



**U. S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration**

**Natural Gas Distribution Infrastructure Safety and Modernization  
Grant Program  
Wakefield Municipal Gas and Light Department  
Wakefield, Massachusetts  
Finding of No Significant Impact  
NGDISM-FY22-EA-2023-08**

*PHMSA Approval:*

## I. Introduction

This document serves as the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Finding of No Significant Impact (FONSI) and provides final agency determinations and approvals for the federal actions to comply with the requirements of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.) and CEQ regulations (40 CFR parts 1500-1508). This FONSI is based on the information and analysis contained in the Tier 1 Nationwide Environmental Assessment for the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program<sup>1</sup> (Tier 1 EA) and the site-specific Tier 2 Environmental Assessment (Tier 2 EA), dated November 15, 2023, incorporated herein by reference.

## II. Public Involvement

On November 9, 2022, PHMSA published a Federal Register notice (87 FR 67748) with a 30-day comment period soliciting comments on the "Tier 1 Nationwide Environmental Assessment for the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program". During the 30-day comment period, PHMSA received one comment letter dated December 9, 2022, from the American Public Gas Association (APGA) on various aspects of the program and air quality related analysis identified in the EA. The APGA noted that the majority of projects would conduct pipe replacements by open trenching construction methods and that it is standard industry practice to seal and abandon legacy pipes rather than removing old pipeline for replacement. The APGA also provided perspectives on three areas relating to the environmental reviews of pipeline projects and include (1) the use of the specific studies (e.g., Lamb (2015)<sup>2</sup> and Weller et al. (2020)<sup>3</sup> for quantifying greenhouse gas emissions, (2) utilization of the Social Cost of Greenhouse Gases (SC-GHG) and (3) the U.S. Army Corps of Engineer's Nationwide Permit (NWP) program. This APGA letter is available for public review at [www.regulations.gov](http://www.regulations.gov) at the Docket No: PHMSA-2022-0123.

PHMSA reviewed the comment letter provided by APGA. PHMSA notes that project-specific construction methods are analyzed in the project specific Tier 2 EA's and that Tier 2 EAs include information on whether the work would include removal of old pipeline or abandonment. Regarding the suggested Lamb (2015) study for methane leak calculations, it is noted that PHMSA only utilized the pipeline material distribution reported by Weller et al. (2020) in order to quantify the leakage of methane from existing pipelines. The emission factors listed in the Tier 1 EA were calculated using data from Lamb (2015) and GRI/EPA (1996)<sup>4</sup>, not Weller et al. (2020). Table 1 of the Tier 1 EA lists the EPA methane emission factors, which were adopted from Lamb (2015). Regarding the SC-GHG, PHMSA analyzed the SC-GHG in accordance with the Council on Environmental Quality (CEQ) interim guidance to assist agencies in analyzing greenhouse gas (GHG) and climate change effects of their proposed actions under the National Environmental Policy Act (NEPA).<sup>5</sup> CEQ recommends that agencies provide additional context for GHG emissions, including through the use of the best available social cost of GHG (SC-GHG) estimates, to translate climate impacts into the more accessible metric of dollars, allow decision makers and the public to make comparisons, help evaluate the significance of an action's climate change effects, and better understand the tradeoffs associated with an action and its alternatives. PHMSA also supports

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<sup>1</sup> <https://www.federalregister.gov/documents/2022/11/09/2022-24378/pipeline-safety-notice-of-availability-of-the-tier-1-nationwide-environmental-assessment-for-the>

<sup>2</sup> Lamb, B. K., Edburg, S. L., Ferrara, T. W., Howard, T., Harrison, M. R., Kolb, C. E., ... & Whetstone, J. R. (2015). Direct measurements show decreasing methane emissions from natural gas local distribution systems in the United States. *Environmental Science & Technology*, 49(8), 5161-5169.

<sup>4</sup> GRI/EPA 1996. Methane Emissions from the Natural Gas Industry. EPA-600/R-96-080. June 1996.

<sup>5</sup> <https://www.federalregister.gov/documents/2023/01/09/2023-00158/national-environmental-policy-act-guidance-on-consideration-of-greenhouse-gas-emissions-and-climate>

the Army Corps of Engineer's NWP program. Based on a review and assessment of the APAG's comments, PHMSA has determined that no further analysis is warranted.

The approved Tier 2 EA for the Wakefield Municipal Gas and Light Department (WMGLD) was released on PHMSA's website [Tier 2 Site Specific Environmental Documents | PHMSA \(dot.gov\)](https://www.phmsa.dot.gov/about-phmsa/working-phmsa/grants/pipeline/tier-2-site-specific-environmental-documents)<sup>6</sup> for public review on November 16, 2023, with a public comment period from November 16, 2023 to December 18, 2023. A notice of the Tier 2 EA was published in the Wakefield Daily Item on November 17. Copies of the EA were available for public review at the WMGLD Building (480 North Avenue, Wakefield, MA) and at the Town Clerk's office at Wakefield Town Hall (1 Lafayette Street, Wakefield, MA), and also posted on the WMGLD website at [https://wmgld.com/wp-content/uploads/2023/11/PHMSA\\_NGDISM\\_Tier2EA\\_Wakefield-approved.pdf](https://wmgld.com/wp-content/uploads/2023/11/PHMSA_NGDISM_Tier2EA_Wakefield-approved.pdf). PHMSA did not receive any comments on the Tier 2 EA. It is noted that the proposed action includes trenching construction methods and could include the abandonment of some existing pipeline. The Tier 1 EA described that the majority of site-specific projects would utilize the insertion method of pipe replacement; however, WMGLD would utilize an open trench method, which is disclosed and assessed in the Tier 2 EA.

### **III. Selected Action Alternative**

The Selected Action alternative is identified as the "Proposed Action" in the Tier 2 EA and includes the following:

The proposed action would replace 1.37 miles of low-pressure mains in various locations within Wakefield, Massachusetts. The existing mains in the project area consist of 1.07 miles of bare steel, 0.15 miles of cast iron, and 0.15 miles of coated steel, which are outdated materials that would be replaced with plastic polyethylene (PE) mains. WMGLD would install new PE pipeline within 1.5 feet (ft) of the existing pipeline and abandon the existing pipeline in place. The pipeline infrastructure and location of the new pipe is located directly under paved city-owned streets, and all would take place within the existing right-of-way (ROW). All land would be returned to its original condition and land use would not change because of the project.

The Selected Action alternative was chosen as it best meets the project's purpose and need to: (1) improve upon the safe delivery of energy by reducing the likelihood of incidents, as well as methane leaks; (2) avoid economic losses caused by pipeline failures; and (3) protect the environment and reduce climate impacts by remediating aged and failing pipelines and pipes prone to leakage.

### **IV. Minimization and Mitigation**

- WMGLD shall implement the following mitigation measures:
  - Efficient use of on-road and non-road vehicles, by minimizing speeds and vehicles
  - Minimizing excavation to the greatest extent practical
  - Use of cleaner, newer, non-road equipment as practicable
  - Minimizing all vehicle idling and at minimum, conforming with local idling regulations
  - Ensuring that all vehicles and equipment are in proper operating condition
  - On-road and non-road engines must meet EPA exhaust emission standards (40 CFR Parts 85, 86, and 89)

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<sup>6</sup> <https://www.phmsa.dot.gov/about-phmsa/working-phmsa/grants/pipeline/tier-2-site-specific-environmental-documents>

- Covering open-bodied trucks while transporting materials
- Watering, or use of other approved dust suppressants, at construction sites and on unpaved roadways, as necessary
- Minimizing the area of soil disturbance to those necessary for construction
- Minimizing construction site traffic by the use of offsite parking and shuttle buses, as necessary
- WMGLD shall avoid staging and laydown in wetlands or floodplains. All preconstruction contours shall be restored, natural areas shall be reseeded, BMPs shall be used during construction to control sediment and erosion and prevent pollutants from entering waterways.
- WMGLD shall obtain a Clean Water Act, Section 402 stormwater permit, prior to commencing construction.
- In the event of a release of hazardous materials/waste into the environment during construction, WMGLD shall notify the appropriate emergency response agencies, potentially impacted residents, and regulatory agencies of the release or exposure.
- WMGLD shall implement a Stormwater Pollution Prevention Plan which will identify appropriate construction and restoration activities to minimize the potential impacts to groundwater. All impacted areas would be restored to pre-construction conditions.
- WMGLD shall utilize best management practices, as appropriate, to control sediment and erosion during construction which may include silt fencing, check dams, and promptly covering all bare areas. All impacted areas shall be restored to pre-construction conditions.
- WMGLD is responsible for abiding by all applicable federal, state, and local regulations.
- WMGLD shall notify PHMSA immediately of any changes to the scope of work that may change the impacts to historic properties or the areas that may be impacted, including location of work, depth of construction, or change in construction methods.
- If, during project implementation, any potential archaeological artifacts, cultural resources or human remains are discovered, or effects to historic properties occur that were not anticipated during the Section 106 process, the City of Wakefield must immediately notify PHMSA and all construction in the area of the discovery must halt. If unmarked human remains are encountered, all work shall stop immediately, and the applicant shall promptly contact PHMSA as well as the proper authorities in accordance with applicable state statutes. PHMSA will immediately contact the Massachusetts State Historic Preservation Office. Project activities shall not resume until directed by PHMSA. See the attached Unanticipated Discoveries protocol for more detail on the process to be followed.
- WMGLD shall ensure public access to Nasella Playground (park) is maintained for the duration of construction.
- WMGLD shall coordinate with park officials when implementing a traffic management plan prior to construction.
- WMGLD shall maintain traffic flows to the extent possible and use traffic control measures to assist traffic negotiating through construction areas, as needed.
- WMGLD shall coordinate with state and local agencies regarding detours and/or routing adjustments during construction and will notify any potentially impacted residents and/or business owners.

- WMGLD shall have a traffic control plan in place, prior to construction, and coordinate with the appropriate agency well in advance of any impacted emergency services or essential agency functions.
- WMGLD must adhere to all state and local noise and vibration ordinances.
- If WMGLD encounters the need to utilize a hoe ram, or equivalent vibratory equipment within 20 ft of a structure, WMGLD must develop a vibration monitoring and mitigation strategy and coordinate with PHMSA, prior to the use of vibratory equipment.
- WMGLD will provide advanced notification of service disruptions and construction schedule to all affected parties including resident and businesses adjacent to the project area.
- WMGLD will ensure their Distribution Integrity Management Program are updated as necessary, the work is constructed in accordance with industry best practices and the project will comply with all local, state, and federal regulations, including those for safety.

## **V. Findings and Determinations**

Based on the analysis in this Tier 2 EA, PHMSA did not identify any significant adverse impacts on human health or the natural environment that would result from implementation of the Selected Action Alternative. The project will not require any additional right-of-way or easements.

PHMSA issued a Section 106 'No Adverse Effect' finding for the project and sent a letter to the Massachusetts State Historic Preservation Officer (SHPO) requesting concurrence on November 7, 2023. PHMSA also sent letters to the Mashpee Wampanoag Tribe, Narragansett Indian Tribe, and Wampanoag Tribe of Gay Head (Aquinnah) on November 7, 2023. The letter to the Tribes initiated Section 106 consultation, requested information to determine if there are any historic properties of cultural or religious significance to Tribes and to notify the Tribe's PHMSA's intent to make a finding of No Adverse Effect to Historic Properties. No responses were received from the Massachusetts SHPO, tribes, or consulting parties within 30 days of submitting the consultation letters. Therefore, in accordance with 36 CFR § 800.5(c)(1), PHMSA may proceed with carrying out the undertaking.

The Cultural Resource mitigation measures are listed above in Section IV, Minimization and Mitigation that supersede the Cultural Resource mitigation measures published in the Tier 2 EA. In the event of unanticipated discoveries, the grantee is required to stop work and notify PHMSA immediately. In turn, PHMSA would consult with SHPO. Attached to this FONSI is a document providing details on the protocol and requirements regarding unanticipated discoveries.

Consistent with the Tier 1 EA and the Tier 2 EA, PHMSA is making a FONSI determination, in accordance with 40 CFR 1501.6, for this project as it meets the following conditions:

- The Tier 2 Environmental Questionnaire for the selected action is complete and accurate.
- The types and extent of anticipated environmental impacts are as expected in the Tier 1 EA.
- Project proponent commits to compliance with applicable Federal and State environmental requirements.
- The project proponent commits to perform mitigation measures described in the Tier 2 Site Specific Environmental Assessment.
- PHMSA's review of the Tier 2 Environmental Questionnaire did not identify adverse and unanticipated types or levels of environmental impacts.

After careful and thorough consideration of the facts herein, the undersigned finds that the proposed Federal action, namely the Selected Action alternative, is consistent with existing environmental policies and objectives as set forth in NEPA and other applicable environmental requirements and is not a major federal action significantly affecting the quality of the human environment or otherwise, including any condition requiring consultation pursuant to Section 102(2)(c) of NEPA. Furthermore, PHMSA finds that the Tier 1 EA and Tier 2 EA satisfy the requirements of NEPA (42 U.S.C. 4321 et seq.) and CEQ regulations (40 CFR parts 1500-1508). As a result, PHMSA will not prepare an Environmental Impact Statement.

**PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION (PHMSA)**  
**UNANTICIPATED DISCOVERIES PROTOCOLS**

**A. Unexpected Discoveries, Previously Unidentified Properties, or Unexpected Effects:**

In accordance with 36 CFR § 800.13, if a previously undiscovered archeological or cultural resource that is or could reasonably be a historic property is encountered or a previously known historic property will be affected in an unanticipated manner during construction, the Grant Recipient will implement the following procedures. This may include discovery of cultural features (e.g., foundations, water wells, trash pits, etc.) and/or artifacts (e.g., pottery, stone tools and flakes, animal bones, etc.) or damage to a historic property that was not anticipated. We advise construction personnel to cease construction and for the Grant Recipient to consult with PHMSA to address post-review concerns. Each step within these procedures will be completed within seven (7) days unless otherwise specified:

1. The person or persons encountering such properties or effects shall immediately stop construction in the area of the discovery and notify the Grant Recipient, who will contact PHMSA and the Section 106 point of contact (POC; contact information listed below). Upon notification by the Grant Recipient of a discovery, PHMSA shall immediately notify the State Historic Preservation Office (SHPO), participating Tribe(s)/Nation(s), and other consulting parties that may have an interest in the discovery, previously unidentified property or unexpected effects, and consult to evaluate the discovery for eligibility for listing in the National Register of Historic Places (National Register) and/or the effects of the undertaking on historic properties.
2. The Grant Recipient will take all reasonable measures to avoid or minimize harm to the property until PHMSA has completed consultation with the SHPO, participating Tribe(s)/Nation(s), and any other consulting parties. They will require the contractor to immediately cease all ground disturbing and/or construction activities within a 100-foot radius buffer zone of the discovery, which PHMSA may reduce or expand based on SHPO standards. For any discovered archeological resources, the Grant Recipient will also halt work in surrounding areas where additional subsurface remains are reasonably expected to be present.
3. The Grant Recipient will ensure that no excavation, operation of heavy machinery, or stockpiling occurs within the buffer zone. The Grant Recipient will secure the buffer zone through the installation of protective fencing. The Grant Recipient will not resume ground disturbing and/or construction activities within the buffer zone until the specified Section 106 process is complete. Work in all other Project areas may continue.
4. Following notification of an unanticipated discovery or effect, the Grant Recipient, in coordination with PHMSA, the Section 106 POC, and consultants as appropriate, will investigate the discovery site and evaluate the resource(s). The Grant Recipient or their consultant will prepare and submit a written document containing a proposed determination of National Register eligibility for the resource and/or, if relevant, an assessment of the Undertaking's effects on historic properties. PHMSA may elect to assume eligibility and/or adverse effects for expediency.
5. If the unanticipated discovery is determined to be eligible for listing in the National Register and/or adverse effects cannot be avoided, the Grant Recipient, in coordination with PHMSA, will propose in writing to SHPO and participating Tribe(s)/Nation(s) and consulting parties, treatment measures to resolve adverse effects.
6. If it is necessary to develop treatment measures, the Grant Recipient, in coordination with PHMSA, will implement the approved treatment measures. The Grant Recipient will ensure construction-related activities within the buffer zone do not proceed until consultation with SHPO, Tribe(s)/Nation(s) and other consulting parties concludes with: 1) a determination that the resource is not National Register-eligible or there are no new adverse effects; 2) the agreed upon treatment

measures have been implemented; or 3) it has been agreed that the treatment measures can be completed within a specified time period after construction-related activities have resumed.

## **B. Unanticipated Discovery of Human Remains**

If the unanticipated discovery includes what is or suspected to be human remains, the Grant Recipient will implement the following procedures. At all times human remains must be treated with the utmost dignity and respect. Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be photographed, collected or removed until appropriate consultation has taken place and a plan of action has been developed. We advise construction personnel to cease construction and for the Grant Recipient to consult with the PHMSA to address post-review concerns. Each step within these procedures will be completed within seven (7) days unless otherwise specified:

1. If marked or unmarked graves, human skeletal remains, or skeletal remains believed to be human are encountered during development, all potential disturbance to the graves, skeletal remains, or associated items (e.g., artifacts, headstones, etc.) must cease and law enforcement be notified in accordance with applicable State statute(s) and to determine if the discovery is subject to a criminal investigation. The Grant Recipient will notify PHMSA and the Section 106 POC within twenty-four (24) hours of the initial discovery.
2. Work in the general area of the discovery will stop immediately and the Grant Recipient will immediately secure and protect the human remains and any associated artifacts in place in such a way that minimizes further exposure or damage from the elements, looting, and/or vandalism. The Grant Recipient will ensure a perimeter with a 100-foot radius buffer zone around the discovery is established where there will be no excavation, operation of heavy machinery, or stockpiling. PHMSA may reduce or expand this buffer zone based on SHPO standards. The Grant Recipient will secure the buffer zone through the installation of protective fencing at minimum. The Grant Recipient will not resume ground disturbing and/or construction activities within the buffer zone until the specified Section 106 process is complete. Work in all other Project areas may continue.
3. If a criminal investigation is not appropriate, the Grant Recipient will ensure compliance with any applicable State and local laws pertaining to human remains, funerary objects, and cemeteries. Discoveries of human remains on Federal or Tribal lands shall be subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §3001-3013, 18 USC § 1170); and the Archaeological Resources Protection Act (ARPA) (14 USC § 470), as applicable. PHMSA, in coordination with the Grant Recipient, will consult with the appropriate Tribe(s)/Nation(s) and consulting parties.
4. In the event the human remains encountered are of Native American origin, PHMSA, in coordination with the Grant Recipient, will consult with the appropriate Tribe(s)/Nation(s) and SHPO to determine treatment measures for the avoidance, recovery or reburial of the remains and any associated artifacts. When applicable, PHMSA and the Grant Recipient will follow the principles within the ACHP's Policy Statement on Burial Sites, Human Remains, and Funerary Objects, dated March 1, 2023.
5. If the remains are not of Native American origin, the Grant Recipient, in coordination with PHMSA, will consult with the SHPO and participating consulting parties to determine if the discovery is a historic property, take into account the effects on the historic property, and resolve adverse effects, as appropriate.
6. If it is necessary to develop treatment measures, the Grant Recipient, in coordination with PHMSA, will implement the approved treatment measures. The Grant Recipient will ensure ground disturbing and construction-related activities within the buffer zone do not proceed until consultation with the SHPO, consulting Tribe(s)/Nation(s) and participating consulting parties



concludes with: 1) a finding that the resource is not National Register-eligible or there are no new adverse effects; 2) the agreed upon treatment measures have been implemented; or 3) it has been agreed that the treatment measures can be completed within a specified time period after construction-related activities have resumed.

7. The Grant Recipient, in coordination with PHMSA, will also ensure ground disturbing and construction-related activities within the buffer zone do not proceed until the Grant Recipient has complied with all applicable State or local cemetery or burials laws.

Points of contact are as follows:

- PHMSA: Matt Fuller - (217) 707-8169; Matt.Fuller@dot.gov
- Section 106 POC (Volpe): Kathering Giraldo – (857) 320-1359; PHMSA106@dot.gov