



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

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

**Village of Stuart, NE Tier 2 Site Specific Environmental Assessment  
NGDISM-FY22-EA-2023-35**

*PHMSA Approval:*

**PHMSA Office of Planning and Analytics  
Environmental Policy and Justice Division**

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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 will avoid, minimize, or mitigate potential effects; and (5) seek comments from the public. This Tier 2 analysis informs the Pipeline and Hazardous Materials Safety Administration's (PHMSA's) 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](mailto:PHMSABILGrantNEPAComments@dot.gov) and reference NGDISM-FY22-EA-2023-35 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. Project Description/Proposed Action

<b>Project Title</b>	Village of Stuart
<b>Project Location</b>	Village of Stuart and O'Neill, Holt County, Nebraska
<b>Project Description/Proposed Action:</b>	
<p>The Village of Stuart (Stuart) is proposing to replace aging and failing Polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas of Stuart's natural gas transmission system, including pipeline modernization and interim safety enhancement measures. Stuart is also proposing to add mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system. See Appendix A, Project Maps.</p> <p>The Village of Stuart maintains three (3) areas of natural gas lines within Holt County: 1) the In-town Stuart area; 2) Rural Stuart, located northwest of the Village limits in agricultural lands; and 3) the Shamrock System, located east of O'Neill in a primarily agricultural area. Stuart is proposing to replace an estimated 5,300 linear feet (LF) (or approximately 1-mile) of the aging PVC and steel pipelines at five (5) locations in the Shamrock System. The proposed work involves inserting 2-inch high-density polyethylene (HDPE) into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch-high HDPE. Two (2) locations involve replacing pipeline via directional boring under previously disturbed roadways.</p> <p>Work also includes the addition of 2-inch mainline valves at twenty (20) locations in the original In-town system. The valves are located along paved or previously disturbed roadways. Existing pipelines are buried at 36 inches, so ground disturbance to install new valves would not exceed 72 inches by 96 inches or a depth of 48 inches. Additionally, the Proposed Action involves the acquisition of AMI equipment to enable the Village of Stuart to GPS the natural gas system and implement monitoring and metering the gas system. The AMI meter equipment would be mounted on the centralized pivot point irrigation units already present onsite. The</p>	

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

equipment acquisition, installation, and implementation of the equipment would not involve ground or gas service disturbances. A gravel parking lot, owned by a local power company, may be used as a staging area during construction. Otherwise, construction equipment would be staged on a portable trailer to reduce ground disturbance within the agricultural fields. No new right-of-way (ROW) or easements would be needed to complete the Proposed Action.

**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 Village of Stuart would continue to use leak prone pipeline material and conduct repairs or replacements in the future using non-federal sources of funding, and on an emergency basis, when a pipeline fails. Impacts and benefits associated with replacing the leak prone pipeline within the Village of Stuart, 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. No equipment would be purchased to assist the Village of Stuart in leak detection.

**Need for Project:**

The Village of Stuart has estimated that approximately 1-mile (5,300 LF) PVC and uncoated steel pipelines identified for replacement for this project are vulnerable to leaks. The Village of Stuart would replace the leak prone natural gas mains with HDPE piping. 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 economic losses caused by pipeline failures; and (3) protecting our environment and reducing climate impacts by remediating aged and failing pipelines and pipe prone to leakage.

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

The affected environment includes areas within and surrounding the Village of Stuart and an area east of O'Neill, both small communities in Holt County, Nebraska. The Proposed Actions would occur within the suburban area in the Village of Stuart limits and in the rural, agricultural areas north of the Village limits and east of the town of O'Neill.

**II. Resource Review**

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 review of the EPA Greenbook. <sup>2</sup>

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

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?	No
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.	The existing system operates at 95 PSI. Based on the size of the existing pipe, 2.09 thousand cubic feet (MCF) or 64 kg of methane would be vented during construction.
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 248 kg/year. Replacement would result in a leak rate of 29 kg/year or a reduction of 219 kg/yr. <sup>4</sup>
<p><b>Conclusion:</b></p> <p>The Proposed Action is located within the Village of Stuart and east of O'Neil in Holt County, Nebraska, which is designated by the EPA as in attainment for all National Ambient Air Quality Standards (NAAQS). The existing mains within the project area consist of leak prone PVC and uncoated steel natural gas mains that were installed in the 1970's.</p> <p><b>No Action:</b></p> <p>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 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 alternative. Under the No Action alternative, PHMSA estimates that 248 kg of methane would be released each year from the existing pipelines within the project area. This amounts to 4,961 kg of methane over a 20-year time frame. See Appendix B, Methane Emissions, for the methane leak rate calculations.</p> <p><b>Proposed Action:</b></p> <p>The Proposed Action would result in minor air quality impacts associated with construction activities, including the intentional venting of methane contained in the existing pipelines prior to replacement. Pipeline blowdowns are typically necessary to ensure that construction and maintenance work can be conducted safely on depressurized natural gas facilities and pipelines. Venting methane is required when service is switched from the existing line to the newly constructed line, but the volume of vented gas can depend on the ability to reduce pressure on the pipe segment or other mitigation actions. Therefore, some methane would be vented into the</p>	

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

<sup>4</sup> Leak rates are based on Pre-1990 Installation emission factors found in *Table 1 Average methane emission factors for natural gas pipelines (adopted from EPA GHG Inventory, Annex 3.6, Table 3.62)* in the November 9, 2022, PHMSA: Natural Gas Distribution Infrastructure Safety and Modernization Grant Program Programmatic Environmental Assessment, Tier 1 Nationwide Environmental Analysis.



atmosphere during construction. Based on an operating pressure of 95 PSI and an average inside pipe diameter ranging from 3 to 4 inches, PHMSA estimates 2.09 MCF of methane (or 64 kg) would be vented into the atmosphere during construction. See Appendix B, Methane Calculations 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 bare steel and legacy PVC pipelines, as compared with PE. 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 142 kg in the first year (when considering the methane that would be released from blowdown that would occur during construction) and would reduce 219 kg of methane per year thereafter. The total reduction in methane emissions resulting from the conversion to plastic pipeline would be approximately 4,385 kg over a 20-year span post construction. See Appendix B, Methane Calculations 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 Village of Stuart 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);
- Covering open-bodied trucks while transporting materials;
- Watering, or use of other approved dust suppressants, at construction sites and on unpaved roadways, as necessary;
- Minimizing the area of soil disturbance to those necessary for construction; and
- Minimizing construction site traffic by the use of offsite parking and shuttle buses, as necessary.

<b>Water Resources</b>	
<b>Question</b>	<b>Information and Justification</b>
Are there water resources within the project area, such as wetlands, streams, rivers, or floodplains? If so, would the project temporarily or permanently impact wetlands or waterways?	Yes, according to USFWS National Wetland Inventory (NWI) and the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer FIRMette maps.
Under the Clean Water Act, is a Section 401 State certification potentially required? If yes, describe anticipated permit and how project proponent will ensure permit compliance.	No
Under the Clean Water Act, is a USACE Section 404 Permit required for the discharge of dredge and fill material? If yes, describe anticipated permit and how project proponent will ensure permit compliance.	No, there would be no discharge of dredge or fill material into waters of the U.S. as a result of the project.

Under the Clean Water Act, is an EPA or State Section 402 permit required for the discharge of pollutants into the waters of the United States? Is a Stormwater Pollution Prevention Plan (SWPPP) required?	No
Will work activities take place within a FEMA designated floodplain? If so, describe any permanent or temporary impacts and the required coordination efforts with state or local floodplain regulatory agencies.	No, the project does not take place within a special flood hazard area.
Will the proposed project activities potentially occur within a coastal zone <sup>5</sup> or affect any coastal use or natural resource of the coastal zone, requiring a Consistency Determination and Certification?	No, the project is not located within a coastal zone.
<p><b>Conclusion:</b></p> <p>PHMSA reviewed NWI maps, as well as the FEMA National Flood Hazard Layer FIRMette maps to assist in identifying aquatic features and other water resources in or near the project area. One wetland resource was identified adjacent to the project area within the O'Neill project segment. This freshwater emergent wetland is classified as PEM1Af (Palustrine, Emergent, Persistent, Temporary Flooded, and Farmed). No other aquatic features or water resources were identified in or near the project area. FEMA's FIRMette maps indicate the project areas are not in a Special flood hazard area. See Appendix C, Water Resources.</p> <p><b>No Action:</b></p> <p>Under the No Action alternative, the existing pipeline would remain in the current location and normal maintenance activities would continue without any impact anticipated to water resources. Depending on the location of the activities, the work could be in close proximity to an aquatic resource where the Village of Stuart would need to take precautions to avoid adverse impacts to these sensitive areas. Additionally, if work was to occur in an area identified as a special flood hazard area, prior coordination with the local Floodplain Manager may be required.</p> <p><b>Proposed Action:</b></p> <p>The Proposed Action includes replacing 5,300 LF of existing pipelines and installing new valves and AMI monitoring sensors. Installation of new valves would occur within existing, previously disturbed areas within Stuart and O'Neill. No wetland or other water resources are located within this segment of the project. The AMI monitoring sensors would not require ground disturbance. Therefore, no wetland or water resource impacts would occur from the installation of valves and AMI monitoring sensors. One wetland is located adjacent to the O'Neill pipeline replacement segment. However, this section of the project would be installed through insertion of the existing pipeline and all disturbance would occur outside of the wetland area.</p> <p>Based on information provided by the Village of Stuart and a review of available information, PHMSA has determined that there would be no permanent impacts to water resources located within the project area. The pipeline replacement 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.</p>	

<sup>5</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.)

**Mitigation Measures:**

The Village of Stuart shall avoid staging in wetlands or floodplains and all preconstruction contours shall be restored and natural areas shall be reseeded, as soon as practical. Best Management Practices shall be used during construction to control sediment and erosion and prevent pollutants from entering waterways.

Groundwater and Hazardous Materials/Waste	
<b>Question</b>	<b>Information and Justification</b>
Does the project have potential to encounter and impact groundwater? If yes, describe potential impacts from construction activities.	No
Will the project require boring or directional drilling that may require pits containing mud and inadvertent return fluids? If yes, describe measures that will be taken during construction activities to prevent impacts to groundwater resources.	No
Will the project potentially involve a site(s) contaminated by hazardous waste? Is there any indication that the pipeline was ever used to convey coal gas? If yes, PHMSA will work with the project proponent for required studies.	No
Does the project have the potential to encounter or disturb lead pipes or asbestos?	No
<b>Conclusion:</b>  PHMSA reviewed EPA's NEPAAssist website to identify any brownfield properties, hazardous waste sites, Resource Conservation and Recovery Act (RCRA) sites, air pollution sites and superfund sites.  <b>No Action:</b>  Under the No Action alternative, the legacy PVC and bare steel 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>6</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.  <b>Proposed Action:</b>  Under the Proposed Action alternative, the Village of Stuart would install approximately 5,300 LF of pipeline using insertion and HDD construction methods. PHMSA's assessment is that there would be no adverse impacts to groundwater associated with the project as the insertion and HDD construction methods would not be deep enough to intercept groundwater. Additionally, PHMSA has not identified any indirect or cumulative effects to groundwater or hazardous materials.	

<sup>6</sup> <https://19january2017snapshot.epa.gov/sites/production/files/2016-06/documents/insertgasmainflexibleliners.pdf>

**Mitigation Measures:**

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

**Soils****Question****Information and Justification**

Will all bare soils be stabilized using methods using methods identified in the initial Tier 2 EA worksheet?  
Will additional measures be required?

No

Will the project require unique impacts related to soils?

No

**Conclusion:**

PHMSA reviewed the USDA, NRCS's web soil survey which indicates that the project area is comprised of a variety of soils and urban fill.

**No Action:**

Under the No Action alternative, the existing 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:**

The Proposed Action includes inserting and HDD installation of approximately 5,300 LF of pipeline and installing new valves and AMI monitoring sensors. The installation of pipeline and new valves would result in minor ground disturbance. All impacted areas would be backfilled and restored to pre-construction conditions. Installation of AMI sensors and meters would not result in ground disturbance. Therefore, PHMSA's assessment is that there would be no adverse impacts associated with soils resulting from the Proposed Action alternative and that there are no indirect or cumulative impacts anticipated as the Village of Stuart would restore all areas to pre-construction conditions.

**Mitigation Measures:**

The Village of Stuart shall restore all impacted areas 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

Yes, based on review of the USFWS's Information for

within the geographic range of the project area? If no, no further analysis is required.	Planning and Consultation (IPaC) website. <sup>7</sup> Additionally, Nebraska state resources <sup>8</sup> 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 D, Biological Resources. The following were identified as potentially occurring within the geographic area of the Proposed Action:

- Piping Plover *Charadrius Melodus* (threatened)
- Whooping Crane *Grus Americana* (endangered)
- Pallid Sturgeon *Scaphirhynchus Albus* (endangered)
- American Burying Beetle *Nicrophorus americanus* (threatened)
- Tricolored Bat *Perimyotis Subflavus* (proposed endangered)
- Monarch Butterfly *Danaus Plexippus* (candidate)

Designated critical habitat was not identified within the project area.

In the Northern Great Plains, piping plovers nest on the unvegetated shorelines of alkaline lakes, reservoirs, or river sandbars, as documented in the 2009 field season summary report.<sup>9</sup>

The whooping crane breeds, migrates, winters and forages in a variety of habitats, including coastal marshes and estuaries, inland marshes, lakes, open ponds, shallow bays, salt marsh and sand or tidal flats, upland swales, wet meadows and rivers, pastures and agricultural fields, as was noted in the 5-year review.<sup>10</sup>

Adult pallid sturgeon inhabit large, deep turbid river channels, usually in strong current over firm sand or gravel.<sup>11</sup>

The American burying beetle is considered a generalist in terms of the vegetation types where it is found, as the historical range include most of the eastern United States and has been successfully live-trapped in a wide range of habitats, including wet meadows, partially forested loess canyons, oak-hickory forests, shrub land and grasslands, lightly grazed pasture, riparian zones, coniferous forest and deciduous forests with open understory as J.C. Creighton and others documented in 1993 and later by A.J. Kozol in 1995, as well as M.V. Lomolino and others in 1995. In 1997, A.K. Holloway and G.D. Schnell documented that individuals do not appear to be limited by vegetation types as long as food, shelter in suitable soils and moisture are available and have been recorded

<sup>7</sup> <https://ipac.ecosphere.fws.gov/>

<sup>8</sup> <https://outdoornebraska.gov/learn/nebraska-wildlife/threatened-and-endangered-species/>

<sup>9</sup> <https://www.fws.gov/species/piping-plover-charadrius-melodus>

<sup>10</sup> <https://www.fws.gov/species/whooping-crane-grus-americana>

<sup>11</sup> <https://www.fws.gov/species/pallid-sturgeon-scaphirhynchus-albus>

moving between and among these habitat types. This was later confirmed by J.C. Creighton and G. D. Schnell in 1998.<sup>12</sup>

In 1997, A.K. Holloway and G. D. Schnell found at Fort Chaffee, Arkansas that trapping success of *N. americanus* was higher at sites where small mammals are more abundant, irrespective of habitat defined on the basis of general vegetative characteristics. The beetles occurrence in an area is widely believed to depend on the presence of small mammals, birds and other sources of carrion necessary for completion their life cycle, as documented by R.S. Anderson in 1982, E.L. Muths 1991 and additionally by agency biologists in the recovery plan that was also published in 1991. M. Amaral and others later confirmed this in 1997.

The tricolored bat is one of the smallest bats found in North America and can be distinguished from others by its unique tricolored fur that appears dark at the base, lighter in the middle and dark at the tip. These bats overwinter in large groups in caves, abandoned mines and tunnels, and are sometimes found in culverts under roadways. During the spring, summer and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. As its name suggests, the tricolored bat is distinguished by its unique tricolored fur that appears dark at the base, lighter in the middle and dark at the tip.<sup>13</sup>

Monarch butterfly (insect) is known for its large size, its orange and black wings, and its long annual migrations. Monarch butterflies are found wherever suitable feeding, breeding, and overwintering habitat exists. As caterpillars, monarchs feed exclusively on the leaves of milkweed. As adults, monarchs feed on nectar from a wide range of blooming native plants but can only lay eggs on milkweed plants.<sup>14</sup> Milkweed acts as a host plant and without it, the larvae would not be able to develop.

Additionally, the Nebraska state resource list of rare, threatened and endangered species was reviewed. There are several state protected species that are also identified as either Federally endangered or threatened or proposed for listing which may occur within the geographic range of the project area. The full list of state protected species can be found in Appendix D, 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. Maintenance activities would not have any effect on the species identified above.

#### **Proposed Action:**

The project area is in a rural environment where the areas of disturbance would be mainly within existing transportation corridors and along roadsides. Because these areas are within ROW that have been previously impacted, the immediate project area has very limited biological resources present. Additionally, no tree clearing would occur that could provide habitat for the bat species within the project area. The project area does not contain suitable habitat for listed bird species whose geographic range overlaps with the project area. In addition no major waterways occur within the project area. Habitat for the American burying beetle varies, however, in accordance with the USFWS determination key for this species, PHMSA determined the Proposed Action would have No Effect on the American burying beetle (See Appendix D). In accordance with Section 7 of the Endangered Species Act PHMSA's assessment is that the project would have no effect to piping plover,

<sup>12</sup> <https://www.fws.gov/species/american-burying-beetle-nicrophorus-americanus>

<sup>13</sup> <https://www.fws.gov/species/tricolored-bat-perimyotis-subflavus>

<sup>14</sup> <https://www.fws.gov/species/monarch-danaus-plexippus>

whooping crane, or pallid sturgeon. 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. PHMSA's assessment is that the project is unlikely to jeopardize the continued existence of the tricolored bat. 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.

**Mitigation Measures:**

The Village of Stuart 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 activities, modifications to buildings or structures, or construction or installation of any new aboveground components?	Yes, some minor excavation would be required. No modification to buildings or other structures, and no new above ground components would occur.
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 government and/or State Historic Preservation Office. <sup>15</sup>	No
Does the project or any part of the project take place on tribal lands or land where a tribal cultural interest may exist? <sup>16</sup>	The following native American tribes with potential interesting include: <ul style="list-style-type: none"> <li>• Apache Tribe of Oklahoma</li> <li>• Cheyenne and Arapaho Tribes</li> <li>• Pawnee Nation of Oklahoma</li> <li>• Ponca Tribe of Nebraska</li> <li>• Ponca Tribe of Indians of Oklahoma</li> </ul>
Are there any nearby properties or resources that either appear to be or are documented to have been constructed more than 45 years ago? <sup>17</sup> Does there appear to be a group of properties of similar age, design, or method of construction? Any designed landscapes such as a park or cemetery? Please provide photographs to show the context of the project area and adjacent properties.	Yes
Has the entire area and depth of construction for the project been previously disturbed by the original installation or other activities? If so, provide any documentation of prior ground disturbances.	Yes
Will project implementation require removal or	No

<sup>15</sup> Many SHPOs have an [online system](https://www.nps.gov/subjects/nationalregister/state-historic-preservation-offices.htm) at <https://www.nps.gov/subjects/nationalregister/state-historic-preservation-offices.htm> that can tell you previously identified historic properties in your project area. The [National Register list](https://www.nps.gov/subjects/nationalregister/database-research.htm) at <https://www.nps.gov/subjects/nationalregister/database-research.htm> can also be accessed online.

<sup>16</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>17</sup> Local tax and property records or historic maps may indicate dates of construction.

<p>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.</p>	
<p><b>Conclusion:</b></p> <p>PHMSA must consider the impact of projects for which they provide funding on historic and archeological properties<sup>18</sup> 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 where pipelines will be replaced, one parcel containing an agricultural field where a pipeline would be replaced, the ROW where valves would be installed, and location points where AMI equipment would be mounted, all of which includes the limits of disturbance, and the limits of any potential visual, audible or vibration effects and any staging or access areas. See Appendix E, Cultural Resources, for a map of the APE.</p> <p><b>No Action:</b></p> <p>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.</p> <p><b>Proposed Action:</b></p> <p>A search of the NRHP database and a file search conducted by History Nebraska on behalf of PHMSA found no NRHP-listed or NRHP-eligible above-ground resources within the APE. See Appendix E, Cultural Resources, for additional information about the APE and the properties identified.</p> <p>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 one archaeological survey was identified within the APE. Within one quarter of a mile of the APE, one archaeological site, which has not been evaluated for NRHP eligibility but has likely been destroyed by agriculture, and seven surveys were identified.</p> <p>PHMSA finds that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Therefore, in accordance with 36 CFR § 800.4(d)(1), PHMSA has determined the Undertaking would result in No Historic Properties Affected.</p> <p>A letter was sent on March 28, 2024, to the 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 E, Cultural Resources, for more information.</p> <p><b>Mitigation Measures:</b></p>	



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 would be affected in an unanticipated manner, all project activities in the vicinity of the discovery will cease and the Village of Stuart 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 the Village of Stuart 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 properties or as an attachment.	No
Will any construction activities occur within the property boundaries of a Section 4(f) property? If so, please detail these activities and indicate if these are temporary or permanent uses of the Section 4(f) property. Further coordination with PHMSA is required for all projects that might impact a Section 4(f) property.	No
<b>Conclusion:</b>  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: <ul style="list-style-type: none"> <li>• There is no feasible and prudent alternative to the use of the land;</li> <li>• The program or project includes all possible planning to minimize harm to such park, recreational area,</li> </ul>	

wildlife and waterfowl refuge, or historic site, resulting from such use.

PHMSA conducted a review of potential Section 4(f) properties within the project area. No properties were identified within the project area.

**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:**

The Proposed Action includes replacing 5,300 LF of existing pipelines and installing new valves and AMI monitoring sensors. No parks would be impacted by the proposed action.

**Mitigation Measures:**

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.	No, the AMI meters would be installed on existing pivot irrigation equipment within existing easements. No new ROW or easements are required.
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?	No, normal traffic flow would be maintained during construction. No impacts to agricultural operations would occur.
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, the project would not interrupt or impede emergency response services.
<b>Conclusion:</b> <p>The project is located in the Village of Stuart in Holt County, Nebraska. The project areas includes suburban areas within the Village limits, consisting of light commercial businesses and residential areas, and the rural, agricultural areas north of the Village limits and east of O'Neill. Pipeline replacement and valve installation would occur within the existing ROW or along previously disturbed roadways. The AMI meters would be installed on existing pivot irrigation system equipment on agricultural property within existing easements.</p> <b>No Action:</b> <p>Under the No Action alternative, leak prone 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</p>	

circumstances.

**Proposed Action:**

The new pipelines would be installed within the existing infrastructure ROW and easements and all work would occur within previously disturbed areas. The areas would be restored to pre-existing condition and contours. Therefore, PHMSA has determined that there would be no permanent change to land use. Additionally, PHMSA's assessment is that there are no indirect impacts anticipated as land use remains the same. During construction potential impacts include an increase in noise, dust, and transportation accessibility, as a result of construction and construction staging. Traffic may be temporarily impacted due to the proximity of the project to the roadway. However, detours are not anticipated. Therefore, because the work consists of the replacement of existing pipeline, would not convert any new areas into a different use, and traffic impacts would only occur during construction, PHMSA's assessment is that impacts related to land use are considered minor and temporary.

PHMSA considered the cumulative effects of this action with ongoing and planned transportation related construction projects that could cumulatively impact land use and transportation. Municipalities often have various maintenance, drainage improvement, and other projects occurring throughout the year. The Village of Stuart would review and approve projects that cause disruptions to normal traffic patterns ensuring the safety of the public. Through this coordination, the overall cumulative effects of multiple projects would be minimized by planning and scheduling efforts with responsible agency oversight. Land use changes are not anticipated as the projects are occurring in a rural and would not change the existing land use.

**Mitigation Measures:**

The Village of Stuart shall maintain traffic flows to the extent possible and use traffic control measures to assist traffic negotiating through construction areas, as needed.

The Village of Stuart shall coordinate with state and local agencies if detours and/or routing adjustments during construction are required and will notify any potentially impacted residents and/or business owners.

Noise and Vibration	
Question	Information and Justification
Will the project construction occur for longer than a month at a single project location?	No
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, some work would be in proximity to residences, a public school, and houses of worship.
Will the project require high-noise and vibration inducing construction methods? If so, please specify.	No, high noise and vibration inducing construction methods are not required.
Will the project comply with state and local ordinances? If so, identify applicable ordinances and limitations on noise/vibration times or sound levels.	N/A
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 both suburban and rural agricultural areas of the Village of Stuart and east of O'Neill in Holt County, Nebraska. The ambient noise in the project areas consists of a combination of environmental noise from road traffic, commercial businesses, the built environment, population density, agricultural industry, and other sources. There are several sensitive noise receptors (residences, schools, houses of worship, etc.) located adjacent to the streets where work would occur.

**No Action:**

Under the No Action, 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 be repaired or replaced due to a leak under emergency conditions. 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 and other similar construction equipment would be used to excavate trenches, drill, lay pipes, compact soils, re-pave the affected areas, etc. Sensitive noise receptors are likely to experience temporary noise impacts. The Village of Stuart would limit work to daylight hours as applicable and ensure that all construction activities abide by State and City noise regulations. Therefore, PHMSA's assessment is that the noise impacts would be minor and temporary and no adverse vibration impacts would result from the proposed work.

PHMSA considered the cumulative effects of this action with other potential transportation related construction projects that could cumulatively contribute to noise and/or vibration impacts in the project area. Municipalities often have paving, drainage improvement, and other construction or maintenance projects occurring throughout the year. 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.

**Mitigation Measures:**

The Village of Stuart shall ensure that its employees and contractors adhere to state and local noise regulations which includes limiting activities to normal weekday hours when noise restrictions are not in place and the proper maintenance of construction equipment mufflers.

**Environmental Justice**

Question	Information and Justification
Using the EPA EJScreen or census data <sup>19</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 the EPAs EJScreen, the population residing within the general project area of the Village of Stuart and O'Neill contains 28% and 40% low income and 3% and 9% minority populations, respectively.

<sup>19</sup> <https://www.census.gov/quickfacts/fact/table/US/PST045222>

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?	No, work would be conducted in the off season for agricultural producers to eliminate service disruptions.
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?	No
<p><b>Conclusion:</b></p> <p>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.</p> <p>PHMSA reviewed socioeconomic data using the EPAs EJScreen and found the population residing within the project area of Village of Stuart and O'Neill contains 28% and 40% low income and 3% and 9% minority populations, respectively. The percentage of these populations is below the Holt County average of 40% low income and 9% minority populations in the Village of Stuart and above the Holt County average in O'Neill. See Appendix F, Environmental Justice, for socioeconomic data.</p> <p><b>No Action:</b></p> <p>Under the No Action alternative, existing and planned pipeline activities, including construction and maintenance activities, would continue unchanged. The Village of Stuart 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.</p> <p><b>Proposed Action:</b></p> <p>The Proposed Action alternative would result in an overall reduction in GHG emissions. Construction activities would result in minor temporary air quality impacts, including the intentional venting of existing distribution lines prior to replacement. Noise impacts associated with construction are anticipated to be minor. Traffic impacts and delays are not anticipated. However, replacement and repair of leak prone pipe would reduce leaks and the potential for incidents, resulting in an increase in pipeline safety across the system while also improving operation and reliability. Therefore, consistent with Executive Order 12898 and DOT Order 5610.2(c), PHMSA has determined 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.</p>	

**Mitigation Measures:**

Village of Stuart shall provide advanced notification of service disruptions and traffic impacts to all affected parties including residents and businesses adjacent to the project area.

Safety	
Question	Information and Justification
Has a risk profile been developed to describe the condition of the current infrastructure and potential safety concerns?	Yes, as described in the Gas Distribution Integrity Management Program (DIMP) plan.
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
Does the project area include pipes prone to leakage?	Yes, the Village of Stuart conducts natural gas leak surveys and a DIMP assessment of the system every 5 years and has identified pipelines that are vulnerable to leaks.
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, all safety measures and procedures would be utilized as per the Operations and Maintenance Manual and the requirements of the Operator Qualification program.
Has an assessment of the project been performed to analyze the risk and benefits of implementation?	Yes
<b>Conclusion:</b> <p>The proposed project would replace leak prone 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 historic plastics as well as bare steel, are among the pipelines that pose the highest risk. This is reflected in Stuarts DIMP plan. 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.</p> <b>No Action:</b> <p>Under the No Action alternative, the existing pipes 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 historic plastic and bare steel pipes are replaced.</p> <b>Proposed Action:</b>	

The Proposed Action would reduce the risk profile of existing pipeline systems prone to methane leakage and would also benefit disadvantaged rural 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. PHMSA's assessment is that this replacement project would improve the overall safety of the Village of Stuart's infrastructure.

**Mitigation Measures:**

The Village of Stuart 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.

The Village of Stuart shall ensure their DIMP procedures are updated as necessary, the work is constructed in accordance with industry best practices and the project will comply with all local, state, and federal regulations, including those for safety.

### **III. Public Involvement**

On November 9, 2022, PHMSA published a Federal Register notice (87 FR 67748) with a 30-day comment period soliciting comments on the "Tier 1 Nationwide Environmental Assessment for the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program." During the 30-day comment period, PHMSA received one comment letter 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>20</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](mailto:PHMSABILGrantNEPAComments@dot.gov) and reference NGDISM-FY22-EA-2023-35 in your response.

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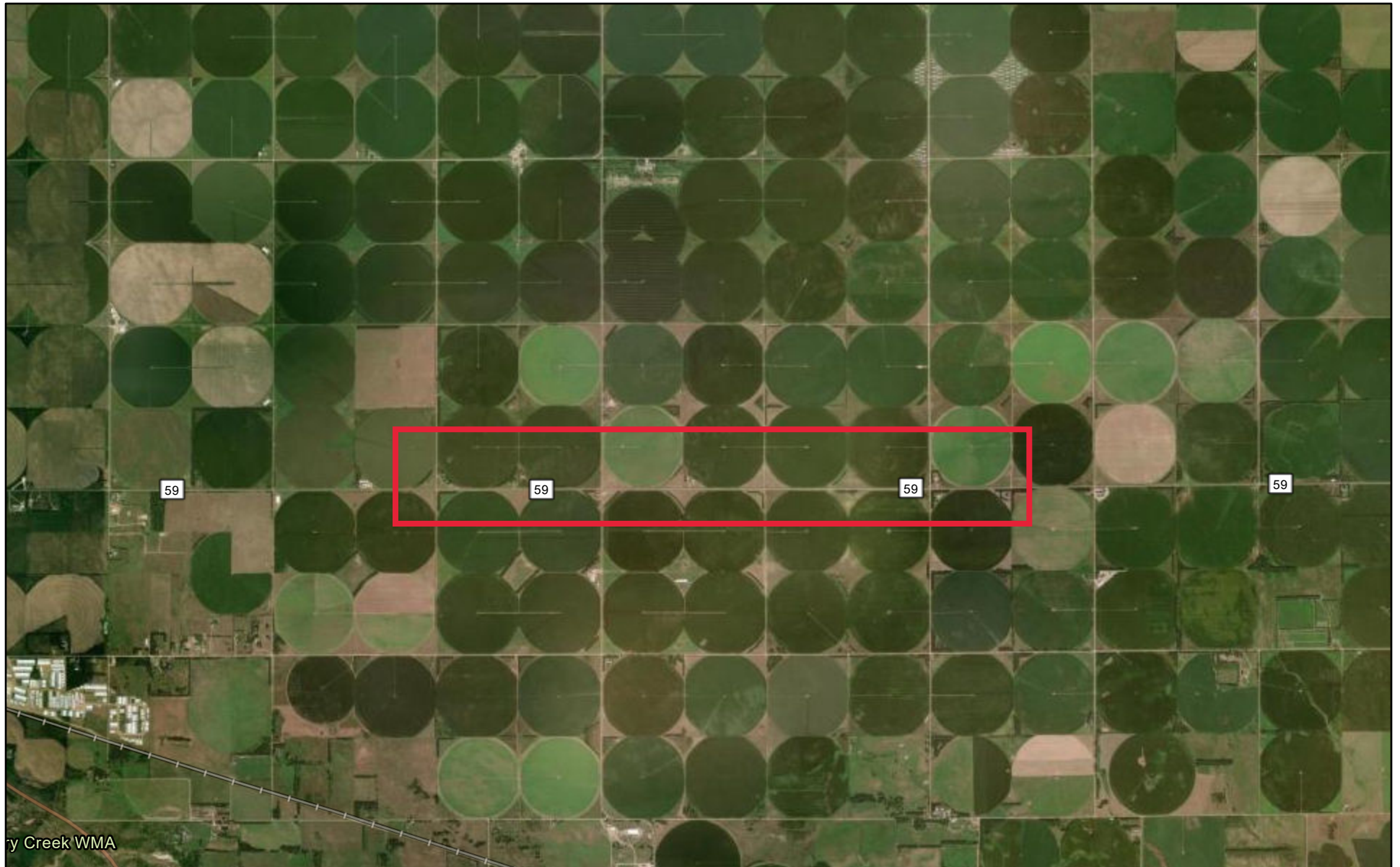
<sup>20</sup> <https://www.regulations.gov/document/PHMSA-2022-0123-0002/comment>

# **Appendix A**

## **Project Maps**



# O'Neill Project Area

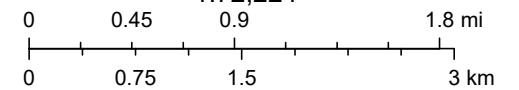


March 15, 2024



Approximate Project Area

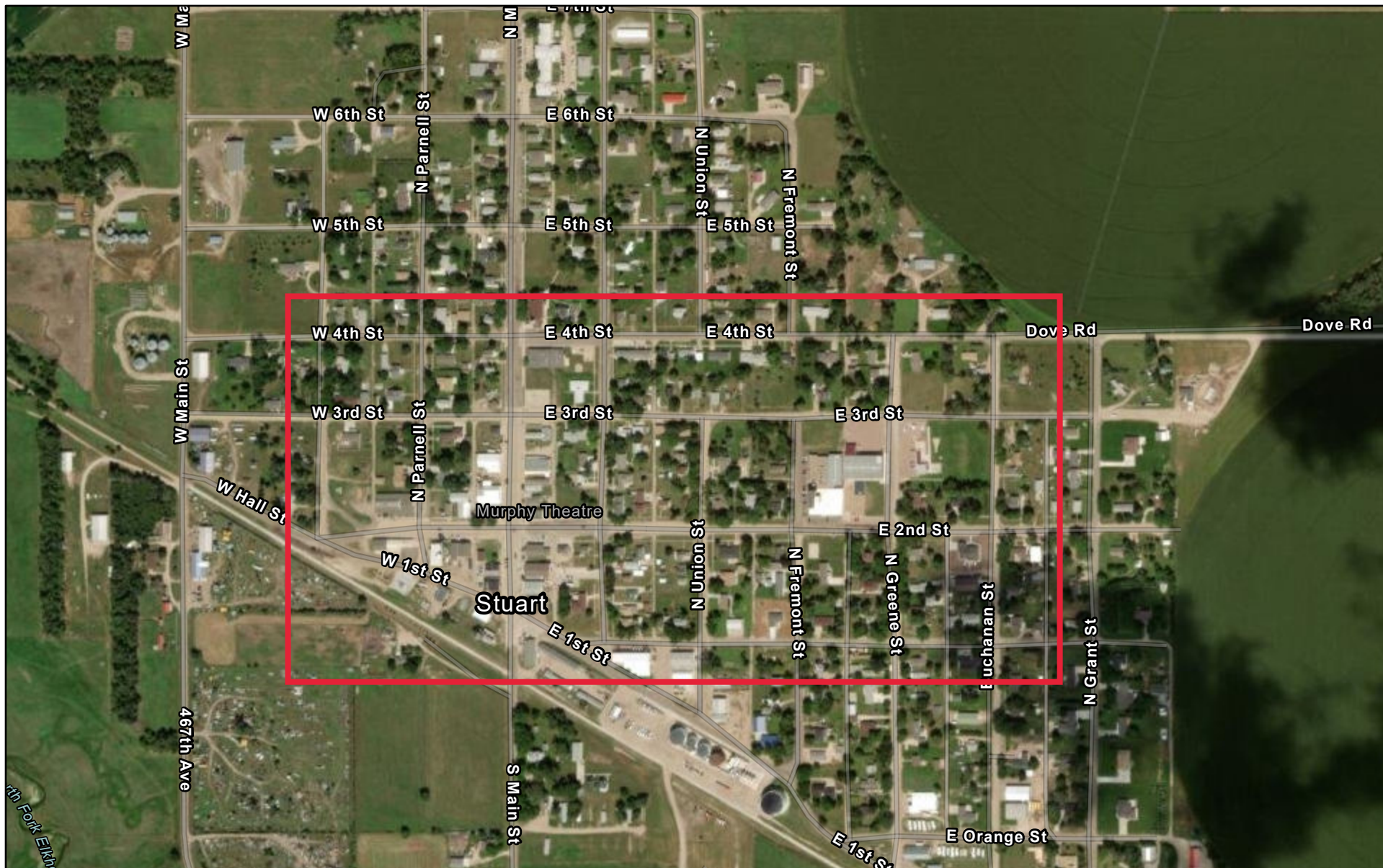
1:72,224



Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS,



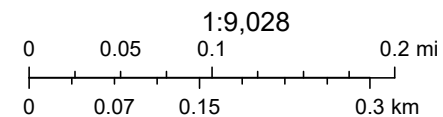
# Village of Stuart Project Area



March 15, 2024



Approximate Project Area



Esri Community Maps Contributors, Nebraska Game & Parks Commission, South Dakota Game Fish and Parks, © OpenStreetMap, Microsoft, Esri,

## **Appendix B**

### **Air Quality**

*Table 1 Average methane emission factors for natural gas pipelines (adapted from EPA GHG Inventory, Annex 3.6, Table 3.6-2)*

Pipeline Material	Pre-1990 Installation (kg/mile)	1990-2020 Installation (kg/mile)	Average Rate (kg/mile/year)
Cast Iron	4,597.40	1,157.30	2,877.35
Unprotected steel	2,122.30	861.3	1,491.80
Protected steel	59.1	96.7	77.90
Plastic	190.9	28.8	109.85

*Table 2 No Action Leak Rate*

Pipeline Material Type	Average Rate (kg/mile/year)	Miles	Current Methane Leak Rate (kg/year)
Cast Iron	2,877.35	0	0
Unprotected steel	1,491.80	0.1	149
Protected steel	77.90	0	0
Plastic	109.85	0.9	99
Total Annual Methane Leak Rate			248
20-year Methane Emissions			4,961

*Table 3 Proposed Action Leak Rate*

Pipeline Material Type	1990-2020 Installation (kg/mile/year)	Miles	New Methane Leak Rate (kg/year)
Plastic	28.8	1	29
Year 1 Methane Reduction			142
Annual Methane Reduction			219
20-year Methane Reduction			4,385

Equation 1 was used to estimate blowdown emissions in MCF, assuming a pipeline diameter (d) and pressure (P) described in Table 3.

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

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

$$V = \pi \times \frac{d^2}{4} \times L \quad (2)$$

*Table 4 Proposed Action - Methane Blowdown*

Equation Inputs	Segment 1	Segment 2
Diameter (inches)	4	3
Blowdown Pressure	95	95
Length of Blowdown (ft.)	538	4,762
Total MCF	2.09	
Total kg	64	

## **Appendix C**

### **Water Resources**





U.S. Fish and Wildlife Service

# National Wetlands Inventory

## Village of Stuart



U.S. Fish and Wildlife Service, National Standards and Support Team  
wetlands\_team@fws.gov

February 14, 2024

### Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.





U.S. Fish and Wildlife Service

# National Wetlands Inventory

O'Neill



February 20, 2024

## Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Other

Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

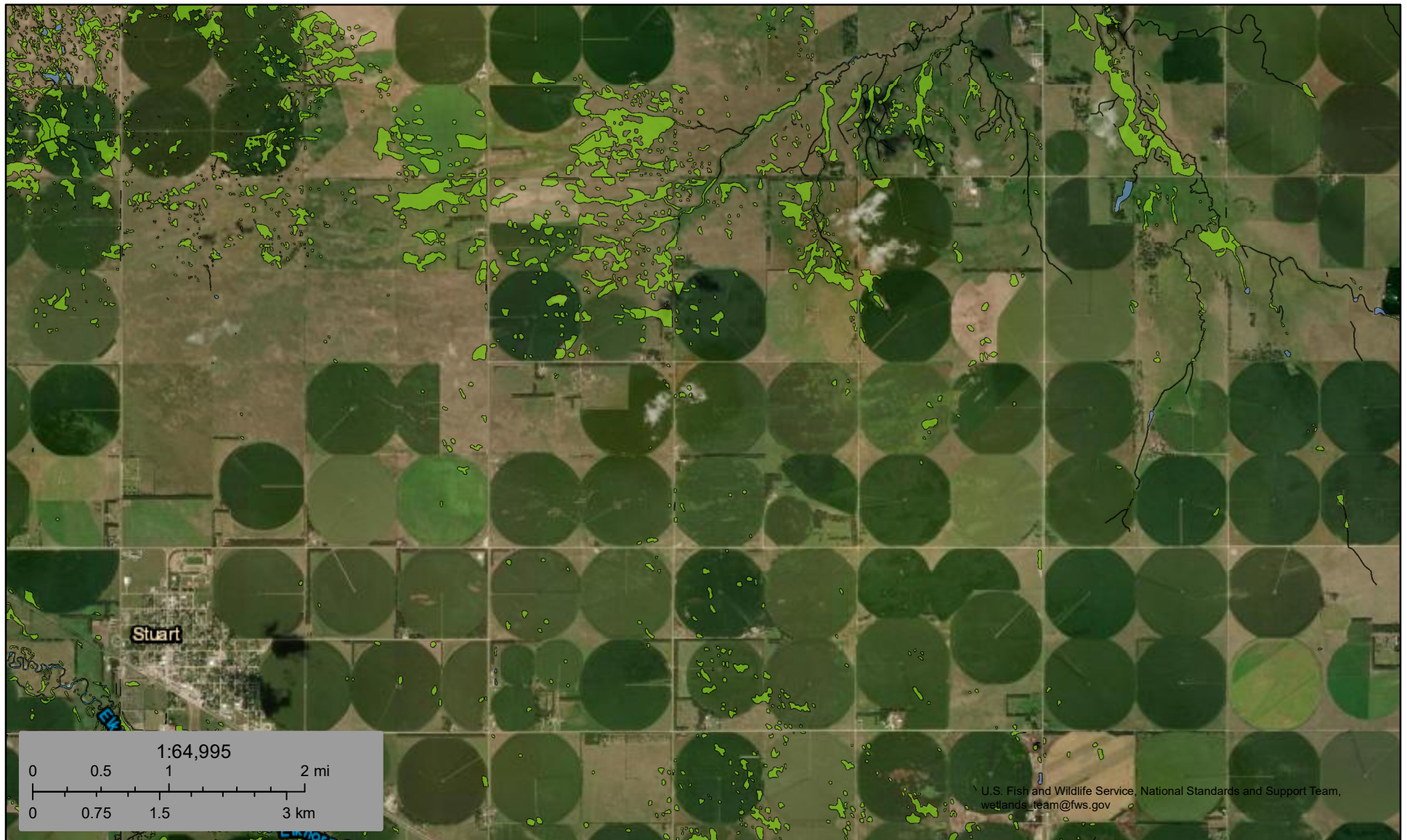




U.S. Fish and Wildlife Service

# National Wetlands Inventory

## Village of Stuart\_Rural



February 14, 2024

### Wetlands



Estuarine and Marine Deepwater



Estuarine and Marine Wetland



Freshwater Emergent Wetland



Freshwater Forested/Shrub Wetland



Freshwater Pond



Lake



Other



Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# **Appendix D**

## **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:

03/25/2024 18:23:14 UTC

Project Code: 2024-0067676

Project Name: Stuart Pipeline Replacement

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 (<https://ipac.ecosphere.fws.gov/>) at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system 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: <https://www.fws.gov/media/endangered-species-consultation-handbook> or at our Nebraska Field Office webpage (<https://www.fws.gov/office/nebraska-ecological-services/project-planning-and-review-under-endangered-species-act>). 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 Project Consultation Code in the header of this letter (i.e., YEAR-XXXXXXX) with any request for consultation or correspondence about your project that you submit to our office.

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Act, 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 and permitting see <https://www.fws.gov/program/migratory-bird-permit>

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 <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

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:

<https://www.federalregister.gov/documents/2012/10/03/2012-24433/migratory-bird-conservation-executive-order-13186>

**Platte River System:** The Platte River, its tributaries, and associated wetland habitats are resources of national importance. Due to the cumulative effect of many water depletion projects

in the Platte River basin, the Service considers any direct or indirect depletion of flows from the Platte River system to be significant and will continue to further deteriorate the already stressed habitat conditions. Federal agencies must consult with the Service under section 7 of the ESA for projects in Nebraska that may lead to water depletions or have the potential to impact water quality in the Platte River system, because these actions may affect threatened and endangered species inhabiting the downstream reaches of these river systems. The federally listed species that could be impacted from Platte River water depletions include the federally endangered Whooping Crane (*Grus americana*), and Pallid Sturgeon (*Scaphirhynchus albus*); the threatened Piping Plover (*Charadrius melodus*) and Western Prairie Fringed Orchid (*Platanthera praeclara*).

In general, depletions include evaporative losses and/or consumptive use of surface or groundwater within the affected basin, often characterized as diversions minus return flows. Project elements that could be associated with depletions include, but are not limited to: borrow sites, ponds, lakes, and reservoirs (e.g., for detention, recreating, irrigation, storage, stock watering, municipal storage, and power generation); hydrostatic testing of pipelines; wells; dust abatement; diversion structures; and water treatment facilities. For more information on consultation requirements for the Platte River species, please visit <https://fws.gov/partner/platte-river-recovery-implementation-program>

**Nebraska Nongame and Endangered Species Conservation Act:** Federally listed species protected under the Endangered Species Act are also state-listed under the Nebraska statute, the Nebraska Nongame and Endangered Species Conservation Act. There may be state-listed species affected by the proposed project that are not federally listed. To determine if the proposed project may affect state-listed species, the Service recommends that the project proponent contact the Nebraska Game and Parks Commission (NGPC) Planning and Program Division located at 2200 North 33<sup>rd</sup> Street Lincoln, Nebraska 68503-0370. For more information and to request an environmental review from the NGPC, visit their Environmental Review website at <http://outdoornebraska.gov/environmentalreview/> for instructions and contact information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

## 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: 2024-0067676

Project Name: Stuart Pipeline Replacement

Project Type: Pipeline - Onshore - Maintenance / Modification - Below Ground

Project Description: The Village of Stuart (Stuart) is proposing to replace aging and failing Polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas of Stuart's natural gas transmission system, including pipeline modernization and interim safety enhancement measures. Stuart is also proposing to add mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system. The proposed work involves limited excavation within existing transportation ROW to insert 2-inch high-density polyethylene (HDPE) into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch-high HDPE. Two (2) locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch mainline valves at twenty (20) locations in the original in-town system. The valves are located along paved or previously disturbed roadways. Additionally, the Proposed Action involves the acquisition of AMI equipment to enable the Village of Stuart to GPS the natural gas system and implement monitoring and metering the gas system.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.4727704,-98.4912636048809,14z>



Counties: Holt 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. Note that 1 of these species should be considered only under certain conditions.

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. [NOAA Fisheries](#), 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
<p>Tricolored Bat <i>Perimyotis subflavus</i></p> <p>No critical habitat has been designated for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>This species only needs to be considered if the project includes wind turbine operations.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a></p>	<p>Proposed Endangered</p>

## BIRDS

NAME	STATUS
<p>Piping Plover <i>Charadrius melodus</i></p> <p>Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.</p> <p>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></p>	<p>Threatened</p>
<p>Whooping Crane <i>Grus americana</i></p> <p>Population: Wherever found, except where listed as an experimental population</p> <p>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a></p>	<p>Endangered</p>

## FISHES

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

## INSECTS

NAME	STATUS
<p>American Burying Beetle <i>Nicrophorus americanus</i></p> <p>Population: Wherever found, except where listed as an experimental population</p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/66">https://ecos.fws.gov/ecp/species/66</a></p>	<p>Threatened</p>
<p>Monarch Butterfly <i>Danaus plexippus</i></p> <p>No critical habitat has been designated for this species.</p> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a></p>	<p>Candidate</p>

## 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.

# USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act<sup>1</sup> and the Migratory Bird Treaty Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats<sup>3</sup>, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

- 
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
  2. The [Migratory Birds Treaty Act](#) of 1918.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

## MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats<sup>3</sup> should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the ["Supplemental Information on Migratory Birds and Eagles"](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE

SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Chestnut-collared Longspur <i>Calcarius ornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9437">https://ecos.fws.gov/ecp/species/9437</a>	Breeds elsewhere
Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9561">https://ecos.fws.gov/ecp/species/9561</a>	Breeds elsewhere
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9398">https://ecos.fws.gov/ecp/species/9398</a>	Breeds May 10 to Sep 10

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

### Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

### Survey Effort (|)

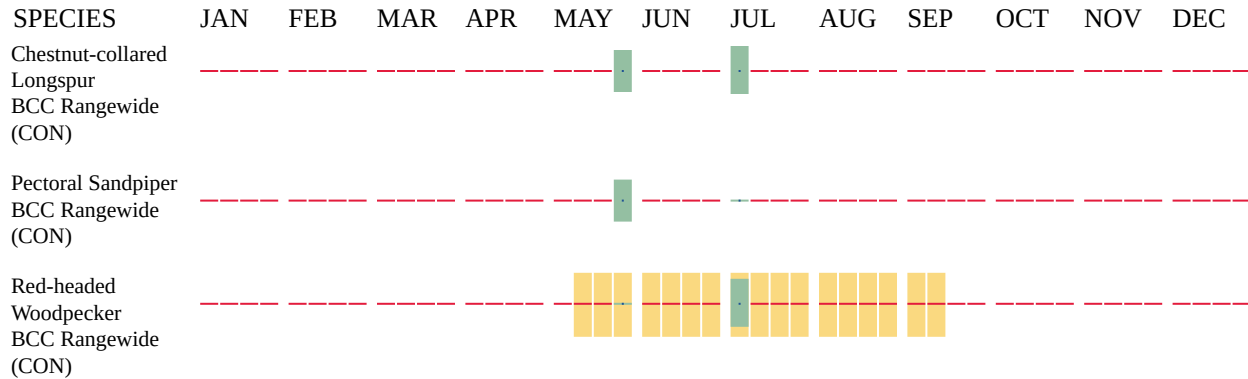
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

---

■ probability of presence   ■ breeding season   | survey effort   — no data



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT [HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML](https://www.fws.gov/wetlands/data/mapper.html) OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

## IPAC USER CONTACT INFORMATION

Agency: Pipeline and Hazardous Materials Safety Administration

Name: Travis Mast

Address: 55 Broadway

City: Cambridge

State: MA

Zip: 01452

Email: travis.mast@dot.gov

Phone: 6174943782

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)



## 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:

03/25/2024 18:57:24 UTC

Project code: 2024-0067676

Project Name: Stuart Pipeline Replacement

Subject: Consistency letter for 'Stuart Pipeline Replacement' project for a No Effect determination for the American burying beetle

Dear Travis Mast:

The U.S. Fish and Wildlife Service (Service) received on **March 25, 2024** your effect determination(s) for the 'Stuart Pipeline Replacement' (the Action) using the American burying beetle (*Nicrophorus americanus*) determination key within the Information for Planning and Consultation (IPaC) system.

The Service developed this system in accordance with the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.)

Based on your consideration of the Action and the assistance in the Service's American burying beetle determination key, you have determined that your proposed action will have No Effect on the American burying beetle.

Your agency has met consultation requirements for these species by informing the Service of your "no effect" determination. No further consultation for this project is required for the American burying beetle. This consistency letter confirms you may rely on effect determinations you reached by considering the American burying beetle DKey to satisfy agency consultation requirements under Section 7(a) (2) of the Endangered Species Act of 1973 (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.; ESA).

Coordination with your local Ecological Services Office is complete for the American burying beetle. If your project may affect additional listed species, please contact your local Ecological Services Field Office for assistance with those species. Thank you for considering Federally-listed species during your project planning.

This letter covers only the American burying beetle. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Monarch Butterfly *Danaus plexippus* Candidate
- Pallid Sturgeon *Scaphirhynchus albus* Endangered

- Piping Plover *Charadrius melodus* Threatened
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Endangered

If your project may affect additional listed species, you must evaluate additional DKeys for other species, or submit a request for consultation for the additional species to your local Ecological Services Field Office.

The Service recommends that your agency contact the Service or re-evaluate the project in IPaC if: 1) the scope or location of the proposed project is changed significantly, 2) new information reveals that the action may affect listed species or designated critical habitat; 3) the action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation should take place before project changes are final or resources committed.

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

Stuart Pipeline Replacement

**2. Description**

The following description was provided for the project 'Stuart Pipeline Replacement':

The Village of Stuart (Stuart) is proposing to replace aging and failing Polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas of Stuart's natural gas transmission system, including pipeline modernization and interim safety enhancement measures. Stuart is also proposing to add mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system. The proposed work involves limited excavation within existing transportation ROW to insert 2-inch high-density polyethylene (HDPE) into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch-high HDPE. Two (2) locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch mainline valves at twenty (20) locations in the original in-town system. The valves are located along paved or previously disturbed roadways. Additionally, the Proposed Action involves the acquisition of AMI equipment to enable the Village of Stuart to GPS the natural gas system and implement monitoring and metering the gas system.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.4727704,-98.4912636048809,14z>





## QUALIFICATION INTERVIEW

1. Is the action authorized, funded, or being carried out by a Federal agency?

Yes

2. Have you determined that the proposed action will have “no effect” on the American burying beetle? (If you are unsure select "No")

No

3. Will your activity **purposefully take** American burying beetles?

No

4. Is your project wholly inside the 4d rule Analysis Area? For areas of your project occurring inside the Analysis Area (New England, Northern Plains, Southern Plains), your project may qualify for exemptions. For areas of your project occurring outside the Analysis Area, all incidental take is exempted according to the ABB 4d Rule.

**Automatically answered**

Yes

5. Is the proposed action part of wildlife management that's being conducted by Federal or State government agencies?

No

6. Is the action being led by an employee or agent of the Service or of a State conservation agency that is operating a conservation program pursuant to the terms of a cooperative agreement with the Service in accordance with section 6(c) of the Act, who is designated by his or her agency for such purposes, may, when acting in the course of his or her official duties, take American burying beetles, provided that, for State conservation agencies, the American burying beetle is covered by an approved cooperative agreement to carry out conservation programs.

No

7. Is the proposed action considered to be normal **ranching and grazing** activities? See definition

No

8. Is American burying beetle [suitable habitat](#) present within the action area?

No

## PROJECT QUESTIONNAIRE

Please select the activity that best matches your proposed action.

*13. Other activities with soil disturbance - briefly describe below*

If you chose 13 above, please describe below. If you did not choose 13 above, please type "0".

*Soil disturbance related to repair of existing municipally owned natural gas pipeline.*

## IPAC USER CONTACT INFORMATION

Agency: Pipeline and Hazardous Materials Safety Administration

Name: Travis Mast

Address: 55 Broadway

City: Cambridge

State: MA

Zip: 01452

Email: travis.mast@dot.gov

Phone: 6174943782

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

# NEBRASKA THREATENED AND ENDANGERED SPECIES

	Common Name	Scientific Name	State Status	Federal Status
<b>BIRDS</b>	Eskimo Curlew*	<i>Numenius borealis</i>	Endangered	Endangered
	Whooping Crane	<i>Grus americana</i>	Endangered	Endangered
	Interior Least Tern	<i>Sternula antillarum athalassos</i>	Endangered <sup>α</sup>	
	Eastern Black Rail ^	<i>Laterallus jamaicensis jamaicensis</i>	Threatened	Threatened
	Piping Plover	<i>Charadrius melodus</i>	Threatened	Threatened
	Rufa Red Knot ^	<i>Calidris canutus rufa</i>	Threatened	Threatened
	Thick-Billed Longspur	<i>Rhynchophanes mccownii</i>	Threatened	
	Mountain Plover	<i>Charadrius montanus</i>	Threatened	
<b>MAMMALS</b>	Black-footed Ferret*	<i>Mustela nigripes</i>	Endangered	Endangered
	Swift Fox	<i>Vulpes velox</i>	Endangered	
	Gray Wolf ^	<i>Canis lupus</i>	Endangered	Endangered
	Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Endangered	Endangered
	Southern Flying Squirrel	<i>Glaucomys volans</i>	Threatened	
<b>FISH</b>	Pallid Sturgeon	<i>Scaphirhynchus albus</i>	Endangered	Endangered
	Topeka Shiner	<i>Notropis topeka</i>	Endangered	Endangered
	Sturgeon Chub	<i>Macrhybopsis gelida</i>	Endangered	
	Blacknose Shiner	<i>Notropis heterolepis</i>	Endangered	
	Lake Sturgeon	<i>Acipenser fulvescens</i>	Threatened	
	Northern Redbelly Dace	<i>Chrosomus eos</i>	Threatened	
	Finescale Dace	<i>Chrosomus neogaeus</i>	Threatened	
<b>INSECTS</b>	American Burying Beetle	<i>Nicrophorus americanus</i>	Threatened	Threatened 4(d) rule
	Salt Creek Tiger Beetle	<i>Cicindela nevadica lincolniiana</i>	Endangered	Endangered
<b>REPTILES</b>	Timber Rattlesnake	<i>Crotalus horridus</i>	Threatened	
	Western Massasauga	<i>Sistrurus tergeminus</i>	Threatened	
<b>MUSSELS</b>	Scaleshell Mussel	<i>Leptodea leptodon</i>	Endangered	Endangered
<b>PLANTS</b>	Blowout Penstemon	<i>Penstemon haydenii</i>	Endangered	Endangered
	Colorado Butterfly Plant	<i>Gaura neomexicana ssp. coloradensis</i>	Endangered	
	Saltwort	<i>Salicornia rubra</i>	Endangered	
	Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	Threatened	Threatened
	Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	Threatened	Threatened
	American Ginseng	<i>Panax quinquefolius</i>	Threatened	
	Small White Lady's Slipper	<i>Cypripedium candidum</i>	Threatened	

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

<sup>α</sup> 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

Updated April 2023

## **Appendix E**

### **Cultural Resources**



Submission of a completed Project Information Form with adequate information and attachments constitutes a request for review pursuant to Section 106 of the National Historic Preservation Act of 1966 (as amended). More information may be required to adequately complete the Section 106 process. Submit completed form to [HN.HP@nebraska.gov](mailto:HN.HP@nebraska.gov).

**NOTE: Section 106 regulations provide for a 30-day response time by the Nebraska State Historic Preservation Office from the date of receipt.**

PROJECT NAME (if applicable)

PROJECT NUMBER  
(if applicable)

COUNTY

STREET ADDRESS (No P.O. Box Numbers)

CITY

FEDERAL AGENCY OR DESIGNEE

CONTACT PERSON

CITY, STATE ZIP

TELEPHONE

EMAIL (for response)

## PROJECT DESCRIPTION

Briefly describe the overall project.

## DESIGNATIONS

To the best of your knowledge, is the structure any of the following?

- ☐ Listed Individually on the National Register    ☐ Listed within a National Register Historic District
- ☐ Designated Local Landmark    ☐ Designated Local Landmark District

## PHOTOGRAPHS

Please provide photographs of all structures. Photographs of neighboring or nearby buildings are helpful. Go to page 2 to insert photo(s).

## NESHPO USE ONLY

### Nebraska SHPO Determination

Site Number: \_\_\_\_\_

☐ No potential to cause effects

☐ Adverse effect (More consultation needed)

☐ No historic properties affected

☐ The SHPO requests additional information (see attached)

☐ No adverse effect



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 28, 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 Village of Stuart, Nebraska

**Grant Recipient:** Village of Stuart

**Project Location:** Village of Stuart and City of O'Neill, Holt County, 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 Village of Stuart (Grant Recipient) 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**

The Grant Recipient is proposing to replace aging and failing polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas, including pipeline modernization and interim safety enhancement measures. Mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system will also be installed.

The Grant Recipient maintains three areas of natural gas lines within Holt County:

- 1) The in-town Stuart area.
- 2) Rural Stuart, located northwest of the Village of Stuart limits in agricultural lands.
- 3) The Shamrock System, located east of the City of O'Neill in a primarily agricultural area.

An estimated 5,300 linear feet (approximately 1-mile) of aging PVC and steel pipelines at five locations in the Shamrock System will be replaced. Most of the proposed pipeline work involves inserting 2-inch high-density PE into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch high-density PE. Two locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch valves to existing main pipelines at twenty locations in the existing in-town Stuart system. The valves will be located along paved or previously disturbed roadways where main pipeline currently exist. Existing pipelines are buried at 36 inches, so ground disturbance to install new valves would occur at an entry point that would not exceed of 72 inches by 96 inches at a maximum depth of 48 inches. Additionally, AMI equipment will be acquired to enable the Village of Stuart

to use global positioning system (GPS) for the natural gas system and implement monitoring for the gas system. The AMI equipment would be mounted on the centralized pivot point irrigation units already present onsite. The equipment acquisition, installation, and implementation of the equipment would not involve ground disturbance. The AMI units are small transmitters with antenna that will not exceed 9 inches by 11 inches. A gravel parking lot, owned by a local power company, may be used as a staging area during construction. Otherwise, construction equipment would be staged on a portable trailer to reduce ground disturbance within the agricultural fields, which already have access roads that are constantly used by trucks and cars for agriculture. No new right-of-way (ROW) or easements would be needed for this Undertaking.

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, installation of valves at mainline locations, and installation of AMI equipment, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW where pipelines will be replaced, one parcel containing an agricultural field where a pipeline will be replaced, the ROW where valves will be installed, and location points where AMI equipment will be mounted, all of 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 48 inches below grade. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas, and agricultural fields throughout the Village of Stuart, rural areas of the Village of Stuart and an area east of O'Neill. 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 and assess the archaeological sensitivity of the APE.

### ***Historic Architecture***

A search of the NRHP database and a file search conducted by History Nebraska on behalf of PHMSA found no NRHP-listed or NRHP-eligible above-ground resources within the APE. Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines within the existing ROW, installation of valves at existing pipeline locations, and mounting of AMI equipment, the identification effort for additional above-ground resources focused on identifying properties that are susceptible to the effects of this work and could experience diminished integrity as a result of the Undertaking. The AMI equipment are small features that are not within the viewshed of any historic property and would not cause any visual impacts. The project work will not have any physical impacts to above-ground resources or lasting visual or audible effects. A review of the APE found no other potentially significant above-ground resources that have the potential to be affected by the 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 one archaeological survey was identified within the APE. Within one quarter of a mile of the APE, one archaeological site (HT 15), which has not been evaluated for NRHP eligibility but has likely been destroyed by agriculture, and seven surveys were identified (Table 1).

*Table 1. Previously Conducted Archeological Surveys within the APE and within one quarter of a mile of the APE*

<b>Report</b>	<b>Citation</b>	<b>Location of Survey</b>
Lomas, Monica Shah, Cally Lence, Jeff Myers, Jeff Anderson, Chip Perkins, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 10 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Hol	Lomas et al. 2012	Within APE
Bozell, Rob 1997 NHAP-PSS S-20-4(1016), Stuart W.	Bozell 1997	Within one quarter of a mile of the APE
Lomas, Monica Shah, Jeff Anderson, Cally Lence, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 11 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance	Lomas et al. 2012	Within one quarter of a mile of the APE
American Resources Group, Ltd. 2020 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 19 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route, Project Number: TAL-00050388-75, Document Control Number: KXL1399-E	American Resources Group, Ltd. 2020	Within one quarter of a mile of the APE
Mayer, Aaron J. 2022 A Phase II Cultural Resources Investigation of the Ebenezer Management, LLC Municipal Solar Project Localities in Box Butte, Cheyenne, Custer, Holt, and Thurston Counties, Nebraska	Mayer 2022	Within one quarter of a mile of the APE
Goodrich, Brian 2022 SAO-PSS NH-20-3(118) CN81094 Stuart West, Holt and Rock Counties, Nebraska	Goodrich 2022	Within one quarter of a mile of the APE
Giedd, Alycia, Monica Shah Lomas, Chip Perkins, Steve Titus 2014 Addendum 14 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance, Merrick, Polk, York, Fillmore,	Giedd et al.	Within one quarter of a mile of the APE
Anderson, Jeff, Cally Lence, Robert Sadler, and Steve Titus 2018 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 16 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route Project Number: TAL-00050388-60	Anderson et al. 2018	Within one quarter of a mile of the APE

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 2. Well drained and moderately well drained soils can be indicative of human habitation during both the precontact and historic periods. One hundred percent of soils within the APE are somewhat excessively and excessively drained soil types. Typically slopes greater than 15 percent are not suitable for human occupation, and soil types

within the APE vary from 0 to 9 percent slope. The Village of Stuart and City of O'Neill are primarily within the Elkhorn River watershed, which drains into the Palette River and eventually the Missouri River. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

*Table 2. Soil Types within the APE*

<b>Soil Type</b>	<b>Drainage Class</b>	<b>Slope</b>	<b>Percent of APE</b>
Dunday loamy sand	Somewhat excessively drained	0-3%	1.1%
Pivot loamy sand	Somewhat excessively drained	0-3%	8.5%
Valentine fine sand	Excessively drained	0-3%	3.9%
Valentine fine sand	Excessively drained	3-9%	1.6%
Valentine-Dunday loamy fine sands, moist	Excessively drained	3-9%	7.1%
Valentine-Dunday loamy fine sands	Excessively drained	0-3%	76.6
Other			1.3%

Most of the APE is limited to the existing ROW or utility easement, some of which has been previously disturbed up to the proposed ground disturbance depth of 48 inches due to prior pipeline installation and installation of other utilities. At the time these areas were developed, pipelines were installed via open trenches, which would have disturbed more soil than the proposed construction methods. For this project, all work will be done via directional boring or insertion 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 finds that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Therefore, in accordance with 36 CFR § 800.4(d)(1), PHMSA has determined the Undertaking will result in No Historic Properties Affected.

#### **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 non-response 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
- Pawnee Nation of Oklahoma
- Ponca Tribe of Nebraska
- Ponca Tribe of Indians of Oklahoma

**Request for Section 106 Concurrence**

Based on the information presented above, PHMSA finds that the Undertaking will result in No Historic Properties Affected. 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 [PHMSASection106@dot.gov](mailto:PHMSASection106@dot.gov) or 857-320-1359.

Sincerely,



Matt Fuller  
Senior Environmental Protection Specialist

MF/kg

cc: Travis Mast, Environmental Protection Specialist, USDOT Volpe Center  
Jasmine Carr, PHMSA Grant Specialist  
Rick Shearer, Village of Stuart  
Bob Lockmon, Village of Stuart  
Holt County Historical Society Museum

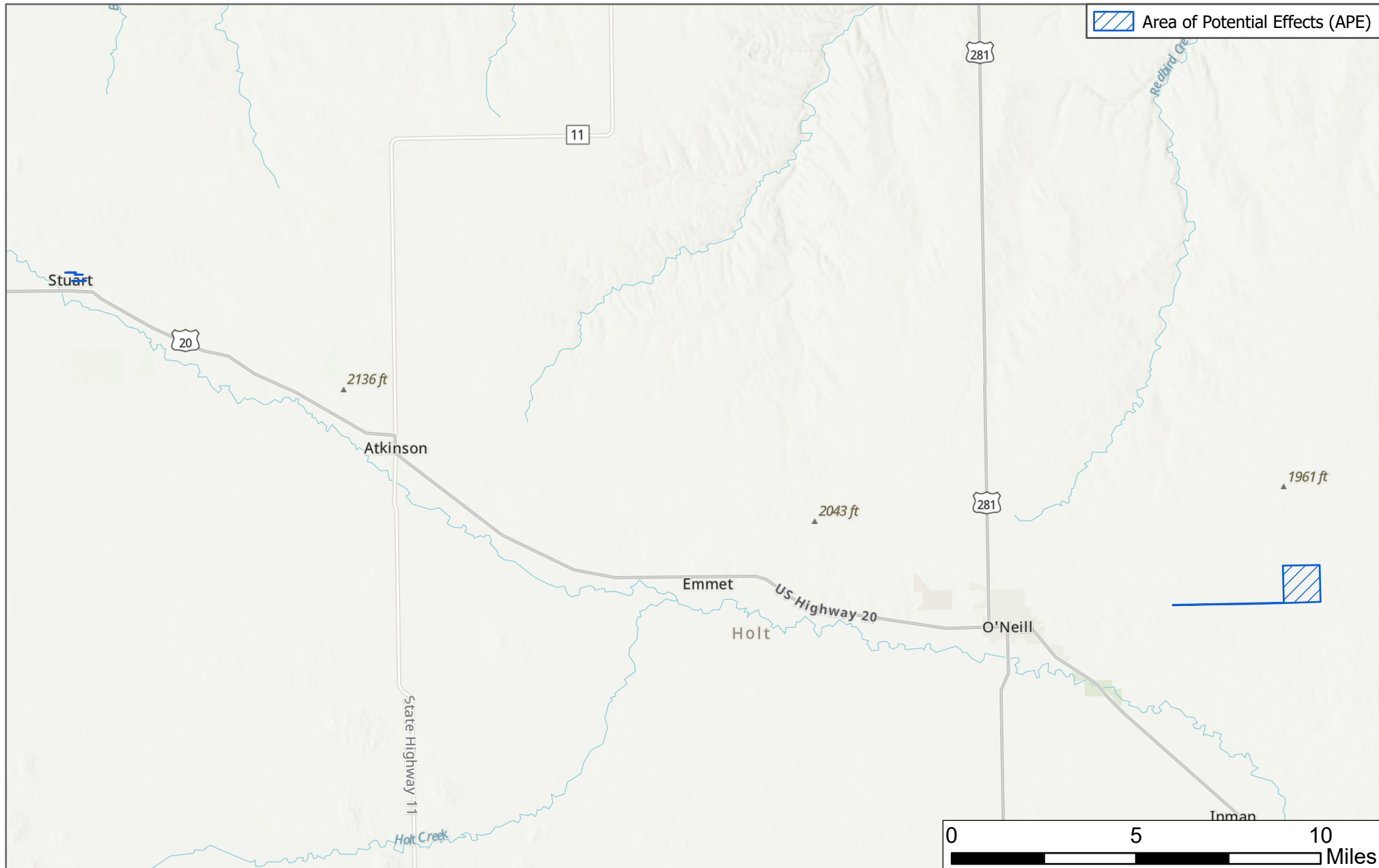
**Enclosures:**

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



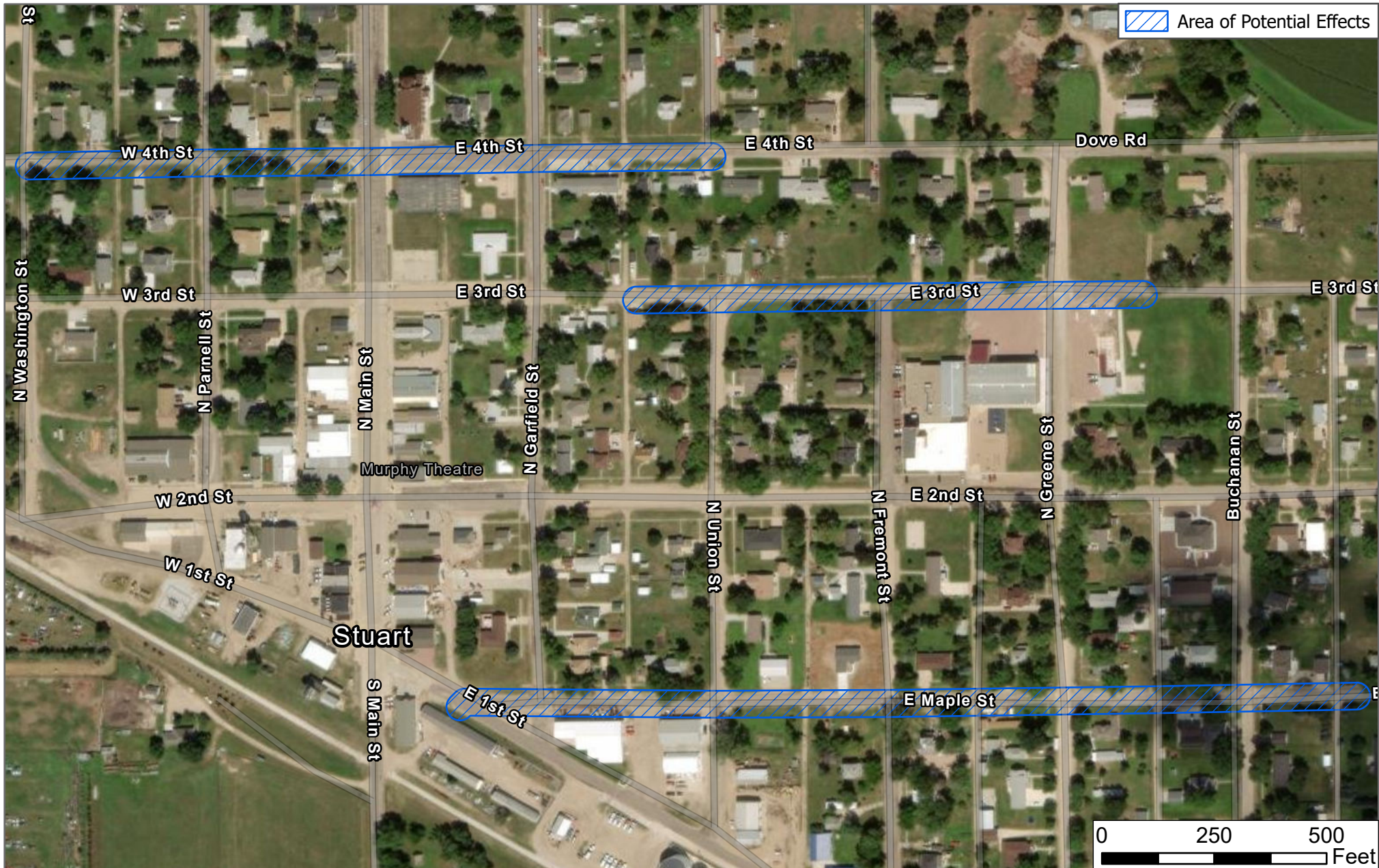
Name: Stuart Nebraska Gas Line Replacement  
Scale: 225,000  
Total Acreage: 672.3  
USGS Basemap: Stuart and Stuart SE  
Stuart, NE, Holt County



Service Layer Credits: Esri, NASA, NGA, USGS, Nebraska Game & Parks Commission, South Dakota Game Fish and Parks, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS



# Area of Potential Effects Map



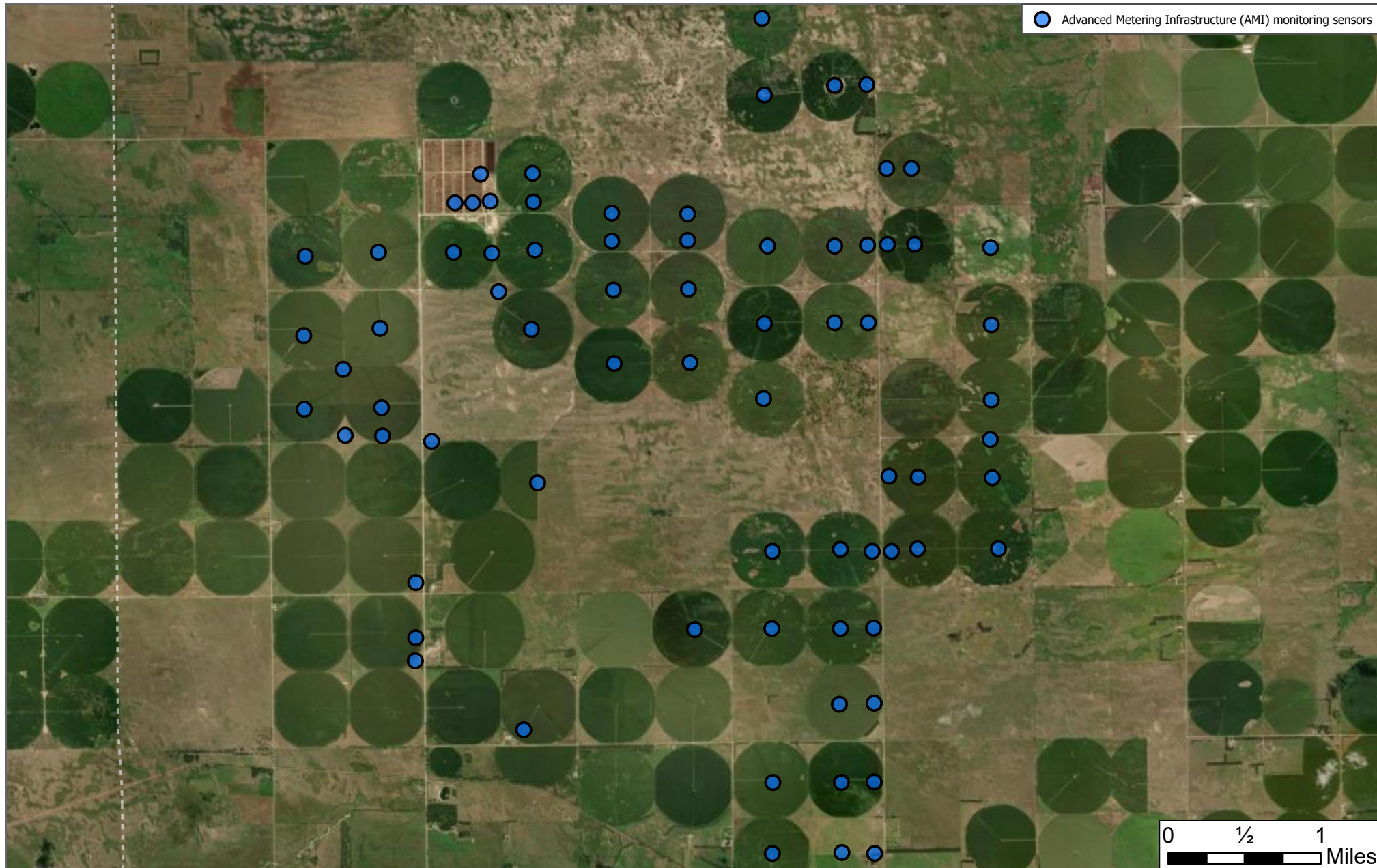
Name: Stuart Nebraska Gas Line Replacement  
 Scale: 3,500  
 Total Acreage: 672.3  
 Stuart, NE, Holt County



Service Layer Credits: Esri Community Maps Contributors, Nebraska Game & Parks Commission, South Dakota Game Fish and Parks, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar



# Area of Potential Effects Map



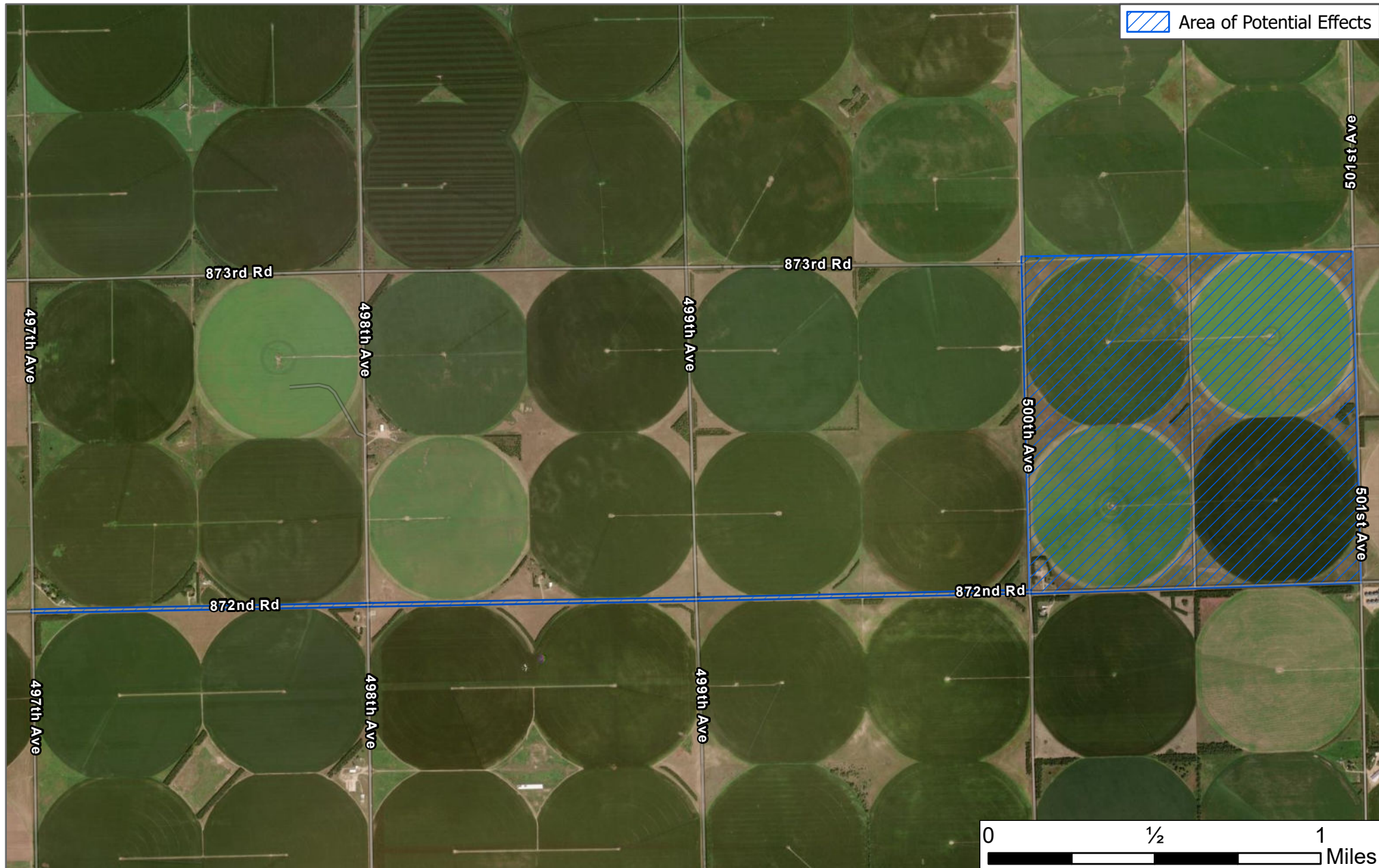
Name: Stuart Nebraska Gas Line Replacement  
Scale: 54,500  
Stuart, NE, Holt County



Service Layer Credits: Earthstar Geographics, Nebraska Game & Parks Commission, South Dakota Game Fish and Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS



# Area of Potential Effects Map



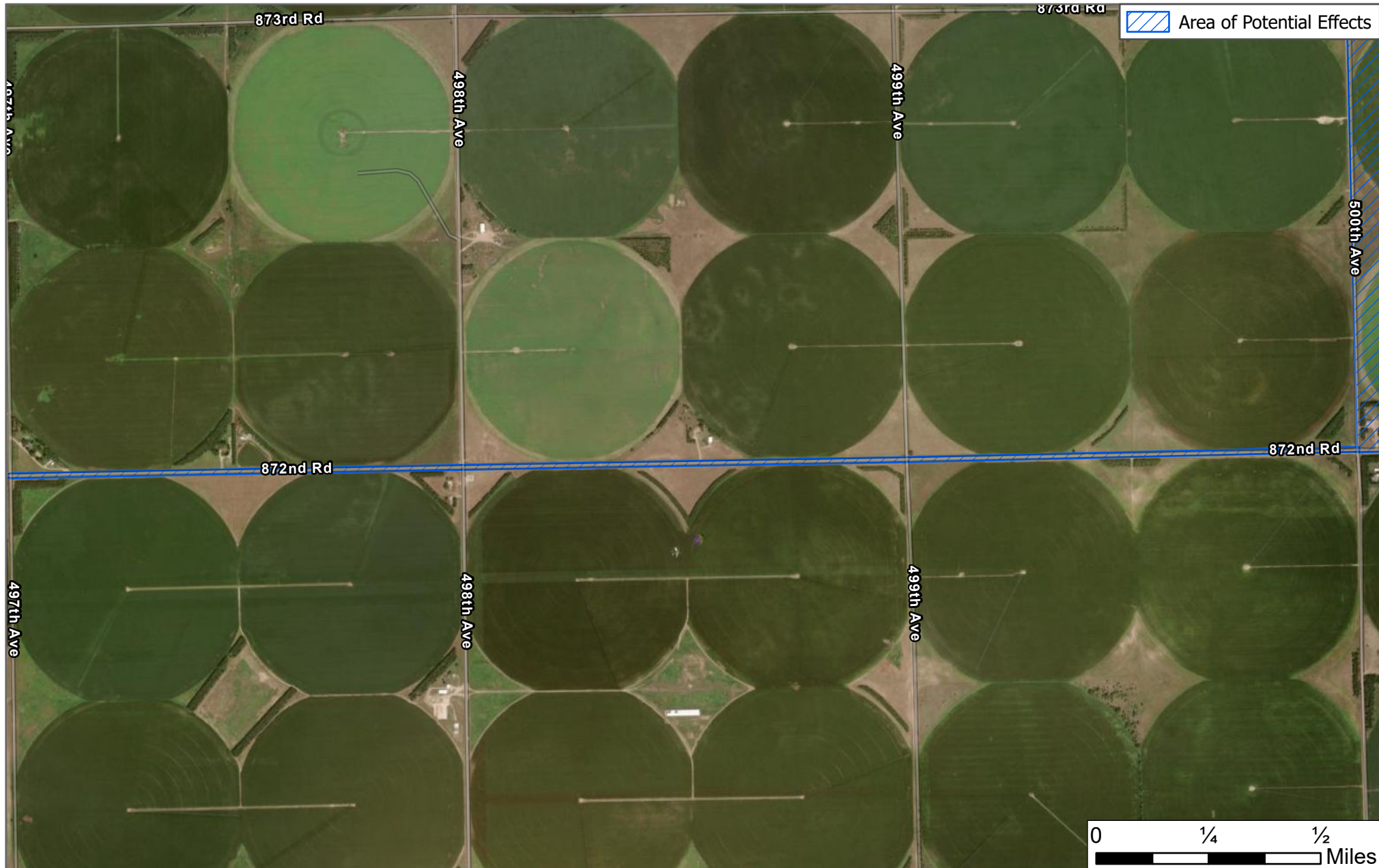
Name: Stuart Nebraska Gas Line Replacement  
Scale: 25,000  
Total Acreage: 672.3  
O'Neill, NE, Holt County



Service Layer Credits: Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar



# Area of Potential Effects Map

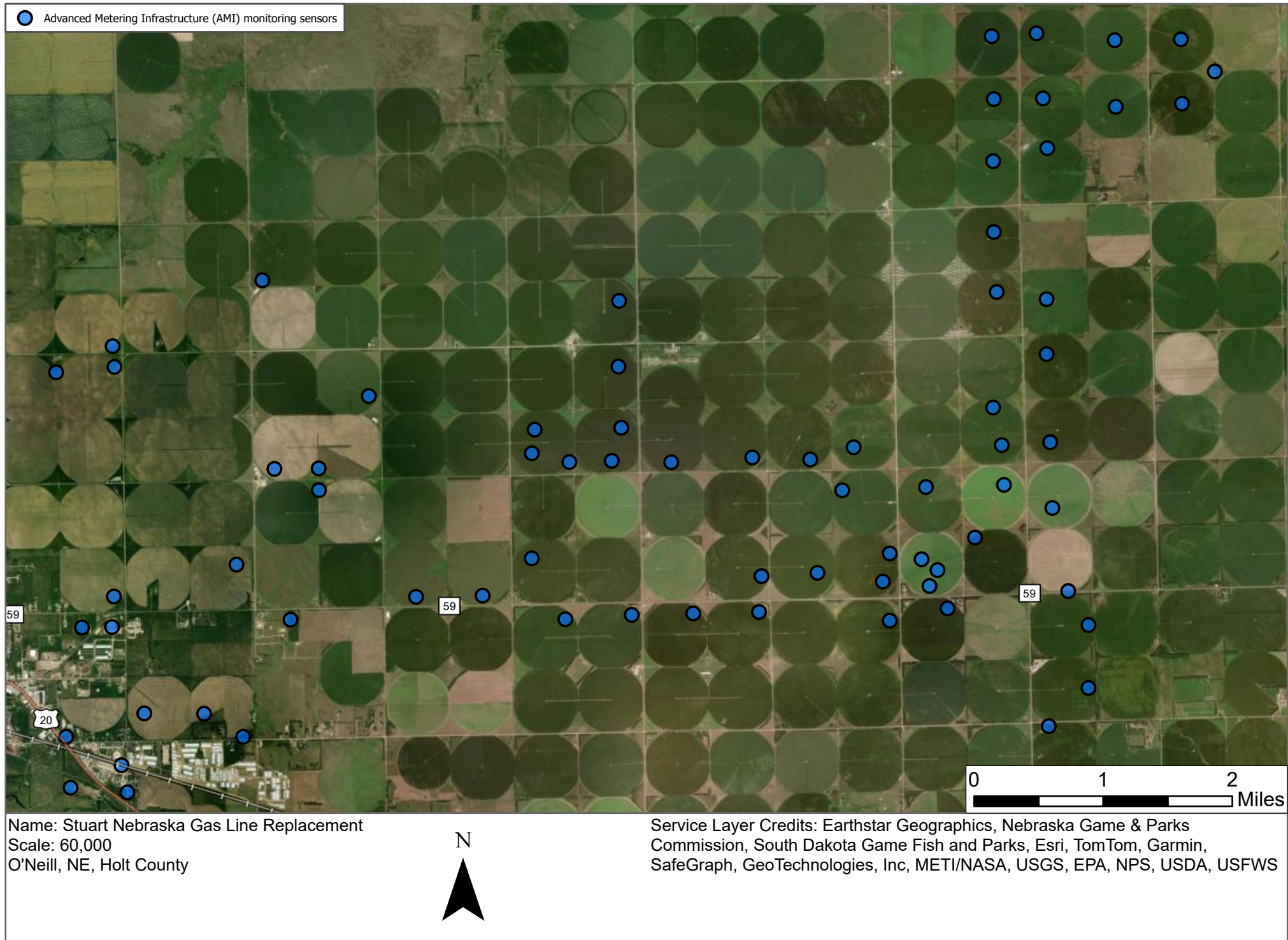


Name: Stuart Nebraska Gas Line Replacement  
Scale: 18,500  
Total Acreage: 672.3  
O'Neill, NE, Holt County



Service Layer Credits: Nebraska Game & Parks Commission, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar

# Area of Potential Effects Map



## **ATTACHMENT B**

### **Project Area Photographs**





Existing above-ground 4" steel vaguely visible in front of marker post to be replaced with 4" HDPE pipe and 4" valve.



Existing 4" steel behind center meter to be replaced with 2" HDPE riser at this location. Two service lines to be connected to new 2" HDPE main line riser.



General view looking north on 500 Avenue. Existing 4" steel crossing Hwy 108 diagonally to marker post east of power switch pole on north side. 2" HDPE to be inserted through existing 4" steel under Hwy 108.



4" steel pipe crossing 498 Avenue to be replaced with 4" HDPE. Existing 3 and 4" valves and above-ground piping to be replaced with 4" valve and 2" riser for pressure test station.



Existing 3" steel firebreak to be replaced with 2" HDPE riser to feed meter shown.



View looking north from Hwy 108



Existing service line follows this route.



Existing service line follows this route.





View looking west from new valve location.



View looking north from new valve location.



Looking west on Maple Street. New valve location will be at end of alley along paved street.



Valve location - looking north in alley between 3rd and 4th Streets



View west from valve location, looking towards Union Street.



View looking west from Garfield Street.

**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:** Katheryn Giraldo  
USDOT Volpe Center  
220 Binney Street, Cambridge, MA  
E-mail: PHMSASection106@dot.gov



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 28, 2024

Wamblee Smith  
Acting Environmental Director  
Apache Tribe of Oklahoma  
PO Box 1330  
Anadarko, OK 73005

**Section 106 Consultation:** PHMSA Pipeline Replacement Project in the Village of Stuart, Nebraska

**Grant Recipient:** Village of Stuart

**Project Location:** Village of Stuart and City of O'Neill, Holt County, Nebraska

Dear Director Smith:

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 Village of Stuart (Grant Recipient) 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). The purpose of this letter is to initiate Section 106 consultation for the Undertaking to determine if there are historic properties of cultural or religious significance to your Tribe/Nation that may be affected by the Undertaking, to determine if you want to be a consulting party, and to notify your Tribe/Nation of PHMSA's intention to make a finding of No Historic Properties Affected. PHMSA is also available for Government-to-Government consultation on this Program.

### **Project Description/Background**

The Grant Recipient is proposing to replace aging and failing polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas, including pipeline modernization and interim safety enhancement measures. Mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system will also be installed.

The Grant Recipient maintains three areas of natural gas lines within Holt County:

- 1) The in-town Stuart area.
- 2) Rural Stuart, located northwest of the Village of Stuart limits in agricultural lands.
- 3) The Shamrock System, located east of the City of O'Neill in a primarily agricultural area.

An estimated 5,300 linear feet (approximately 1-mile) of aging PVC and steel pipelines at five locations in the Shamrock System will be replaced. Most of the proposed pipeline work involves inserting 2-inch high-density PE into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch high-density PE. Two locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch valves to existing main pipelines at twenty locations in the existing in-town Stuart system. The valves will be located along paved or previously disturbed roadways where main pipeline currently exist. Existing pipelines are buried at 36 inches, so ground disturbance to install new valves would occur at an entry point that would not exceed of 72 inches by 96 inches at a maximum depth of 48 inches. Additionally, AMI equipment will be acquired to enable the Village of Stuart to use global positioning system (GPS) for the natural gas system and implement monitoring for the gas system. The AMI equipment would be mounted on the centralized pivot point irrigation units already present onsite. The equipment acquisition, installation, and implementation of the equipment would not involve ground disturbance. The AMI units are small transmitters with antenna that will not exceed 9 inches by 11 inches. A gravel parking lot, owned by a local power company, may be used as a staging area during construction. Otherwise, construction equipment would be staged on a portable trailer to reduce ground disturbance within the agricultural fields, which already have access roads that are constantly used by trucks and cars for agriculture. No new right-of-way (ROW) or easements would be needed for this Undertaking.

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, installation of valves at mainline locations, and installation of AMI equipment, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW where pipelines will be replaced, one parcel containing an agricultural field where a pipeline will be replaced, the ROW where valves will be installed, and location points where AMI equipment will be mounted, all of 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 48 inches below grade. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas, and agricultural fields throughout the Village of Stuart, rural areas of the Village of Stuart and an area east of O'Neill. 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 and assess the archaeological sensitivity of the APE.

### ***Historic Architecture***

A search of the NRHP database and a file search conducted by History Nebraska on behalf of PHMSA found no NRHP-listed or NRHP-eligible above-ground resources within the APE. Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines within the existing ROW, installation of valves at existing pipeline locations, and mounting of AMI equipment, the identification effort for additional above-ground resources focused on identifying properties that are susceptible to the effects of this work and could experience diminished integrity as a result of the Undertaking. The AMI equipment are small features that are not within the viewshed of any historic property and would not cause any visual impacts. The project work will not have any physical impacts to above-ground resources or

lasting visual or audible effects. A review of the APE found no other potentially significant above-ground resources that have the potential to be affected by the 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 one archaeological survey was identified within the APE. Within one quarter of a mile of the APE, one archaeological site (HT 15), which has not been evaluated for NRHP eligibility but has likely been destroyed by agriculture, and seven surveys were identified (Table 1).

*Table 1. Previously Conducted Archeological Surveys within the APE and within one quarter of a mile of the APE*

<b>Report</b>	<b>Citation</b>	<b>Location of Survey</b>
Lomas, Monica Shah, Cally Lence, Jeff Myers, Jeff Anderson, Chip Perkins, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 10 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt	Lomas et al. 2012	Within APE
Bozell, Rob 1997 NHAP-PSS S-20-4(1016), Stuart W.	Bozell 1997	Within one quarter of a mile of the APE
Lomas, Monica Shah, Jeff Anderson, Cally Lence, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 11 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance	Lomas et al. 2012	Within one quarter of a mile of the APE
American Resources Group, Ltd. 2020 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 19 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route, Project Number: TAL-00050388-75, Document Control Number: KXL1399-E	American Resources Group, Ltd. 2020	Within one quarter of a mile of the APE
Mayer, Aaron J. 2022 A Phase II Cultural Resources Investigation of the Ebenezer Management, LLC Municipal Solar Project Localities in Box Butte, Cheyenne, Custer, Holt, and Thurston Counties, Nebraska	Mayer 2022	Within one quarter of a mile of the APE
Goodrich, Brian 2022 SAO-PSS NH-20-3(118) CN81094 Stuart West, Holt and Rock Counties, Nebraska	Goodrich 2022	Within one quarter of a mile of the APE
Giedd, Alycia, Monica Shah Lomas, Chip Perkins, Steve Titus 2014 Addendum 14 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance, Merrick, Polk, York, Fillmore,	Giedd et al.	Within one quarter of a mile of the APE
Anderson, Jeff, Cally Lence, Robert Sadler, and Steve Titus 2018 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 16 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route Project Number: TAL-00050388-60	Anderson et al. 2018	Within one quarter of a mile of the APE

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 2. Well drained and moderately well drained soils can be indicative of human habitation during both the precontact and historic periods. One hundred percent of soils within the APE are somewhat excessively and excessively drained soil types. Typically slopes greater than 15 percent are not suitable for human occupation, and soil types within the APE vary from 0 to 9 percent slope. The Village of Stuart and City of O'Neill are primarily within the Elkhorn River watershed, which drains into the Palette River and eventually the Missouri River. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

*Table 2. Soil Types within the APE*

<b>Soil Type</b>	<b>Drainage Class</b>	<b>Slope</b>	<b>Percent of APE</b>
Dunday loamy sand	Somewhat excessively drained	0-3%	1.1%
Pivot loamy sand	Somewhat excessively drained	0-3%	8.5%
Valentine fine sand	Excessively drained	0-3%	3.9%
Valentine fine sand	Excessively drained	3-9%	1.6%
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Valentine-Dunday loamy fine sands	Excessively drained	0-3%	76.6
Other			1.3%

Most of the APE is limited to the existing ROW or utility easement, some of which has been previously disturbed up to the proposed ground disturbance depth of 48 inches due to prior pipeline installation and installation of other utilities. At the time these areas were developed, pipelines were installed via open trenches, which would have disturbed more soil than the proposed construction methods. For this project, all work will be done via directional boring or insertion 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 finds that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Therefore, in accordance with 36 CFR § 800.4(d)(1), PHMSA has determined the Undertaking will result in No Historic Properties Affected.

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

PHMSA requests that you provide any information you have regarding historic properties of religious or cultural significance to your Tribe/Nation that may be present in the APE and affected by the Undertaking. If your Tribe/Nation is unaware of any historic properties beyond what we have identified to date, PHMSA is notifying your Tribe/Nation of our intention to make a No Adverse Effect to Historic Properties finding. Please notify us within 30 days from the date of receipt of this letter if you have any concerns about the project's effects to historic properties. Should you need additional information please contact Kat Giraldo, Section 106 specialist, at [PHMSASection106@dot.gov](mailto:PHMSASection106@dot.gov) or 857-320-1359.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Fuller". The signature is fluid and cursive, with the first name "Matt" and last name "Fuller" clearly distinguishable.

Matt Fuller  
Senior Environmental Protection Specialist

MF/kg

cc: Travis Mast, Environmental Protection Specialist, USDOT Volpe Center  
Jasmine Carr, PHMSA Grant Specialist

Enclosures:

Attachment A: Project Location and APE Maps  
Attachment B: Project Area Photographs



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 28, 2024

Reggie Wassana  
Governor  
Cheyenne and Arapaho Tribes, Oklahoma  
100 Red Moon Circle  
Concho, OK – 73022

**Section 106 Consultation:** PHMSA Pipeline Replacement Project in the Village of Stuart, Nebraska

**Grant Recipient:** Village of Stuart

**Project Location:** Village of Stuart and City of O'Neill, Holt County, Nebraska

Dear Governor Wassana:

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 Village of Stuart (Grant Recipient) 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). The purpose of this letter is to initiate Section 106 consultation for the Undertaking to determine if there are historic properties of cultural or religious significance to your Tribe/Nation that may be affected by the Undertaking, to determine if you want to be a consulting party, and to notify your Tribe/Nation of PHMSA's intention to make a finding of No Historic Properties Affected. PHMSA is also available for Government-to-Government consultation on this Program.

### **Project Description/Background**

The Grant Recipient is proposing to replace aging and failing polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas, including pipeline modernization and interim safety enhancement measures. Mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system will also be installed.

The Grant Recipient maintains three areas of natural gas lines within Holt County:

- 1) The in-town Stuart area.
- 2) Rural Stuart, located northwest of the Village of Stuart limits in agricultural lands.
- 3) The Shamrock System, located east of the City of O'Neill in a primarily agricultural area.

An estimated 5,300 linear feet (approximately 1-mile) of aging PVC and steel pipelines at five locations in the Shamrock System will be replaced. Most of the proposed pipeline work involves inserting 2-inch high-density PE into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch high-density PE. Two locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch valves to existing main pipelines at twenty locations in the existing in-town Stuart system. The valves will be located along paved or previously disturbed roadways where main pipeline currently exist. Existing pipelines are buried at 36 inches, so ground disturbance to install new valves would occur at an entry point that would not exceed of 72 inches by 96 inches at a maximum depth of 48 inches. Additionally, AMI equipment will be acquired to enable the Village of Stuart to use global positioning system (GPS) for the natural gas system and implement monitoring for the gas system. The AMI equipment would be mounted on the centralized pivot point irrigation units already present onsite. The equipment acquisition, installation, and implementation of the equipment would not involve ground disturbance. The AMI units are small transmitters with antenna that will not exceed 9 inches by 11 inches. A gravel parking lot, owned by a local power company, may be used as a staging area during construction. Otherwise, construction equipment would be staged on a portable trailer to reduce ground disturbance within the agricultural fields, which already have access roads that are constantly used by trucks and cars for agriculture. No new right-of-way (ROW) or easements would be needed for this Undertaking.

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, installation of valves at mainline locations, and installation of AMI equipment, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW where pipelines will be replaced, one parcel containing an agricultural field where a pipeline will be replaced, the ROW where valves will be installed, and location points where AMI equipment will be mounted, all of 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 48 inches below grade. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas, and agricultural fields throughout the Village of Stuart, rural areas of the Village of Stuart and an area east of O'Neill. 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 and assess the archaeological sensitivity of the APE.

### ***Historic Architecture***

A search of the NRHP database and a file search conducted by History Nebraska on behalf of PHMSA found no NRHP-listed or NRHP-eligible above-ground resources within the APE. Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines within the existing ROW, installation of valves at existing pipeline locations, and mounting of AMI equipment, the identification effort for additional above-ground resources focused on identifying properties that are susceptible to the effects of this work and could experience diminished integrity as a result of the Undertaking. The AMI equipment are small features that are not within the viewshed of any historic property and would not cause any visual impacts. The project work will not have any physical impacts to above-ground resources or



lasting visual or audible effects. A review of the APE found no other potentially significant above-ground resources that have the potential to be affected by the 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 one archaeological survey was identified within the APE. Within one quarter of a mile of the APE, one archaeological site (HT 15), which has not been evaluated for NRHP eligibility but has likely been destroyed by agriculture, and seven surveys were identified (Table 1).

*Table 1. Previously Conducted Archeological Surveys within the APE and within one quarter of a mile of the APE*

<b>Report</b>	<b>Citation</b>	<b>Location of Survey</b>
Lomas, Monica Shah, Cally Lence, Jeff Myers, Jeff Anderson, Chip Perkins, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 10 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt	Lomas et al. 2012	Within APE
Bozell, Rob 1997 NHAP-PSS S-20-4(1016), Stuart W.	Bozell 1997	Within one quarter of a mile of the APE
Lomas, Monica Shah, Jeff Anderson, Cally Lence, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 11 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance	Lomas et al. 2012	Within one quarter of a mile of the APE
American Resources Group, Ltd. 2020 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 19 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route, Project Number: TAL-00050388-75, Document Control Number: KXL1399-E	American Resources Group, Ltd. 2020	Within one quarter of a mile of the APE
Mayer, Aaron J. 2022 A Phase II Cultural Resources Investigation of the Ebenezer Management, LLC Municipal Solar Project Localities in Box Butte, Cheyenne, Custer, Holt, and Thurston Counties, Nebraska	Mayer 2022	Within one quarter of a mile of the APE
Goodrich, Brian 2022 SAO-PSS NH-20-3(118) CN81094 Stuart West, Holt and Rock Counties, Nebraska	Goodrich 2022	Within one quarter of a mile of the APE
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Anderson, Jeff, Cally Lence, Robert Sadler, and Steve Titus 2018 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 16 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route Project Number: TAL-00050388-60	Anderson et al. 2018	Within one quarter of a mile of the APE

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 2. Well drained and moderately well drained soils can be indicative of human habitation during both the precontact and historic periods. One hundred percent of soils within the APE are somewhat excessively and excessively drained soil types. Typically slopes greater than 15 percent are not suitable for human occupation, and soil types within the APE vary from 0 to 9 percent slope. The Village of Stuart and City of O'Neill are primarily within the Elkhorn River watershed, which drains into the Palette River and eventually the Missouri River. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

*Table 2. Soil Types within the APE*

<b>Soil Type</b>	<b>Drainage Class</b>	<b>Slope</b>	<b>Percent of APE</b>
Dunday loamy sand	Somewhat excessively drained	0-3%	1.1%
Pivot loamy sand	Somewhat excessively drained	0-3%	8.5%
Valentine fine sand	Excessively drained	0-3%	3.9%
Valentine fine sand	Excessively drained	3-9%	1.6%
Valentine-Dunday loamy fine sands, moist	Excessively drained	3-9%	7.1%
Valentine-Dunday loamy fine sands	Excessively drained	0-3%	76.6
Other			1.3%

Most of the APE is limited to the existing ROW or utility easement, some of which has been previously disturbed up to the proposed ground disturbance depth of 48 inches due to prior pipeline installation and installation of other utilities. At the time these areas were developed, pipelines were installed via open trenches, which would have disturbed more soil than the proposed construction methods. For this project, all work will be done via directional boring or insertion 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 finds that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Therefore, in accordance with 36 CFR § 800.4(d)(1), PHMSA has determined the Undertaking will result in No Historic Properties Affected.

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

PHMSA requests that you provide any information you have regarding historic properties of religious or cultural significance to your Tribe/Nation that may be present in the APE and affected by the Undertaking. If your Tribe/Nation is unaware of any historic properties beyond what we have identified to date, PHMSA is notifying your Tribe/Nation of our intention to make a No Adverse Effect to Historic Properties finding. Please notify us within 30 days from the date of receipt of this letter if you have any concerns about the project's effects to historic properties. Should you need additional information please contact Kat Giraldo, Section 106 specialist, at [PHMSASection106@dot.gov](mailto:PHMSASection106@dot.gov) or 857-320-1359.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Fuller". The signature is fluid and cursive, with the first name "Matt" and last name "Fuller" clearly distinguishable.

Matt Fuller  
Senior Environmental Protection Specialist

MF/kg

cc: Travis Mast, Environmental Protection Specialist, USDOT Volpe Center  
Jasmine Carr, PHMSA Grant Specialist  
Max Bear, Tribal Historic Preservation Officer

Enclosures:

Attachment A: Project Location and APE Maps  
Attachment B: Project Area Photographs



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 28, 2024

Walter Echo-Hawk  
President  
Pawnee Nation of Oklahoma  
881 Little Dee Drive  
Pawnee, OK 74058

**Section 106 Consultation:** PHMSA Pipeline Replacement Project in the Village of Stuart, Nebraska

**Grant Recipient:** Village of Stuart

**Project Location:** Village of Stuart and City of O'Neill, Holt County, Nebraska

Dear President Echo-Hawk:

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 Village of Stuart (Grant Recipient) 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). The purpose of this letter is to initiate Section 106 consultation for the Undertaking to determine if there are historic properties of cultural or religious significance to your Tribe/Nation that may be affected by the Undertaking, to determine if you want to be a consulting party, and to notify your Tribe/Nation of PHMSA's intention to make a finding of No Historic Properties Affected. PHMSA is also available for Government-to-Government consultation on this Program.

**Project Description/Background**

The Grant Recipient is proposing to replace aging and failing polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas, including pipeline modernization and interim safety enhancement measures. Mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system will also be installed.

The Grant Recipient maintains three areas of natural gas lines within Holt County:

- 1) The in-town Stuart area.
- 2) Rural Stuart, located northwest of the Village of Stuart limits in agricultural lands.
- 3) The Shamrock System, located east of the City of O'Neill in a primarily agricultural area.

An estimated 5,300 linear feet (approximately 1-mile) of aging PVC and steel pipelines at five locations in the Shamrock System will be replaced. Most of the proposed pipeline work involves inserting 2-inch high-density PE into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch high-density PE. Two locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch valves to existing main pipelines at twenty locations in the existing in-town Stuart system. The valves will be located along paved or previously disturbed roadways where main pipeline currently exist. Existing pipelines are buried at 36 inches, so ground disturbance to install new valves would occur at an entry point that would not exceed of 72 inches by 96 inches at a maximum depth of 48 inches. Additionally, AMI equipment will be acquired to enable the Village of Stuart to use global positioning system (GPS) for the natural gas system and implement monitoring for the gas system. The AMI equipment would be mounted on the centralized pivot point irrigation units already present onsite. The equipment acquisition, installation, and implementation of the equipment would not involve ground disturbance. The AMI units are small transmitters with antenna that will not exceed 9 inches by 11 inches. A gravel parking lot, owned by a local power company, may be used as a staging area during construction. Otherwise, construction equipment would be staged on a portable trailer to reduce ground disturbance within the agricultural fields, which already have access roads that are constantly used by trucks and cars for agriculture. No new right-of-way (ROW) or easements would be needed for this Undertaking.

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, installation of valves at mainline locations, and installation of AMI equipment, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW where pipelines will be replaced, one parcel containing an agricultural field where a pipeline will be replaced, the ROW where valves will be installed, and location points where AMI equipment will be mounted, all of 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 48 inches below grade. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas, and agricultural fields throughout the Village of Stuart, rural areas of the Village of Stuart and an area east of O'Neill. 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 and assess the archaeological sensitivity of the APE.

### ***Historic Architecture***

A search of the NRHP database and a file search conducted by History Nebraska on behalf of PHMSA found no NRHP-listed or NRHP-eligible above-ground resources within the APE. Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines within the existing ROW, installation of valves at existing pipeline locations, and mounting of AMI equipment, the identification effort for additional above-ground resources focused on identifying properties that are susceptible to the effects of this work and could experience diminished integrity as a result of the Undertaking. The AMI equipment are small features that are not within the viewshed of any historic property and would not cause any visual impacts. The project work will not have any physical impacts to above-ground resources or

lasting visual or audible effects. A review of the APE found no other potentially significant above-ground resources that have the potential to be affected by the Undertaking.

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Goodrich, Brian 2022 SAO-PSS NH-20-3(118) CN81094 Stuart West, Holt and Rock Counties, Nebraska	Goodrich 2022	Within one quarter of a mile of the APE
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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 2. Well drained and moderately well drained soils can be indicative of human habitation during both the precontact and historic periods. One hundred percent of soils within the APE are somewhat excessively and excessively drained soil types. Typically slopes greater than 15 percent are not suitable for human occupation, and soil types within the APE vary from 0 to 9 percent slope. The Village of Stuart and City of O'Neill are primarily within the Elkhorn River watershed, which drains into the Palette River and eventually the Missouri River. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

*Table 2. Soil Types within the APE*

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Most of the APE is limited to the existing ROW or utility easement, some of which has been previously disturbed up to the proposed ground disturbance depth of 48 inches due to prior pipeline installation and installation of other utilities. At the time these areas were developed, pipelines were installed via open trenches, which would have disturbed more soil than the proposed construction methods. For this project, all work will be done via directional boring or insertion 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 finds that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Therefore, in accordance with 36 CFR § 800.4(d)(1), PHMSA has determined the Undertaking will result in No Historic Properties Affected.

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

PHMSA requests that you provide any information you have regarding historic properties of religious or cultural significance to your Tribe/Nation that may be present in the APE and affected by the Undertaking. If your Tribe/Nation is unaware of any historic properties beyond what we have identified to date, PHMSA is notifying your Tribe/Nation of our intention to make a No Adverse Effect to Historic Properties finding. Please notify us within 30 days from the date of receipt of this letter if you have any concerns about the project's effects to historic properties. Should you need additional information please contact Kat Giraldo, Section 106 specialist, at [PHMSASection106@dot.gov](mailto:PHMSASection106@dot.gov) or 857-320-1359.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Fuller". The signature is fluid and cursive, with the first name "Matt" and last name "Fuller" clearly distinguishable.

Matt Fuller  
Senior Environmental Protection Specialist

MF/kg

cc: Travis Mast, Environmental Protection Specialist, USDOT Volpe Center  
Jasmine Carr, PHMSA Grant Specialist  
Joseph Reed, Tribal Historic Preservation Officer

Enclosures:

Attachment A: Project Location and APE Maps  
Attachment B: Project Area Photographs





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

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 28, 2024

Oliver Little Cook  
Chairman  
Ponca Tribe of Indians of Oklahoma  
20 White Eagle Drive  
Ponca City, OK 74601

**Section 106 Consultation:** PHMSA Pipeline Replacement Project in the Village of Stuart, Nebraska

**Grant Recipient:** Village of Stuart

**Project Location:** Village of Stuart and City of O'Neill, Holt County, Nebraska

Dear Chairman Little Cook:

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 Village of Stuart (Grant Recipient) 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). The purpose of this letter is to initiate Section 106 consultation for the Undertaking to determine if there are historic properties of cultural or religious significance to your Tribe/Nation that may be affected by the Undertaking, to determine if you want to be a consulting party, and to notify your Tribe/Nation of PHMSA's intention to make a finding of No Historic Properties Affected. PHMSA is also available for Government-to-Government consultation on this Program.

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### **Identification and Evaluation**

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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 2. Well drained and moderately well drained soils can be indicative of human habitation during both the precontact and historic periods. One hundred percent of soils within the APE are somewhat excessively and excessively drained soil types. Typically slopes greater than 15 percent are not suitable for human occupation, and soil types within the APE vary from 0 to 9 percent slope. The Village of Stuart and City of O'Neill are primarily within the Elkhorn River watershed, which drains into the Palette River and eventually the Missouri River. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

*Table 2. Soil Types within the APE*

<b>Soil Type</b>	<b>Drainage Class</b>	<b>Slope</b>	<b>Percent of APE</b>
Dunday loamy sand	Somewhat excessively drained	0-3%	1.1%
Pivot loamy sand	Somewhat excessively drained	0-3%	8.5%
Valentine fine sand	Excessively drained	0-3%	3.9%
Valentine fine sand	Excessively drained	3-9%	1.6%
Valentine-Dunday loamy fine sands, moist	Excessively drained	3-9%	7.1%
Valentine-Dunday loamy fine sands	Excessively drained	0-3%	76.6
Other			1.3%

Most of the APE is limited to the existing ROW or utility easement, some of which has been previously disturbed up to the proposed ground disturbance depth of 48 inches due to prior pipeline installation and installation of other utilities. At the time these areas were developed, pipelines were installed via open trenches, which would have disturbed more soil than the proposed construction methods. For this project, all work will be done via directional boring or insertion 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 finds that there are no historic properties as defined in 36 CFR 800.16(l) within the APE. Therefore, in accordance with 36 CFR § 800.4(d)(1), PHMSA has determined the Undertaking will result in No Historic Properties Affected.

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

PHMSA requests that you provide any information you have regarding historic properties of religious or cultural significance to your Tribe/Nation that may be present in the APE and affected by the Undertaking. If your Tribe/Nation is unaware of any historic properties beyond what we have identified to date, PHMSA is notifying your Tribe/Nation of our intention to make a No Adverse Effect to Historic Properties finding. Please notify us within 30 days from the date of receipt of this letter if you have any concerns about the project's effects to historic properties. Should you need additional information please contact Kat Giraldo, Section 106 specialist, at [PHMSASection106@dot.gov](mailto:PHMSASection106@dot.gov) or 857-320-1359.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Fuller". The signature is fluid and cursive, with the first name "Matt" and last name "Fuller" clearly distinguishable.

Matt Fuller  
Senior Environmental Protection Specialist

MF/kg

cc: Travis Mast, Environmental Protection Specialist, USDOT Volpe Center  
Jasmine Carr, PHMSA Grant Specialist  
Liana Hesler, Tribal Historic Preservation Officer

Enclosures:

Attachment A: Project Location and APE Maps  
Attachment B: Project Area Photographs



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

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 28, 2024

Candace Schmidt  
Chairwoman  
Ponca Tribe of Nebraska  
2523 Woodbine Street  
Niobrara, NE – 68760

**Section 106 Consultation:** PHMSA Pipeline Replacement Project in the Village of Stuart, Nebraska

**Grant Recipient:** Village of Stuart

**Project Location:** Village of Stuart and City of O'Neill, Holt County, Nebraska

Dear Chairwoman Schmidt:

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 Village of Stuart (Grant Recipient) 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). The purpose of this letter is to initiate Section 106 consultation for the Undertaking to determine if there are historic properties of cultural or religious significance to your Tribe/Nation that may be affected by the Undertaking, to determine if you want to be a consulting party, and to notify your Tribe/Nation of PHMSA's intention to make a finding of No Historic Properties Affected. PHMSA is also available for Government-to-Government consultation on this Program.

### **Project Description/Background**

The Grant Recipient is proposing to replace aging and failing polyvinyl chloride (PVC) and uncoated steel pipeline with polyethylene (PE) pipe, which would enhance safety, improve operations, and reduce methane emissions of natural gas, including pipeline modernization and interim safety enhancement measures. Mainline valves and advanced metering infrastructure (AMI) monitoring sensors to the gas system will also be installed.

The Grant Recipient maintains three areas of natural gas lines within Holt County:

- 1) The in-town Stuart area.
- 2) Rural Stuart, located northwest of the Village of Stuart limits in agricultural lands.
- 3) The Shamrock System, located east of the City of O'Neill in a primarily agricultural area.

An estimated 5,300 linear feet (approximately 1-mile) of aging PVC and steel pipelines at five locations in the Shamrock System will be replaced. Most of the proposed pipeline work involves inserting 2-inch high-density PE into the existing 4-inch bare steel and 3-inch PVC. Several locations would involve replacing the 3-inch or 4-inch steel with 4-inch high-density PE. Two locations involve replacing pipeline via directional boring under previously disturbed roadways.

Work also includes the addition of 2-inch valves to existing main pipelines at twenty locations in the existing in-town Stuart system. The valves will be located along paved or previously disturbed roadways where main pipeline currently exist. Existing pipelines are buried at 36 inches, so ground disturbance to install new valves would occur at an entry point that would not exceed of 72 inches by 96 inches at a maximum depth of 48 inches. Additionally, AMI equipment will be acquired to enable the Village of Stuart to use global positioning system (GPS) for the natural gas system and implement monitoring for the gas system. The AMI equipment would be mounted on the centralized pivot point irrigation units already present onsite. The equipment acquisition, installation, and implementation of the equipment would not involve ground disturbance. The AMI units are small transmitters with antenna that will not exceed 9 inches by 11 inches. A gravel parking lot, owned by a local power company, may be used as a staging area during construction. Otherwise, construction equipment would be staged on a portable trailer to reduce ground disturbance within the agricultural fields, which already have access roads that are constantly used by trucks and cars for agriculture. No new right-of-way (ROW) or easements would be needed for this Undertaking.

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, installation of valves at mainline locations, and installation of AMI equipment, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW where pipelines will be replaced, one parcel containing an agricultural field where a pipeline will be replaced, the ROW where valves will be installed, and location points where AMI equipment will be mounted, all of 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 48 inches below grade. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas, and agricultural fields throughout the Village of Stuart, rural areas of the Village of Stuart and an area east of O'Neill. 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 and assess the archaeological sensitivity of the APE.

### ***Historic Architecture***

A search of the NRHP database and a file search conducted by History Nebraska on behalf of PHMSA found no NRHP-listed or NRHP-eligible above-ground resources within the APE. Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines within the existing ROW, installation of valves at existing pipeline locations, and mounting of AMI equipment, the identification effort for additional above-ground resources focused on identifying properties that are susceptible to the effects of this work and could experience diminished integrity as a result of the Undertaking. The AMI equipment are small features that are not within the viewshed of any historic property and would not cause any visual impacts. The project work will not have any physical impacts to above-ground resources or

lasting visual or audible effects. A review of the APE found no other potentially significant above-ground resources that have the potential to be affected by the 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 one archaeological survey was identified within the APE. Within one quarter of a mile of the APE, one archaeological site (HT 15), which has not been evaluated for NRHP eligibility but has likely been destroyed by agriculture, and seven surveys were identified (Table 1).

*Table 1. Previously Conducted Archeological Surveys within the APE and within one quarter of a mile of the APE*

<b>Report</b>	<b>Citation</b>	<b>Location of Survey</b>
Lomas, Monica Shah, Cally Lence, Jeff Myers, Jeff Anderson, Chip Perkins, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 10 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt	Lomas et al. 2012	Within APE
Bozell, Rob 1997 NHAP-PSS S-20-4(1016), Stuart W.	Bozell 1997	Within one quarter of a mile of the APE
Lomas, Monica Shah, Jeff Anderson, Cally Lence, Bob Sadler, and Steve Titus 2012 Draft Report Addendum 11 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance	Lomas et al. 2012	Within one quarter of a mile of the APE
American Resources Group, Ltd. 2020 TransCanada Keystone Pipeline, L.P. Keystone XL Pipeline Addendum No. 19 Phase I Cultural Resources Survey Report Nebraska Mainline Alternative Route, Project Number: TAL-00050388-75, Document Control Number: KXL1399-E	American Resources Group, Ltd. 2020	Within one quarter of a mile of the APE
Mayer, Aaron J. 2022 A Phase II Cultural Resources Investigation of the Ebenezer Management, LLC Municipal Solar Project Localities in Box Butte, Cheyenne, Custer, Holt, and Thurston Counties, Nebraska	Mayer 2022	Within one quarter of a mile of the APE
Goodrich, Brian 2022 SAO-PSS NH-20-3(118) CN81094 Stuart West, Holt and Rock Counties, Nebraska	Goodrich 2022	Within one quarter of a mile of the APE
Giedd, Alycia, Monica Shah Lomas, Chip Perkins, Steve Titus 2014 Addendum 14 to A Phase I Cultural Resources Survey in Nebraska for the Proposed Keystone XL Pipeline Project in Keya Paha, Boyd, Holt, Antelope, Boone, Nance, Merrick, Polk, York, Fillmore,	Giedd et al.	Within one quarter of a mile of the APE
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Sincerely,

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Matt Fuller  
Senior Environmental Protection Specialist

MF/kg

cc: Travis Mast, Environmental Protection Specialist, USDOT Volpe Center  
Jasmine Carr, PHMSA Grant Specialist  
Theresa Foley, Tribal Historic Preservation Officer

Enclosures:

Attachment A: Project Location and APE Maps  
Attachment B: Project Area Photographs

# **Appendix F**

## **Environmental Justice**



# EJScreen Community Report

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

## Holt County, NE

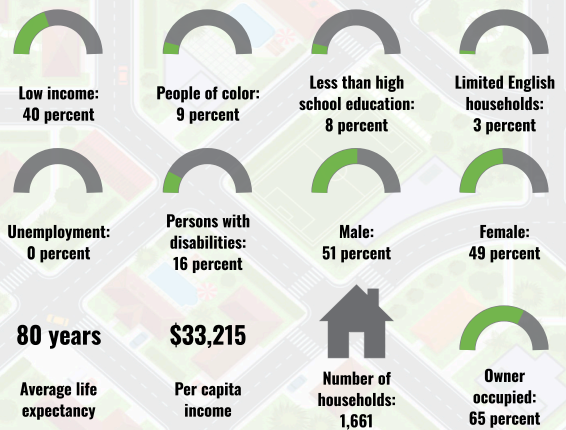
5 miles Ring around the Corridor

Population: 4,272

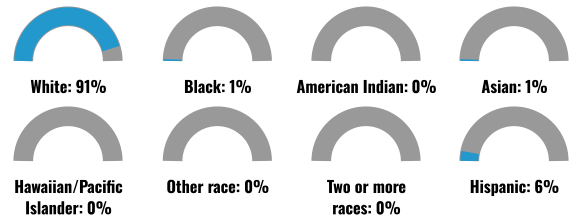
Area in square miles: 143.00

Area reserved for map

### COMMUNITY INFORMATION



### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



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.

### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	94%
Spanish	4%
Russian, Polish, or Other Slavic	1%
Other Indo-European	1%
Chinese (including Mandarin, Cantonese)	1%
Total Non-English	6%

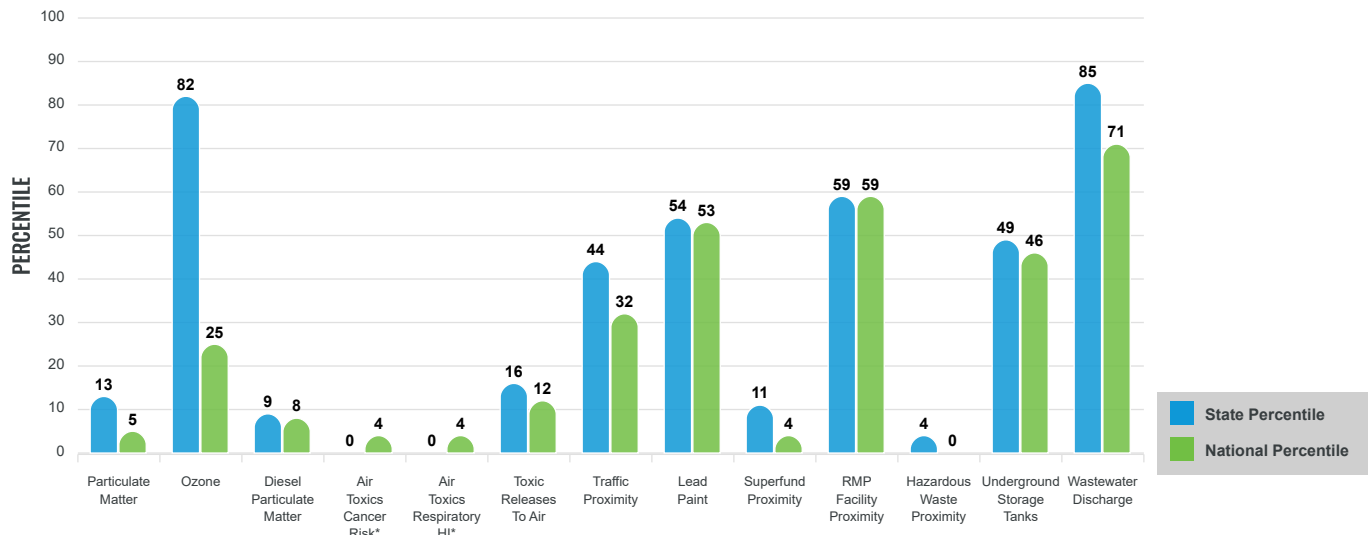
## Environmental Justice & Supplemental Indexes

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.

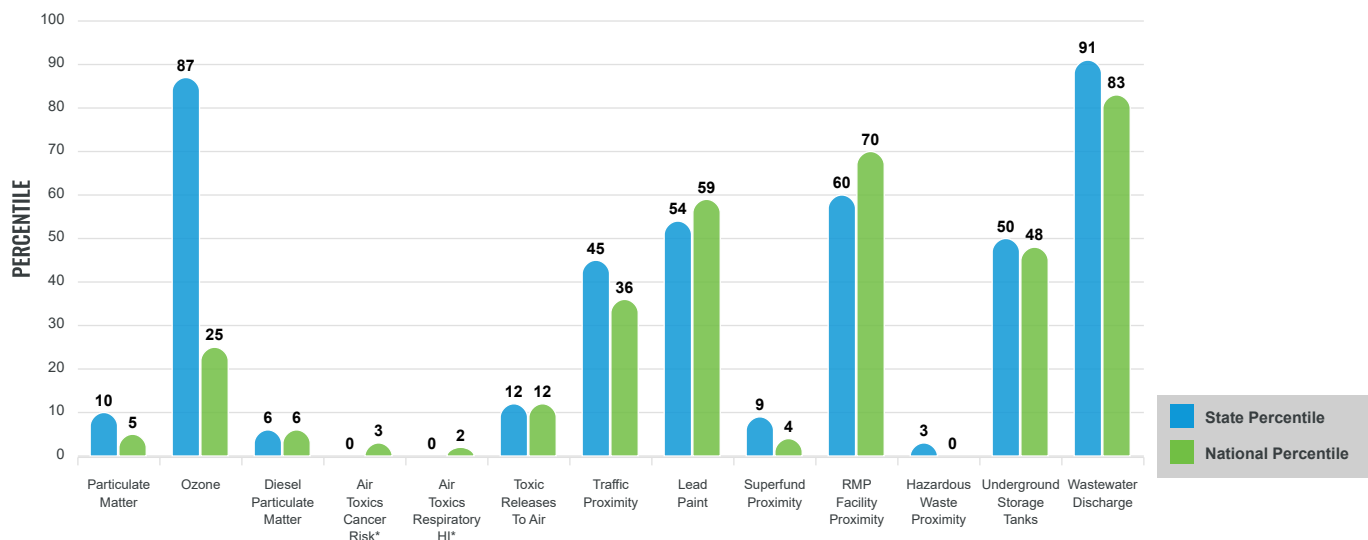
#### EJ INDEXES FOR THE SELECTED LOCATION



### 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.

Report for 5 miles Ring around the Corridor

# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>POLLUTION AND SOURCES</b>					
Particulate Matter ( $\mu\text{g}/\text{m}^3$ )	5.07	6.71	8	8.08	3
Ozone (ppb)	57.3	55.7	89	61.6	19
Diesel Particulate Matter ( $\mu\text{g}/\text{m}^3$ )	0.0563	0.162	4	0.261	5
Air Toxics Cancer Risk* (lifetime risk per million)	10	19	0	25	1
Air Toxics Respiratory HI*	0.1	0.23	0	0.31	1
Toxic Releases to Air	12	3,300	8	4,600	9
Traffic Proximity (daily traffic count/distance to road)	26	130	31	210	28
Lead Paint (% Pre-1960 Housing)	0.3	0.36	45	0.3	58
Superfund Proximity (site count/km distance)	0.0089	0.15	7	0.13	3
RMP Facility Proximity (facility count/km distance)	0.38	0.83	50	0.43	71
Hazardous Waste Proximity (facility count/km distance)	0.009	0.96	3	1.9	0
Underground Storage Tanks (count/km <sup>2</sup> )	1.6	5.1	49	3.9	54
Wastewater Discharge (toxicity-weighted concentration/m distance)	4.3	0.62	98	22	95
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index	25%	25%	61	35%	41
Supplemental Demographic Index	14%	12%	68	14%	55
People of Color	9%	22%	34	39%	21
Low Income	40%	28%	77	31%	69
Unemployment Rate	0%	3%	28	6%	22
Limited English Speaking Households	3%	3%	75	5%	66
Less Than High School Education	8%	9%	60	12%	48
Under Age 5	5%	6%	39	6%	53
Over Age 64	23%	17%	77	17%	76
Low Life Expectancy	18%	19%	37	20%	34

\*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 .....	9
Air Pollution .....	36
Brownfields .....	0
Toxic Release Inventory .....	0

## Other community features within defined area:

Schools .....	2
Hospitals .....	4
Places of Worship .....	13

## 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 .....	No
Selected location contains an EPA IRA disadvantaged community .....	Yes

Report for 5 miles Ring around the Corridor



## EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	18%	19%	37	20%	34
Heart Disease	7.2	5.7	77	6.1	72
Asthma	7.9	8.4	24	10	5
Cancer	8.3	6.4	83	6.1	92
Persons with Disabilities	15.6%	12.1%	79	13.4%	68

CLIMATE INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	3%	8%	30	12%	28
Wild re Risk	1%	7%	80	14%	79

CRITICAL SERVICE GAPS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	22%	13%	81	14%	78
Lack of Health Insurance	8%	8%	54	9%	56
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for 5 miles Ring around the Corridor



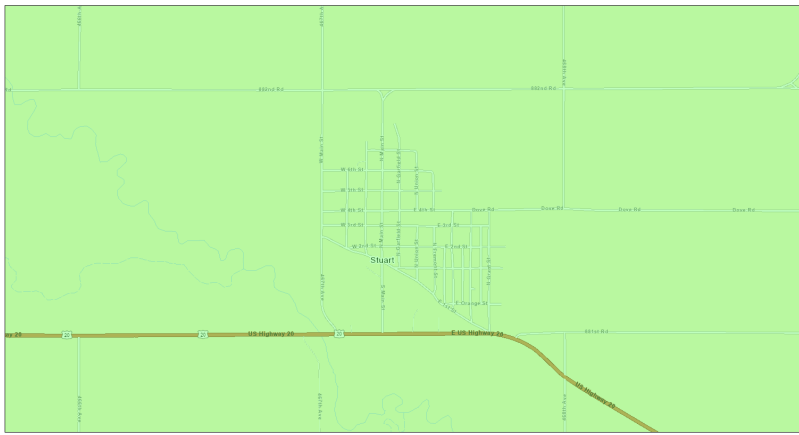
# EJScreen Community Report

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

## Holt County, NE

County: Holt  
Population: 10,175  
Area in square miles: 2417.48

A3 Landscape



February 14, 2024

Project 1

1:18,056  
0 0.15 0.3 0.6 mi  
0 0.25 0.5 1 km  
EPA Community Maps Contributors: Nebraska Game & Parks Commission, South Dakota Game and Parks, BLM, GeoTone, Google, GeoVista, GeoTechnology, Inc., USFWS, USGS, EPA, NOAA, US Census Bureau, USDA, USFWS

### COMMUNITY INFORMATION



Low income:  
36 percent



People of color:  
7 percent



Less than high  
school education:  
6 percent



Limited English  
households:  
2 percent



Unemployment:  
1 percent



Persons with  
disabilities:  
14 percent



Male:  
50 percent



Female:  
50 percent

80 years

Average life  
expectancy

\$32,544

Per capita  
income



Number of  
households:  
4,040

Owner  
occupied:  
72 percent

### BREAKDOWN BY RACE



White: 93%



Black: 0%



American Indian: 0%



Asian: 1%



Hawaiian/Pacific  
Islander: 0%



Other race: 0%



Two or more  
races: 1%



Hispanic: 5%

### BREAKDOWN BY AGE



From Ages 1 to 4

7%



From Ages 1 to 18

25%



From Ages 18 and up

75%



From Ages 65 and up

21%

### LIMITED ENGLISH SPEAKING BREAKDOWN



Speak Spanish

59%



Speak Other Indo-European Languages

21%



Speak Asian-Pacific Island Languages

20%



Speak Other Languages

0%

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.

### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	95%
Spanish	4%
Total Non-English	5%

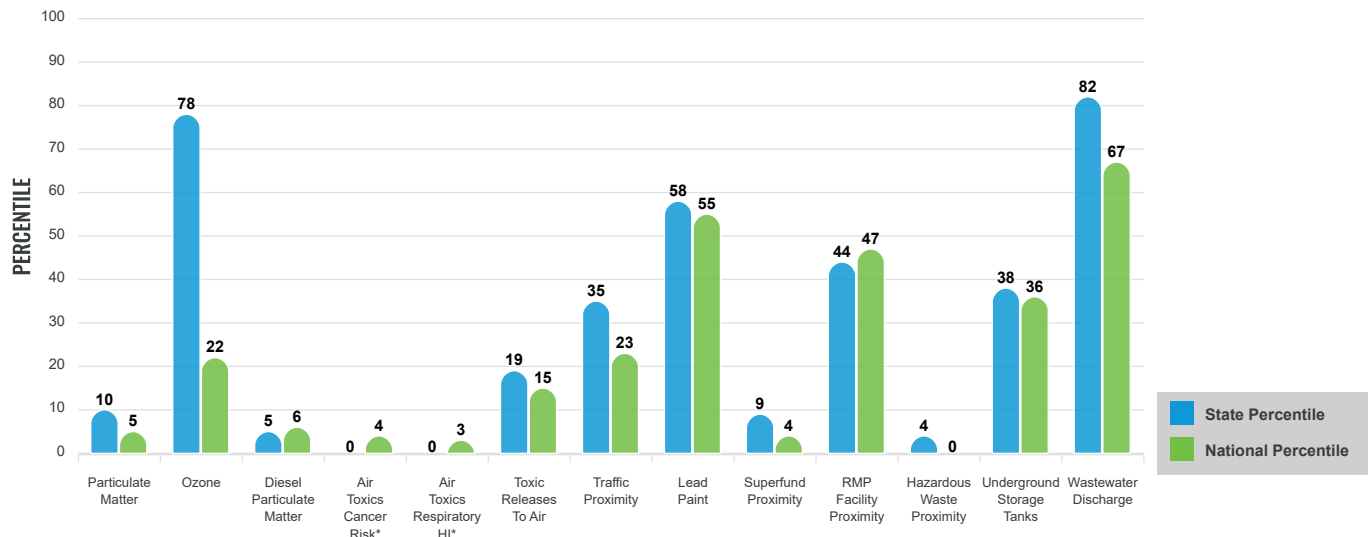
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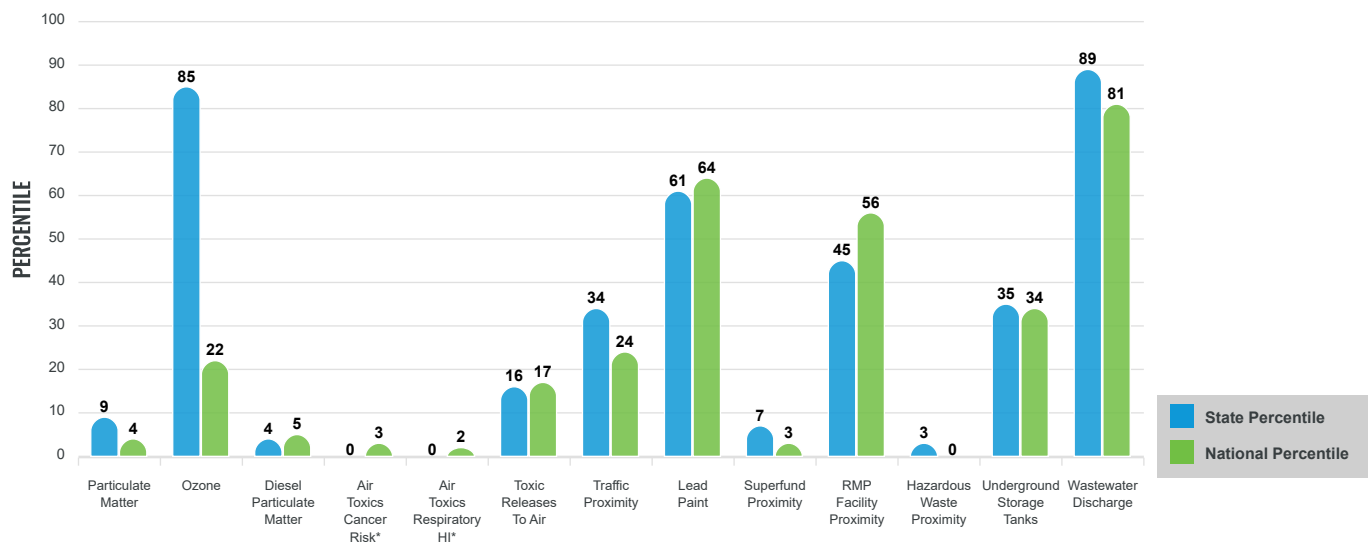
#### EJ INDEXES FOR THE SELECTED LOCATION



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

Report for County: Holt

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SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
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Diesel Particulate Matter ( $\mu\text{g}/\text{m}^3$ )	0.0496	0.162	3	0.261	4
Air Toxics Cancer Risk* (lifetime risk per million)	10	19	0	25	1
Air Toxics Respiratory HI*	0.1	0.23	0	0.31	1
Toxic Releases to Air	49	3,300	16	4,600	17
Traffic Proximity (daily traffic count/distance to road)	14	130	25	210	20
Lead Paint (% Pre-1960 Housing)	0.4	0.36	53	0.3	66
Superfund Proximity (site count/km distance)	0.0087	0.15	7	0.13	2
RMP Facility Proximity (facility count/km distance)	0.26	0.83	42	0.43	65
Hazardous Waste Proximity (facility count/km distance)	0.0089	0.96	2	1.9	0
Underground Storage Tanks (count/km <sup>2</sup> )	0.7	5.1	39	3.9	43
Wastewater Discharge (toxicity-weighted concentration/m distance)	9.7	0.62	99	22	97
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index	22%	25%	55	35%	36
Supplemental Demographic Index	13%	12%	63	14%	51
People of Color	7%	22%	27	39%	17
Low Income	36%	28%	72	31%	65
Unemployment Rate	1%	3%	38	6%	26
Limited English Speaking Households	2%	3%	70	5%	63
Less Than High School Education	6%	9%	53	12%	43
Under Age 5	7%	6%	58	6%	66
Over Age 64	21%	17%	71	17%	72
Low Life Expectancy	18%	19%	42	20%	37

\*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 .....	40
Air Pollution .....	83
Brownfields .....	0
Toxic Release Inventory .....	3

## Other community features within defined area:

Schools .....	11
Hospitals .....	13
Places of Worship .....	40

## 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 County: Holt

## EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	18%	19%	42	20%	37
Heart Disease	7.6	5.7	83	6.1	77
Asthma	7.9	8.4	24	10	5
Cancer	8.5	6.4	88	6.1	93
Persons with Disabilities	13.3%	12.1%	64	13.4%	55

CLIMATE INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	7%	8%	53	12%	51
Wild re Risk	9%	7%	86	14%	81

CRITICAL SERVICE GAPS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	21%	13%	79	14%	76
Lack of Health Insurance	7%	8%	48	9%	50
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for County: Holt



# Stuart, NE

**Area in square miles: 1.37**



## COMMUNITY INFORMATION





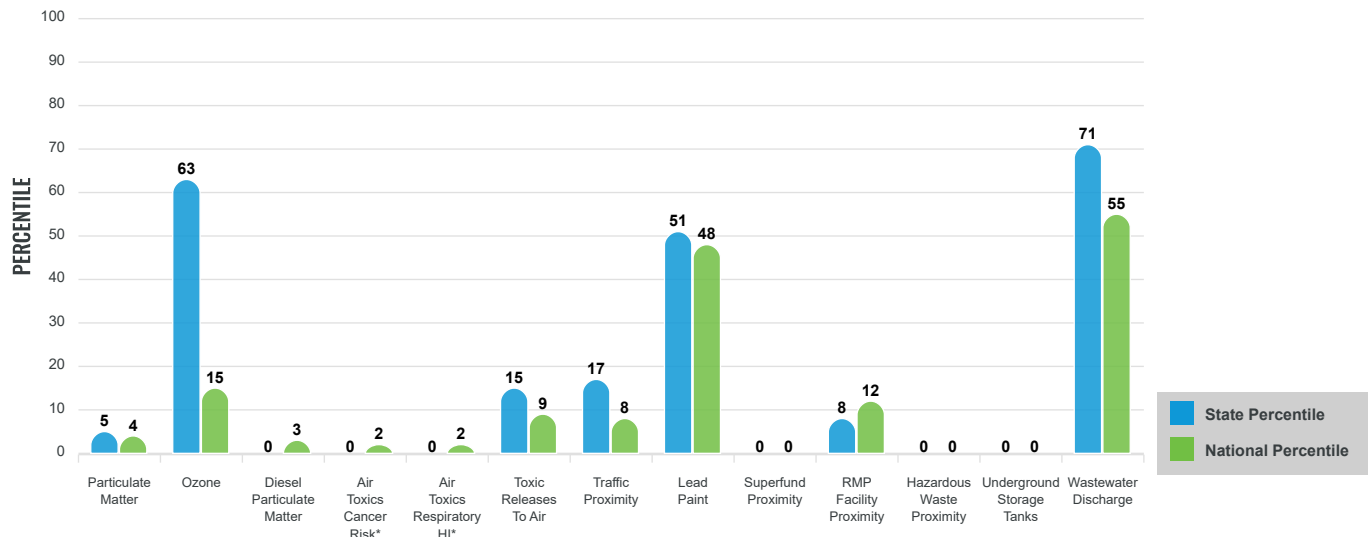
## Environmental Justice & Supplemental Indexes

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.

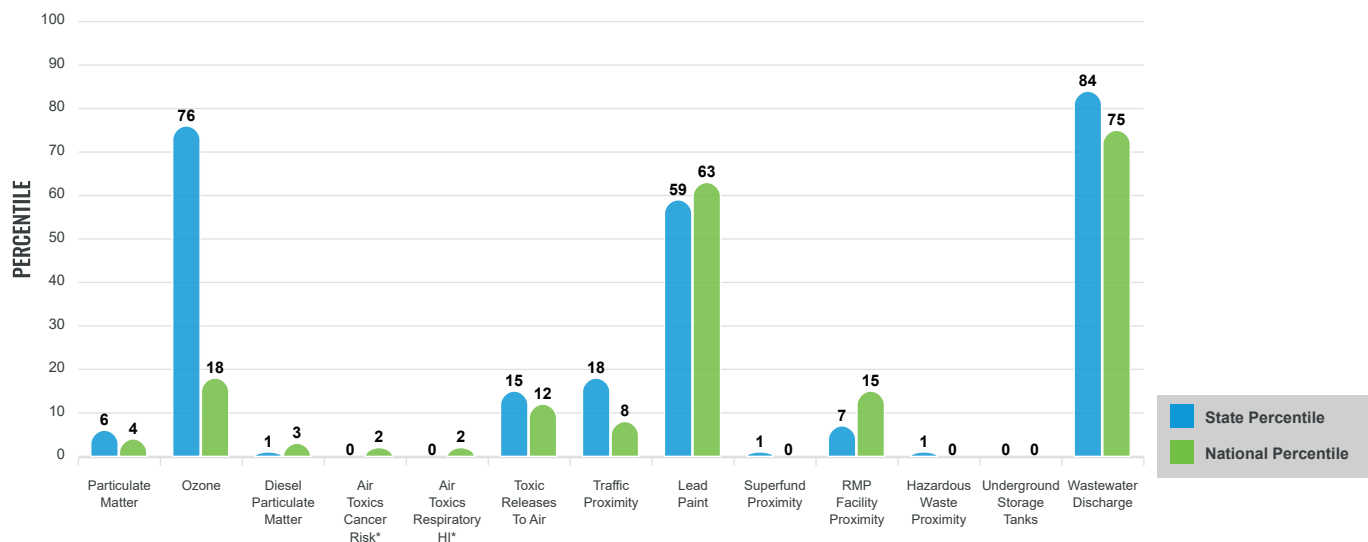
#### EJ INDEXES FOR THE SELECTED LOCATION



### 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.

Report for City: Stuart

# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>POLLUTION AND SOURCES</b>					
Particulate Matter ( $\mu\text{g}/\text{m}^3$ )	4.9	6.71	6	8.08	3
Ozone (ppb)	56.8	55.7	81	61.6	17
Diesel Particulate Matter ( $\mu\text{g}/\text{m}^3$ )	0.0429	0.162	1	0.261	3
Air Toxics Cancer Risk* (lifetime risk per million)	10	19	0	25	1
Air Toxics Respiratory HI*	0.1	0.23	0	0.31	1
Toxic Releases to Air	18	3,300	13	4,600	11
Traffic Proximity (daily traffic count/distance to road)	2.1	130	13	210	7
Lead Paint (% Pre-1960 Housing)	0.5	0.36	63	0.3	73
Superfund Proximity (site count/km distance)	0.0065	0.15	1	0.13	1
RMP Facility Proximity (facility count/km distance)	0.058	0.83	6	0.43	13
Hazardous Waste Proximity (facility count/km distance)	0.0072	0.96	1	1.9	0
Underground Storage Tanks (count/km <sup>2</sup> )	0	5.1	0	3.9	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	1.7	0.62	96	22	93
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index	16%	25%	36	35%	22
Supplemental Demographic Index	11%	12%	51	14%	40
People of Color	3%	22%	11	39%	8
Low Income	28%	28%	56	31%	51
Unemployment Rate	0%	3%	0	6%	0
Limited English Speaking Households	0%	3%	0	5%	0
Less Than High School Education	6%	9%	51	12%	41
Under Age 5	11%	6%	88	6%	90
Over Age 64	17%	17%	55	17%	58
Low Life Expectancy	21%	19%	76	20%	65

\*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 .....	2
Air Pollution .....	5
Brownfields .....	0
Toxic Release Inventory .....	0

## Other community features within defined area:

Schools .....	2
Hospitals .....	3
Places of Worship .....	2

## 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 .....	No
Selected location contains an EPA IRA disadvantaged community .....	No

Report for City: Stuart

## EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	21%	19%	76	20%	65
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Asthma	7.9	8.4	24	10	5
Cancer	8.4	6.4	86	6.1	92
Persons with Disabilities	9.9%	12.1%	30	13.4%	31

CLIMATE INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	10%	8%	71	12%	66
Wild re Risk	36%	7%	91	14%	84

CRITICAL SERVICE GAPS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	23%	13%	82	14%	79
Lack of Health Insurance	9%	8%	66	9%	63
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for City: Stuart