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

Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

The City of Palo Alto

Palo Alto, California

Categorical Exclusion Documentation

NGDISM-FY23-CE-2024-04

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1. Overview

This document serves as the Pipeline and Hazardous Materials Safety Administration's (PHMSA) determination of applicability of 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 the 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. The project identified below was provisionally awarded federal funding through PHMA's Natural Gas Distribution Infrastructure Safety and Modernization (NGDISM) grant program. This document describes the proposed action and the anticipated impacts of that action and documents the applicability of the use of DOE CE B5.4.

2. Project Description/Proposed Action

Project Title	Gas Main Replacement Project 25
Project Location	Palo Alto, Santa Clara County, California

Project Description/Proposed Action:

The Gas Main Replacement Project 25 is part of the Council-approved Capital Improvement Program (CIP) to ensure reliable gas services for the City of Palo Alto residents and customers. This Project specifically targets the replacement of aging Polyvinyl Chloride (PVC) mains and services, as well as severely corroded steel mains and services, both of which are nearing the end of their operational life expectancy and pose significant risks due to embrittlement and corrosion. A total of 25,081.00 linear feet of main line and associated service lines will be replaced.

The primary goals of this Project are to replace the embrittled PVC mains and services that are susceptible to cracking during earth movement, potentially leading to gas leaks, and to replace severely corroded steel mains and services that lack adequate cathodic protection due to previously installed fittings, which have resulted in leaks discovered through the City's mobile and walking leak surveys.

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.)	The Gas Main Replacement Project in the City of Palo Alto involves extensive ground-disturbing activities across numerous streets, including Northampton Drive, Southampton Drive, Newel Drive, Greenwich Place, Walter Hays Drive, Erstwild Court, Stanley Ways, Jordan Place, Lois Lane, Sutter Avenue, Clara Drive, Ross Road, Price Court, Stern Avenue, Allen Court, Loma Verde Place, Torreya Court, Toyon Place, Ross Court, Stone Lane, Talisman Court, and Middlefield Road. A majority of the project will be completed using directional boring with some trenching along a total of 25,081 linear feet. Excavations will be approximately 4 feet by 4 feet at gas service tees and tie-in pits will vary

	between 5 feet by 10 feet or 5 feet. Each trench will measure 2 feet in width and vary in depth from 18 inches to 60 inches, depending on the depth at which the existing utility pipelines are buried.
If the exact location where new pipe would be installed or where other work would occur, provide the width of the ROW and/or the general area encompassing the footprint where all work would occur. Include the anticipated footprint and depth of new pipe installation.	The Project covers a total of approximately 25,081 linear feet of distribution main pipeline replacement. The width right of way (ROW) in these residential and commercial areas ranges from 45 to 60 feet. Within this ROW, the construction activities will occupy a narrower work zone, excavations will be approximately 4 feet by 4 feet at gas service tees and tie-in pits will vary between 5 feet by 10 feet or 5 feet. Each trench will measure 2 feet in width and vary in depth from 18 inches to 60 inches, depending on the depth at which the existing pipes are buried.
Will service lines be replaced?	Yes
Will meters or other equipment be replaced? If so, provide a description detailing what meter components, etc. will be replaced and indicate if this will require ground disturbance, if the equipment will be attached to existing structures, etc.	Yes, the City will replace gas meters with new smart meters under Gas Main Replacement Project due to outdated meters, many of which are 20-25 years old, manufacturer of these meters is no longer standard, and some of the meters developed gas leaks over time. The replacement involves several components of the meter system, including the meters themselves and the associated hardware. The new meters will be attached to the existing structures to minimize ground disturbance. However, some ground disturbance may occur if existing setups do not meet the requirements for the new smart meters.
What portions of the pipeline will be abandoned? What portions of the pipeline will be removed?	All portions of the pipeline to be replaced as part of the Gas Main Replacement Project 25 will be abandoned. No portions of the pipeline will be removed. The City of Palo Alto's pipeline upgrade project will involve abandoning all the replaced pipeline sections.

Question	**Information**
What construction methods will be used?	Directional boring; 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).	No new right-of-way or easement needed.
How many linear feet of pipe will be replaced or repaired?	25,081.00 Linear feet of distribution main

2.1. 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.***
1,415.00 feet	2.00	Coated steel	25.00		1939
1,012.00 feet	2.00	Coated steel	25.00		1945
4,291.00 feet	2.00	Coated steel	25.00		1950
663.00 feet	2.00	Coated steel	25.00		1953
1,086.00 feet	2.00	Coated steel	25.00		1954
1,486.00 feet	2.00	Coated steel	25.00		1955
2,782.00 feet	3.00	Coated steel	25.00		1939
96.00 feet	4.00	Coated steel	25.00		1972
523.00 feet	2.00	PVC	25.00		1955
365.00 feet	2.00	PVC	25.00		1971
956.00 feet	2.00	PVC	25.00		1972
860.00 feet	2.00	PVC	25.00		1973
529.00 feet	2.00	PVC	25.00		1976
1,054.00 feet	2.00	PVC	25.00		1985
5,045.00 feet	4.00	PVC	25.00		1972
720.00 feet	4.00	PVC	25.00		1975
1,189.00 feet	4.00	PVC	25.00		1976

3. Resource Review

The following information represents questions posed to the project proponent identified on the cover page of this document for 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 identified include best management practices and were reviewed and confirmed by the project proponent.

Air Quality and Greenhouse Gases (GHG)	
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)[1]?	Yes, based on review of the EPA Greenbook the project is in a nonattainment area for ozone, carbon monoxide and and PM2.5. [2]
Will the construction activities produce emissions that exceed de minimis thresholds (tons per year)?	No.
Will mitigation measures be used to capture blowdown[3]?	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 methane.	The existing leak rate is estimated to be 543 kg/year. Replacement of pipelines would result in a leak rate of approximately 130 kg/year. This would result in an estimated reduction of 325 kg/year in the first-year (factoring in venting emissions) and 413 kg/year, each year after. This would result in a reduction of approximately 8,175 kg/year over a 20-year timeframe.
Is there any other information relevant to the project area or the proposed work as it pertains to Air Quality and Greenhouse Gas?	The City will incorporate comprehensive measures to address and mitigate impacts on air quality and greenhouse gas emissions. By implementing best construction practices, adhering to regulatory standards, and focusing on long-term improvements in system efficiency and leak reduction, the Project aims to deliver a reliable gas service system to the community.
Conclusion: The project area is located within Palo Alto, Santa Clara County, CA. Based on EPA's Greenbook[4], the project area falls within a non-attainment area for the 8-hour ozone and a maintenance area for PM 2.5 national ambient air quality standard (NAAQS).[5] 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 that would be used to install pipelines. This information was used in conjunction with EPA's MOVES[6] 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 action, impacts on local air quality resulting from construction	

[1] Criteria Air Pollutants | US EPA
[2] https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information
[3] Blowdown refers to the venting of natural gas in current facilities, in order to begin rehabilitation, repair, or replacement activities.
[4] https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information
[5] https://www3.epa.gov/airquality/greenbook/anayo_ca.html
[6] https://www.epa.gov/moves

activities, such as dust and exhaust from construction equipment, would be temporary and fall below EPA's de minimis thresholds[7]. Thus, the Proposed Action does not require a General Conformity Analysis under Section 176(c) (4) of the Clean Air Act at the proposed project sites.

The Proposed Action would result in minor air quality impacts associated with construction activities, including the intentional venting of methane contained in the existing pipelines prior to replacement. Pipeline blowdowns are typically necessary to ensure that construction and maintenance work can be conducted safely on depressurized natural gas facilities and pipelines. Venting methane is required when service is switched from the existing line to the newly constructed line, but the volume of vented gas can depend on the ability to reduce pressure on the pipe segment or other mitigation actions. As described in the Tier 1 EA, methane leaks from natural gas distribution pipelines increase with age and are considerably higher for cast iron and steel pipelines, as compared with plastic. Replacing leak prone pipe with newer, more durable materials would reduce leaks and methane emissions. Based on the current leak rate of the existing pipes within the project area described above, this project would reduce overall emissions. Therefore, it is PHMSA's assessment that the proposed project would provide a net benefit to air quality from the overall reduction of greenhouse gas emissions.

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;
- Minimize the idling of equipment.

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 (e.g. directional boring under the resource, etc.)	Yes, according to USFWS National Wetland Inventory (NWI). There will be no impacts to water resources. To avoid impacting Matadero Creek and Barron Creek, the GMR 25 will employ directional boring, implement erosion and sediment control measures if needed, properly stabilize the site, and comply with the Valley Water requirements. These strategies will ensure that Matadero Creek will remain unaffected by the construction activities and maintain its water quality.

[7] De Minimis Tables | US EPA

	For Matadero and Barron Creeks, the stand-off distance is a minimum of 50 feet from the entry and exit pit when drilling the gas main pipeline under the creek. The distance is approximated based on the soil condition, which is alluvial soil, to ensure drilling safety and structural integrity. However, actual distances might vary based on environmental conditions at each site. Following local regulations from Valley Water is important to avoid negative impacts on the creeks and their surrounding areas. Adhering to these regulations and thoroughly examining each site allows for determining the most suitable stand-off distances to ensure safe and environmentally responsible drilling operations.
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.	No, there would only be less than an acre of land disturbed at any one time. A SWPPP will be developed by the contractor.
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.	FEMA's flood maps[8] indicate the project area is in FEMA Flood Zones A, AH, and AE. These are considered Special Flood Hazard Areas and correspond to the one percent annual chance of flooding (100-year floodplain).
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, the project is not located within a designated coastal zone. The California Coastal Zone does not include the area of jurisdiction of the San Franscisco Bay Conservation and Development Commission nor any tributary flowing into this area. [9]
Is there any other information relevant to the project area or the proposed work as it pertains to Water Resources.	Several measures need to be implemented to comply with Valley Water's permit requirements and mitigate the impacts of installing a gas pipeline under

[8] FEMA Flood Map Service Center | Welcome!
[9] Boundaries - California Ocean Protection Council

	Matadero and Barron Creeks. Staging and laydown areas should be placed outside wetlands and floodplains to minimize disruption. Any disturbed areas must be restored to pre-construction contours, and reseeded with native plant species as needed, to rehabilitate the natural habitat. Implement erosion and sediment control measures, such as silt fences and check dams, to prevent sediment from entering the waterways. Invasive plant species should be removed and replaced with native vegetation to enhance the habitat for local wildlife. Continuous monitoring of riparian planting areas for five to seven years is essential to ensure the success of mitigation efforts.

Conclusion:

PHMSA reviewed NWI maps, as well as the FEMA national flood hazard maps. There are two channelized streams in the project area. Both of these water resources will be crossed by directional bore methods and no direct impacts will occur. The City of Palo Alto and/or it's contractor will obtain appropriate authorizations, if needed, from Santa Clara Vally Water and coordinate with the local floodplain manager, if necessary, for work located in a special flood hazard area. Best management practices will be used, and all areas will be restored.

Mitigation Measures:

- Avoid staging and laydown areas in wetlands or floodplains;
- Reseed disturbed areas with native plant species, as needed;
- Restore disturbed areas to pre-construction contours;
- Adhere to additional mitigation measures in accordance with applicable permits;
- Use Best Management Practices during construction to control sediment and erosion and prevent pollutants from entering adjacent waterways;
- Coordinate with the appropriate FEMA representative or local floodplain coordinator when work will occur in FEMA designated special flood hazard areas, as needed.
- Adhere to all additional mitigation measures outlined in any permits issued by Valley Water, including specific requirements related to bank protection, sediment removal, and vegetation management.

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.	No.
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	Yes. During all boring and directional drilling activities, a vacuum truck will contain drilling fluids and avoid contamination. In the event of an accidental release of hazardous material or waste,

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.	the City will promptly notify emergency response agencies, local residents, and regulatory bodies to address the situation quickly. These measures aim to reduce the risk of groundwater contamination and ensure the safe handling of hazardous materials throughout the Project.
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 NEPAssist 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 and/or what mitigative measures will be used to avoid identified sites.	No, based on review of EPA's NEPAssist tool.[10]
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.	No.
Does the project have the potential to encounter or disturb lead pipes or asbestos?	No.
Is there any other information relevant to the project area or the proposed work as it pertains to Groundwater and hazardous materials/waste.	To minimize potential impacts on groundwater and hazardous materials during the gas pipeline installation under Matadero and Barron Creeks, the City will implement a Stormwater Pollution Prevention Plan (SWPPP) to manage runoff and prevent pollutants from reaching groundwater. Hazardous materials will be securely stored with secondary containment if needed, and all waste will be properly segregated and disposed of according to regulations, ensuring effective management and protection of groundwater during boring and drilling activities.
Conclusion: PHMSA reviewed EPA's NEPAssist website to identify any hazardous waste, brownfields properties or superfund sites identified in the project area. There were some hazardous waste sites identified near the project area which includes facilities that are generators, transporters, treaters, storers, or disposers of hazardous waste. These will not be impacted by the proposed project. There were no brownfields sites or superfund sites identified in the project area. It is not anticipated that the project would intercept groundwater. During all boring and directional drilling activities, a vacuum truck will contain drilling fluids and avoid contamination. In the event of an accidental release of hazardous material or waste, the City will	

[10] https://nepassisttool.epa.gov/nepassist/nepamap.aspx

promptly notify emergency response agencies, local residents, and regulatory bodies to address the situation quickly. These measures aim to reduce the risk of groundwater contamination and ensure the safe handling of hazardous materials throughout the Project. Best management practices will be used, and the City will implement a SWPPP to manage runoff and prevent pollutants from reaching groundwater. Hazardous materials will be securely stored with secondary containment if needed, and all waste will be properly segregated and disposed of according to regulations, ensuring effective management and protection of groundwater during boring and drilling activities.

Mitigation Measures:

- 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;
- Adhere to applicable groundwater and/or soil management plans;
- Develop and implement an HDD Inadvertent Return and Contingency Plan to establish operational procedures and responsibilities for the prevention, containment, and clean-up of inadvertent returns associated with the directional drilling on the Project.

Biological Resources	
Question	**Information and Justification**
Based on review of IPaC and NOAA Fisheries database, are there any federally threatened or endangered species and/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). Additionally, California state resources were inventoried to identify species listed under the California Endangered Species Act.
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.	No
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?	The Project will not impact areas adjacent to habitats for federally listed species. To ensure compliance with environmental regulations, construction will be scheduled outside peak wildlife seasons, low-impact techniques like horizontal directional drilling will be used, buffer zones will be established, best management practices for erosion control will be

	implemented, an adaptive management plan will address unforeseen issues, and post-construction restoration with native vegetation will enhance habitat quality.

Conclusion:

The project area is built out and is comprised of residential and commercial 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:

- Salt Marsh Harvest Mouse *Reithrodontomys raviventris* (endangered)
- California Least Tern *Sternula antillarum brown*i (endangered)
- California Ridgway''s Rail *Rallus obsoletus obsoletus* (endangered)
- Marbled Murrelet *Brachyramphus marmoratus* (threatened)
- Western Snowy Plover *Charadrius nivosus nivosus* (threatened)
- Yellow-billed Cuckoo *Coccyzus americanus* (threatened)
- Green Sea Turtle *Chelonia mydas* (threatened)
- Northwestern Pond Turtle *Actinemys marmorata* (proposed threatened)
- San Francisco Garter Snake *Thamnophis sirtalis tetrataenia* (endangered)
- California Red-legged Frog *Rana draytoni*i (endangered)
- California Tiger Salamander *Ambystoma californiense* (endangered)
- Foothill Yellow-legged Frog *Rana boylii* (endangered)
- Monarch Butterfly *Danaus plexippus* (candidate)
- California Seablite *Suaeda californica* (endangered)
- Fountain Thistle *Cirsium fontinale var. fontinales* (endangered)
- Marin Dwarf-flax *Hesperolinon congestum* (threatened)
- San Mateo Thornmint *Acanthomintha obovata ssp. Duttonii* (endangered)
- Showy Indian Clover *Trifolium amoenum* (endangered)

There was no critical habitat identified within the project area. Numerous state listed species were identified within the general geographical range but none within the ROW where work will occur. All project work will be within the right-of-way within developed areas and therefore, the immediate project area has very limited biological resources present. Therefore, in accordance with Section 7 of the Endangered Species Act PHMSA's assessment is that the project would have no effect to any of the threatened or endangered species listed above. Under Section 7(a)(4) of the Endangered Species Act (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 northwestern pond turtle. As a candidate species, the Monarch butterfly receives no statutory protection under the ESA. 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.

Mitigation Measures:

N/A

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?	The Gas Main Replacement Project 25 involves various ground-disturbing activities, including pipeline installation, gas service replacement, and gas meter replacements. Pipeline installation will require excavations of approximately 4 feet by 4 feet at gas service tees and tie-in pits will vary between 5 feet by 10 feet or 5 feet. Each trench will measure 2 feet in width and vary in depth from 18 inches to 60 inches, depending on the depth at which the existing pipes are buried. Gas meter replacements generally involve minimal ground disturbance due to surface work.
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. The Gas Main Replacement Project 25 will occur entirely within the existing rights-of-way (ROW). This approach minimizes the impact on private and commercial properties and ensures all work complies with local regulations and standards. Also, conducting construction activities within existing ROW helps avoid additional permitting or easement acquisition. The ground disturbance for the Gas Main Replacement Project 25 will not be restricted entirely to paved areas. While most of the work will occur within existing rights-of-way (ROW), often paved, some disturbance may occur in grassy or disturbed areas when replacing gas service lines. Proper measures will be taken to minimize environmental impact, and restoration practices will be used to restore disturbed areas to their original condition after construction.
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 original installation or other activities previously disturbed the Gas Main Replacement Project 25 area. The existing gas mains, gas service lines, and related infrastructure, such as gas meters, were installed in the past, involving significant ground disturbance at that time. This includes the installation of pipelines and gas meter replacements, which requires excavation in paved and unpaved areas within the rights-of-way. Additionally, routine maintenance and upgrades over the years may have caused further disturbance in these areas. Therefore, the current project will primarily occur within areas that have already experienced some level of disturbance due to prior installations and activities.
Does the project involve any physical impacts to buildings or structures? Please provide a description of	No.

the work that may affect buildings or structures and provide addresses and/or a map showing the locations.	
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 and/or captions to identify where the photos were taken and what they are showing.	The project area for the Gas Main Replacement Project 25 in Palo Alto covers various residential and commercial streets. This area mainly features residential neighborhoods, established homes, and modern constructions, with well-maintained lawns, trees, and sidewalks lining the streets. In contrast, commercial areas, particularly along Middlefield Road, exhibit a mix of businesses, including shops and office buildings, showing historic and contemporary architectural designs. Looking down the right-of-way (ROW) in these areas, one can see different property types, from older homes and new residences to diverse business fronts.
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.	Yes. The project involves constructing and installing new aboveground components, including meter boxes and gas lids. These components include replacing outdated gas meters with smart meters mounted above ground at residential and commercial properties. These installations, including the new gas meter boxes and gas lids on some houses and the protection of the meters and access points, are crucial for upgrading the gas distribution infrastructure and ensuring safety, reliability, and compliance with operational standards.
Are there any nearby properties or resources that either appear to be or are documented to have been constructed more than 45 years ago?[11] 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.	Yes. The project involves areas where nearby properties are over 45 years old. Many of these residential neighborhoods feature homes constructed in the early to mid-20th century, showing the city's diverse architectural history. Palo Alto's Historic Preservation Ordinance protects these properties during construction projects. These properties contribute to the historical fabric of the community and necessitate careful planning to avoid impacting their integrity during the gas main replacement project. Yes, there appear to be a group of properties of similar age, design, or method of construction. Many homes in the project areas were built in the early to mid-20th century and share similar

[11] Local tax and property records or historic maps may indicate dates of construction.

	architectural styles, such as Craftsman, Colonial Revival, and mid-century modern designs. These neighborhoods reflect the building trends of their time, with standard construction methods and materials. This uniformity in age and design helps maintain the historic and aesthetic character of the community, which is considered during gas main replacement projects to ensure preservation and minimal disruption. Yes, there are designed landscapes present in the project area. The project areas' neighborhoods show a mix of older homes (over 45 years old) and modern constructions, with architectural styles like Craftsman, Colonial Revival, and mid-century modern designs. These properties often have trees, well-maintained lawns, and sidewalks. Middlefield Road and other commercial streets blend old and new commercial buildings, such as shops and office buildings. Designed landscapes in the area include Mitchell Park, a significant recreational space, and other local parks that provide green spaces for the community. There are no known cemeteries directly within the project area.
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.	Yes The project will likely require removing or disturbing various sidewalks, roadways, and landscape materials, which may include old or unique features. This includes stone or brick sidewalks, asphalt or concrete roadways, and lawns across multiple streets. Efforts will be made to document existing conditions, minimize impact, and restore any disturbed areas to their original condition after construction. This ensures that the historical and aesthetic integrity of the neighborhoods is preserved.
Is there any other information relevant to the project area or the proposed work as it pertains to Cultural Resources?	No.
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 California Office of Historic Preservation. 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. This research revealed no NRHP listed or eligible properties within the APE or within a half-mile.

A letter was sent on November 5, 2024, to the California 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 California Office of Historic Preservation on November 6, 2024.

PHMSA also invited the following federally recognized tribes to participate in consultation by separate letter on November 5, 2024:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Tribe of the SF Bay Area
- Tamien Nation
- The Ohlone Indian Tribe
- Wuksachi Indian Tribe/Eshom Valley Band

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 Palo Alto 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 Palo Alto 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 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/or a map of 4(f) properties as an attachment.	Yes. There are several Section 4(f) properties in the project's vicinity, which include publicly owned parks, recreational areas, and historic sites. Notable parks in general vicinity include Ramos Park, Mitchell Park, Eleanor Pardee Park, and Rinconada Park. Additionally, the area includes historic districts like the Professorville Historic District and the Ramona Street Architectural District, along with various individual historic properties listed in Palo Alto's Historic Inventory.
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.
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.	No.
Is there any other information relevant to the project area or the proposed work as it pertains to Section 4(f)?	There will be no excavation or installation work within the parks and there will be no impacts to ingress or egress as access to the parks will remain open and unencumbered. There could be minor disruptions to traffic in the general areas of the parks and increased noise levels resulting from construction activities.
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 properties that are located within the Project Area to identify properties that qualify as Section 4(f). While there are several public parks in the general vicinity where the work would occur, no work will occur within any public park and ingress and egress will remain unencumbered.

Mitigation Measures:

- The City of Palo Alto shall ensure that full public access to, and use of all adjacent public parks 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 on mains would take place within the existing ROW.
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?	Yes. Any work that may lead to detours, transportation restrictions, or disruptions to normal traffic flow will adhere to the standards of the City of Palo Alto's Transportation Department. Necessary guidelines and permits will be secured before commencing work, and no permanent changes to transportation facilities will occur. 379 working days.
Will there be any permanent change to existing transportation facilities? If so, what are the changes, and how would the changes affect the public?	No.
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.	No, the project would not interrupt or impede emergency response services.

Is there any other information relevant to the project area or the proposed work as it pertains to Land Use and Transportation?	No.

Conclusion:

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. Staging will be on paved surfaces. The City of Palo Alto normally allows the contractor to store up to four pieces of equipment and backfill material for each week on paved City street ROW such as parking spots during active construction. Staging will move with the project. The City of Palo Alto will ensure that traffic flows are maintained to the greatest extent possible and traffic control measures will be used to assist traffic through construction areas as needed. Coordination with state and local agencies regarding detours and routing adjustments will occur, and potentially impacted residents and business owners will be notified. A traffic control plan will be in place before construction, and the City of Palo Alto, or their designated contractors will coordinate with the appropriate agency well before any impacts to emergency services or essential agency functions. Additionally, all areas will be restored to pre-construction conditions. There will be no permanent changes to land use.

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.)
- 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.
Will the project location be in proximity (less than 50-ft.) 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. The project is in close proximity to various sensitive noise receptors. No high-noise or high-vibration machinery will be used for construction. The City of Palo Alto will conduct public outreach to inform residents or business owners about the schedule of nearby construction work. Additionally, the Contractor will

	comply with all local noise ordinances to minimize impacts on nearby residential or commercial properties.
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. The City of Palo Alto's noise ordinance aims to protect the peace, health, safety, and welfare of its residents by regulating excessive, unnecessary, and unreasonable noises from various sources. According to Chapter 9.10 of the Palo Alto Municipal Code, noise limits are set for different types of properties: Residential Property Noise Limits stipulate that noise levels must not exceed 55 decibels (dBA) during daytime hours (7:00 AM to 10:00 PM) and 50 dBA during nighttime hours (10:00 PM to 7:00 AM). Commercial and Industrial Property Noise Limits require noise levels not exceeding 70 dBA during daytime hours (7:00 AM to 10:00 PM) and 65 dBA during nighttime (10:00 PM to 7:00 AM). Public Property Noise Limits specify that noise levels must not exceed 70 dBA at 25 feet from the source during daytime (8:00 AM to 8:00 PM on weekdays and 9:00 AM to 8:00 PM on weekends). Additionally, any construction activities must comply with these noise limits, and high-noise machinery is restricted during specific hours to minimize disturbances to nearby residents and businesses. Exceptions can be granted through special permits if necessary.
Will construction activities require large bulldozers, hoe ram, or other vibratory equipment within 20 ft of a structure?	No.
Is there any other information relevant to the project area or the proposed work as it pertains to Noise and Vibration?	The City of Palo Alto will adhere to the City's noise ordinance by limiting construction activities to regular weekday hours when noise restrictions are not in effect.
Conclusion: The project is located in residential neighborhoods and other areas with commercial buildings, such as shops and office buildings. The ambient noise consists of a combination of environmental noise from road traffic, construction, industry, the built environment, population density and other sources. The pipeline replacement project would result in temporary construction noise impacts; however, no vibration impact should occur. Construction for the project is anticipated to last 10-14 months. The City of Palo Alto will adhere to the City's	

noise ordinance by limiting construction activities to regular weekday hours when noise restrictions are not in effect.
Mitigation Measures: • Adhere to all local, city and/or state noise regulations.

Environmental Justice	
Question	**Information and Justification**
Using the EPA EJScreen or census data[12], is the project located in an area of minority and/or low-income individuals as defined by USDOT Order 5610.2(c)?	Based on review of socioeconomic data using the EPAs EJScreen, the population residing within the general project area contains 10% low income and 58% minority populations. The percentage of these populations is below the Santa Clara County average of 16% low income and 71% minority populations.
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. Residents or business owners are expected to experience a brief service interruption during the gas service transfer. Customers affected by this interruption will be notified in advance. Notification letters and the City of Palo website will be used to inform residents about the temporary disruption.
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?	According to EJScreen, 6% of households speak limited English.
Is there any other information relevant to the project area or the proposed work as it pertains to Environmental Justice?	The City of Palo Alto will issue advance public notifications through letters and its website regarding service disruptions and construction schedules to all affected properties, including nearby residents and businesses.
Conclusion: Executive Order (E.O.) 14096—"Revitalizing Our Nation's Commitment to Environmental Justice for All" was enacted on April 21, 2023. E.O. 14096 on environmental justice does not rescind E.O. 12898 – "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," which has been in effect since February 11, 1994 and is currently implemented through DOT Order 5610.2C. This implementation will continue until further guidance is provided regarding the implementation of the new E.O. 14096 on environmental justice.	

[12] https://www.census.gov/quickfacts/fact/table/US/PST045222

The Proposed Action alternative would result in an overall reduction in GHG emissions. 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 and only minor disruptions to services would occur. However, removal of leak prone pipe would reduce leaks and the potential for incidents, resulting in an increase in pipeline safety across the system while also improving operation and reliability. Therefore, consistent with Executive Order 12898 and DOT Order 5610.2(c), PHMSA's assessment is that the project would not result in disproportionately high and adverse effects on minority or low-income populations, or other underserved and disadvantaged communities.

Mitigation Measures:

- 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.
- 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, as described in the Distribution Integrity Management Program (DIMP).
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. The City of Palo Alto Utilities has developed and implemented a public awareness program that aligns with the guidance provided by the American Petroleum Institute (API) Recommended Practice (RP) 1162. This program is designed to ensure effective communication and public safety regarding pipeline operations and includes measures for public outreach tailored to the needs of the community and stakeholders.
Does the project area include pipes prone to leakage?	Yes. The project area for the Gas Main Replacement Project 25 includes pipes that are prone to leakage. Many of the existing gas pipelines, made from older materials like steel and PVC and installed decades ago, are susceptible to leaks due to age-related corrosion and embrittlement. Replacing these old pipelines with new, durable MDPE pipes will significantly reduce the risk of leaks and enhance the safety and reliability of the gas distribution system.

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. The Contractor must adhere to all standard construction safety methods and procedures.
Has an assessment of the project been performed to analyze the risk and benefits of implementation?	Yes. The City of Palo Alto's Distribution Integrity Management Program (DIMP) plan includes an evaluation of risks and threats to the system's integrity.
Is there any other information relevant to the project area or the proposed work as it pertains to Safety?	The City of Palo Alto will implement standard construction safety methods and procedures, conduct regular safety audits of crews working in the field, and perform subsequent follow-up reporting as required. The City will also ensure that DIMP procedures are updated annually. Construction work must adhere to industry best practices and comply with local, state, and federal regulations, including safety requirements and necessary inspections.

Conclusion:

The project would reduce the risk profile of existing pipeline systems prone to methane leakage and would also benefit disadvantaged rural and urban communities with the safe provision of natural gas. The project responds to the need to address the potentially unsafe condition of the 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 CRF 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
- Comply with all local, state, and federal regulations.

4. 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, 2024[13] 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 1021.41O(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 [40 CFR 1508.25(a)(l)], is not related to other actions with individually insignificant but cumulatively significant impacts [40 CFR 1508.27(b)(7)], and is not precluded by 40 CFR 1506.1 or 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/or 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 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.

[13] Federal Register :: Adoption of Department of Energy Categorical Exclusion Under the National Environmental Policy Act

Compliance Action:

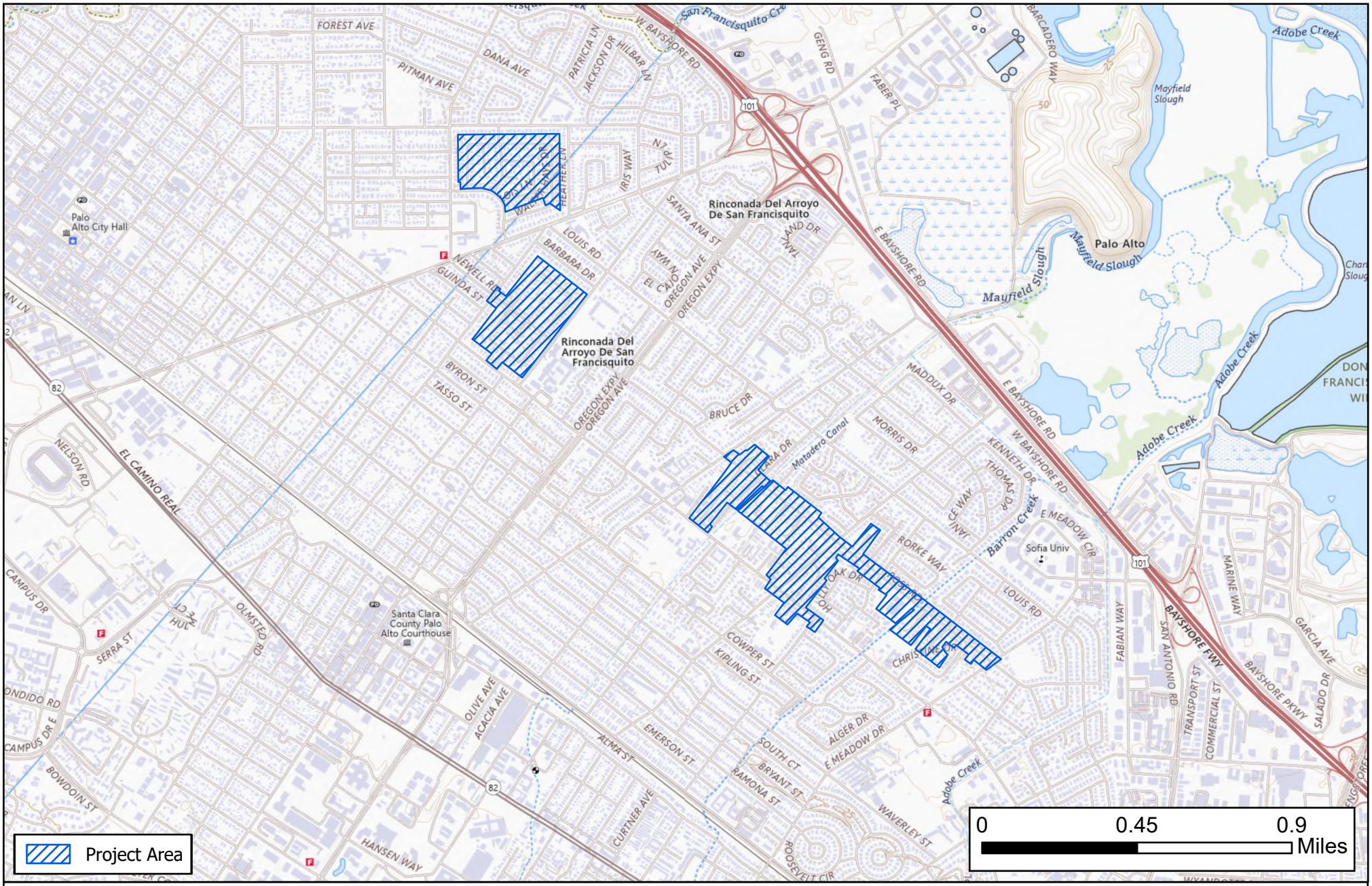
PHMSA is aware of the November 12, 2024 decision in Marin Audubon Society v. Federal Aviation Administration, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, PHMSA has nonetheless elected to follow those regulations at 40 C.F.R. Parts 1500–1508, in addition to the USDOT Procedures for Considering Environmental Impacts – DOT Order 5610.1C at https://www.transportation.gov/office-policy/transportation-policy/procedures-considering-environmental-impacts-dot-order-56101c, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.

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: SHELBY MATTHEW FULLER

Digitally signed by SHELBY MATTHEW FULLER
Date: 2024.12.12 11:10:28 -05'00'

Project Area Map



Name: Palo Alto Pipeline Replacement
Scale: 24,000
Total Acreage: 85
Palo Alto, Santa Clara County, CA

N

Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information