisting of 8 sheets including Cover Sheet, dated 9/11/2025, as revised 7/23/2026
- Supplemental Filing, prepared by SWCA Environmental Consultants, consisting of 83 pages, dated 8/19/2026
- Supplemental Filing, prepared by SWCA Environmental Consultants, consisting of 4 pages, dated 10/30/2026

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