

# Natural Gas Distribution Infrastructure Safety and Modernization Grant Program Metropolitan Utilities District, NE Tier 2 Site Specific Environmental Assessment NGDISM-FY22-EA-2023-31

PHMSA Approval:

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### **Overview:**

The purpose of this Tier 2 Site Specific Environmental Assessment (Tier 2) is to: (1) document the proposed action (the Project) and the need for the action; (2) identify existing conditions; (3) assess the social, economic, and environmental effects using appropriate tools and agency coordination to comply with local, state, and federal environmental laws, regulations, and ordinances; (4) document applicable mitigation commitments that would avoid, minimize, or mitigate potential effects; and (5) seek comments from the public. This Tier 2 analysis informs Pipeline and Hazardous Materials Safety Administration's (PHMSA) assessment as to whether the Project is consistent with the impacts described in the Tier 1 Nationwide Environmental Assessment for the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program.<sup>1</sup>

As part of this Tier 2, PHMSA is soliciting public comments through a public comment period. This Tier 2 is available on PHMSA's website where comments can be submitted to the contact noted below. PHMSA will accept public comments for 30 days on this Tier 2. PHMSA will consider comments received and incorporate them in the decision-making process. Consultation with appropriate agencies on related processes, regulations, and permits is ongoing. Please submit all comments to: PHMSABILGrantNEPAComments@dot.gov and reference NGDISM-FY22-EA-2023-31 in your response.

At the conclusion of the EA process, PHMSA will either issue a "Finding of No Significant Impact," further supplement this EA with additional analysis, mitigation measures or prepare an Environmental Impact Statement.

#### I. <u>Project Description/Proposed Action</u>

Project Title Metropolitan Utilities District Natural Gas Pipeline Replacement			
Project Location City of Omaha, Douglas County, Nebraska			
Project Description/Pro	Project Description/Proposed Action:		
The proposed action includes the replacement of a total 14.47 miles of cast iron, steel and vintage PE pipeline material that was installed between 1888 and 1965. The vulnerable pipeline to be replaced is located within the City of Omaha's existing right-of-way (ROW) and would not require new ROW or easements. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas throughout the City of Omaha. The Metropolitan Utilities District (MUD) proposes to divide the project into 4 segments.			
Segment GP2741 would include replacing 16,640 feet of cast iron, steel and vintage PE pipeline material and is located from North 28th Street to North 36th Street and from Patrick Ave to Hamilton Street. The diameter of existing pipe is 6-inch, 4-inch, and 2-inch, which was installed between 1890 and 1928, and would be replaced with 2-inch diameter Polyethylene piping (PE). The construction staging for this segment would be the parking lot at 3025 Parker Street.			
Segment GP2742 would include replacing 24,990 feet of cast iron, steel and vintage PE pipeline material e and is located from North 28th Street to North 40th Street and from Charles Street to Cuming Street. The diameter of the existing pipe is 12-inch, 10-inch, 8-inch, 6-inch, 4 inch, 3-inch, and 2-inch, which was installed between 1888 and 1949, would be replaced with 2-inch diameter PE piping. The construction staging for this segment would be the MUD property at 3805 Hamilton Street.			

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

Segment GP2743 would include replacing 20,760 feet of cast iron, steel and vintage PE pipeline material from North 40th Street to North Saddle Creek Road and Cuming Street to Dodge Street. The diameter of the existing pipe is 6-inch, 4-inch, 3-inch, and 2-inch, which was installed between 1891 and 1965, would be replaced with 2-inch and 4-inch diameter PE piping. The construction staging for this segment would be the parking lot at 503 North 33<sup>rd</sup> Street.

Segment GP2761 would include replacing 14,000 feet of cast iron, steel and vintage PE pipeline material from North 16th Street and Pinkney Street to North 24th Street and Florence Boulevard. The diameter of the existing pipe is 16-inch, 12-inch, 8-inch, 4-inch, and 2-inch, which was installed between 1980 and 1963, would be replaced with 8-inch, 4-inch, and 2-inch diameter PE piping. See Appendix A, Project Maps, for the location of the segments.

All project segments would require meter replacement and/or relocation. If the existing meter is located outside of the structure, there would be no alteration to any buildings or structures. If the existing meter is located inside of the structure, it would be relocated outside and possibly replaced depending on a number of factors. As part of this process, a meter mounting bracket would be attached to the foundation of a building and a pipe would be installed from the new meter location into the building to reconnect the customer's internal gas piping.

The replacement gas lines would be installed adjacent to the existing lines (within 3 feet to 15 feet) at a depth of 34 to 84 inches below grade. The project would utilize horizontal directional boring (HDD) construction methods and would also include limited excavation at the entry and exit points. The majority of the project would involve HDD from boring pits where the pipeline would be within approximately 10 feet of the existing pipe segment. The Tier 1 EA described that the majority of site-specific projects would utilize the insertion method of pipe replacement. As described in this document, MUD would utilize HDD construction methods for the majority of work, which would result in similar impacts when compared to the insertion method.

Where new pipe is installed adjacent to the existing line, the existing pipeline would be abandoned in place. Abandonment of the existing pipeline (versus excavation and removal) would minimize ground disturbance and facilitate the replacement process in a more efficient manner. PHMSA has specific requirements for gas and hazardous liquid pipeline abandonment, 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. By complying with PHMSA requirements for purging and sealing abandoned pipelines, MUD would ensure that the abandoned pipelines pose no risk to safety in their abandoned state.

### No Action:

The No Action alternative, as required under NEPA, serves as a baseline, and is used to compare impacts resulting from the Proposed Action. Under the No Action alternative, PHMSA would not fund this pipeline replacement project. Additionally, PHMSA would not be able to reduce the inventory of methane leaks and reduce safety risks by replacing pipe prone to leakage. Under this alternative, the MUD would continue to use the existing cast iron pipelines, and conduct repairs or replacements in the future using non-federal sources of funding, and potentially on an emergency basis, when a pipeline fails. Impacts and benefits associated with replacing the leak prone pipeline within the City of Omaha, with updated material would not be seen in the near term. The safety risks and methane leaks would persist. The replacement pipeline activities would either not be taken or they would be undertaken at a later, uncertain date. Even if pipe replacement were to happen

at some point in the future, environmental mitigation measures during such a replacement would be unknown. Furthermore, existing economic losses, and increased risk associated with prolonged gas leaks would continue.

#### **Need for Project:**

The project is needed to ensure the safe, reliable operation and delivery of energy to the community by replacing leak prone cast iron, steel and vintage PE pipeline material and thereby reducing the likelihood of future leaks. The overall needs addressed by this project would include (1) improving upon the safe delivery of energy by reducing the likelihood of incidents, as well as methane leaks; (2) avoiding or minimizing economic losses caused by pipeline failures; and (3) protecting the environment and reducing climate impacts by remediating aged and failing pipelines and pipes prone to leakage.

### Description of the Environmental Setting of the Project Area:

The proposed project takes place within a highly developed urbanized area with a mix of residential and commercial properties. Portions of the project are adjacent to several city owned parks consisting of natural areas, walking trails and sports fields.

#### II. <u>Resource Review</u>

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)?	No, based on a review of the EPA Greenbook. <sup>2</sup>	
Will the construction activities produce emissions that exceed de minimis thresholds (tons per year) described in the initial Tier 2 EA worksheet?	No.	
Will mitigation measures be used to capture blowdown <sup>3</sup> ?	No	
Does the system have the capability to reduce pressure on the segments to be replaced? If yes, what is the lowest psi your system can reach prior to venting?	Segment GP 2761 operates at 45 PSI and has the ability to reduce pressure to 10 PSI.	
Will project proponent commit to reducing pressure on the line to this psi prior to venting? Please calculate venting emissions based on this commitment and also provide comparison figure of venting emissions volume without pressure reduction/drawdown using calculation methods identified in the initial Tier 2 EA worksheet.	Yes, Segment GP 2761 operates at 45 pounds per square inch (PSI). Based on the size of the existing pipe, it is estimated that 65.14 thousand cubic feet (MCF) of methane would be vented during construction if pressure were not reduced. MUD would reduce pressure to 10 PSI, prior to venting which would result in 31.82 MCF of methane being vented during construction. Segments GP 2741, GP 2742, and GP 2743 all operate at approximately 0.25 psi and would not be able to reduce pressure during venting.	
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 41,420 kg/year. Replacement would result in a leak rate of approximately 1,660, kg/year or a reduction of approximately 794,473 kg over a 20-year timeframe.	

### **Conclusion:**

The project area is located within the City of Omaha in Douglas County, Nebraska which is designated by the EPA as in attainment for all National Ambient Air Quality Standards (NAAQS). The existing pipelines within the project area consist of leak cast iron, steel and vintage PE pipeline material, that were installed between 1888 and 1965.

### No Action:

Under the No Action alternative, existing and planned pipeline activities, including construction and maintenance activities, would continue unchanged. The project proponent would continue to use vintage PE, steel and cast iron leak prone pipe material. The total methane emissions for the pipelines within the project area were extrapolated over 20 years to represent the continuation of methane release under the No Action

<sup>&</sup>lt;sup>2</sup> <u>https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information</u>

<sup>&</sup>lt;sup>3</sup> Blowdown refers to the venting of natural gas in current facilities, in order to begin rehabilitation, repair, or replacement activities.

alternative. Under the No Action alternative, PHMSA estimates that 41,420 kg of methane would be released each year from the existing pipelines within the project area. This amounts to 828,417 kg of methane over a 20-year time frame. See Appendix B, Air Quality, for estimated methane leak rate calculations.

# **Proposed Action:**

The Proposed Action alternative consists of replacing 14.47 miles of cast iron pipe which 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 mitigative actions. Therefore, some methane would be vented into the atmosphere during construction. Based on the current operating pressure of 45 pounds per square inch (PSI) and pipeline diameters of 2-16 inches, PHMSA estimates 65.1 MCF of methane (1,938 kg) would be vented into the atmosphere, if MUD were not to reduce pressure. However, MUD has committed to reducing pressure on the existing pipeline, prior to venting, which would result in approximately 31.8 MCF of methane (or 977 kg) being vented into the atmosphere during construction. See Appendix B for the methane blowdown calculations.

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 pipe within the project area, this project would reduce overall emissions by 39,017 kg in the first year (when considering the methane that would be released from blowdown that would occur during construction) and would reduce 39,760 kg of methane per year thereafter. This amounts to a total reduction of approximately 794,473 kg of methane emissions over a 20-year timeframe, post construction. See Appendix B for the methane reduction calculations.

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 and that no indirect or cumulative impacts would result from the Proposed Action

### **Mitigation Measures:**

The MUD shall implement the following mitigation measures:

- Efficient use of on-road and non-road vehicles, by minimizing speeds and vehicles;
- Minimizing excavation to the greatest extent practical;
- Use of cleaner, newer, non-road equipment as practicable;
- Minimizing all vehicle idling and at minimum, conforming with local idling regulations;
- Ensuring that all vehicles and equipment are in proper operating condition;
- On-road and non-road engines must meet EPA exhaust emission standards (40 CFR Parts 85, 86, and 89);
- Watering, or use of other approved dust suppressants, at construction sites and on unpaved roadways, as necessary;

- Minimizing the area of soil disturbance to those necessary for construction;
- Minimizing construction site traffic by the use of offsite parking and shuttle buses, as necessary.
- Reduce pressure to 10 PSI, prior to venting methane.

Water Resources		
Question	Information and Justification	
Are there water resources within the project area, such	Yes, according to USFWS National Wetland Inventory	
as wetlands, streams, rivers, or floodplains? If so, would	(NWI), and Federal Emergency Management Agency	
the project temporarily or permanently impact wetlands	(FEMA) maps.	
or waterways?		
Under the Clean Water Act, is a Section 401 State	No	
certification potentially required? If yes, describe		
anticipated permit and how project proponent will		
ensure permit compliance.		
Under the Clean Water Act, is a USACE Section 404	No	
Permit required for the discharge of dredge and fill		
material? If yes, describe anticipated permit and how		
project proponent will ensure permit compliance.		
Under the Clean Water Act, is an EPA or State Section	No	
402 permit required for the discharge of pollutants into		
the waters of the United States? Is a Stormwater		
Pollution Prevention Plan (SWPPP) required?		
Will work activities take place within a FEMA designated	No	
floodplain? If so, describe any permanent or temporary		
impacts and the required coordination efforts with state		
or local floodplain regulatory agencies.		
Will the proposed project activities potentially occur	No	
within a coastal zone <sup>4</sup> or affect any coastal use or natural		
resource of the coastal zone, requiring a Consistency		
Determination and Certification?		

**Conclusion:** 

PHMSA reviewed NWI maps to assist in identifying aquatic features including wetlands, streams, and other water resources in or near the project area. Based on a review of the NWI maps, NRCS soils maps, topographic maps, and information provided by MUD, there is one unnamed tributary of the Missouri River in the project area near John J. Pershing Drive and Florence Boulevard. The tributary flows in the subsurface throughout the project area.

PHMSA also reviewed FEMA's National Flood Hazard Layer to identify any special flood hazard areas in the project area. The FIRMette map indicates the project area includes areas designated as Zone X. It is noted that Segment GP2761 has an area designated as Zone X noted to have a reduced flood risk due to the nearby levee. Areas designated as Zone X are outside of any designated special flood hazard areas. See Appendix C, Water Resources.

<sup>&</sup>lt;sup>4</sup> The term "coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.)

# No Action:

Under the No Action alternative, the existing pipeline would remain in the current location and normal maintenance activities would continue. Depending on the location of the activities, the work could be in close proximity to an aquatic resource where MUD would need to take precautions to avoid adverse impacts to these sensitive areas.

# **Proposed Action:**

The proposed Action Alternative includes replacing 14.47 miles of existing pipelines. All new gas lines would be installed at a depth of 34-84 inches below grade and located within existing ROW.

Where work would be conducted on Florence Boulevard, where the project area crosses the unnamed tributary of the Missouri River, the pipeline would be installed by directional boring. The contractor would set up approximately 100 feet back from the tributary on either side and no direct impacts would occur. Because the pipeline in these areas would be installed by directional boring methods, the aquatic resources identified in these areas would not be impacted by the project.

Based on information provided by the MUD and a review of available information, PHMSA's assessment is that there would be no permanent impacts to water resources located within the project area. The pipeline placement and abandonment of the existing pipeline is not anticipated to cause any reasonably foreseeable indirect effects or cumulative effects to water resources. Therefore, it is PHMSA's assessment that there would be no adverse impacts to water resources.

### **Mitigation Measures:**

Metropolitan Utilities District shall utilize best management practices to control sediment and erosion during construction to prevent any migration of soils into adjacent waterways.

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.	MUD does not typically encounter groundwater during construction. However, if this occurs, the groundwater would be removed from an excavation before construction activities continued. Dewatering would continue while construction activities are ongoing in the excavation.
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.	Yes, MUD would acquire the appropriate dewatering permits from the Nebraska Department of Environment and Energy, if needed.
Will the project potentially involve a site(s) contaminated by hazardous waste? Is there any	No.

indication that the pipeline was ever used to convey coal gas? If yes, PHMSA will work with the project proponent for required studies.	Yes, MUD operated a gas manufacturing plant until the 1960s and during that time the pipelines were used to convey coal gas. However, no contaminated soil due to coal gas has been encountered during previous pipeline replacement projects
Does the project have the potential to encounter or	Yes. There are lead water services in the Omaha area.
disturb lead pipes or asbestos?	

### **Conclusion:**

PHMSA reviewed EPA's NEPAssist website to identify any brownfields properties, hazardous waste sites, and superfund sites. Ten Resource Conservation and Recovery Act (RCRA) sites were identified adjacent to the project area. The RCRA sites identified include businesses that are identified as handlers of generators, or other combustible materials. Although these establishments reside near the project sites, none would be impacted by the project. Seven Leaking Underground Storage Tank Sites (LUST) were identified in or adjacent to the project area. In Segment GP 2741, one LUST site was identified adjacent to the project area near the intersection of Parker Street and North 30<sup>th</sup> Street. In Segment GP 2743, one LUST site was identified in the project area near the intersection of California Street and North Saddle Creek Road. Four LUST sites were identified in the project area of Segment GP 2761. The three of the Segment GP 2761 sites were identified along North 16<sup>th</sup> Street just north of Laurel Plaza. The fourth LUST site is located near the intersection of North 16<sup>th</sup> Street and Camden Avenue. There are no LUST sites were identified in segment GP 2742. Although the sites reside inside or adjacent the project area, the risk for encountering contamination is low. (See Appendix D, Hazardous Materials). No superfund or brownfields properties were identified near the project area.

PHMSA obtained a custom soil report for the project area from the United States Department of Agriculture, Natural Resource Conservation Service's (NRCS) Web Soil Survey which indicates that the project area is comprised of soils classified as Urban land-Udorthents Pohocco complex silty clay loam and silt loam. The majority of these soils are well-drained soils where the depth to the water table is found somewhere greater than 80 inches.

# No Action:

Under the No Action alternative, the existing vintage PE, steel, and cast iron pipes would remain in their current location and ongoing and routine maintenance activities would occur. Pipes would be replaced under failed circumstances. While there are no adverse impacts to groundwater anticipated by the No Action alternative, increased methane emissions are likely to occur if the leak prone pipes remain (EPA, PRO Fact Sheet No. 402<sup>5</sup>) and the risk of failure is higher among these types of pipes. Therefore, under the no action alternative, PHMSA anticipates an increased risk for the release of methane, both as leaks and during a pipeline failure, which could then result in ground disturbances from construction activities, potentially impacting groundwater.

# **Proposed Action:**

Under the Proposed Action Alternative, MUD would replace 14.47 miles of existing pipelines within the existing ROW in the City of Omaha. The existing gas line would be abandoned, in accordance with PHMSA requirements, and would be purged of natural gas and sealed on each end. The new gas lines would be installed at a depth of 34-84 inches below grade and would be installed by directional drilling construction methods. All disturbed areas

<sup>&</sup>lt;sup>5</sup> Insert Gas Main Flexible Liners at https://www.epa.gov/sites/default/files/2016-

<sup>&</sup>lt;u>06/documents/insertgasmainflexibleliners.pdf#:~:text=Methane%20emissions%20reductions%20come%20from%20lower%20leakage%20rates,pipe%20and %20external%20corrosion%20in%20unprotected%20steel%20piping.</u>

would be re-seeded or paved (as appropriate) and restored to preexisting conditions. As noted above, there are numerous RCRA sites in the project area. For segment GP 2741, the LUST site near the intersection of Parker Street and North 30<sup>th</sup> Street is located downgradient and more than 300 feet from the project. Any contamination from this site would likely flow away from the project area and not be encountered. In Segment GP 2743, a LUST site at 4429 California Street resulted in soil and groundwater contamination, but levels of contamination were below risk-based standards. Due to the depth of the groundwater being approximately 7 feet and flowing to the west, the risk of encountering contamination would be low. Segment GP2761, along 16th Street from Read Street to Camden Street, there are four LUST sites. All of these instances were closed by the Nebraska Department of Environment and Energy due to minimal concentrations of contamination and the depth of groundwater compared to the depth of pipe replacement (2.5 feet to 7 feet), the risk of encountering contamination would be low. MUD would utilize best management practices to minimize the potential impacts to groundwater.

Because MUD utilized manufactured coal gas in its distribution system, there is the potential to encounter coal gas reside. MUD would work with a certified environmental professional to develop a soil management plan, health and safety plan, and any other remedial needs. All pipes and the surrounding area would be inspected prior to any disturbance to the pipe, and if coal residue exists, or any contaminated materials are discovered, work would stop immediately. In addition, the Metropolitan Utilities District will immediately contact the Nebraska Department of Environment and Energy to determine the regulatory requirements needed to address the concern. A Soil Management Plan would be developed and could include soil screening requirements, the oversight or monitoring of soil moving activities, contingency plans for the handling, removing, temporarily storing, characterizing, disposing of contaminated materials, and measures for containing, treating, and disposing of stormwater that may contact exposed soils.

With the inclusion of mitigative measures to assist in the prevention of potential impacts, PHMSA's assessment is that there would be no adverse impacts to groundwater associated with the project. Directional drilling work is not likely to intercept groundwater but if this occurs, MUD would use appropriate dewatering methods. LUST sites exist in or adjacent to the project area, but they would be inspected, and MUD would follow proper protocols and mitigation measures should contamination be encountered. Additionally, there are no brownfield or superfund sites identified in the area where work would occur that could be potentially impacted by the Proposed Action Alternative. PHMSA has not identified any indirect or cumulative effects to groundwater or hazardous materials.

### **Mitigation Measures:**

In the event of a release of hazardous materials/waste into the environment during construction, Metropolitan Utilities District shall notify the appropriate emergency response agencies, potentially impacted residents, and regulatory agencies of the release or exposure.

Metropolitan Utilities District will follow their internal Construction Standard 1.0.3 should contaminated soils be encountered.

Metropolitan Utilities District must inspect pipes previously utilized for coal gas services, prior to any disturbance

to the pipe. If residue is found, proper removal and disposal procedures must be followed to ensure that any residue would not contaminate surrounding areas.

Metropolitan Utilities District shall utilize best management practices which would identify appropriate construction and restoration activities to minimize the potential impacts to groundwater. All impacted areas would be restored to pre-construction conditions.

Soils		
Will all bare soils be stabilized using methods using methods identified in the initial Tier 2 EA worksheet? Will additional measures be required?	Yes, Appropriate materials would be used for permanent soil stabilization.	
Will the project require unique impacts related to soils?	No	

#### **Conclusion:**

PHMSA obtained a custom soil report for the project area from NRCS's Web Soil Survey which indicates that the majority of the project area is comprised of Urban land-Udorthents Pohocco complex, and other urban land complexes, which consist of silty clay loam and silt loam textures. The majority of these soils are well-drained soils where the depth to the water table is found somewhere greater than 80 inches.

## No Action:

Under the No Action alternative, the existing cast iron, steel, and vintage PE pipelines would remain in their current location and soils would remain in their current state and condition. Normal maintenance activities would occur, and pipes would be replaced under failed circumstances. Some soil disturbance would occur during emergency repairs and the affected areas would be restored upon completion. Under either scenario, no adverse impacts to soils would be anticipated under the No Action alternative.

# **Proposed Action:**

MUD would replace 14.47 miles (76,401 LF) of cast iron, steel and vintage PE pipelines within the existing ROW. The new gas lines would be installed at a depth of 34-84 inches below grade and would be installed by directional drilling construction methods. All disturbed areas would be re-seeded or paved (as appropriate) and restored to pre-existing conditions. Therefore, PHMSA's assessment is that there would be no adverse impact to soils resulting from the Proposed Action alternative. Additionally, there are no indirect or cumulative impacts anticipated as MUD would restore all areas to pre-construction conditions.

### **Mitigation Measures:**

Metropolitan Utilities District shall utilize best management practices, as appropriate, to control sediment and erosion during construction which may include silt fencing, check dams, and promptly covering all bare areas. All impacted areas shall be restored to pre-construction conditions.

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? <sup>6</sup> If no, no further analysis is required.	Yes, based on review of the USFWS's Information for Planning and Consultation (IPaC) and NOAA Fisheries website. <sup>[1]</sup> Additionally, Nebraska state resources were inventoried to identify potential state listed species.
Will the project impact any areas in or adjacent to habitat for Federally, listed threatened or endangered species or their critical habitat? If no, provide justification and avoidance measures. If yes, PHMSA will work with the project proponent to conduct necessary consultation with resource agencies.	No

# **Conclusion:**

PHMSA requested an official species list through the USFWS's IPaC website to obtain a list of species under USFWS' jurisdiction. See Appendix F, Biological Resources: Threatened and Endangered Species. The following were identified as potentially occurring within the geographic area:

Tricolored Bat Perimyotis subflavus (proposed endangered) Northern Long-eared Bat Myotis septentrionalis (endangered) Piping Plover Charadrius melodus (threatened) Pallid Sturgeon Scaphirhynchus albus (endangered) Western Prairie Fringed Orchid Platanthera praeclara (threatened) Monarch Butterfly Danaus plexippus (Candidate species)

Additionally, the Nebraska threatened and endangered state species list was reviewed to assist in identifying potential species protected by the State and under the jurisdiction of the Nebraska Game and Parks Commission. A list of state protected species can be found in Appendix F, Biological Resources.

### No Action:

Under the No Action alternative, existing conditions would remain, and normal maintenance activities would occur. The project area is in an urbanized environment and therefore has very limited biological resources present. Additionally, the project area does not contain suitable habitat for listed species, therefore no impacts to biological resources would occur under the No Action alternative.

# **Proposed Action:**

The project area is in an urbanized environment where the areas of disturbance would be mainly within/under existing paved streets. 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. Additionally, the project area does not contain suitable habitat for Tricolored Bat, Northern Long-eared Bat, Western Prairie Fringed Orchid or Monarch Butterfly. Piping Plover and Pallid Sturgeon are not species of concern as their suitable habitat requires large

<sup>&</sup>lt;sup>6</sup> <u>https://ipac.ecosphere.fws.gov/, https://www.fisheries.noaa.gov/species-directory/threatened-endangered</u> and <u>https://outdoornebraska.gov/learn/nebraska-wildlife/threatened-and-endangered-species/</u>

bodies of water, such as rivers or lakes in this region. These features are not present in or immediately adjacent to the project area. Therefore, in accordance with Section 7 of the Endangered Species Act. PHMSA's assessment is that the project would have no effect to federally threatened or endangered species. 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. The tricolored bat is proposed for listing and the project is unlikely to jeopardize this species existence. 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 or other biological resources and that there are no indirect or cumulative impacts anticipated as no impacts to habitat or species would occur.

#### **Biological Resources**

### **Mitigation Measures:**

Metropolitan Utilities District is responsible for abiding by all applicable federal, state and local regulations.

Cultural Resources		
Question	Information and Justification	
Does the project include any ground disturbing	Yes, the project includes ground disturbing activities.	
activities, modifications to buildings or structures, or	No modifications to building or structures or new	
construction or installation of any new aboveground components?	aboveground components are required.	
Is the project located within a previously identified local, state, or National Register historic district or adjacent to any locally or nationally recognized historic properties? This information can be gathered from the local	<ul><li>Yes, a portion of the project would take place within a historical district.</li><li>Bemis Park Historic District</li></ul>	
government and/or State Historic Preservation Office.	Porter-Thomsen House	
	Edgar Zabriskie House	
	G.F. Epeneter Residence Soundars School	
	Saunders School	
	Cold Coast Historic District	
Does the project or any part of the project take place on tribal lands or land where a tribal cultural interest may exist? <sup>8</sup>	No	
Are there any nearby properties or resources that either	Yes. Most of the residences and many of the	
appear to be or are documented to have been	commercial or public use structures were built in the	
constructed more than 45 years ago? <sup>9</sup> Does there	late 1800s to 1960s. Most of the houses were built	
appear to be a group of properties of similar age,	from the 1880s to the 1920s. The Houses are similar in	
design, or method of construction? Any designed	design with some variation.	
landscapes such as a park or cemetery? Please provide		
photographs to show the context of the project area	Designed landscapes include:	

<sup>&</sup>lt;sup>7</sup> Many SHPOs have an <u>online system</u> at <u>https://www.nps.gov/subjects/nationalregister/state-historic-preservation-offices.htm</u> that can tell you previously identified historic properties in your project area. The <u>National Register list</u> at <u>https://www.nps.gov/subjects/nationalregister/database-research.htm</u> can also be accessed online.

<sup>&</sup>lt;sup>8</sup> The SHPO may have information on areas of tribal interest, or a good source is the HUD TDAT website at https://egis.hud.gov/TDAT/.

<sup>&</sup>lt;sup>9</sup> Local tax and property records or historic maps may indicate dates of construction.

and adjacent properties.	
	Prospect Hill Cemetery
	Bemis Park
	Walnut Hill Park
	Clarkson Park
	Levi Carter Park
Has the entire area and depth of construction for the	Yes, the project includes work within the existing
project been previously disturbed by the original	disturbed ROW.
installation or other activities? If so, provide any	
documentation of prior ground disturbances.	
Will project implementation require removal or	No.
disturbance of any stone or brick sidewalk, roadway, or	
landscape materials or other old or unique features?	
Please provide photos of the project area that include	
the roadway and sidewalk materials in the project and	
staging areas.	
Conducion	

**Conclusion:** 

PHMSA must consider the impact of projects for which they provide funding on historic and archeological properties in accordance with Section 106 of the National Historic Preservation Act (Section 106). Pursuant to 36 CFR 800.4(a)(1), the Area of Potential Effects (APE) is defined as the geographic area(s) within which the Undertaking may directly or indirectly affect historic resources. Based on the proposed scope of work, PHMSA has delineated the APE for this project to encompass the existing ROW, which includes the limits of disturbance, staging areas, and any resources that may be particularly susceptible to any potential vibration effects. (See Appendix G, Cultural Resources)

# No Action:

Under the No Action alternative, existing conditions would remain, and normal maintenance activities would occur. These activities could result in ground disturbance that might affect historic resources. However, no federal funding would be applied and therefore Section 106 would not be required.

# **Proposed Action:**

PHMSA staff 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 History Nebraska. PHMSA staff 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. The Bemis Park Historic District (District) is the only NRHP-listed historic property within the APE. While the Gold Coast Historic District is partially located in the APE, only a small portion of ROW is within the APE and no work on structures will occur within the District. There are no known archeological sites in the APE and based on the evaluation in Appendix G, there is low potential for intact significant resources in the APE and no additional survey is needed. See Appendix G, Cultural Resources, for additional information about the APE and the properties identified.

PHMSA's assessment is that the Proposed Project would not alter any of the characteristics or contributing features of the District that qualify it for inclusion in the NRHP. Project work is limited to the replacement of existing pipelines. The Undertaking would not result in lasting physical, visual, or audible effects to the District. In accordance with 36 CFR Part 800.5, PHMSA's assessment is that the Undertaking would have No Adverse Effect on historic properties.

A letter was sent on February 23, 2024, to the Nebraska State Historic Preservation Officer (SHPO), federally recognized tribes with a potential interest in the project area, 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 no adverse effects. PHMSA has requested comments on the Section 106 process, identification of historic properties, and proposed finding within 30 days of receipt of the letter. See Appendix G, Cultural Resources, for more information.

#### **Cultural Resources**

## **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 Metropolitan Utilities District 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.

In the event that unmarked human remains are encountered during permitted activities, all work shall halt and Metropolitan Utilities District 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? If yes, provide a list of	Yes
properties or as an attachment.	Franklin Park
	Bemis Park
	Mercer Park
	Walnut Hill Park
	Clarkson Park
	Levi Carter Park

Conclusion:	
for all projects that might impact a Section 4(f) property.	
property. Further coordination with PHMSA is required	
temporary or permanent uses of the Section 4(f)	
please detail these activities and indicate if these are	
property boundaries of a Section 4(f) property? If so,	
Will any construction activities occur within the	No

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 to identify potential properties that qualify as Section 4(f). Several section 4(f) recreation parks were identified within the project area as potential 4(f) properties. These properties include Franklin Park in Segment 2741. Bemis Park Mercer Park, and Walnut Hill Park, are in Segment GP2742, adjacent to where work would occur. Clarkson Park is located in Segment GP2743 and Levi Carter Park is in close proximity to where work is planned in Segment GP2761 (See Appendix H).

### No Action:

Under the No Action alternative, there would be no change to existing pipeline infrastructure pursuant to federal funding provided by the Program. Therefore, there would be no use of Section 4(f) property under the No Action alternative.

# **Proposed Action:**

Under the Proposed Action alternative, construction activities would not impact the resources identified above. Directional bore methods would be used in the areas where pipelines would traverse the recreation parks. Access to the facilities would remain throughout the duration of construction and no physical use of the parks would occur. In addition, as described in the Noise section of this Tier 2 EA, no adverse impacts associated with construction noise have been identified that could affect the use of these properties. Therefore, PHMSA's assessment that there would be no use of any Section 4(f) resources.

### **Mitigation Measures:**

Metropolitan Utilities District shall ensure that full public access to, and use of Franklin Park, Bemis Park, Mercer Park, Walnut Hill Park, Clarkson Park, and Levi Carter Park is maintained during construction.

Metropolitan Utilities District shall utilize HDD methods to directionally bore the replacement pipeline under

Franklin Park, Bemis Park, Mercer Park, Walnut Hill Park, Clarkson Park, and Levi Carter Park .

Metropolitan Utilities District shall ensure that no bore pits are located in Franklin Park, Bemis Park, Mercer Park, Walnut Hill Park, Clarkson Park, and Levi Carter Park.

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. Main replacements would be completed within existing right-of-way and service replacements would extend outside of right-of-way into adjacent properties. However, easements would not be needed. Appointments would be made with customers to connect new service lines to the new mains.	
Will the project result in detours, transportation restrictions, or other impacts to normal traffic flow or to existing transportation facilities during construction? Will there be any permanent change to existing transportation facilities? If so, what are the changes, and how would changes affect the public?	Yes. Construction activities may result in short stretches of streets being limited to a single lane of traffic during the day however those streets would be unrestricted by the end of each workday. Typically, restrictions would be due to onsite equipment rather than paving cuts and may occur both during gas main and gas service installations. Gas main abandonment activities would require paving cuts in many situations which would result in streets being limited to single lanes of traffic for several consecutive days until the City of Omaha's local paving contractor has completed paving replacement work.	
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?	No. Streets would not completely closed to through traffic during construction activities so emergency response providers would have full transportation access at all times. If there is an unforeseen circumstance where a street does require a short closure, MUD would coordinate with the appropriate emergency response providers and they would be properly notified in advance of the work.	

# Conclusion:

The project is located in the City of Omaha, Nebraska, an urbanized area consisting of commercial and residential areas.

# No Action:

Under the No Action alternative, the cast iron, steel and vintage PE pipes would remain in their current location and no changes to land use would occur. Normal maintenance activities would occur, and pipes would be replaced under failed circumstances.

# **Proposed Action:**

MUD is proposing to replace pipeline infrastructure within the existing ROW and would not include adding pipeline to serve new 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. Single lane closures are anticipated during construction, but traffic flows would be unrestricted by the end of each workday. Consideration of emergency response vehicles, travel restrictions, and other impacts to local transportation are anticipated to be temporary and would only last for the duration of construction. Minor disruptions to on-street parking may occur, but access to existing residences would not be restricted. MUD would coordinate with the appropriate local and state agencies regarding interruptions to traffic and detours and appropriate protocol would be used where traffic would be temporarily diverted to one-lane. MUD would notify emergency services of the scheduled work and traffic implications of the work that would be conducted and would use various methods of communication to notify any potentially impacted residents, business owners, and the general public. Therefore, because the work consists of the replacement of existing pipeline, would not convert any new areas into a different use and impacts would only occur during construction, PHMSA's assessment is that there would be no impact to land use.

PHMSA considered the cumulative effects of this action with ongoing and planned transportation related construction projects that could cumulatively impact land use and transportation. All municipalities and businesses must abide by the same requirements and coordinate with state and local agencies on any disruptions to normal traffic patterns. Through this coordination, the overall cumulative effects of multiple projects occurring would be minimized by planning and scheduling efforts with responsible agency oversight. PHMSA's assessment is that land use changes are not anticipated as the projects are occurring in an urbanized area that is built out and therefore would not change the existing residential or commercial use.

### Land Use and Transportation

### **Mitigation Measures:**

Metropolitan Utilities District shall maintain traffic flows to the extent possible and use traffic control measures to assist traffic negotiating through construction areas, as needed.

Metropolitan Utilities District shall coordinate with state and local agencies regarding detours and/or routing adjustments during construction and will notify any potentially impacted residents and/or business owners.

Metropolitan Utilities District shall have a traffic control plan in place, prior to construction, and coordinate with the appropriate agency well in advance of any impacted emergency services or essential agency functions.

Noise and Vibration						
Question	Information and Justification					
Will the project construction occur for longer than a	No. The overall construction time on a given project					
month at a single project location?	would last longer than one month; however the					
	impact to any specific street or individual customer					
	would be limited to several days within that overall					

	construction timeline.
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. Construction activities will be limited to normal weekday business hours.
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, Municipal Code City of Omaha, Nebraska Codified through Ordinance No. 43407 enacted May 2, 2023. Chapter 17 Noise Control.
Will construction activities require large bulldozers, hoe ram, or other vibratory equipment within 20 ft of a structure?	No

## Conclusion:

The project is located in the City of Omaha. The ambient noise in the project area consists of a combination of environmental noise from road traffic, construction, industry, the built environment, population density and other sources. There are several sensitive noise receptors (residences, schools, etc.) located adjacent to the streets where work would occur.

# No Action:

Under the No Action alternative, the project would not move forward and the pipelines along the designated streets in the project area would not be replaced at this time, and likely would not be replaced all at once. It is likely that these pipelines would need to be repaired or replaced due to leaks or deteriorating conditions in the future. If replacement or repairs occur under emergency conditions, noise from construction equipment would add to that of the current ambient noise and would be of a shorter duration.

# **Proposed Action:**

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. Pipeline installed by directional bore methods would use drill rigs, excavators, reamers, and similar equipment to install pipeline by horizontal directional drilling. Sensitive noise receptors are likely to experience temporary noise impacts in the vicinity of the work; however, PHMSA's assessment is that the noise impacts would be minor and temporary and no adverse vibration impacts would result from the proposed work. MUD has committed to abiding by the City of Omaha's Municipal Code for noise control which will ensure that noise resulting from pipeline replacement activities would not be excessive and would abide with local ordinances.

PHMSA considered the cumulative effects of this action with ongoing and planned transportation related construction projects that could cumulatively have an impact on the noise and vibration impacts within the City of Omaha. Rural areas often have paving, drainage improvement, and other construction or maintenance projects on going which could occur within or near the project area which would contribute to increased noise.

These construction and maintenance projects could occur at the same time as the Proposed Action alternative and would contribute to an increase in cumulative noise effects during construction. However, adhering to state and local noise ordinances would ensure the project does not cause cumulatively more than minor adverse noise or vibration impacts.

#### **Noise and Vibration**

**Mitigation Measures:** 

Metropolitan Utilities District shall adhere to the City of Omaha's noise ordinances.

Environme	ntal Justice
Question	Information and Justification
Using the EPA EJScreen or census data <sup>10</sup> , is the project located in an area of minority and/or low-income individuals as defined by USDOT Order 5610.2(c)? If so, provide demographic data for minority and/or low- income individuals within ½ mile from the project area as a percentage of the total population.	Based on review of socioeconomic data using EPAs EJScreen tool, the population residing within the general project area for the 4 segments where work would occur contains 53% low income and 54% 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. Gas service would be temporarily disrupted when the customer's service is switched over from the old gas main to the new gas main and if the customer's meter is relocated. This disruption would generally be limited to a couple hours, at most, and the customer's appliances would be relit upon completion of the work. For infrastructure replacement projects similar to this, the MUD communications team notifies customers of the pending work through mailers, website, social media such as Nextdoor, and direct conversations with applicable homeowners associations. This communication also provides customers with a point of contact for the project.
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. In areas where the population predominantly speaks Spanish, the written communication associated with a project is provided in Spanish. All communication, regardless of the area, is provided with instructions on how to contact our internal Spanish speaking representatives. In addition, we have a contract with Lionbridge for their interpretation services. Lionbridge

<sup>10</sup> <u>https://www.census.gov/quickfacts/fact/table/US/PST045222</u>

provides interpretation services in over 380 languages.

### 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.

PHMSA reviewed socioeconomic data using the EPAs EJScreen and found the population residing within the project area in the City of Omaha contains 53% low income and 54% minority populations. The percentage of these populations is above the Douglas County average of 27% low income and 32% minority populations. See Appendix I, Environmental Justice, for socioeconomic data.

# No Action:

Under the No Action alternative, existing and planned pipeline activities, including construction and maintenance activities, would continue unchanged. MUD would continue to use leak prone pipe material that could lead to safety incidents and service disruptions. Additionally, if a pipeline segment is not repaired or replaced prior to failure, it is likely to be associated with even more emissions under the No Action alternative. Thus, emissions benefits to the community associated with repairing or replacing existing pipelines with updated material would not be achieved and the incident risks and leaks would remain. There may be some degree of air pollution associated with construction activities for maintenance and repairs of existing pipelines under the No Action alternative, either through planned repair or replacement efforts or unplanned, emergency repairs or replacements.

# **Proposed Action:**

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. The point of contact would meet with each customer prior to the beginning of the project to coordinate an acceptable outside meter location and to answer any questions the customer may have. During a project, customers would be able to approach our construction crews and ask specific questions on an as-needed basis. Traffic impacts 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. The project would have an overall beneficial effect on environmental justice populations and would not result in indirect or cumulative impacts.

**Environmental Justice** 

#### Mitigation Measures:

Metropolitan Utilities District shall provide advanced notification of service disruptions and construction schedule to all affected parties including residents and businesses adjacent to the project area.

Saf	ety
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. MUD has a public awareness program in place.
Does the project area include pipes prone to leakage?	Yes. The pipe proposed for replacement as part of this project includes cast iron that was installed in the late 1800s and early 1900s. Cast iron pipe is known to leak industry-wide, and MUD has experienced this within their 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, construction safety measures would be implemented to protect health and minimize hazardous releases during construction. Safety would include personal protection, site monitoring, and site- specific safety plans.
Has an assessment of the project been performed to analyze the risk and benefits of implementation?	Yes. MUD has had a formal infrastructure replacement program since 2008 which has specifically targeted the replacement of cast iron pipe. As this pipe has been eliminated, MUS has seen the total number of leaks decrease over this time. MUD's goal is to eliminate all cast iron gas pipe from their system to assist in decreasing leaks even further.

# Conclusion:

The proposed project would replace existing cast iron, steel and vintage PE pipes. Pipelines that are known to leak based on the material include cast iron, bare steel, wrought iron, and historic plastics with known issues (PIPES Act of 2020). PHMSA establishes safety regulations for all pipelines (49 CFR Parts 190-199). In 2011, following major natural gas pipeline incidents, DOT and PHMSA issued a Call to Action to accelerate the repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure. Among other factors, pipeline age and material are significant risk indicators. Pipelines constructed of cast and wrought iron, as well as bare steel, are among the pipelines that pose the highest risk. PHMSA continues to encourage legacy pipeline repair or replacement to increase the safety of these segments of the gas distribution systems. Pipeline incidents can result in death, injury, property damage, and environmental damage.

No Action:

Under the No Action alternative, the cast iron would remain in their current location, state, and condition. Normal maintenance activities would occur, and pipes would be replaced under failed circumstances. Safety risks resulting from existing leak prone pipes remaining in place would persist until the existing leak-prone pipes are replaced.

### **Proposed Action:**

The proposed project is necessary to replace leak prone pipes. This replacement is in alignment with MUD's DIMP plan, increasing the overall safety of the community.

The project would reduce the risk profile of existing pipeline systems prone to methane leakage and would also benefit disadvantaged 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 MUD's infrastructure.

Safety

### **Mitigation Measures:**

Metropolitan Utilities District shall ensure their DIMP procedures are updated as necessary, the work is constructed in accordance with industry best practices and the project would comply with all local, state, and federal regulations, including those for safety.

Metropolitan Utilities District shall use standard construction safety methods and procedures; and conduct regular safety audits of crews performing work in the field and subsequent follow-up reporting and/or training, as required.

### III. <u>Public Involvement</u>

On November 9, 2022, PHMSA published a Federal Register notice (87 FR 67748) with a 30-day comment period soliciting comments on the "Tier 1 Nationwide Environmental Assessment for the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program." During the 30-day comment period, PHMSA received one comment letter from the APGA on various aspects of the program and air quality related analysis in the EA on December 9, 2022. This APGA letter is available for public review at the Docket No: PHMSA-2022-0123<sup>11</sup>. PHMSA reviewed the comment letter and determined the comments were not substantial and did not warrant further analysis. One comment provided by the APGA indicated that the majority of construction methods used for pipe replacements would be replacement by open trenching and that some may want to abandon the existing pipe rather than removing it for replacement. Any departures from methods described in the Tier 1 EA will require additional documentation from the project proponent, as reflected in this Tier 2.

As part of this Tier 2, PHMSA is soliciting public comments through a public comment period. This Tier 2 is available on PHMSA's website where comments can be submitted to the contact noted below. PHMSA will accept public comments for 30 days on this Tier 2. PHMSA will consider comments received and incorporate them in the decision-making process. Consultation with appropriate agencies on related processes, regulations, and permits is ongoing. Please submit all comments to: PHMSABILGrantNEPAComments@dot.gov and reference NGDISM-FY22-EA-2023-31 in your response.

<sup>&</sup>lt;sup>11</sup> <u>https://www.regulations.gov/document/PHMSA-2022-0123-0002/comment</u>

Appendix A

Project Map

# Metropolitan Utilities District - Omaha, Nebraska - Project Area Map





**Project Area** 



Douglas County NE, Pottawattamie County, IA, Earthstar Geographics, County of Douglas, NE, Pottawattamie County, Iowa, Iowa DNR, Nebraska



Appendix B Air Quality

# Methane Leak Rate pre/post Construction

#### Pipeline Material Type Average Rate Miles Current Methane Leak (kg/mile/year) Rate (kg/year) **Cast Iron** 2,877.35 14.3 41,353 Plastic 109.85 0.29 32.7 Protected steel 77.90 0.44 34.5 **Total Methane Leak Rate** 41,420 20-year Methane Emissions 828,417

Table 1 No Action Leak Rate

#### Table 2 Proposed Action Leak Rate

Pipeline Material Type	Average Rate (kg/mile/year)	Miles	New Methane Leak Rate (kg/year)		
Plastic	109.85	14.47	1,660		
Year 1 Methane Reduction		39,017			
Total Annual Methane R		39,760			
20-year Methane Reduct		794,473			

# **Methane Blowdown Estimate**

Equation 1 was used to estimate blowdown emissions in MCF, assuming a pipeline diameter (d) and pressure (P).

$$E_{blowdown} = V \times \frac{P_{pipe} + P_{atm}}{P_{atm}} \quad (1)$$

Where the pipeline volume (V) is calculated by multiplying the cross-sectional area of the pipe by the length of pipeline (L):

$$V = \pi \times \frac{d^2}{4} \times L \tag{2}$$

Table 3 Proposed Action - Methane Blowdown

### Segment 2741

Equation Inputs	Pipe Section					
Diameter (inches)	6	4	2	4		
Blowdown Pressure	0.25	0.25	0.25	0.25		
Length of Blowdown (feet)	3450	13880	200	10		
Blowdown (MCF)	0.69 1.23 0.004 0.00					
Total MCF	1.92 (46.17 kg)					

#### Segment 2742

Equation Inputs	Pipe Section								
Diameter (inches)	12	10	8	6	4	3	2	2	4
Blowdown Pressure	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Length of Blowdown (feet)	550	3350	660	1610	18210	330	120	150	150
Blowdown (MCF)	0.44	1.86	0.23	0.32	1.62	0.02	0.0027	0.0033	0.01
Total MCF	4.51 (138 kg)								

# Segment 2743

Equation Inputs	Pipe Section					
Diameter (inches)	6	4	4	6	4	4
Blowdown Pressure	0.25	0.25	0.25	0.25	0.25	0.25
Length of Blowdown (feet)	1300	16930	70	300	1030	1180
Blowdown (MCF)	0.26	1.50	0.01	0.06	0.09	0.10
Total MCF	2.02 (62 kg)					

# Segment 2761

Equation Inputs	Pipe Section										
Inside Diameter =	16	12	4	12	16	12	8	2	8	4	2
inches											
Blowdown Pressure	10	10	10	10	10	10	10	10	10	10	10
(psi)											
Length of Blowdown =	4614	8908	1897	6	131	223	8	485	9	13	18
feet											
Blowdown MCF	10.8	11.7	0.27	0.007	0.30	0.29	0.004	0.017	0.005	0.0019	0.0006
Total MCF	23.4 (718 kg)										

Appendix C

Water Resources

# Metropolitan Utilities District - Omaha, Nebraska - Water Resources







U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov, Douglas County NE, Pottawattamie County, IA,

# Metropolitan Utilities District - Omaha, Nebraska - Water Resources







U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands\_team@fws.gov, Esri Community Maps Contributors, County of

# Metropolitan Utilities District - Omaha, Nebraska - Water Resources - Floodplain



# January 12, 2024

Flood Hazard Zones

1% Annual Chance Flood Hazard

💋 Regulatory Floodway

0.2% Annual Chance Flood Hazard

Area of Undetermined Flood Hazard

Future Conditions 1% Annual Chance Flood Hazard

Area with Reduced Risk Due to Levee

Project Area

Douglas County NE, Pottawattamie County, IA, Maxar, County of Douglas, NE, Pottawattamie County, Iowa, Iowa DNR, Nebraska Game & Parks

Special Floodway

# Metropolitan Utilities District - Omaha, Nebraska - Water Resources



# February 20, 2024

Flood Hazard Zones

1% Annual Chance Flood Hazard

Kegulatory Floodway

0.2% Annual Chance Flood Hazard

Future Conditions 1% Annual Chance Flood Hazard

Area of Undetermined Flood Hazard

Area with Reduced Risk Due to Levee

Project Area



Esri Community Maps Contributors, County of Douglas, NE, Pottawattamie County, Iowa, Iowa DNR, Nebraska Game & Parks Commission, Esri,

Special Floodway
Appendix D

Hazardous Materials

## Metropolitan Utilities District - Omaha, Nebraska - Hazardous Materials















Webster St







Gold Coast Historic District





TIER 2 SITE SPECIFIC ENVIRONMENTAL ASSESSMENT SEGMENT GP2743 FIGURE 3 Appendix E: Soil Map

41° 19' 53" N

41° 19' 53" N



41° 15' 11" N

55' 7" W 95



Map Scale: 1:42,500 if printed on A portrait (8.5" x 11") sheet.

0 2000 4000 80 Map projection: Web Mercator Corner coordinates: WGS84

2000

1000

500

41° 15' 11" N

95° 59' 51" W

Web Soil Survey National Cooperative Soil Survey

8000

Meters 3000

Feet 12000

1/16/2024 Page 1 of 3

# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7880	Onawa silty clay, occasionally flooded	1.7	0.3%
8035	Marshall-Contrary silty clay loams, 2 to 7 percent slopes	0.9	0.2%
8140	Pohocco-Judson complex, 1 to 30 percent slopes	0.7	0.1%
8157	Contrary-Monona-Ida complex, 6 to 17 percent slopes	0.3	0.1%
8486	Gilliam-Onawa complex, occasionally flooded	0.1	0.0%
9711	Urban land-Udarents complex, 0 to 16 percent slopes	4.6	0.9%
9712	Urban land-Udarents- Udorthents complex, 0 to 23 percent slopes	1.7	0.3%
9713	Urban land-Udorthents complex, 0 to 10 percent slopes, occasionally flooded	134.6	25.5%
9714	Urban land-Udorthents complex, 0 to 14 percent slopes		0.0%
9717	Urban land-Udorthents complex, summit, 0 to 8 percent slopes	0.6	0.1%
9718	Urban land-Udorthents-Judson complex, 0 to 11 percent slopes	0.1	0.0%
9719	Urban land-Udorthents- Marshall complex, 0 to 9 percent slopes	102.7	19.4%
9720	Urban land-Udorthents- Pohocco complex, 0 to 16 percent slopes	279.9	53.0%
Totals for Area of Interest		528.2	100.0%

Appendix F

**Biological Resources** 



# United States Department of the Interior

FISH AND WILDLIFE SERVICE Nebraska Ecological Services Field Office 9325 B South Alda Rd., Ste B Wood River, NE 68883-9565 Phone: (308) 382-6468 Fax: (308) 384-8835



In Reply Refer To: January 16, 2024 Project Code: 2024-0036688 Project Name: Metropolitan Utilities District - Omaha, Nebraska Pipeline Replacement Project

# Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <a href="https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf">https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf</a>

**Migratory Birds**: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <u>Migratory Bird Permit | What We Do | U.S. Fish & Wildlife</u> <u>Service (fws.gov)</u>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <a href="https://www.fws.gov/library/collections/threats-birds">https://www.fws.gov/library/collections/threats-birds</a>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <u>https://www.fws.gov/partner/council-conservation-migratory-birds</u>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

# **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Nebraska Ecological Services Field Office** 9325 B South Alda Rd., Ste B

Wood River, NE 68883-9565 (308) 382-6468

## **PROJECT SUMMARY**

Project Code:2024-0036688Project Name:Metropolitan Utilities District - Omaha, Nebraska Pipeline Replacement<br/>ProjectProject Type:Distribution Line - Maintenance/Modification - Below GroundProject Description:Natural Gas Pipeline Replacement project

Project Location:

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@41.2730928,-95.9597170380026,14z</u>



Counties: Douglas County, Nebraska

## **ENDANGERED SPECIES ACT SPECIES**

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/10515</u>	Proposed Endangered
BIRDS NAME	STATUS
<ul> <li>Piping Plover Charadrius melodus</li> <li>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.</li> <li>There is final critical habitat for this species. Your location does not overlap the critical habitat.</li> <li>Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></li> </ul>	Threatened

### FISHES

NAME	STATUS
Pallid Sturgeon Scaphirhynchus albus	Endangered
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/7162</u>	

### INSECTS

#### NAME

Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>

## FLOWERING PLANTS

NAME

Western Prairie Fringed Orchid *Platanthera praeclara* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/1669</u>

## **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

STATUS Candidate

STATUS

Threatened

## **IPAC USER CONTACT INFORMATION**

Agency: Department of Transportation

Name: Jason Holloman

Address: 220 Binney Street

City: Cambridge

State: MA

Zip: 02142

Email jason.holloman@dot.gov

Phone: 6174943048

## LEAD AGENCY CONTACT INFORMATION

Lead Agency: Pipeline and Hazardous Materials Safety Administration

#### NEBRASKA THREATENED AND ENDANGERED SPECIES

	Common Name	Scientific Name	State Status	Federal Status
BIRDS	Eskimo Curlew*	Numenius borealis	Endangered	Endangered
	Whooping Crane	Grus americana	Endangered	Endangered
	Interior Least Tern	Sternula antillarum athalassos	$Endangered^{\alpha}$	
	Eastern Black Rail ^	Laterallus jamaicensis jamaicensis	Threatened	Threatened
	Piping Plover	Charadrius melodus	Threatened	Threatened
	Rufa Red Knot ^	Calidris canutus rufa	Threatened	Threatened
	Thick-Billed Longspur	Rhynchophanes mccownii	Threatened	
	Mountain Plover	Charadrius montanus	Threatened	
MAMMALS	Black-footed Ferret*	Mustela nigripes	Endangered	Endangered
	Swift Fox	Vulpes velox	Endangered	
	Gray Wolf ^	Canis lupus	Endangered	Endangered
	Northern Long-eared Bat	Myotis septentrionalis	Endangered	Endangered
	Southern Flying Squirrel	Glaucomys volans	Threatened	
FISH	Pallid Sturgeon	Scaphirhynchus albus	Endangered	Endangered
	Topeka Shiner	Notropis topeka	Endangered	Endangered
	Sturgeon Chub	Macrhybopsis gelida	Endangered	
	Blacknose Shiner	Notropis heterolepis	Endangered	
	Lake Sturgeon	Acipenser fulvescens	Threatened	
	Northern Redbelly Dace	Chrosomus eos	Threatened	
	Finescale Dace	Chrosomus neogaeus	Threatened	
INSECTS				Threatened
	American Burying Beetle	Nicrophorus americanus	Ihreatened	4(d) rule
	Salt Creek Tiger Beetle	Cicindela nevadica lincolniana	Endangered	Endangered
	Timber Dettlesnels	Crotalus houridus	Thusatauad	
REPTILES	Mostern Massachurg	Crotalus horridus	Threatened	
			Inreateneu	
MUSSELS	Scalosholl Mussol	Lantadag lantadan	Endangorod	Endangered
IVIOSSELS			Endangered	Endangered
PLANTS	Blowout Penstemon	Penstemon havdenii	Endangered	Endangered
	Colorado Butterfly Plant	Gaura neomexicana ssp. coloradensis	Endangered	Lindingered
	Saltwort	Salicornia rubra	Endangered	
	Western Prairie Fringed Orchid	Platanthera praeclara	Threatened	Threatened
	Ute Ladies'-tresses	Spiranthes diluvialis	Threatened	Threatened
	American Ginseng	Panax auinauefolius	Threatened	
	Small White Lady's Slipper	Cypripedium candidum	Threatened	

\* There are historical records of these species in Nebraska, but no known recent records or extant populations in Nebraska.

 $^{\alpha}\,$  Status in Nebraska is under review.

^ There are recent (not historical) records of these species in Nebraska. However, there are no known breeding populations and/or Nebraska does not provide an important stopover or migratory path for these species.

**32 State-listed Species:** 10 State & Federal Listed Endangered 6 State-listed Endangered 6 State & Federal Listed Threatened 10 State-listed Threatened Appendix G

Cultural Resources



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

1200 New Jersey Avenue, SE Washington, DC 20590

February 23, 2024

Jill Dolberg State Historic Preservation Officer History Nebraska 1500 R Street Lincoln, NE 68508-1651

Section 106 Consultation: PHMSA Pipeline Replacement Project in the City of Omaha, Douglas County, Nebraska Grant Recipient: Metropolitan Utilities District Project Location: Omaha, Nebraska

Dear Jill Dolberg:

The Pipeline and Hazardous Materials Safety Administration (PHMSA) provides funds authorized under the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program. PHMSA proposes to provide funds to the Metropolitan Utilities District (MUD) for the replacement of pipeline (Undertaking). PHMSA is initiating consultation for the above referenced Undertaking in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated implementing regulations, 36 CFR Part 800 (Section 106).

#### **Project Description/Background**

MUD is proposing to replace 14.47 miles of cast iron pipeline that was installed between 1888 and 1965. Main line replacements and some service line replacements are included in this project. Existing meter sets located outside of the buildings may be replaced, and meter sets that are still inside buildings will be moved outside.

The project is divided into 4 segments:

- Segment GP2741 would include replacing 16,640 feet of cast iron pipe and is located from North 28th Street to North 36th Street and from Patrick Ave to Hamilton Street.
- Segment GP2742 would include replacing 24,990 feet of cast iron pipe and is located from North 28th Street to North 40th Street and from Charles Street to Cuming Street.
- Segment GP2743 would include replacing 20,760 feet of cast iron pipe from North 40th Street to North Saddle Creek Road and Cuming Street to Dodge Street.
- Segment GP2761 would be include replacing 14,000 feet of cast iron pipe from North 16th Street and Pinkney Street to North 24th Street and Florence Boulevard

Replacement of mains and services will occur within 3 to 15 feet of the existing pipe at a depth of 34 to 84 inches. All replacement lines will be installed using horizontal directional drilling (HDD), which will include only limited direct open trenching at the entry and exit points for drilling. All main installations will occur under paved roadway surfaces. No main installation will occur in grassy or unpaved areas.

All Project segments will require meter replacement and/or relocation. If the existing meter is located outside of the building, there will be no alteration to any buildings or structures. If the existing meter is located inside of the building, it will be relocated outside. In some cases, a meter mounting bracket will be installed to the foundation of a building and a pipe will be installed from the new meter location into the building to reconnect the customer's internal gas piping.

All work will take place within the existing ROW or utility easement and all main installations and services are to be installed under paved or concrete surfaces using HDD. The exact locations of staging areas for the project are unknown. Project location maps are enclosed in **Attachment A**. Photographs showing the overall character of the project areas are included in **Attachment B**.

#### Area of Potential Effects (APE)

Pursuant to 36 CFR 800.4(a)(1), the Area of Potential Effects (APE) is defined as the geographic area(s) within which the Undertaking may directly or indirectly affect historic resources. Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines within existing ROW or utility easements and using HDD method for all replacements, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW and parcels where meter replacement or relocation will occur, which includes the limits of disturbance, and the limits of any potential visual, audible or vibration effects. The APE extends to the depth of proposed ground disturbance of up to 84 inches below grade. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas throughout the City of Omaha. The APE is shown on the maps in **Attachment A**.

#### **Identification and Evaluation**

To identify historic properties in the APE, U.S. Department of Transportation (U.S. DOT) staff who meet the Secretary of the Interior's (SOI) Professional Qualification Standards reviewed available information on previously identified historic properties in the APE, including the National Register of Historic Places (NRHP) database and data gathered from History Nebraska (State Historic Preservation Office) and the USDA Web Soil Survey. U.S. DOT staff 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.

#### Historic Architecture

#### National Register of Historic Places-Listed and -Eligible Properties

NRHP-listed historic properties located within the APE include the Porter-Thomsen House, the Edgar Zabriskie House, the Saunders School, portions of the Omaha Park & Boulevard System and a very small portion of the APE intersects the northwestern-most portion of the Gold Coast Historic District. No portion of the APE overlaps with any building, structure or contributing property within the Gold Coast Historic District, therefore it is not further described here. Photographs of the Edgar Zabriskie House and the Saunders School can be found in **Attachment B**.

The Bemis Park Landmark Heritage District and the G.F. Epeneter Residence at 502 North 40th Street are local landmarks eligible for listing in the NRHP. The location of the NRHP-listed and NRHP-eligible historic properties is shown on the APE map in **Attachment A**.

The Porter-Thomsen House, located at 3426 Lincoln Boulevard, is architecturally significant as a prominent product of the Georgian Revival style from the early years of its use in Nebraska. The interior is highly significant to the state for the hand painted ceilings, walls, and friezes by Gustave A. Fuchs - a rare collection of well-preserved landscape and decorative murals. The siting of the house takes maximum advantage of a long, steeply sloping lot with a southern exposure prominently overlooking Lincoln Boulevard and Bemis Park.

The Edgar Zabriskie House, located at 3524 Hawthorne Avenue, is significant to the architectural heritage of the Omaha area. It is one of the two best Eastlake-influenced houses in the city and one of the few remaining Queen Anne houses in Omaha. Built during a period of economic prosperity, the Edgar Zabriskie House exhibits fundamental Queen Anne elements such as different wall surfaces, multiple high roofs, a round turret, straight and round-arched windows, and prominent gables and chimneys.

The Saunders School, located at 415 N. 41<sup>st</sup> Avenue is an early example of architect John Latenser's interest in neo-classical form and detail, an architectural style that would characterize his later commissions for many of Omaha's most important civic and commercial buildings. The structure was named for Alvin Saunders, Nebraska's last territorial governor before statehood in 1867. Built-in 1899, Saunders School served the community as a public school facility for more than 80 years. The building was renovated for use as apartments in the late 1980s.

The Omaha Park & Boulevard System, located throughout the City of Omaha, encompasses 18 contributing parks, six noncontributing parks, approximately 19 boulevards, and approximately 1,650 acres of park land. It is eligible for the NRHP under Criterion A in the areas of community planning and development and recreation for its role in providing green space and recreational opportunities to residents between 1889 and 1961. It is also listed under Criterion C in the area of landscape architecture due to its exemplary landscape system design by H.W.S. Cleveland, a nationally recognized landscape architect. Character-defining features of the system include the natural terrain and topography, grading, width, alignment, setbacks, connectivity of the boulevards, and vegetation.

The Bemis Park Landmark Heritage District is notable for its mix of the late nineteenth and early twentiethcentury structures and its curvilinear, tree-lined streets. The uniquely platted area was the first subdivision in Omaha to be laid out with respect to the topography rather than the more typical grid pattern common to frontier cities of the time. The architecture of the district is quite varied and includes good examples of Queen Anne, Arts and Crafts, and Neo-Classical style buildings as well as vernacular structures. The district includes a park donated to the city by the subdivision's developer George Bemis and designed as a part of the then developing Omaha parks and boulevard system.

Though less elaborate than the Gold Coast Historic District residences to the south and east of this location, the dwellings along North 40th Street represent the homes of many wealthy Omaha businessmen and community leaders. Among those was the builder of this house, Gustave F. Epeneter, owner of the Eagle Cornice Works. Built-in 1905, the construction of the G.F. Epeneter House coincided in time with the development of the nearby St. Cecilia's Cathedral. The two-story classic-box structure is representative of a style found in many cities which experienced a burst of population growth at the turn of the century. What sets the G.F. Epeneter House apart from others of this type is its extensive stamped and wrought iron exterior details and a variety of ornamental galvanized and stamped tin interior surfaces.

#### Identification of Additional Resources

Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines and service lines within the existing ROW and utility easements and the replacement or relocation of existing gas meters, the identification effort for additional above-ground historic properties focused on identifying properties that are susceptible to the any limited vibration, physical, or visual effects of the Undertaking and could experience diminished integrity.

A review of History Nebraska's Historic Surveys Map found that most of the APE has been covered under three previous reconnaissance surveys: Mead & Hunt's 2002 *Reconnaissance Survey of Selected Neighborhoods in Omaha, Nebraska*; Mead & Hunt's 2003 *Reconnaissance Survey of Selected Neighborhoods in Omaha, Nebraska*; and Alley Poyner Macchietto Architecture's 2016 *Reconnaissance Level Survey for North Omaha.* All three of these surveys identified properties potentially NRHP-eligible under Criterion C; however, the surveyed areas also included areas outside the APE for this Undertaking. The scanned survey reports available through History Nebraska's Historic Surveys Map do not include legible maps showing the locations of each property, and no other online mapping is available to show which of these properties are located within the APE.

Mead & Hunt's 2002 survey area is generally bounded by Ames Avenue to the north, Western Avenue/Hamilton Street to the south, N. 72<sup>nd</sup> Street to the west, and N. 30<sup>th</sup> Street to the east. The survey documented and evaluated 1,039 properties for the NRHP, most of which are late nineteenth and early twentieth century vernacular and period revival style houses; commercial, educational, and religious resources; and post-World War II housing. Of those properties, 12 individual properties and one historic district were identified as potentially eligible for the NRHP.

Mead & Hunt's 2003 survey area is generally bounded by Hamilton Street to the north; Leavenworth Street, Pacific Street, and Ed Creighton Avenue to the south; S. 52<sup>nd</sup> Street and N. Saddle Creek Road to the west; and N. 30<sup>th</sup> Street and S. 29<sup>th</sup> Street to the east. The survey documented and evaluated 462 properties for the NRHP, most of which are late nineteenth and early twentieth century residences as well as commercial, educational, and religious resources. Of these properties, 21 individual properties and one historic district were identified as potentially eligible for the NRHP.

Alley Poyner Macchietto Architecture's 2016 survey area is generally bounded by Ames Avenue to the north; Izard Street, Cuming Street, and Nicholas Street to the south; N. 30<sup>th</sup> Street to the west; and the edge of development along the bluff line of the Missouri River to the east. The survey documented and evaluated 602 properties for the NRHP, most of which are vernacular and high-style residences, commercial buildings, and industrial buildings. Of these properties, 87 individual properties and one historic district were identified as potentially eligible for the NRHP.

While some of the properties covered under these previous surveys may no longer retain sufficient integrity since they were inventoried, it is likely several other properties within the APE are eligible for listing in the NRHP in addition to the properties noted above. Due to the difficulty in discerning which NRHP-eligible properties covered under these surveys are located within the APE, and because of the limited potential effects of the Undertaking, PHMSA is not including a full list of NRHP-eligible properties within the APE. However, for the purposes of this consultation, PHMSA is assuming that several other NRHP-eligible properties are within the APE that are eligible under Criterion C and have the potential to be affected by the limited visual effects of Undertaking.

#### Archaeology

A file search was conducted by History Nebraska on behalf of PHMSA to identify the presence of previously recorded archaeological sites and previously conducted archaeological surveys within the APE and one quarter of a mile of the APE. As a result, no archaeological sites were identified within the APE and two archaeological surveys were identified within the APE. Within one quarter of a mile of the APE, no archaeological sites or surveys were identified.

An examination of Web Soil Survey data within the APE reveals seven soil types. These types, along with their drainage class, slope, and APE percentage are detailed in Table 1. Well drained and moderately well drained soils can be indicative of human habitation during both the precontact and historic periods. Approximately 72 percent of soils within the APE are well draining soil types. However, approximately 98 percent of the APE is composed of Urban Land, which is typically indicative of areas where the soil has been altered or obscured by buildings, industrial areas, paved parking lots, sidewalks, roads, and railroad yards. Typically slopes greater than 15 percent are not suitable for human occupation, and soil types within the APE vary from 0 to 23 percent slope. The City of Omaha is primarily within the Missouri River watershed. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

Soil Type	Drainage Class	Slope	Percent of APE
Onawa silty clay, occasionally flooded	Somewhat poorly drained	0-2%	0.3%
Marshall-Contrary silty clay loams	Well drained	2-7%	0.2%
Urban land-Udarents complex	N/A	0-16%	0.9%
Urban land-Udarents-Udorthents complex	N/A	0-23%	0.3%
Urban land-Udorthents complex	Occasionally flooded	0-10%	25.5%
Urban land-Udorthents-Marshall complex	Well drained	0-9%	19.4%
Urban land-Udorthents-Pohocco complex	Well drained	0-16%	53.0%
Other			0.3%

Table 1. Soil Types within the APE

The entire project area was disturbed by initial grading and construction of structures and streets and by installation of the original gas line between 1888 and 1965. Most of the APE is limited to the existing ROW, some of which has been previously disturbed up to the proposed ground disturbance depth of 84 inches due to prior pipeline installation. Additionally, other utilities in the ROW such as sewer mains and water mains were installed deeper than the new gas pipe will be installed. At the time these areas were developed utilities were installed via open trenches, which would have disturbed more soil than the proposed construction methods. All buildings within the project area have a sewer and water service running laterally, which were installed at a depth of 5 feet. In recent years, many areas in Omaha have had new communication lines installed as the technology in those industries has progressed. These lines are installed via directional boring and are also typically installed deeper than gas pipelines, which accounts for additional ground disturbance. For this project, all work will be done using the HDD method, which reduces ground disturbance. Due to the lack of significant archaeological sites in the vicinity of the APE and the previous ground disturbance that has occurred, there is low probability for intact significant archaeological resources to be present in the APE, and no archaeological survey is recommended at this time.

#### **Determination of Effect**

Based on the aforementioned identification and evaluation, PHMSA has determined that there are historic properties as defined in 36 CFR 800.16(1) within the APE: the NRHP-listed Porter-Thomsen House, Edgar Zabriskie House, Saunders School, and Ohama Park & Boulevard System, and the NRHP-eligible Bemis Park and G.F. Epeneter Residence. Additionally, as noted in the above *Historic Architecture* section, there are likely to be several other NRHP-eligible above-ground resources within the APE.

The Undertaking will not alter any of the characteristics or contributing features of historic properties that qualify them for inclusion in the NRHP in a manner that would diminish their integrity. Project work involves the replacement of pipelines and service lines within the existing ROW and utility easements, which is expected to mainly take place under paved surfaces.

Gas meter replacements may also take place at historic properties if necessary. This work consists of either replacing the existing exterior gas meter or relocating the existing interior gas meter to the exterior of the building. Any relocated gas meters would be installed less than a foot away from either the front or side of the building. In some cases, a meter mounting bracket would be installed to the foundation of a building, and a small pipe would be installed from the new meter location into the building to reconnect the customer's internal gas piping. This work would have limited, if any, visual and physical effects to the associated buildings, and does not have the potential to adversely affect the contributing features of any of the historic properties in the APE that qualify them as eligible for listing in the NRHP.

No character-defining historic materials or features will be removed or disturbed by the Undertaking. The Undertaking will not result in lasting physical, visual, or audible effects to NRHP-listed or eligible historic properties. The Undertaking also does not include land acquisition, nor would it limit access to or change the use of any of the historic properties identified above. Furthermore, project work is limited to areas that demonstrate a low probability for intact significant archaeological resources.

In accordance with 36 CFR Part 800.5, PHMSA has determined the Undertaking will have No Adverse Effect on historic properties.

#### **Consulting Party Outreach**

PHMSA identified parties that may be interested in the Undertaking and its effects on historic properties. PHMSA invites the individuals/organizations copied on this letter to participate as Section 106 consulting parties. Invited parties should indicate their willingness to participate as a consulting party and provide comments on the enclosed form (**Attachment C**) within 30 calendar days from the date on this letter. Note that a nonresponse is considered to be a declination to participate; however, interested parties can request to join consultation at any time in the process. If any invited party expresses concern about the Undertaking's potential effects to historic properties, PHMSA will consult with the party to resolve those concerns prior to project implementation.

PHMSA will also invite the following federally recognized tribes to participate in consultation by separate letter:

- Apache Tribe of Oklahoma
- Cheyenne and Arapaho Tribes
- Iowa Tribe of Oklahoma
- Omaha Tribe of Nebraska
- Otoe-Missouria Tribe of Indians, Oklahoma
- Ponca Tribe of Nebraska
- Sac & Fox Nation of Missouri in Kansas and Nebraska
- Sac & Fox Nation, Oklahoma
- Sac & Fox Tribe of the Mississippi in Iowa

#### **Request for Section 106 Concurrence**

Based on the information presented above, PHMSA has determined that the Undertaking will result in No Adverse Effect to properties that are either in, or eligible for inclusion in, the NRHP. PHMSA is submitting this Undertaking to your office for your review and comment. PHMSA requests your concurrence with this determination of effect within 30 calendar days of the date of this letter. Should you need additional information please contact Kat Giraldo, Section 106 specialist, at <u>PHMSASection106@dot.gov</u> or 857-320-1359.

Sincerely,

Mart Tult

Matt Fuller Senior Environmental Protection Specialist

MF/kg

 cc: Jason Holloman, Environmental Protection Specialist, USDOT Volpe Center Jasmine Carr, PHMSA Grant Specialist Masa Niiya, Metropolitan Utilities District Shelley McCafferty, Omaha Landmarks Commission

Enclosures:

Attachment A: Project Location and APE Maps Attachment B: Project Area Photographs Attachment C: Consulting Party Response Form

### ATTACHMENT A

**Project Location and APE Maps** 

# Area of Potential Effects Map



N

Name: Omaha, Nebraska Gas Line Replacement Scale: 40,000 Total Acreage: 257 Douglas County, NE Service Layer Credits: Douglas County NE, Pottawattamie County, IA, Maxar, County of Douglas, NE, Pottawattamie County, Iowa, Iowa DNR, Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

# Area of Potential Effects Map



Name: Omaha, Nebraska Gas Line Replacement Scale: 20,000 Total Acreage: 257 Douglas County, NE

Service Layer Credits: Douglas County NE, Pottawattamie County, IA, Maxar, County of Douglas, NE, Pottawattamie County, Iowa, Iowa DNR, Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

\*only the portion of the Omaha Park & Blvd System that intersect the APE are included

# Area of Potential Effects Map



Total Acreage: 257 Douglas County, NE

\*only the portion of the Omaha Park & Blvd System that intersect the APE are included

USDA, USFWS

GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau,

### ATTACHMENT B

**Project Area Photographs** 



Typical Meter Set Installation and Meter







319 N 41ST AVE FROM NORTHWEST

33RD & CHARLES ST FACING WEST



16TH ST & AMES AVE FACING WEST



40TH & NICHOLAS - DAISYS LITTLE DAYCARE CENTER FROM SOUTHWEST



16TH ST & AMES AVE FACING EAST



16TH ST & FOWLER AVE FACING NORTH



4497 CAPITOL AVE FACING NORTH



INTERSECTION OF N 16TH ST AND UNNAMED ROAD-ALLEY FACING WEST



INTERSECTION OF N 16TH ST AND UNNAMED ROAD-ALLEY FACING SOUTH



4497 CAPITOL AVE FACING WEST



4720 N 16TH ST FROM SOUTHEAST.JPG



5103 N 16TH ST FROM NORTHWEST



4124 DAVENPORT ST FROM SOUTHWEST



3524 HAWTHORNE AVE FROM SOUTHWEST Edgar Zabriskie House



3524 HAWTHORNE AVE FROM SOUTHEAST Edgar Zabriskie House



3805 HAMILTON ST FROM SOUTHEAST



4016 DAVENPORT ST FROM SOUTHEAST



3724 HAWTHORNE AVE FROM SOUTHWEST



3522 N 16TH ST FROM SOUTHEAST



3406 PARKER ST FROM SOUTHWEST



3401 PATRICK AVE FROM NORTHEAST



3327 BLONDO ST FROM NORTHWEST



3306 DECATUR ST FROM SOUTHWEST



3219 LAFAYETTE AVE FROM NORTHEAST


1024 MERCER BLVD FROM SOUTHEAST



1045 N 34TH ST FROM SOUTHWEST



1410 N 34TH ST FROM NORTHEAST



1607 N 34TH ST FROM SOUTHWEST



2001 N 35TH ST FROM NORTHWEST



2001 N 35TH ST FROM SOUTHWEST





507 N 41ST ST FROM SOUTHWEST

502 N 40TH ST FROM NORTHEAST



503 N 33RD ST (33RD & CASS ST) FACING NORTH



424 N 43RD ST FROM SOUTHEAST



420 N 41ST AVE FROM SOUTHEAST



415 N 41ST AVE FROM NORTHWEST Saunders School

### ATTACHMENT C

**Consulting Party Response Form** 

### Section 106 Consulting Party Response Form

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

### **Project Name/Location:**

Date:	Organization:
Name:	Affiliation:
Address:	Phone Number:
	E-mail:

### Please check one of the following:

Yes, I, or my organization, would like to participate in consultation on the project's potential effects to historic properties. I, or my organization, has a legal or economic relation to the project or affected properties or have a concern with the project's effects on historic properties.

**No,** I, or my organization, do(es) not wish to participate as a consulting party for the project.

Do you know of any other potential consulting parties that should be contacted? If so, please list the name, email, or other contact information below.

Comments:

Please return by:

Please return to: Kathering Giraldo USDOT Volpe Center 220 Binney Street, Cambridge, MA E-mail: PHMSASection106@dot.gov Appendix H

4f Resources











Webster St







Gold Coast Historic District





TIER 2 SITE SPECIFIC ENVIRONMENTAL ASSESSMENT SEGMENT GP2743 FIGURE 3



Appendix I: Environmental Justice

# SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

# Omaha, NE



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	76%
Spanish	10%
French, Haitian, or Cajun	1%
Other Indo-European	3%
Chinese (including Mandarin, Cantonese)	1%
Other Asian and Pacific Island	2%
Other and Unspecified	6%
Total Non-English	24%

### .5 miles Ring around the Area Population: 47,318 Area in square miles: 11.09

### **COMMUNITY INFORMATION**



### LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	36%
Speak Other Indo-European Languages	17%
Speak Asian-Pacific Island Languages	16%
Speak Other Languages	32%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017–2021. Life expectancy data comes from the Centers for Disease Control.

### **Environmental Justice & Supplemental Indexes**

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

### **EJ INDEXES**

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.



### EJ INDEXES FOR THE SELECTED LOCATION

### SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.



### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

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Report for .5 miles Ring around the Area

SELECTED VARIABLES		STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE In USA		
POLLUTION AND SOURCES							
Particulate Matter (µg/m <sup>3</sup> )	7.46	6.71	66	8.08	31		
Ozone (ppb)	56.7	55.7	78	61.6	16		
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.227	0.162	82	0.261	52		
Air Toxics Cancer Risk* (lifetime risk per million)	20	19	16	25	5		
Air Toxics Respiratory HI*	0.3	0.23	62	0.31	31		
Toxic Releases to Air	1,700	3,300	81	4,600	69		
Traffic Proximity (daily traffic count/distance to road)	350	130	92	210	85		
Lead Paint (% Pre-1960 Housing)	0.6	0.36	76	0.3	80		
Superfund Proximity (site count/km distance)	0.34	0.15	90	0.13	92		
RMP Facility Proximity (facility count/km distance)	0.32	0.83	47	0.43	69		
Hazardous Waste Proximity (facility count/km distance)	0.71	0.96	54	1.9	55		
Underground Storage Tanks (count/km <sup>2</sup> )	23	5.1	95	3.9	96		
Wastewater Discharge (toxicity-weighted concentration/m distance)		0.62	38	22	30		
SOCIOECONOMIC INDICATORS	-				-		
Demographic Index	54%	25%	91	35%	78		
Supplemental Demographic Index	22%	12%	91	14%	84		
People of Color	54%	22%	89	39%	69		
Low Income	53%	28%	89	31%	83		
Unemployment Rate	8%	3%	88	6%	74		
Limited English Speaking Households	7%	3%	88	5%	81		
Less Than High School Education	17%	9%	86	12%	76		
Under Age 5	6%	6%	48	6%	59		
Over Age 64	9%	17%	21	17%	22		
Low Life Expectancy	22%	19%	84	20%	72		

\*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

### Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	10
Air Pollution	
, 1	133
Brownfields	11
Toxic Release Inventory	13

#### Other community features within defined area:

Schools	35
Hospitals	10
Places of Worship	91

#### Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

Report for .5 miles Ring around the Area

HEALTH INDICATORS						
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Low Life Expectancy	22%	19%	84	20%	72	
Heart Disease	5.4	5.7	41	6.1	37	
Asthma	10.5	8.4	96	10	66	
Cancer	4.2	6.4	11	6.1	14	
Persons with Disabilities	13.5%	12.1%	65	13.4%	56	

CLIMATE INDICATORS							
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE		
Flood Risk	8%	8%	60	12%	57		
Wildfire Risk	0%	7%	0	14%	0		

CRITICAL SERVICE GAPS						
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Broadband Internet	15%	13%	59	14%	61	
Lack of Health Insurance	16%	8%	91	9%	87	
Housing Burden	Yes	N/A	N/A	N/A	N/A	
Transportation Access	Yes	N/A	N/A	N/A	N/A	
Food Desert	Yes	N/A	N/A	N/A	N/A	

Footnotes

Report for .5 miles Ring around the Area

# SEPA EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

# **Douglas County, NE**



### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	85%
Spanish	9%
French, Haitian, or Cajun	1%
Other Indo-European	1%
Other Asian and Pacific Island	2%
Other and Unspecified	1%
Total Non-English	15%

### County: Douglas Population: 578,771 Area in square miles: 339.35

### **COMMUNITY INFORMATION**



### LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	52%
Speak Other Indo-European Languages	14%
Speak Asian-Pacific Island Languages	<b>20%</b>
Speak Other Languages	14%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

### **Environmental Justice & Supplemental Indexes**

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

### **EJ INDEXES**



The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

### **SUPPLEMENTAL INDEXES**

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator,



### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

 $\equiv$ 

Report for County: Douglas

SELECTED VARIABLES	VALUE	STATE Average	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE In USA	
POLLUTION AND SOURCES						
Particulate Matter (µg/m <sup>3</sup> )	7.5	6.71	76	8.08	32	
Ozone (ppb)	56.2	55.7	70	61.6	14	
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.21	0.162	71	0.261	48	
Air Toxics Cancer Risk* (lifetime risk per million)	20	19	16	25	5	
Air Toxics Respiratory HI*	0.27	0.23	10	0.31	4	
Toxic Releases to Air	1,400	3,300	73	4,600	65	
Traffic Proximity (daily traffic count/distance to road)	210	130	81	210	76	
Lead Paint (% Pre-1960 Housing)	0.3	0.36	45	0.3	58	
Superfund Proximity (site count/km distance)	0.14	0.15	79	0.13	76	
RMP Facility Proximity (facility count/km distance)	1	0.83	71	0.43	88	
Hazardous Waste Proximity (facility count/km distance)	1.2	0.96	68	1.9	64	
Underground Storage Tanks (count/km <sup>2</sup> )	8.5	5.1	79	3.9	86	
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0086	0.62	74	22	66	
SOCIOECONOMIC INDICATORS					-	
Demographic Index	29%	25%	69	35%	50	
Supplemental Demographic Index	13%	12%	62	14%	49	
People of Color	32%	22%	77	39%	51	
Low Income	27%	28%	53	31%	49	
Unemployment Rate	4%	3%	70	6%	52	
Limited English Speaking Households	3%	3%	76	5%	68	
Less Than High School Education	9%	9%	67	12%	53	
Under Age 5	7%	6%	64	6%	71	
Over Age 64	13%	17%	38	17%	39	
Low Life Expectancy	18%	19%	43	20%	39	

\*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data automate are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:	
Superfund	2
Hazardous Waste, Treatment, Storage, and Disposal Facilities	20
Water Dischargers	78
Air Pollution	
	988
Brownfields	39
Toxic Release Inventory	
	100

# Selected location contains American Indian Reservation Lands\* No Selected location contains a "Justice40 (CEJST)" disadvantaged community Yes Selected location contains an EPA IRA disadvantaged community Yes

#### Other community features within defined area:

Schools	203
Hospitals	81
Places of Worship	413

#### Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

Report for County: Douglas

HEALTH INDICATORS						
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Low Life Expectancy	18%	19%	43	20%	39	
Heart Disease	4.6	5.7	23	6.1	19	
Asthma	8.5	8.4	57	10	11	
Cancer	5.4	6.4	29	6.1	33	
Persons with Disabilities	10.5%	12.1%	34	13.4%	35	

CLIMATE INDICATORS						
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Flood Risk	5%	8%	46	12%	43	
Wildfire Risk	0%	7%	78	14%	78	

CRITICAL SERVICE GAPS						
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Broadband Internet	11%	13%	45	14%	49	
Lack of Health Insurance	9%	8%	67	9%	64	
Housing Burden	Yes	N/A	N/A	N/A	N/A	
Transportation Access	Yes	N/A	N/A	N/A	N/A	
Food Desert	Yes	N/A	N/A	N/A	N/A	

Footnotes

Report for County: Douglas