



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

**Natural Gas Distribution Infrastructure Safety and Modernization
Grant Program**

**Philadelphia Gas Works, Philadelphia, Pennsylvania
Categorical Exclusion Documentation
NGDISM-FY23-CE-2024-28**

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Overview

This document serves as the Pipeline and Hazardous Materials Safety Administration’s (PHMSA) determination of applicability of the Department of Energy’s (DOE) B5.4 categorical exclusion (CE) for repair or replacement of pipelines for the project identified below. Effective July 3, 2024, PHMSA adopted DOE’s CE in accordance with Section 109 of the National Environmental Policy Act, enacted as part of the Fiscal Responsibility Act of 2023, which allows a federal agency to “adopt” another federal agency’s CEs for proposed actions.

For projects that PHMSA determines DOE CE B5.4 is applicable, it must (1) consider the presence of any integral elements at 10 CFR Part 1021, subpart D, appendix B (1)-(5); and (2) evaluate the proposed action for extraordinary circumstances in which a normally excluded action may have a significant effect. If an extraordinary circumstance is present, the agency nevertheless may categorically exclude the proposed action if the agency determines that there are circumstances that lessen the impacts or other conditions sufficient to avoid significant effects.

The project identified below was provisionally awarded federal funding through PHMSA’s Natural Gas Distribution Infrastructure Safety and Modernization (NGDISM) grant program. This document describes the proposed action, the anticipated impacts of that action, any circumstances or conditions that must be implemented to ensure significant effects are avoided and documents the approval of the project as a categorical exclusion.

Project Description

Project Title	City of Philadelphia Gas Works Natural Gas Pipeline Replacement Project
Project Location	Philadelphia, Pennsylvania
Project Description: Philadelphia Gas Works (PGW) will replace approximately 40 miles (211,200 linear feet) of cast iron main pipelines and service lines with high density polyethylene (HDPE) pipelines (See Attachment A). The work will take place in various locations throughout the City of Philadelphia, within the public right-of-way (ROW) (no easements will be required). The scope of work will include the installation of approximately 234,198 feet of HDPE pipe of various sizes (12 inches and smaller). The new pipelines will be installed within three feet to the right or left of the existing pipeline, which will be abandoned in place. Trenching for these replacements will be approximately 1.5 feet wide within the paved roadway or footway at a depth of 3.5 to 4 feet, but a maximum of 6 feet of excavation may be needed to maintain clearance from existing utilities. Overall construction for each segment will take over a month to complete; however, various construction phases will occur at separate times on each block. Pipe installation on a 500-foot block will generally last one week with immediate backfill and temporary restoration. Tie-ins and service work would follow for approximately two weeks and paving will take less than a week.	

Question	Information
Describe the location and dimensions of all ground disturbing activities and provide a map depicting the location(s) where ground disturbance would occur (e.g., width and depth of trenching or excavation for borings, location of regulator stations, etc.). Map(s) should accompany the project area description.	Trenching for these replacements will be approximately 1.5 feet wide within the paved roadway or footway at a depth of 3.5 to 4 feet, but a maximum of 6 feet of excavation may be needed to maintain clearance from existing utilities.
If the exact location where new pipe would be installed or where other work would occur, provide the width of the ROW or the general area encompassing the footprint where all work would occur. Include the anticipated footprint and depth of new pipe installation.	The new pipe will be installed within three feet to the right or left of the existing pipe. All work will occur within the public right-of-way, which is generally 50 feet wide.
Will service lines be replaced? If so, include a map(s) depicting the location of service line replacements.	Yes.
Will meters or other equipment be replaced? If so, provide a description detailing what meter components and associated equipment will be replaced and indicate if this will require ground disturbance, if the equipment will be attached to existing structures, etc.	No, meters will not be replaced as part of this project.
What portions of the pipeline will be abandoned? What portions of the pipeline will be removed? A map should be included indicating where the existing line will be abandoned or removed.	Existing gas mains and services will be replaced and abandoned in place.

Question	Information
What construction methods will be used? (Check all methods to be used)	Cut and cover (trenching); Replacement adjacent to existing pipe; Abandonment of an existing pipe for a new location.
Does the project require a new right-of-way not currently in the ownership of the utility? If new ROW will occur, please provide a description of the property to be acquired (existing condition and land use) and a map depicting the property to be acquired.	No new right-of-way or easement needed

How many linear feet of pipe will be replaced or repaired?	212,101.00 feet
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1.1. Proposed Pipeline Replacement Details

Existing Pipeline Length in feet	Pipeline Diameter in inches	Pipeline Material (cast iron, bare steel, coated steel, PVC)	Operating Pressure (PSI)	Reduced Pressure if Possible (PSI)	Year installed if known.
212,101.00	6.00	Cast iron	0.25		1900

2. Resource Review

The following information represents questions posed to the project proponent identified on the cover page of this document regarding the project that was provisionally awarded grant funds under PHMSA's NGDISM program. The information and justification section includes the applicant's response. PHMSA's conclusions are based on applicant provided information, independently reviewed by PHMSA. The mitigation measures were reviewed and confirmed by the project proponent.

Air Quality	
Question	Information and Justification
Is the project located in an area designated by the EPA as non-attainment or maintenance status for one or more of the National Ambient Air Quality Standards (NAAQS)?	Yes, based on review of the EPA Greenbook.
Will the construction activities produce emissions that exceed de minimis thresholds (tons per year)?	No.
Will mitigation measures be used to capture blowdown? (Blowdown refers to the venting of natural gas in current facilities, in order to begin rehabilitation, repair, or replacement activities).	No.
Will project proponent commit to reducing pressure on the segments/lines to be replaced, prior to venting?	No.
Estimate the current leak rate per mile based on the type of pipeline material. Based on mileage of replacement and new pipeline material, estimate the total reduction of natural gas leakage.	<p>The existing leak rate is estimated to be 184,678 kilograms (kg)/year(yr).</p> <p>Replacement of pipelines would result in a leak rate of approximately 1,277 kg/yr or a reduction of approximately 3,666,705 kg over a 20-year timeframe.</p>
Is there any other information relevant to the project area or the proposed work as it pertains to Air Quality?	No.

Conclusion:

The project area is located within Philadelphia County, Pennsylvania. Based on EPA's Greenbook¹, the project area falls within a non-attainment area for the 8-hour ozone (2008 and 2015 standard) and a maintenance area for PM 2.5 (1997 and 2006 standard) national ambient air quality standards (NAAQS).² Therefore, PHMSA must ensure that the project would not interfere with the state's plan to maintain national standards for air quality. PHMSA reviewed information provided by the applicant and estimated the emissions that would likely be produced by the construction equipment used to install pipelines. This information was used in conjunction with EPA's MOVES³ model to determine if the project would exceed EPA's thresholds for NAAQS. PHMSA's assessment is that due to the relatively minor scope of the proposed project, impacts on local air quality resulting from construction activities, such as dust and exhaust from construction equipment, would be temporary and considered de minimis. Thus, the proposed project does not require a General Conformity Analysis under Section 176(c)(4) of the Clean Air Act at the proposed project sites. Therefore, PHMSA assesses that the proposed project would provide a net benefit to air quality from the overall reduction of natural gas emissions and that no adverse indirect or cumulative impacts would result from the project.

Mitigation Measures:

- Use on-road and non-road vehicles efficiently by minimizing speeds and the number of vehicles;
- Minimize excavation to the greatest extent practical;
- Use cleaner, newer, non-road equipment as much as practicable;
- Minimize all vehicle idling and at minimum, conforming with local idling regulations;
- Ensure 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);
- Cover open-bodied trucks while transporting materials;
- Use water or other approved dust suppressants at construction sites and on unpaved roadways, as necessary;
- Minimize the area of soil disturbance to that necessary for construction;
- Minimize construction site traffic by using offsite parking and shuttle buses, as necessary; and
- Minimize the idling of equipment;

¹ <https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information>

² https://www3.epa.gov/airquality/greenbook/anayo_pa.html

³ <https://www.epa.gov/moves>

Water Resources	
Question	Information and Justification
Are there water resources within the project area, such as wetlands, streams, rivers, or floodplains? If so, would the project temporarily or permanently impact wetlands or waterways? If water resources are present but will not be impacted, please describe how these impacts will be avoided (<i>e.g.</i> directional boring under the resource).	No, according to United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI), there are no wetlands, streams, or special flood hazard areas in the project area.
Under the Clean Water Act, is a Section 401 state certification potentially required? If yes, describe anticipated permit and how project proponent will ensure permit compliance.	No.
Under the Clean Water Act, is a USACE Section 404 Permit required for the discharge of dredge and fill material? If yes, describe anticipated permit and how project proponent will ensure permit compliance.	No.
Under the Clean Water Act, is an EPA or State Section 402 permit required for the discharge of pollutants into the waters of the United States? Is a Stormwater Pollution Prevention Plan (SWPPP) required? If yes, describe how project proponent will ensure permit compliance.	Yes, construction activities could exceed soil disturbance thresholds requiring a Section 402 permit and SWPPP.
Will work activities take place within a FEMA designated floodplain? If so, describe any permanent or temporary impacts and the required coordination efforts with state or local floodplain regulatory agencies.	No.
Is the project located in a Coastal Zone? Will the proposed project activities affect any coastal use or natural resource of the coastal zone, requiring a Consistency Determination and Certification? Please provide any relevant information regarding how the project proponent normally coordinates with the applicable state's coastal zone management agency.	No.
Is there any other information relevant to the project area or the proposed work as it pertains to Water Resources.	No.

Conclusion:

PHMSA reviewed NWI maps, as well as the FEMA national flood hazard maps. No water resources occur within or directly adjacent to the project area. The project will be conducted on residential streets and at individual residences. The project would only involve the replacement of main lines and the service lines and connections from the main pipeline to the residence. By avoiding direct impacts to aquatic resources and implementing best management practices during construction, PHMSA does not anticipate any adverse impacts to water resources.

Mitigation Measures:

No mitigation needed.

Groundwater and Hazardous Materials/Waste

Question	Information and Justification
Does the project have potential to encounter and impact groundwater? If yes, describe potential impacts from construction activities.	Yes, there is a possibility of encountering groundwater while trenching for gas mains and services, though unlikely. No impact is expected as no hazardous materials would be in contact with the groundwater. Construction would involve the placement of pipe bedding or use of native materials in the trenches.
Will the project require boring or directional drilling that may require pits containing mud and inadvertent return fluids? If yes, describe measures that will be taken during construction activities to prevent impacts to groundwater resources. If boring or directional drilling will not require pits, please describe why these will not be required and how fluids will be contained.	No.
Will the project potentially involve a site(s) contaminated by hazardous waste? Sites identified as containing hazardous waste/materials can be identified through EPA's NEPAAssist tool https://nepassisttool.epa.gov/nepassist/nepamap.aspx or local databases identifying Superfund, Brownfields, etc. If hazmat sites are identified in or near areas where work will occur, describe how the proposed work poses no risk or what mitigative measures will be used to avoid identified sites.	No. Based on review of EPA's NEPAAssist tool, no hazardous waste sites were identified near the project area.

Is there any indication that the pipeline was ever used to convey coal gas? If yes, PHMSA will work with the project proponent for required studies.	Yes. PGW utilized manufactured coal gas in its distribution system until approximately 1970. PGW will foam pack all abandoned pipe to ensure that no impacts to surrounding media occurs.
Does the project have the potential to encounter or disturb lead pipes or asbestos?	Yes. PGW has a thorough asbestos pipe coating abatement program that adheres to all applicable laws and regulations and will be followed.
Is there any other information relevant to the project area or the proposed work as it pertains to Groundwater and hazardous materials/waste.	No.
Conclusion: PHMSA reviewed EPA's NEPAAssist to identify any brownfield properties, hazardous waste sites, and superfund sites. There were no hazardous waste sites identified near the project area. Hazardous waste information is identified in the Resource Conservation and Recovery Act Information (RCRAInfo), which is a national program that includes an inventory of all generators, transporters, treaters, storers, and disposers of hazardous waste that are required to provide information about their activities to state environmental agencies.	
Mitigation Measures: <ul style="list-style-type: none"> • Develop and adhere to a Stormwater Pollution Prevention Plan; • Avoid boring/drilling, staging and laydown areas within EPA superfund sites or areas containing known waste; and • Adhere to applicable groundwater and soil management plans; 	

Biological Resources	
Question	Information and Justification
Based on review of IPaC and NOAA Fisheries database, are there any federally threatened or endangered species or critical habitat potentially occurring within the geographic range of the project area?	Yes, based on review of the USFWS's Information for Planning and Consultation (IPaC), there is some potential for federally threatened or endangered species or critical habitat to occur within the geographic range of the project area. In addition, Pennsylvania Department of Conservation and Natural Resources state resources were inventoried to identify state listed species.

Are there any known State or Federally, listed threatened or endangered species or habitat areas for State or Federally listed species present in or immediately adjacent to areas where work will occur? If yes, describe how project proponent will avoid impacts to listed species or habitat. If there are potential impacts to federally listed species or critical habitat, PHMSA will work with the project proponent to conduct necessary consultation with resource agencies.	There are listed endangered or threatened species potentially within the vicinity of the project area but due to the nature of construction no impacts are expected. Shallow excavation will be conducted in previously disturbed and developed areas. No tree clearing is foreseen as part of this project. Therefore, no endangered or threatened species are expected to be impacted.
Will there be any tree clearing or removal of woody vegetation involved with the proposed work?	No.
Is there any other information relevant to the project area or the proposed work as it pertains to Biological Resources?	No.
<p>Conclusion:</p> <p>The project area is built out and is comprised of previously disturbed developed and residential areas. PHMSA requested an official species list through the USFWS's IPaC website. The following species were identified as potentially occurring in the project area:</p> <ul style="list-style-type: none"> • Tricolored bat (<i>Perimyotis subflavus</i>); proposed endangered • Monarch butterfly (<i>Danaus plexippus</i>); proposed threatened <p>There was no critical habitat identified within the project area.</p> <p>Several state-listed species also occur within the geographical range, however based on the disturbed nature of the project area, no habitat is present for these species.</p> <p>The work would occur within existing ROW where the footprint of the proposed work has already been disturbed and is maintained. Because these areas are within ROW that has been previously impacted (pipeline laid in the ground in close proximity to the location where new pipes would be laid and subsequently paved), the immediate project area has very limited biological resources present. Under Section 7(a)(4) of the ESA, federal agencies must confer with the USFWS if their action would jeopardize the continued existence of a proposed species; therefore, PHMSA's assessment is that the project is unlikely to jeopardize the continued existence of the tricolored bat or monarch butterfly. PHMSA's assessment is that the project would have no adverse impacts to state-listed species and would not cause more than minor adverse impacts to other biological resources in the project area.</p>	
<p>Mitigation Measures:</p> <p>No mitigation measures needed.</p>	

Cultural Resources	
Question	Information and Justification
Please describe all ground disturbing activities associated with the project (including pipeline installation, service line installation, gas meter replacements, metering station construction or demolition, etc.). What is the maximum depth, width and length of excavations for each activity involving ground disturbance?	Trenching for these replacements will be approximately 1.5 feet wide within the paved roadway or footway at a depth of 3.5 to 4 feet, but a maximum of 6 feet of excavation may be needed to maintain clearance from existing utilities.
Will ground disturbance take place entirely in existing ROW or utility easements? Will it be restricted entirely to paved areas or will some disturbance take place in grassy, undisturbed, or natural areas?	Yes, ground disturbance will take place entirely in existing ROW. Main installation will primarily take place in paved areas. There may be some disturbance of grassy areas for service or incidental work.
Has the entire project area (width, length and depth) been previously disturbed by the original installation or other activities? If so, provide documentation or a description of prior ground disturbances, such as road or utility cross sections, plans or as-builts. If documentation is not available provide justification for how the ground was previously disturbed.	Yes. The project area may have been previously disturbed for various reasons, such as the installation or repair of gas, water, sewer, electric, and communication facilities.
Does the project involve any physical impacts to buildings or structures? Please provide a description of the work that may affect buildings or structures and provide addresses and a map showing the locations.	No, there should be no physical impacts to buildings or structures. When a gas service is renewed, the existing pipe is used as a sleeve and the new pipe is inserted through the sleeve and into the building.
Please describe the project area and provide several photographs to show the character of the project area and surrounding properties. Is it a residential or commercial area? Are the nearby properties old or modern? Streetscapes and views looking down the ROW to show flanking properties are preferred. Please provide a photo key or captions to identify where the photos were taken and what they are showing.	The project area will primarily be in residential areas within the city of Philadelphia. There may be some commercial businesses, properties are typically older than 50 years.
Does the project involve construction or installation of any new aboveground components? If so, describe the components, identify their location and provide representative images of the components.	No.

<p>Are there any nearby properties or resources that either appear to be or are documented⁴ to have been constructed more than 45 years ago? Does there appear to be a group of properties of similar age, design, or method of construction? Or are there any designed landscapes such as a park or cemetery? Please provide photographs of any properties that may be more than 45 years in age and would have the potential to be affected by the project (such as properties that include meter replacements, service line replacements or buildings within 10 feet of the areas proposed for pipeline main replacement under pavement). Multiple properties may be photographed together in a streetscape view and if there are many properties over 45 years in age, representative photos may be provided of a neighborhood rather than individual photos of each property.</p>	<p>Yes.</p> <p>Most residential properties in the project areas within the city of Philadelphia were built more than 45 years ago.</p> <p>There are 20 resources that are listed in the National Register of Historic Places (NRHP), including one National Historic Landmark (NHL), seven (7) resources are eligible for listing in the NRHP within the Area of Potential Effects (APE).</p> <p>NRHP-listed historic properties located within the APE include:</p> <ul style="list-style-type: none"> • Colonial Germantown Historic District • Old Germantown Academy & Headmasters Houses • Sharpless, William C., House • Oliver P. Cornman Public School • WFIL Studio • Birney, General David B., Public School • The Rablyn • General Louis Wagner Junior High School • Dunlap, Thomas, School • William Rowen Public School • Ogontz Hall • Wister, Mary Channing, School • Kirkbride, Eliza B., School • Forrest, Edwin, School • St. Elisabeth's Episcopal Church • Saint Carthage • Cobbs Creek Automobile Suburb Historic District • Robeson, Paul, Residence • Friends Housing Cooperative • St. Gabriel's Roman Catholic Church Complex <p>NRHP-eligible historic properties located within the APE include:</p> <ul style="list-style-type: none"> • Pulaskitown Historic District • West Philadelphia Apartment District
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	<ul style="list-style-type: none"> • Penn-Knox/Wister Historic District • Richard Allen Homes • Route 23 Trolley Line Section • Germantown Boys' Club • Allegheny Arms Apartments <p>Yes, properties in the project area are generally 2-story row homes with front porches.</p> <p>Yes, some project locations are near parks or cemeteries.</p>
Will project implementation require removal or disturbance of any stone or brick sidewalk, roadway, or landscape materials or other potentially old or unique features? Please provide a handful of representative photos of the project area to show the character of the roadway and sidewalk materials in the project and staging areas. Include a photo key and/or captions of what the photos are showing and where they were taken.	<p>Yes.</p> <p>Some stone or brick sidewalks may be disturbed. PGW's construction contract requires its contractors to perform with care the removal of bricks, cobblestone, and slate to preserve its condition for reuse.</p>
Is there any other information relevant to the project area or the proposed work as it pertains to Cultural Resources?	No.

⁴ Local tax and property records or historic maps may indicate dates of construction.

Conclusion:

PHMSA identified properties based on available information on previously identified historic properties in the APE, including the National Register of Historic Places (NRHP) database and data received from the Pennsylvania Historical and Museum Commission. PHMSA also conducted research to determine if there are any previously unidentified properties within the APE that are 45 years of age or older and may be eligible for the NRHP.

Based on the aforementioned identification and evaluation, PHMSA found historic properties as defined in 36 CFR § 800.16(l) within the APE: Colonial Germantown Historic District, Old Germantown, Academy & Headmasters Houses, Sharpless, William C., House, Oliver P. Cornman Public School, WFIL Studio, Birney, General David B. Public School, Rablyn, General Louis Wagner Junior High School, Thomas Dunlap School, William Rowen Public School, Ogontz Hall, Mary Channing Wister School, Eliza B. Kirkbride School, Edwin Forrest School, St. Elisabeth's Episcopal Church, Saint Carthage, Cobbs Creek Automobile Suburb Historic District, Paul Robeson Residence, Friends Housing Cooperative, and the St. Gabriel's Roman Catholic Church Complex. PHMSA's assessment is that the project would not alter any of the characteristics or contributing features of historic properties that qualify it for inclusion in the NRHP. Project work is limited to the replacement of existing pipelines. The project would not result in lasting physical, visual, or audible effects to historic properties. The project also does not include land acquisition, nor would it limit access to or change the use of historic properties. In accordance with 36 CFR Part 800.5, PHMSA's assessment is that the project would have No Adverse Effect on historic properties.

A letter was sent on May 28, 2025, to the Pennsylvania State Historic Preservation Officer (SHPO) and all consulting parties outlining the Section 106 process, including a description of the undertaking, delineation and justification of the APE, identification of historic properties and an evaluation and proposed finding of effects. Based on this consultation, PHMSA proposed a finding that the Proposed Action would not adversely affect historic properties. PHMSA has requested comments on the Section 106 process, identification of historic properties, and proposed finding within 30 days of receipt of the letter. Concurrence was received from the Pennsylvania Historical and Museum Commission on June 25, 2025.

PHMSA also invited the following federally recognized tribes to participate in consultation by separate letter on May 28, 2025:

- Delaware Nation, Oklahoma
- Delaware Tribe of Indians
- Eastern Shawnee Tribe of Oklahoma

Mitigation Measures:

- If, during project implementation, a previously undiscovered archaeological 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, all project activities in the vicinity of the discovery will cease and the city of Philadelphia will immediately notify PHMSA. 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. PHMSA will notify the State Historic Preservation Office and participating federally recognized tribes and conduct consultation as appropriate in accordance with 36 CFR § 800.13. Construction in the area of the discovery must not resume until PHMSA provides further direction. the city of Philadelphia will strictly adhere to PHMSA's *Unanticipated Discoveries Protocols*.
- In the event that unmarked human remains are encountered during permitted activities, all work shall halt and the city of Philadelphia shall immediately contact PHMSA as well as the proper authorities in accordance with applicable state statutes to determine if the discovery is subject to a criminal investigation, of Native American origin, or associated with a potential archaeological resource. At all times human remains must be treated with the utmost dignity and respect. Human remains and 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 PHMSA has conducted the appropriate consultation and developed a plan of action. Project activities shall not resume until PHMSA provides further direction.
- All work, material, equipment, and staging to remain within the road's existing right-of-way or utility easement or other staging areas as identified in the environmental documentation. If the scope of work changes in any way that may alter the effects to historic properties as described herein, the grant recipient must notify PHMSA, and consultation may be reopened under Section 106.

Section 4(f)	
Question	Information and Justification
Are there Section 4(f) properties within or immediately adjacent to the project area? 4(f) properties include publicly owned parks, recreational areas, wildlife or waterfowl refuges, and historic sites. If yes, provide a list of properties and a map of 4(f) properties as an attachment.	<p>Yes.</p> <ul style="list-style-type: none"> • Lanier Park • East Poplar Playgrounds • East Poplar Recreation Center • East Poplar Field • Fetterall Square Park • Heritage Park Playground • John L. Bartlett Playground • John L. Bartlett Recreation Center • Morris Estate Recreation Center • Carroll Park • Cobbs Creek Trail • Strawberry Mansion Playground • Howell Park • Emlen Playground • Roosevelt Playground
Will any construction activities temporarily impact use of the park including but not limited to access to any portion of the park, parking lots, trails, recreational fields, etc.?	No. While some projects may be adjacent to parks, work will not impact access or use of the properties.
Will any construction activities occur within the property boundaries of a Section 4(f) property? If so, please detail these activities and indicate if these are temporary or permanent uses of the Section 4(f) property.	<p>Yes.</p> <p>While gas main installation and abandonment will take place outside of the property lines, some recreational/historic buildings will require a gas service reconnection or renewal that may take place within their properties.</p> <p>The service line replacements will be considered in-kind and therefore would not be a use of the Section 4(f) property.</p>
Is there any other information relevant to the project area or the proposed work as it pertains to Section 4(f)?	No.

Conclusion:

Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 as amended (Section 4(f)) (49 U.S.C. § 303(c)); is a federal law that applies to transportation projects that require funding or other approvals by the USDOT. Section 4(f) prohibits the Secretary of Transportation from approving any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or any land from an historic site of national, state, or local significance unless:

- There is no feasible and prudent alternative to the use of the land;
- The program or project includes all possible planning to minimize harm to such park, recreational area; wildlife and waterfowl refuge, or historic site, resulting from such use.

PHMSA conducted a review of the Project Area and confirmed that there are no publicly owned public parks, recreation areas, national, state, or local significant wildlife and waterfowl refuges, or any historic sites of national, state, or local significance affected by the project. Therefore, there will be no use of Section 4(f) resources.

Mitigation Measures:

- PGW shall ensure that full public access to, and use of Lanier Park, East Poplar Playgrounds, East Poplar Recreation Center, East Poplar Field, Fetterall Square Park, Heritage Park Playground, John L. Bartlett Playground, John L. Bartlett Recreation Center, Morris Estate Recreation Center, Carroll Park, Cobbs Creek Trail, Strawberry Mansion Playground, Howell Park, Emlen Playground, and Roosevelt Playground is maintained during construction.
- Ensure construction activities do not interfere with public access to and/or use of public recreational facilities during construction.

Land Use and Transportation

Question	Information and Justification
Will the full extent of the project boundaries remain within the existing right-of-way or easements? If no, please describe any right-of-way acquisitions or additional easements needed.	Yes, all work would take place within the existing ROW.

<p>Will the project result in detours, transportation restrictions, or other impacts to normal traffic flow or to existing transportation facilities during construction? How long are construction activities estimated to last?</p>	<p>Yes.</p> <p>Some project areas may require full or partial street closures. Though it may temporarily impact normal traffic flow, PGW's closures are reviewed and approved by the city of Philadelphia Streets Department to ensure public safety and no undue impact to traffic safety.</p> <p>Overall construction for each segment will take over a month to complete; however various construction phases will occur at separate times on each block. Pipe installation on a 500-foot block will generally last one week with immediate backfill and temporary restoration. Tie-ins and service work would follow for approximately two weeks and paving will take less than a week.</p>
<p>Will there be any permanent change to existing transportation facilities? If so, what are the changes, and how would the changes affect the public?</p>	<p>There will be no permanent changes to existing transportation facilities.</p>
<p>Will the project interrupt or impede emergency response services from fire, police, ambulance or any other emergency or safety response providers? If so, describe any coordination that will occur with emergency response providers? How long will service interruptions last, if applicable?</p>	<p>No. There are no anticipated interruptions to emergency response providers. Lane closures would be reviewed and approved by the city of Philadelphia. Additionally, all trench openings require street opening permits. PGW will coordinate with emergency response services as needed.</p>
<p>Is there any other information relevant to the project area or the proposed work as it pertains to Land Use and Transportation?</p>	<p>No.</p>

Conclusion:

There will be no permanent changes to land use. The project is replacing/upgrading the existing pipe and would not include new pipeline to serve any additional areas. During construction, there may be short-term impacts to adjacent residences, businesses, and normal traffic patterns. Potential impacts include an increase in noise, dust, and transportation accessibility, as a result of construction and construction staging.

Local and state regulations guide the transport of machinery, equipment, and automobiles around the construction areas. Temporary traffic impacts may occur on the local road network and adjacent pedestrian routes. Any impacts will be coordinated with local and state agencies.

Mitigation Measures:

- Restore all impacted areas to pre-construction conditions;
- Maintain traffic flows to the extent possible;
- Use traffic control measures to assist traffic negotiating through construction areas, as needed;
- Coordinate with state and local agencies regarding detours and/or routing adjustments during construction;
- Notify potentially impacted residents and/or business owners (access, parking, etc.); and
- 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.

Noise and Vibration	
Question	Information and Justification
Will the project construction occur for longer than a month at a single project location?	Yes. Overall construction for each segment will take over a month to complete; however various construction phases will occur at separate times on each block. Pipe installation on a 500-foot block will generally last one week with immediate backfill and temporary restoration. Tie-ins and service work would follow for approximately two weeks and paving will take less than a week.
Will the project location be in proximity (less than 50 feet) to noise sensitive receivers (residences, schools, houses of worship, etc.)? If so, what measures will be taken to reduce noise and vibration impacts to sensitive receptors?	Yes. Jack hammers, pneumatic tampers, backhoes, and a hydrohammer may be used within 20 feet of residences, schools, and houses of worship. City and state noise regulations and policies would be adhered to during construction.
Will the project require high-noise and vibration inducing construction methods? If so, please specify.	No.

Will the project comply with state and local ordinances? If so, identify applicable ordinances and limitations on noise/vibration times or sound levels.	Yes. Philadelphia limits construction noise from 8pm to 7am on weekdays, except for emergencies or public works construction if the limited hours are not feasible. The Philadelphia Chapter 10-400 Noise and Excessive Vibration Ordinance applies to this project.
Will construction activities require large bulldozers, hoe ram, or other vibratory equipment within 20 feet of a structure?	Yes. Jack hammers, pneumatic tampers, backhoes, and a hydrohammer may be used within 20 feet of a structure.
Is there any other information relevant to the project area or the proposed work as it pertains to noise and vibration?	No.
<p>Conclusion:</p> <p>The project is located in the city of Philadelphia. Ambient noise consists of a combination of environmental noise primarily from road traffic, construction, industry, population density and other sources.</p> <p>The pipeline replacement project would result in temporary construction noise impacts; however, no vibration impact should occur. Excavators, dump trucks, skid steers, rollers, pavers, and other similar construction equipment would be used to excavate a trench, lay pipe, compact soils and re-pave the affected areas. Construction for the project is anticipated to last one week per 500-foot block. There are numerous sensitive noise receptors (<i>e.g.</i>, residences, schools, houses of worship) located adjacent to the streets where work would occur. Noise impacts experienced by these receptors would be minor and temporary, and no adverse vibration impacts would result from the proposed work. Construction would be limited to daytime hours. Noise control measures would be chosen by the contractor and could include the following, as necessary:</p> <ul style="list-style-type: none"> • Use low noise emitting equipment; • Implement noise-deadening measures for truck loading and operations; • Conduct monitoring and maintenance of equipment to meet noise limits; • Use acoustic enclosures, shields, or shrouds for equipment; and • Minimize the use of generators or use quiet generators to power equipment. 	
<p>Mitigation Measures:</p> <p>Adhere to all local, city and state noise regulations.</p>	

Community Effects	
Question	Information and Justification
Will the project displace existing residents or workers from their homes and communities? If so, what is the expected duration?	No.
Will the project require service disruptions to homes and communities? If so, what is the expected communication and outreach plan to the residents and the duration of the outages?	Yes. Communication will be offered in English, Spanish, and Chinese.
Are there populations with limited English proficiency located in the project area? If so, what measures will be taken to provide communications in other languages?	Yes. Communication will be offered in English, Spanish, and Chinese.
Is there any other information relevant to the project area or the proposed work as it pertains to Community Effects?	No.
Conclusion: <p>The proposed project would result in an overall reduction in leaking natural gas pipelines. Construction activities would result in minor temporary air quality impacts, including the intentional venting of existing distribution lines prior to replacement. Noise impacts associated with construction are anticipated to be minor. Traffic impacts would be temporary. The removal of leak prone pipe would reduce leaks and the potential for incidents, will result an increase in pipeline safety across the system while also improving operation and reliability. PHMSA determined the project would not impact the local community.</p>	
Mitigation Measures: <ul style="list-style-type: none"> • Provide advanced notification of service disruptions and construction schedule to all affected parties including residents and businesses adjacent to the project area; • Coordinate service disruptions and construction schedule with local community leaders and groups, as applicable; • Maintain service at temporary facilities, if appropriate; • Promote public engagement to reduce project delivery delays and public controversy; and • Develop outreach plans to involve and engage all populations; 	

Safety	
Question	Information and Justification
Has a risk profile been developed to describe the condition of the current infrastructure and potential safety concerns?	Yes. PGW's DIMP Risk Model describes the condition of the current infrastructure and potential safety concerns.
Has a public awareness program been developed and implemented that follows the guidance provided by the American Petroleum Institute (API) Recommended Practice (RP) 1162?	Yes. PGW has conducted enhanced awareness education programs following the guidelines of the Supplemental Frequency and Activity in API RP 1162 Public Awareness Programs for Pipeline Operators incorporated by reference in 49 CFR Part 192.
Does the project area include pipes prone to leakage?	Yes, the project will replace aging cast iron pipe, prone to leakage.
Will construction safety methods and procedures to protect human health and prevent/minimize hazardous materials releases during construction, including personal protection, workplace monitoring and site-specific health and safety plans, be utilized? If yes, document measures and reference appropriate safety plans.	Yes. PGW contractors are required to comply with the provisions of the Occupational Safety and Health Act of 1970 and all applicable laws regarding health and safety. PGW personnel and Contractors are to utilize traffic and safety devices, personal protective equipment including fire retardant clothing as identified in PGW's Bulletin 295 Personal Protective Equipment Procedure. Contractor crews are subject to safety audits by PGW and if needed, must develop a Health and Safety Plan that conforms to 29 CFR 1910.120 to protect workers prior to commencement of work and outline the proper handling of materials to PADEP standards.
Has an assessment of the project been performed to analyze the risk and benefits of implementation?	Yes. The project will reduce the inventory of leak-prone pipelines and their associated safety risks. It will also reduce emergency maintenance activities, potential injuries and fatalities associated with gas leaks, reduce emissions, increase reliability of pipelines, create jobs, and promote economic growth in historically disadvantaged areas.
Is there any other information relevant to the project area or the proposed work as it pertains to Safety?	No.

Conclusion:

The project would reduce the risk profile of existing pipeline systems prone to leakage from the natural gas pipeline system and would also benefit the local community with the safe provision of natural gas. The project responds to the need to address the aging and leaky natural gas distribution system of pipelines. The repair, rehabilitation, or replacement of pipelines would be constructed in accordance with industry best practices and would comply with all local, state, and federal regulations, including those for safety.

The abandonment of the existing pipeline would be conducted in accordance with PHMSA requirements found in 49 CFR 192.727 and 195.402(c)(10). These requirements include disconnecting pipelines from all sources and supplies of gas, purging all combustibles and sealing the facilities left in place. These requirements for purging and sealing abandoned pipelines would ensure that the abandoned pipelines are properly purged and cleaned and pose no risk to safety in their abandoned state. Therefore, PHMSA's assessment is that this replacement project would improve the overall safety of the existing pipeline infrastructure.

Mitigation Measures:

- Incorporate public awareness programs, as necessary;
- Use standard construction safety methods and procedures;
- Ensure DIMP procedures are updated as necessary;
- Ensure work is constructed in accordance with industry best practices; and
- Comply with all local, state, and federal regulations.

3. Categorical Exclusion Determination

Categorical Exclusions to be Applied:

As the proposed action is repair, replacement, upgrading, rebuilding, or minor relocation of pipelines within existing rights-of-way to an existing natural gas pipeline, the following Categorical Exclusion, as listed in the DOE NEPA implementing procedures, 10 CFR 1021, adopted by PHMSA effective July 3, 2024⁵ applies:

B5.4 Repair or Replacement of Pipelines

Repair, replacement, upgrading, rebuilding, or minor relocation of pipelines within existing rights-of-way, provided that the actions are in accordance with applicable requirements (such as Army Corps of Engineers permits under section 404 of the Clean Water Act). Pipelines may convey materials including, but not limited to, air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water.

Eligibility Criteria:

The proposed activity meets the eligibility criteria of 10 CFR 1021.410(b) because the proposed action does not have any extraordinary circumstances that might affect the significance of the environmental effects, is not connected to other actions with potentially significant impacts, is not related to other actions with individually insignificant but cumulatively significant impacts, and is not precluded by 10 CFR 1021.211 concerning limitations on actions during environmental impact statement preparation. The "Integral Elements" of 10 CFR 1021 are satisfied because the proposed action will not:

1. Threaten a violation of statutory, regulatory, or permit requirements for environment, safety, and health, including requirements of DOE and Executive Orders;
2. Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities;
3. Disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)-excluded petroleum and natural gas products that preexist in the environment such that would be uncontrolled or un-permitted releases;
4. Have the potential to cause significant impacts on environmentally sensitive resources, which includes (i) property (sites, buildings, structures, and objects) of historical, archeological, or architectural significance; (ii) federally-listed and state-listed threatened or endangered species or their habitat, federally-protected marine mammals and essential fish habitat and otherwise federally-protected species; (iii) floodplains and wetlands; (iv) federally and state designated areas (wilderness areas, national parks, national monuments, national natural landmarks, wild and scenic rivers, wildlife refuges, scenic areas, and marine sanctuaries); (v) prime or unique farmland; (vi) special sources of water (sole-source

⁵ [Federal Register :: Adoption of Department of Energy Categorical Exclusion Under the National Environmental Policy Act](#)

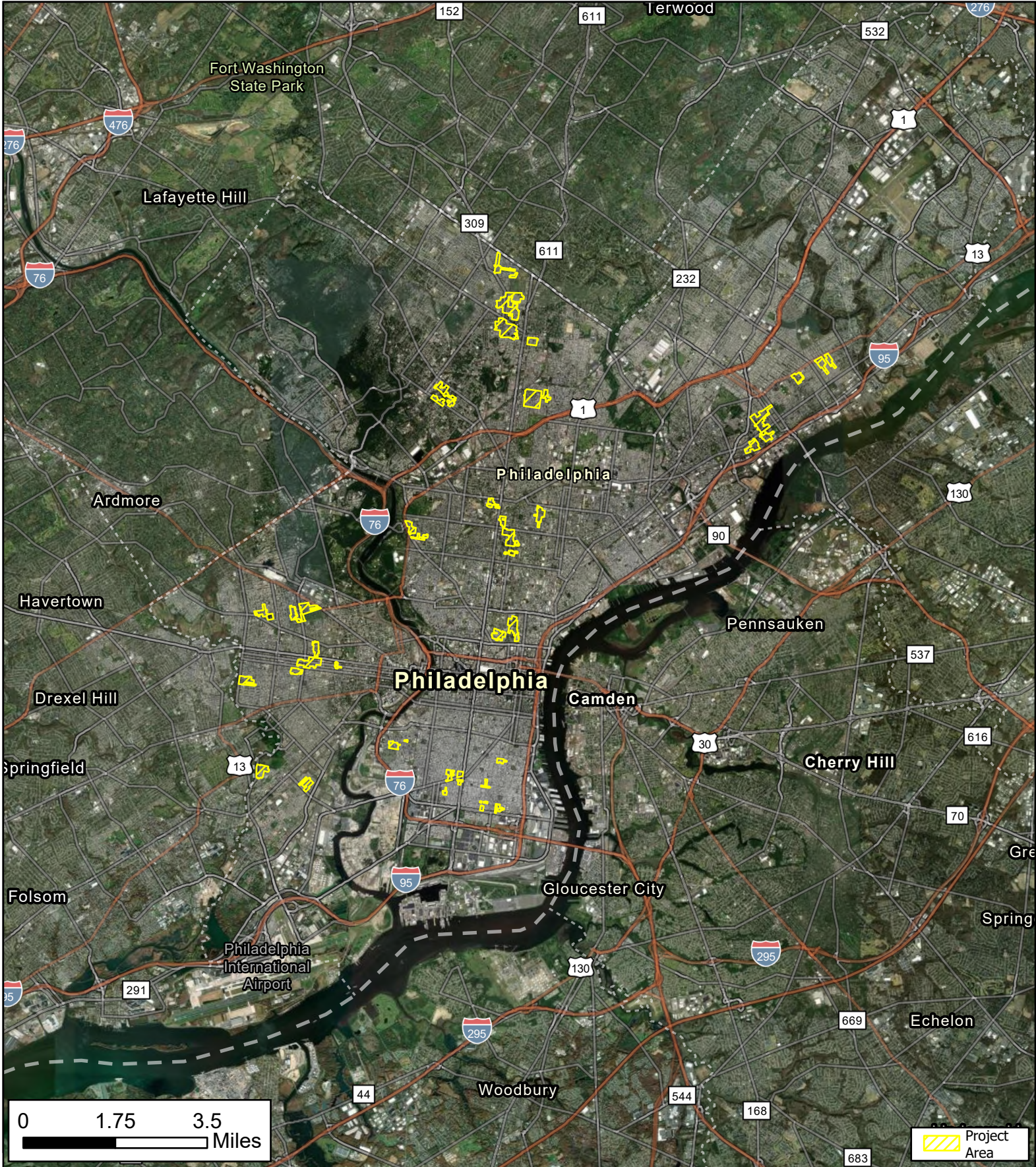
- aquifers, wellhead protection areas, and other vital water resources); and (vii) tundra, coral reefs, or rain forests); or
5. Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species.

Compliance Action:

The proposed action satisfies the DOE NEPA eligibility criteria and integral elements, does not pose extraordinary circumstances, or includes conditions that must be implemented to ensure significant effects are avoided, and meets the requirements for the CE referenced above. Based on my review of the proposed action, I have determined that the proposed action fits within the specified categorical exclusion, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

PHMSA Approval:

Project Area Map



Name: Philadelphia Gas Works Pipeline Replacement
Scale: 150,000
Total Acreage: 942.5
Philadelphia, Philadelphia County, PA

Service Layer Credits: Earthstar Geographics, PSU Office of Physical Plant, data.pa.gov, New Jersey Office of GIS, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS