

Natural Gas Distribution Infrastructure Safety and Modernization Grant Program Town of Woodworth, LA Tier 2 Site Specific Environmental Assessment NGDISM-FY22-EA-2023-22

PHMSA Approval:

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Overview:

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

As part of this Tier 2, PHMSA is soliciting public comments through a public comment period. This Tier 2 is available on PHMSA's website where comments can be submitted to the contact noted below. PHMSA will accept public comments for 30 days on this Tier 2. PHMSA will consider comments received and incorporate them in the decision-making process. Consultation with appropriate agencies on related processes, regulations, and permits is ongoing. Please submit all comments to: PHMSABILGrantNEPAComments@dot.gov and reference NGDISM-FY22-EA-2023-22 in your response.

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

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

Project Title	Town of Woodworth Natural Gas Pipeline Replacement
Project Location	Woodworth, Rapides Parish, Louisiana

Project Description/Proposed Action:

The proposed action includes the replacement of a total of 6.25 miles of 1.5-inch vintage polyvinyl chloride (PVC) pipeline that was installed during the 1970s and associated service lines in two separate and distinct areas outside of the Town of Woodworth. One is located along Highway 470/Robinson Bridge Road and consists of approximately 11,500 linear feet of pipeline replacement. The second area is along Chickamaw/Thompson Road and consists of approximately 21,500 linear feet of pipeline replacement. The service areas include approximately 70 service accounts along Hwy 470, Chickamaw Road and Thompson Road. The vulnerable pipeline to be replaced is located within Woodworth's existing right- of- ways (ROW) and would not require new ROW or easements.

The replacement gas lines would be replaced with polyethylene piping (PE) installed by directional boring methods with a minimum cover depth of 36 inches. The new gas lines would be installed next to the existing gas lines and the existing pipeline would be abandoned in place. The Tier 1 EA described that the majority of site-specific projects would utilize the insertion method of pipe replacement. As described in this document, The Town of Woodworth (Woodworth) would utilize directional boring methods which would have similar impacts to the insertion method.

¹ https://www.federalregister.gov/documents/2022/11/09/2022-24378/pipeline-safety-notice-of-availability-of-the-tier-1-nationwide-environmentalassessment-for-the_

Abandonment of the existing pipeline (versus excavation and removal) would minimize ground disturbance and facilitate the replacement process in a more efficient manner. PHMSA has specific requirements for gas and hazardous liquid pipeline abandonment, found in 49 CRF 192.727 and 195.402(c)(10). These requirements include disconnecting pipelines from all sources and supplies of gas, purging all combustibles and sealing the facilities left in place. By complying with PHMSA requirements for purging and sealing abandoned pipelines, Woodworth would ensure that the abandoned pipelines pose no risk to safety in their abandoned state.

No Action:

The No Action alternative, as required under NEPA, serves as a baseline, and is used to compare impacts resulting from the Proposed Action. Under the No Action alternative, PHMSA would not fund this pipeline replacement project. Additionally, PHMSA would not be able to reduce the inventory of methane leaks and reduce safety risks by replacing pipe prone to leakage. Under this alternative, Woodworth would continue to use the vintage plastic pipes and conduct repairs or replacements in the future using non-federal sources of funding, and potentially on an emergency basis, when a pipeline fails. Impacts and benefits associated with replacing the leak prone pipeline within the Town of Woodworth with updated material would not be seen in the near term. The safety risks and methane leaks would persist. The replacement pipeline activities would either not be taken or they would be undertaken at a later, uncertain date. Even if pipe replacement were to happen at some point in the future, environmental mitigation measures during such a replacement would be unknown. Furthermore, existing economic losses, and increased risk associated with prolonged gas leaks would continue.

Need for the Project:

The Town of Woodworth has stated that the age of the PVC gas mains with routine ongoing utility excavations over the years, has resulted in numerous point repairs and the 6.25 miles (33,000 LF) of vintage plastic pipelines identified for replacement for this project are vulnerable to leaks. The overall needs addressed by this project would include: (1) improving upon the safe delivery of energy by reducing the likelihood of incidents, as well as methane leaks; (2) avoiding 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 the Town of Woodworth, Rapides Parish and is a small rural community. The project is expected to occur within previously disturbed, public ROW. The areas on each side of the ROW consist of rural agricultural areas.

II. <u>Resource Review</u>

Air Quality and Greenhouse Gases (GHG)	
Question	Information and Justification
Is the project located in an area designated by the EPA	No, based on a review of the EPA Greenbook. ²
as non-attainment or maintenance status for one or	
more of the National Ambient Air Quality Standards	

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

(NAAQS)?	
Will the construction activities produce emissions that exceed de minimis thresholds (tons per year) described in the initial Tier 2 EA worksheet?	N/A
Will mitigation measures be used to capture blowdown ³ ?	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?	The lowest pressure the system can operate at is 20-25 pounds per square inch (PSI). The system normally operates at 32.5 PSI.
Will Woodworth 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.	No. The existing system operates at 32.5 PSI. Based on the size of the existing pipe, it is estimated that 1.30 thousand cubic feet (MCF) 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 estimated to be 1,193 kg/year. Replacement would result in a leak rate of approximately enter 180 kg/year or a reduction of approximately 20,223 kg over a 20-year timeframe. ⁴

Conclusion:

The project area is located within the Town of Woodworth in Rapides Parish, Louisiana which is designated by the EPA as in attainment for all National Ambient Air Quality Standards (NAAQS). The existing pipelines within the project area consist of vintage plastic and were installed during the 1970s.

No Action:

Under the No Action alternative, existing and planned pipeline activities, including construction and maintenance activities, would continue unchanged. The project proponent would continue to use vintage PVC 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 1,193 kg of methane would be released each year from the existing pipelines within the project area. This amounts to 23,863 kg of methane over a 20-year time frame. See Appendix B, Air Quality, for estimated methane leak rate calculations.

Proposed Action:

The Proposed Action alternative consists of replacing 6.25 miles of vintage plastic pipe which would result in minor air quality impacts associated with construction activities, including the intentional venting of methane contained in the existing pipelines prior to replacement. Pipeline blowdowns are typically necessary to ensure that construction and maintenance work can be conducted safely on depressurized natural gas facilities and

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

⁴ 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.

pipelines. Venting methane is required when service is switched from the existing line to the newly constructed line, but the volume of vented gas can depend on the ability to reduce pressure on the pipe segment or other mitigative actions. Therefore, some methane would be vented into the atmosphere during construction. Based on an operating pressure of 32.5 PSI and an average pipe diameter of 1.5 inches, PHMSA estimates 1.3 MCF of methane (or 40 kg) would be vented into the atmosphere during construction. See Appendix B for the methane blowdown calculations.

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 973 kg in the first year (when considering the methane that would be released from blowdown that would occur during construction) and would reduce 1,013 kg of methane per year thereafter. This amounts to a total reduction of approximately 20,223 kg of methane emissions over a 20-year timeframe, post construction. See Appendix B for the methane reduction calculations. Therefore, it is PHMSA's assessment that the proposed project would provide a net benefit to air quality from the overall reduction of greenhouse gas emissions and that no indirect or cumulative impacts would result from the Proposed Action.

Mitigation Measures:

Woodworth 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;
- Minimizing construction site traffic by the use of offsite parking and shuttle buses, as necessary.

Water Resources		
Question	Information and Justification	
Are there water resources within the project area, such as wetlands, streams, rivers, or floodplains? If so, would the project temporarily or permanently impact wetlands or waterways?	Yes, according to United States Fish and Wildlife Service's (USFWS), National Wetland Inventory (NWI), and Federal Emergency Management Agency (FEMA) maps. A wetland delineation would need to be completed to determine the extent of jurisdictional waters of the U.S. in the project area.	
Under the Clean Water Act, is a Section 401 State certification potentially required? If yes, describe anticipated permit and how project proponent will	The project would need a wetland determination in order to determine if any jurisdictional waters of the	

ensure permit compliance.	jurisdictional waters would be impacted, a Section 401 permit may be required.
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.	If any impacts to waters of the U.S. would result from the project, a nationwide permit would be obtained from the US Army Corps of Engineers. Woodworth would ensure all work is designed to meet the terms and conditions of a nationwide permit, all work conducted is in compliance with the applicable permit and all impacts are temporary and minimal.
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?	Yes, construction activities may exceed soil disturbance thresholds and a 402 permit may be required prior to construction.
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.
Will the proposed project activities potentially occur within a coastal zone ⁵ or affect any coastal use or natural resource of the coastal zone, requiring a Consistency Determination and Certification?	No.

PHMSA reviewed NWI maps to assist in identifying aquatic features including wetlands, streams, and other water resources in or near the project area. Based on a review of the NWI maps, topographic maps, and information provided by Woodworth, there are water resources identified in the project area. In the Chickamaw/Thompson Road portion of the project, the Bayou Boeuf enters the project area adjacent to and west of the intersection of Chickamaw Road and FS Road 2 and runs south approximately 0.34 miles before exiting the project area as it turns west to circle a field. The Bayou Boeuf comes back into the project area near Thompson Road where an oxbow of the Bayou parallels Thompson Road and Chickamaw Road, and it continues to parallel Chickamaw Road until it exits the project area. The NWI maps also identified a palustrine forested wetland in the Thompson Road area.

In the Highway 470/ Robinson Bridge area, the Bayou Boeuf enters the project area north of Robinson Bridge Road and runs south and parallel to Highway 470. The Bayou Boeuff then turns west away from the project area and the Bayou Lamourie splits off and continues south, paralleling Highway 470 until it exits the project area, approximately 0.05 mile south of Feed Mill Road. The NWI maps also identify two other tributaries that cross the project area. A map of water resources can be found in Appendix C, Water Resources.

PHMSA also reviewed FEMA's National Flood Hazard Layer to identify any Special Flood Hazard Areas in the project area. The FEMA map indicates the project includes areas designated as Zone X, and A. Areas designated as Zone X are outside of any designated special flood hazard areas. Areas designated as Zone A are special flood hazard areas and these areas correspond to the one percent annual chance of flooding (100-year floodplain).

⁵ The term "coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.)

No Action:

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

Proposed Action:

The Proposed Action Alternative includes replacing 6.25 miles of existing pipelines. The existing gas lines would remain in their current location and would be purged of natural gas and then sealed on each end. All new gas lines would be installed with a minimum cover depth of 36 inches and located within existing ROW. As noted above, there are various aquatic resources identified in the project area. Because work would occur in close proximity to these areas, and potentially impact water resources, a wetland delineation should be conducted prior to any work commencing. All wetlands and waters should be identified in the field and surveyed to depict their size and location. Based on the location and configuration of any wetlands identified, the entrance and exit bore pits should be located in areas to avoid wetlands impacts, if possible. If, based on the wetlands identified in the ROW, Woodworth cannot completely avoid wetland impacts, they would apply to the US Army Corps of Engineers for a nationwide permit.⁶ Nationwide permits authorize activities that will have minimal individual and cumulative adverse effects on the aquatic environment. Any impacts to wetlands would be temporary, as there would be only minor excavation needed to create entry and exit bore pits. All excavated material would be contained and appropriate best management practices such as the installation of silt fencing would be employed. All areas would be restored to pre-construction conditions and any wetlands impacted would be reseeded with appropriate vegetation. Woodworth would be responsible for ensuring compliance with all terms and conditions required by the applicable nationwide permit and the construction methods, and design of the natural gas pipeline replacement work shall be done in a manner that minimizes impacts to aquatic resources, including wetlands, and meets the terms and conditions of a nationwide permit, ensuring impacts to water resources are temporary and minimal.

Because the US Army Corps of Engineers' Mississippi Valley Division has identified the Boeuf Bayou as a Navigable Water of the U.S., subject to Section 10 of the River and Harbors Act⁷, any work crossing under this waterbody would be reviewed and approved by the US Army Corps of Engineers, prior to commencing work. Should there be a need to impact a water of the U.S., impacts would be temporary and minimal. It is anticipated that work would likely meet the terms and conditions of a nationwide permit as there would be no permanent impacts as all areas would be restored to pre-construction conditions. PHMSA would include a mitigative measure to ensure that a wetland delineation is conducted prior to work commencing and that appropriate coordination would occur with the Corps of Engineers should there be a need to impact wetlands during construction, or if directional boring would occur under the Boeuf Bayou.

The National Flood Insurance Program (NFIP) requires a permit before new construction or development begins within any special flood hazard area to ensure that project development projects meet the requirements of the NFIP program and the local community's floodplain management ordinances. The proposed pipeline replacement is not considered new construction or development as pipes would be installed in existing, previously impacted ROW and all areas would be restored to their existing contours and condition. These activities would not affect the flood-holding capacity of the 100-year floodplain or cause any adverse impacts to the special flood hazard areas. There could be temporary impacts from bore pits; however, all areas would be

⁶ https://www.mvn.usace.army.mil/Missions/Regulatory/Permits/Nationwide-Permits-Program/

⁷ https://www.mvd.usace.army.mil/Portals/52/docs/11 MVD navigable waters.pdf

restored to pre-construction contours and conditions and there would be no permanent impacts. To ensure compliance with local floodplain ordinances, Woodworth should coordinate with the local floodplain administrator to inquire and obtain all necessary permits, prior to beginning work.

Based on information provided by Woodworth and a review of available information, PHMSA's assessment is that there would be no permanent impacts to water resources located within the project area. Should temporary impacts be necessary for directional boring activities installing new pipelines, the appropriate Army Corps of Engineers' permit would identify any necessary conditions needed to protect aquatic resources. The pipeline placement and abandonment of the existing pipeline is not anticipated to cause any reasonably foreseeable indirect effects or cumulative effects to water resources. Therefore, it is PHMSA's assessment that there would be no adverse impacts to water resources.

Mitigation Measures:

Woodworth shall avoid staging in wetlands or floodplains and all preconstruction contours shall be restored with natural areas reseeded or repaved as soon as practical. Best Management Practices shall be used during construction to control sediment and erosion and prevent pollutants from entering adjacent waterways.

The Town of Woodworth shall obtain a wetland delineation prior to commencing work and coordinate with the US Army Corps of Engineers to obtain any necessary permits, should impacts be necessary.

The Town of Woodworth Shall provide PHMSA with temporary and permanent wetland impact amounts and locations upon receipt of the wetland delineation and copies of the approved USACE permits prior to construction.

The Town of Woodworth shall coordinate with the US Army Corps of Engineers if work requires directional boring in, over, or under the Boeuf Bayou and obtain any necessary permits prior to commencing work.

The Town of Woodworth shall utilize best management practices to control sediment and erosion during construction to prevent any migration of soils into adjacent waterways.

The Town of Woodworth shall obtain a Clean Water Act, Section 402 stormwater permit, prior to commencing construction.

The Town of Woodworth shall coordinate with the local floodplain administrator to obtain any necessary permits for conducting work in special flood hazard areas, prior to the commencement of work.

Groundwater and Hazardous Materials/Waste		
Question	Information and Justification	
Does the project have potential to encounter and impact	No. Woodworth states that by the nature of the work	
groundwater? If yes, describe potential impacts from	proposed, that would include relatively small diameter	
construction activities.	PE gas line installation on existing road ROW, that	
	there would be no noticeable or damaging impact to	
	groundwater. Replacement of existing gas line in this	
	region with a typical burial or cover depth of 3 to 4	

	feet would not encounter groundwater issues.
Will the project require boring or directional drilling that may require pits containing mud and inadvertent return fluids? If yes, describe measures that will be taken during construction activities to prevent impacts to groundwater resources.	Yes, see mitigation measures below.
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. The system only conveyed natural gas.
Does the project have the potential to encounter or disturb lead pipes or asbestos?	No.

Conclusion:

PHMSA reviewed EPA's NEPAssist website to identify any Brownfields properties, hazardous waste sites, and superfund sites. No properties were identified in or adjacent to the project area. (See Appendix D, Hazardous Materials).

PHMSA obtained a custom soil report for the project area from the United States Department of Agriculture, National Resources Conservation Service's Web Soil Survey which indicates that the project area is comprised of soils classified as slit loam. The majority of these soils are well-drained soils where the depth to the water table is found somewhere greater than 48 inches. (See Appendix E, Soil Map).

No Action:

Under the No Action alternative, the vintage plastic 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. 402⁸) and the risk of failure is higher among these types of pipes. Therefore, under the no action alternative, PHMSA anticipates an increased risk for the release of methane, both as leaks and during a pipeline failure, which could then result in ground disturbances from construction activities, potentially impacting groundwater.

Proposed Action:

Under the Proposed Action Alternative, Woodworth would replace 6.25 miles of existing pipelines within the existing ROW in the enter location. The existing gas line would be abandoned, in accordance with PHMSA requirements, and would be purged of natural gas and sealed on each end. The new gas lines would be installed with a minimum cover depth of 36 inches and would be installed by either directional drilling or cut and cover (trenching). All disturbed areas would be re-seeded or paved (as appropriate) and restored to preexisting conditions.

⁸ Insert Gas Main Flexible Liners at https://www.epa.gov/sites/default/files/2016-

^{06/}documents/insertgasmainflexibleliners.pdf#:~:text=Methane%20emissions%20reductions%20come%20from%20lower%20leakage%20rates,pipe%20and %20external%20corrosion%20in%20unprotected%20steel%20piping.

Directional drilling work is not likely to intercept groundwater but if this occurs, Woodworth would use appropriate dewatering methods. Should any contaminated soils be discovered during construction, they would be treated in ground or removed from the site for remediation. With the inclusion of mitigative measures to assist in the prevention of potential impacts, PHMSA's assessment is that there would be no adverse impacts to groundwater associated with the project. Additionally, there are no hazardous waste, brownfield, or superfund sites identified in the area where work would occur that could be potentially impacted by the Proposed Action Alternative. PHMSA has not identified any indirect or cumulative effects to groundwater or hazardous materials.

Mitigation Measures:

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

The Town of Woodworth shall utilize a Stormwater Pollution Prevention Plan which would identify appropriate construction and restoration activities to minimize the potential impacts to groundwater. All impacted areas would be restored to pre-construction conditions.

The Town of Woodworth shall monitor operations during activities during drilling operations by visually inspecting for evidence of drilling fluid release and take appropriate actions to contain and dispose of appropriately.

Soils	
Will all bare soils be stabilized using methods using methods identified in the initial Tier 2 EA worksheet? Will additional measures be required?	Yes, during construction, disturbed areas would be protected with temporary erosion control measures such as straw bales, silt fencing, etc. Once construction is complete, permanent stabilization would be accomplished with seeding required.
Will the project require unique impacts related to soils?	No

Conclusion:

PHMSA obtained a custom soil report for the project area from NRCS's Web Soil Survey which indicates that the project area is mainly comprised of soils with a silt loam texture. The majority of these soils are well-drained soils where the depth to the water table is found somewhere greater than 48 inches. It is noted that the project area is a rural area, within existing ROW where ground disturbance activities have already occurred. Therefore, while the soils report provides valuable information, the soils have been disturbed and likely contain some degree of fill material brought in as a suitable base for construction. (See Appendix E, Soil Map).

No Action:

Under the No Action alternative, the vintage plastic 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 is

anticipated under the No Action alternative.

Proposed Action:

Woodworth would replace 6.25 miles (33,000 LF) of vintage plastic pipelines within the existing ROW. The new gas lines would be installed at a depth of 36 inches below grade and would be installed by directional drilling. All disturbed areas would be re-seeded or paved (as appropriate) and restored to pre-existing conditions. Therefore, PHMSA has determined that there would be no adverse impact to soils resulting from the Proposed Action alternative. Additionally, there are no indirect or cumulative impacts anticipated as Woodworth would restore all areas to pre-construction conditions.

Mitigation Measures:

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

Question Int Based on review of IPaC and NOAA Fisheries database, Ye	nformation and Justification
Based on review of IPaC and NOAA Fisheries database, Ye	(es based on review of the LISEWS's Information for
are there any federally threatened or endangeredPlaspecies and/or critical habitat potentially occurringwewithin the geographic range of the project area? ⁹ If no,invno further analysis is required.we	Planning and Consultation (IPaC) and NOAA Fisheries website. ^[1] Additionally, Louisiana state resources were nventoried 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	No

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

Northern Long-eared Bat *Myotis septentrionalis* (endangered)

Red-cockaded Woodpecker Picoides borealis (endangered)

Whooping Crane Grus americana (experimental population, non-essential)

Alligator Snapping Turtle *Macrochelys temminckii* (proposed threatened)

⁹ https://ipac.ecosphere.fws.gov/ , https://www.fisheries.noaa.gov/species-directory/threatened-endangered, and https://www.wlf.louisiana.gov/page/rarespecies-and-natural-communities-by-parish

Monarch Butterfly Danaus plexippus (candidate)

Additionally, the Louisiana Rare Species and Natural Communities list was reviewed to assist in identifying potential species protected by the State and under the jurisdiction of the Louisiana Department of Wildlife and Fisheries. A list of state protected species can be found in Appendix F, Biological Resources.

No Action:

Under the No Action alternative, existing conditions would remain, and normal maintenance activities would occur. The project area is in a rural area with limited biological resources present within the previously disturbed ROW. Additionally, the project area does not contain suitable habitat for listed species, therefore no impacts to biological resources would occur under the No Action alternative.

Proposed Action:

The project area is contained within existing ROW where the areas of disturbance would be within existing transportation corridors. Because these areas are within ROW that has been previously impacted (pipeline laid in the ground in close proximity to the location where new pipes would be laid and subsequently paved), the immediate project area has limited biological resources present. The new pipes would be installed by directional boring methods and would therefore limit impacts to bore pits within previously impacted ROW. Additionally, the project area does not contain suitable habitat for the following species: Northern Long-eared Bat, Red-cockaded Woodpecker, Alligator Snapping Turtle, Monarch Butterfly or Whooping Crane.

Northern Long-eared Bat: Northern Long-earned Bat typically overwinters in caves or mines and spends the remainder of the year in forested habitats. Project activities would occur within disturbed ROW. Impacts would be limited to bore pits occurring within disturbed ROW, which do not include forested habitats.

Red-cockaded Woodpecker: Red-cockaded Woodpeckers make their homes in mature pine forests. Project activities would occur within disturbed ROW. Impacts would be limited to bore pits occurring within disturbed ROW, which do not include forested habitats.

Whooping Crane: The Whooping Crane can be found in Coastal or areas with considerable inland bodies of water such as a lake, river, wetland, or marsh. Project activities would occur within disturbed ROW. Impacts would be limited to bore pits occurring within disturbed ROW. While there are water bodies adjacent to the project area, a majority of the pipe in these areas would be installed by directional boring methods.

Therefore, in accordance with Section 7 of the Endangered Species Act (ESA) PHMSA's assessment is that the project would have no effect to federally threatened or endangered species. Under Section 7(a)(4) of the ESA, Federal agencies must confer with the USFWS if their action would jeopardize the continued existence of a proposed species. As candidate and proposed species, the Monarch Butterfly and Alligator Snapping Turtle receive 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 Town of Woodworth 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, the project includes ground disturbing activities. No modifications to buildings or structures or new aboveground components are required.	
Is the project located within a previously identified local, state, or National Register historic district or adjacent to any locally or nationally recognized historic properties? This information can be gathered from the local government and/or State Historic Preservation Office. ¹⁰	Yes. Pegram Plantation House and Chickama property.	
Does the project or any part of the project take place on tribal lands or land where a tribal cultural interest may exist? ¹¹	No.	
Are there any nearby properties or resources that either appear to be or are documented to have been constructed more than 45 years ago? ¹² 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, the project includes work within the existing disturbed ROW.	
Will project implementation require removal or 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.	No	

Conclusion:

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

¹⁰ Many SHPOs have an <u>online system</u> at <u>https://www.nps.gov/subjects/nationalregister/state-historic-preservation-offices.htm</u> that can tell you previously identified historic properties in your project area. The <u>National Register list</u> at <u>https://www.nps.gov/subjects/nationalregister/database-research.htm</u> can also be accessed online.

¹¹ The SHPO may have information on areas of tribal interest, or a good source is the <u>HUD TDAT website at https://egis.hud.gov/TDAT/.</u>

¹² Local tax and property records or historic maps may indicate dates of construction.

Appendix G, Cultural Resources)

No Action:

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

Proposed Action:

PHMSA staff identified properties based on available information on previously identified historic properties in the APE, including the National Register of Historic Places (NRHP) database and data received from the Louisiana Office of Cultural Development. PHMSA staff also conducted research to determine if there are any previously unidentified properties within the APE that are 45 years of age or older and may be eligible for the NRHP. There are two NRHP-listed historic properties within the APE. The Pegram Plantation House, located at 881 Chickamaw Road, is a c. 1850 Greek Revival-style house. It is listed under Criterion C in the area of architecture as an excellent example of a surviving Greek Revival residence in Rapides Parish. Chickama, located at 687 Chickamaw Road, is a 1913 Colonial Revival-style farmhouse. It is significant under Criterion C in the area of architecture as an example of a transitional Colonial Revival style and vernacular farmhouse from the early-twentieth century; the house's floorplan resembles a Queen Anne style floor plan, but its exterior details are Colonial Revival in style.

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

There are no known archeological sites in the APE and based on PHMSAs evaluation, there is low potential for intact significant resources in the APE and no additional survey is needed. See Appendix G, Cultural Resources, for additional information about the APE and the properties identified.

A letter was sent on February 14, 2024, to the Louisiana State Historic Preservation Officer (SHPO), federally recognized tribes with a potential interest in the project area, and all consulting parties outlining the Section 106 process, including a description of the undertaking, delineation and justification of the APE, identification of historic properties and an evaluation and proposed finding of no adverse effects. PHMSA has requested comments on the Section 106 process, identification of historic properties, and proposed finding within 30 days of receipt of the letter. See Appendix G, Cultural Resources, for more information.

Mitigation Measures:

If, during project implementation, a previously undiscovered archaeological or cultural resource that is or could reasonably be a historic property is encountered or a previously known historic property will be affected in an unanticipated manner, all project activities in the vicinity of the discovery will cease and the Town of Woodworth 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 Town of Woodworth 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.

Staging areas for the Undertaking are currently unknown. Staging should be confined to paved areas; if staging cannot be confined to paved areas, geotextile fabric or other similar protective measures (such as pressure distributing mats) must be laid in any affected unpaved area to minimize ground disturbance, prevent soil compaction, and protect archaeological features and artifacts.

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	

Conclusion:

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

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

PHMSA conducted a review of the Project Area to identify potential properties that qualify as Section 4(f). No properties were identified within the project area as potential 4(f) properties.

No Action:

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

Proposed Action:

Under the Proposed Action alternative, construction activities would not occur within or adjacent to 4(f) properties. Therefore, there would be no use of Section 4(f) resources.

Section 4(f)

Mitigation Measures:

There are no 4(f) resources identified in the project area and therefore, no mitigation measures are necessary.

Land Use and Transportation		
Question	Information and Justification	
Will the full extent of the project boundaries remain within the existing right-of-way or easements? If no, please describe any right-of-way acquisitions or additional easements needed.	Yes.	
Will the project result in detours, transportation restrictions, or other impacts to normal traffic flow or to existing transportation facilities during construction? Will there be any permanent change to existing transportation facilities? If so, what are the changes, and how would changes affect the public?	Yes, temporary traffic impacts may occur. The project would not result in a permanent change to existing transportation facilities.	
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?	Νο	

Conclusion:

The project is located in the Town of Woodworth a rural area consisting of agricultural and residential areas.

No Action:

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

Proposed Action:

Woodworth is proposing to replace pipeline infrastructure within the existing ROW and would not include adding pipeline to serve new areas. During construction, there may be short-term impacts to normal traffic patterns. Potential impacts include an increase in noise, dust, and transportation accessibility, as a result of construction and construction staging. Local and state regulations guide the transport of machinery, equipment, and automobiles around the construction areas. Temporary traffic impacts may occur on the local road network. The project may result in detours. Any work that may result in detours, transportation restrictions or other impacts to normal traffic flow would follow the Louisiana Department of Transportation standards. Any guidelines or permits needed would be obtained prior to work.

Consideration of emergency response vehicles, travel restrictions, and other impacts to local transportation are anticipated to be temporary and would only last for the duration of construction. Woodworth would coordinate with the appropriate local and state agencies regarding interruptions to traffic and detours and appropriate protocol would be used where traffic would be temporarily diverted to one-lane. Therefore, because the work consists of the replacement of existing pipeline, would not convert any new areas into a different use and impacts would only occur during construction, PHMSA's assessment is that there would be no impact to land use.

PHMSA considered the cumulative effects of this action with ongoing and planned transportation related construction projects that could cumulatively impact land use and transportation. Woodworth does not have any other projects occurring in this area.

Land Use and Transportation

Mitigation Measures:

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

Woodworth shall coordinate with state and local agencies regarding detours and/or routing adjustments during construction and obtain the appropriate authorizations.

Noise and Vibration		
Question	Information and Justification	
Will the project construction occur for longer than a	No.	
month at a single project location?		
Will the project location be in proximity (less than 50-	No.	
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?		
Will the project require high-noise and vibration	No.	
inducing construction methods? If so, please specify.		
Will the project comply with state and local	Yes, Woodworth would comply with Rapides Parish	
ordinances? If so, identify applicable ordinances and	noise ordinance Article II Sec. 19-51.	
limitations on noise/vibration times or sound levels.		
Will construction activities require large bulldozers, hoe	No	
ram, or other vibratory equipment within 20 ft of a		
structure?		
Conclusion:		
The project is located to the east and south, outside of the	ne Town of Woodworth. The ambient noise in the	

project area consists of a combination of environmental noise from road traffic, population density and other sources. There are several sensitive noise receptors (residences) located adjacent to where work would occur.

No Action:

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

Proposed Action:

Pipeline would be installed via directional bore methods where drill rigs, excavators, reamers, and similar equipment would be used to install pipeline by horizontal directional drilling. Sensitive noise receptors are likely to experience temporary noise impacts while outdoors in the vicinity of the work; however, PHMSA's assessment is that the noise impacts would be minor and temporary and no adverse vibration impacts would result from the proposed work.

PHMSA considered the cumulative effects of this action with ongoing and planned transportation related construction projects that could cumulatively have an impact on the noise and vibration impacts within the surrounding area. Woodworth does not have any projects occurring in the project area; however, if any arise, adhering to state and local noise ordinances would ensure the project does not cause cumulatively more than minor adverse noise or vibration impacts.

Noise and Vibration

Mitigation Measures:

Woodworth shall adhere to Rapides Parish noise ordinance Article II Sec. 19-51.

Environmental Justice		
Question	Information and Justification	
Using the EPA EJScreen or census data ¹³ , is the project located in an area of minority and/or low-income individuals as defined by USDOT Order 5610.2(c)? If so, provide demographic data for minority and/or low- income individuals within ½ mile from the project area as a percentage of the total population.	Based on review of socioeconomic data using EPAs EJScreen tool, the population residing within the general project area for the Town of Woodworth contains 28% low income and 28% minority populations.	
Will the project displace existing residents or workers from their homes and communities? If so, what is the expected duration?	No.	
Will the project require service disruptions to homes and communities? If so, what is the expected communication and outreach plan to the residents and	Yes. During transfer of service there would be a short service interruption of less than 1 hour. Affected customers would be notified appropriately at such	

¹³ <u>https://www.census.gov/quickfacts/fact/table/US/PST045222</u>

the duration of the outages?	time. All avenues of media would be used to reach the residents of this interruption. (TV, Radio, Social Media, US Mail and Newspaper)
Are there populations with Limited English Proficiency	No.
located in the project area? If so, what measures will be	
taken to provide communications in other languages?	
Conclusion:	

Executive Order (E.O.) 14096—"Revitalizing Our Nation's Commitment to Environmental Justice for All" was enacted on April 21, 2023. E.O. 14096 on environmental justice does not rescind E.O. 12898 – "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," which has been in effect since February 11, 1994 and is currently implemented through DOT Order 5610.2C. This implementation will continue until further guidance is provided regarding the implementation of the new E.O. 14096 on environmental justice.

PHMSA reviewed socioeconomic data using the EPAs EJScreen and found the population residing within the project area contains 28% low income and 28% minority populations. The percentage of these populations is below the Rapides Parish average of 41% low income and 39% minority populations. See Appendix H, Environmental Justice, for socioeconomic data.

No Action:

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

Proposed Action:

The Proposed Action alternative would result in an overall reduction in GHG emissions. Construction activities would result in minor temporary air quality impacts, including the intentional venting of existing distribution lines prior to replacement. Noise impacts associated with construction are anticipated to be minor. Traffic impacts would be temporary and only minor disruptions or delays would occur. Gas service disruptions would occur at each individual meter along the affected pipeline. These disruptions would be temporary for the purpose of reconnecting the meter to the new service tap and pressure testing the service line. Service disruptions normally would be less than 4 hours, and never more than 24 hours. While impacts would be temporary, the removal of leak prone pipe would reduce leaks and the potential for incidents, resulting in an increase in pipeline safety across the system while also improving operation and reliability. Therefore, consistent with Executive Order 12898 and DOT Order 5610.2(c), PHMSA 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.

Environmental Justice

Mitigation Measures:

Woodworth shall provide advanced notification of service disruptions to all affected parties.

Safety		
Question	Information and Justification	
Has a risk profile been developed to describe the condition of the current infrastructure and potential safety concerns?	A DIMP for the system is a regulatory requirement. The last plan update was 2018. It has a 5-year inspection cycle. This plan contains the risk and threats of the integrity of system and would be updated with current information.	
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, construction safety measures would be implemented to protect health and minimize hazardous releases during construction. Safety would include personal protection, site monitoring, and site- specific safety plans.	
Will construction safety methods and procedures to protect human health and prevent/minimize hazardous materials releases during construction, including personal protection, workplace monitoring and site- specific health and safety plans, be utilized? If yes, document measures and reference appropriate safety plans.	Yes, construction safety measures would be implemented to protect health and minimize hazardous releases during construction. Safety would include personal protection, site monitoring, and site- specific safety plans.	
Has an assessment of the project been performed to analyze the risk and benefits of implementation?	Yes, an assessment has been performed to analyze the risk and benefit of implementation.	

The proposed project would replace vintage plastic pipes. Pipelines that are known to leak based on the material include cast iron, bare steel, wrought iron, and historic plastics with known issues (PIPES Act of 2020). PHMSA establishes safety regulations for all pipelines (49 CFR Parts 190-199). In 2011, following major natural gas pipeline incidents, DOT and PHMSA issued a Call to Action to accelerate the repair, rehabilitation, and replacement of the highest-risk pipeline infrastructure. Among other factors, pipeline age and material are significant risk indicators. Pipelines constructed of cast and wrought iron, as well as bare steel, are among the pipelines that pose the highest risk. PHMSA continues to encourage vintage 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. Woodworth's DIMP was last updated in 2018 with a 5year inspection cycle. This plan contains the risk and threats of the integrity of system and would be updated with current information.

No Action:

Under the No Action alternative, the vintage plastic 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 leak-prone pipes are replaced.

Proposed Action:

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

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

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

Safety

Mitigation Measures:

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

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

III. <u>Public Involvement</u>

On November 9, 2022, PHMSA published a Federal Register notice (87 FR 67748) with a 30-day comment period soliciting comments on the "Tier 1 Nationwide Environmental Assessment for the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program." During the 30-day comment period, PHMSA received one comment letter from the APGA on various aspects of the program and air quality related analysis in the EA on

December 9, 2022. This APGA letter is available for public review at the Docket No: PHMSA-2022-0123.¹⁴ PHMSA reviewed the comment letter and determined the comments were not substantial and did not warrant further analysis. One comment provided by the APGA indicated that the majority of construction methods used for pipe replacements would be replacement by open trenching and that some may want to abandon the existing pipe rather than removing it for replacement. Any departures from methods described in the Tier 1 EA will require additional documentation from the project proponent, as reflected in this Tier 2.

As part of this Tier 2, PHMSA is soliciting public comments through a public comment period. This Tier 2 is available on PHMSA's website where comments can be submitted to the contact noted below. PHMSA will accept public comments for 30 days on this Tier 2. PHMSA will consider comments received and incorporate them in the decision-making process. Consultation with appropriate agencies on related processes, regulations, and permits is ongoing. Please submit all comments to: PHMSABILGrantNEPAComments@dot.gov and reference NGDISM-FY22-EA-2023-22 in your response.

¹⁴ <u>https://www.regulations.gov/document/PHMSA-2022-0123-0002/comment</u>

Appendix A

Project Map



Ν

Name: Woodworth, Louisiana Gas Line Replacement Scale: 70,000 Total Acreage: 345 Rapides Parish, LA

Service Layer Credits: CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar



Ν

Name: Woodworth, Louisiana Gas Line Replacement Scale: 15,000 Total Acreage: 140 Rapides Parish, LA

Service Layer Credits: Esri Community Maps Contributors, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Maxar



Name: Woodworth, Louisiana Gas Line Replacement Scale: 20,000 Total Acreage: 205 Rapides Parish, LA

Service Layer Credits: Earthstar Geographics, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



Name: Woodworth, Louisiana Gas Line Replacement Scale: 8,000 Total Acreage: 205 Rapides Parish, LA Service Layer Credits: Esri Community Maps Contributors, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar



Scale: 8,000 Total Acreage: 205 Rapides Parish, LA



Service Layer Credits: Esri Community Maps Contributors, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar Appendix B Air Quality

Methane Leak Rate pre/post Construction

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)
Plastic	190.9	6.25	1,193
Unprotected steel	1,491.80	0	0
Protected steel	77.90	0	0
Total Methane Leak Rate		1,193	

Table 3. Proposed Action Leak Rate

Pipeline Material Type	Average Rate (kg/mile/year)	Miles	New Methane Leak Rate (kg/year)
Plastic	28.8	6.25	180
Year 1 Methane Reduction			973
Annual Methane Reduction		1,013	
20-year Methane Reduction		20,223	

Methane Blowdown Estimate

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

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

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

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

Table 4. Proposed Action - Methane Blowdown

Inside Diameter = in	1.5
Blowdown Pressure	32.5
Length of Blowdown = ft	33,000
Blowdown MCF	1.30
Total	1.30 MCF (40 kg)

Appendix C

Water Resources

Water Resources - Town of Woodworth







U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, Earthstar Geographics, CONANP, Esri, TomTom,

Water Resources - Town of Woodworth



Riverine

Project area



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, CONANP, Esri, TomTom, Garmin, SafeGraph,

Freshwater Emergent Wetland

Water Resources - Town of Woodworth



Riverine

Project area



Freshwater Emergent Wetland



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, CONANP, Esri, TomTom, Garmin, SafeGraph,




Appendix D

Hazardous Materials

Town of Woodworth - Hazardous Materials



January 8, 2024

Hazardous Waste (RCRAInfo)

Hazardous Waste (RCRAInfo)

Search Result (point)

Project Area



Earthstar Geographics, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS

Appendix E: Soil Map

31° 9' 46" N

92° 27' 35" W



31° 5' 10" N



31° 5' 10" N



Natural Resources **Conservation Service** Web Soil Survey National Cooperative Soil Survey

92°23'32"W

31° 9' 46" N

MAP L	EGEND	MAP INFORMATION
Area of Interest (AOI) Area of Interest (AOI) Soils Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Special Point Features	 Spoil Area Stony Spot Very Stony Spot Wet Spot Other Special Line Features 	The soil surveys that comprise your AOI were mapped at 1:24,000. Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator
Image: Weight of the systemBlowoutImage: Borrow PitImage: Clay SpotImage: Clay Closed DepressionImage: Clay Clay Clay Clay Clay Clay Clay Clay	Water FeaturesStreams and CanalsTransportation+++Rails	 projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Rapides Parish, Louisiana Survey Area Data: Version 19, Sep 14, 2023 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Nov 7, 2022—Nov 13, 2022 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Lc	Latanier clay, 0 to 1 percent slopes, rarely flooded	10.7	3.1%
MnB	Moreland clay, 0 to 3 percent slopes, rarely flooded	48.3	13.9%
Nd	Coushatta silt loam, 0 to 1 percent slopes	277.4	80.2%
Nw	Coushatta silty clay loam, 0 to 1 percent slopes	0.2	0.0%
W	Water	9.4	2.7%
Totals for Area of Interest		346.0	100.0%

Appendix F

Biological Resources



United States Department of the Interior

FISH AND WILDLIFE SERVICE Louisiana Ecological Services Field Office 200 Dulles Drive Lafayette, LA 70506 Phone: (337) 291-3100 Fax: (337) 291-3139



In Reply Refer To: Project Code: 2024-0034058 Project Name: Town of Woodworth Gas Pipeline Replacement January 09, 2024

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, and candidate species, as well as designated and proposed critical habitat that may occur within the boundary of your proposed project and may be affected by your proposed project. The Fish and Wildlife Service (Service) is providing this list under section 7 (c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Changes in this species list may occur due to new information from updated surveys, changes in species habitat, new listed species and other factors. Because of these possible changes, feel free to contact our office (337-291-3109) for more information or assistance regarding impacts to federally listed species. The Service recommends visiting the IPaC site or the Louisiana Ecological Services Field Office website (https://www.fws.gov/ southeast/lafayette) at regular intervals during project planning and implementation for updated 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 habitats 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 Federal trust resources and to determine whether projects may affect Federally listed 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)).

Bald eagles have recovered and were removed from the List of Endangered and Threatened Species as of August 8, 2007. Although no longer listed, please be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668 et seq.).

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance", which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: https://www.fws.gov/migratorybirds/pdf/management/ nationalbaldeaglenanagementguidelines.pdf

Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. Onsite personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: https://www.fws.gov/ southeast/our-services/eagle-technical-assistance/. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting any necessary consultation.

Activities that involve State-designated scenic streams and/or wetlands are regulated by the Louisiana Department of Wildlife and Fisheries and the U.S. Army Corps of Engineers, respectively. We, therefore, recommend that you contact those agencies to determine their interest in proposed projects in these areas.

Activities that would be located within a National Wildlife Refuge are regulated by the refuge staff. We, therefore, recommend that you contact them to determine their interest in proposed projects in these areas.

Additional information on Federal trust species in Louisiana can be obtained from the Louisiana Ecological Services website at: https://www.fws.gov/southeast/lafayette

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

Attachment(s):

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

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:

Louisiana Ecological Services Field Office 200 Dulles Drive Lafayette, LA 70506 (337) 291-3100

PROJECT SUMMARY

Project Code:2024-0034058Project Name:Town of Woodworth Gas Pipeline ReplacementProject Type:Distribution Line - Maintenance/Modification - Below GroundProject Description:Replacement of Gas pipeline in rural Woodworth, LaProject Location:Versite Content of Conte

The approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@31.1083725,-92.42635865149063,14z</u>



Counties: Rapides County, Louisiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Endangered
BIRDS NAME	STATUS
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/7614</u>	Endangered
Whooping Crane <i>Grus americana</i> Population: U.S.A (Southwestern Louisiana) No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/758</u>	Experimental Population, Non- Essential
REPTILES NAME	STATUS
Alligator Snapping Turtle <i>Macrochelys temminckii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4658	Proposed Threatened

INSECTS

NAME

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

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 <u>National Wildlife Refuge</u> 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 Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the <u>"Supplemental Information on Migratory Birds and Eagles"</u>.

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

There are bald and/or golden eagles in your project area.

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.

STATUS

Candidate

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus	Breeds Sep 1 to
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention	Jul 31
because of the Eagle Act or for potential susceptibilities in offshore areas from certain	
types of development or activities.	
https://ecos.fws.gov/ecp/species/1626	

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 <u>"Supplemental Information on Migratory Birds and Eagles"</u>, 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.

				prob	ability o	f presenc	ce br	eeding s	eason	survey	effort	— no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable	1 <mark>1</mark> ++	• • • •	• • • • •	++++	111.	· · · · I	++++	++++	++++	++++	• • •	• • • • • •

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 <u>https://www.fws.gov/library/</u> <u>collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>

- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/</u> <u>documents/nationwide-standard-conservation-measures.pdf</u>
- Supplemental Information for Migratory Birds and Eagles in IPaC <u>https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action</u>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the <u>"Supplemental Information on Migratory Birds and Eagles"</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> 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
American Kestrel Falco sparverius paulus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bachman's Sparrow Aimophila aestivalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6177	Breeds May 1 to Sep 30
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/9427</u>	Breeds Mar 1 to Jul 15

NAME	BREEDING SEASON
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9406</u>	Breeds Mar 15 to Aug 25
Kentucky Warbler Oporornis formosus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9443</u>	Breeds Apr 20 to Aug 20
Prairie Warbler <i>Dendroica discolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9513</u>	Breeds May 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9439</u>	Breeds Apr 1 to Jul 31
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9398</u>	Breeds May 10 to Sep 10
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8938</u>	Breeds Mar 10 to Jun 30

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 <u>"Supplemental Information on Migratory Birds and Eagles"</u>, 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.



Additional information can be found using the following links:

- Eagle Management <u>https://www.fws.gov/program/eagle-management</u>
- Measures for avoiding and minimizing impacts to birds <u>https://www.fws.gov/library/</u> <u>collections/avoiding-and-minimizing-incidental-take-migratory-birds</u>

- Nationwide conservation measures for birds <u>https://www.fws.gov/sites/default/files/</u> <u>documents/nationwide-standard-conservation-measures.pdf</u>
- Supplemental Information for Migratory Birds and Eagles in IPaC <u>https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action</u>

IPAC USER CONTACT INFORMATION

Agency: Department of Transportation

Name: Jason Holloman

Address: 220 Binney Street

City: Cambridge

- State: MA
- Zip: 02142

Email jason.holloman@dot.gov

Phone: 6174943048

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Pipeline and Hazardous Materials Safety Administration

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK	FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Alligator Snapping Turtle	g Macrochelys temminckii	Reptile	G3	S3	Proposed Threatened	Restricted	Acadia, Allen, Ascension, Avoyelles, Beauregard, Bienville, Bossier, Caddo, Calcasieu, Caldwell, Catahoula, Concordia, De Soto, East Baton Rouge, East Carroll, Franklin, Grant, Iberia, Iberville, Jefferson, La Salle, Lafayette, Lafourche, Livingston, Madison, Morehouse, Natchitoches, Ouachita, Rapides, Red River, Richland, Sabine, St. Charles, St. John the Baptist, St. Landry, St. Martin, St. Tammany, Tangipahoa, Tensas, Terrebonne, Union, Vernon, Washington, West Feliciana, Winn	Yes	Yes
Atlantic Camas	Camassia scilloides	Plant	G4G5	S3			Bossier, Caddo, Morehouse, Natchitoches, Rapides, Webster, Winn		
Bachman's Sparrow	Peucaea aestivalis	Bird	G3	S3			Allen, Beauregard, Bienville, Bossier, Calcasieu, Claiborne, Grant, Jackson, Jefferson Davis, Livingston, Natchitoches, Rapides, Sabine, St. Tammany, Tangipahoa, Vernon, Washington	Yes	
Bald Eagle	Haliaeetus leucocephalus	Bird	G5	S3	Delisted	Delisted	Ascension, Assumption, Avoyelles, Beauregard, Bienville, Bossier, Caddo, Calcasieu, Caldwell, Cameron, Catahoula, Claiborne, Concordia, De Soto, East Baton Rouge, Franklin, Grant, Iberia, Iberville, Jackson, Jefferson, La Salle, Lafourche, Livington, Morehouse, Natchitoches, Orleans, Ouachita, Plaquemines, Pointe Coupee, Rapides, Red River, Richland, Sabine, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Landry, St. Martin, St. Mary, St. Tammany, Tangipahoa, Tensas, Terrebonne, Union, Vermilion, West Baton Rouge, West Feliciana	Yes	
Bay Starvine	Schisandra glabra	Plant	G3	S3			Caldwell, Catahoula, East Feliciana, Evangeline, Iberia, Jackson, Lincoln, Natchitoches, Rapides, St. Helena, St. Mary, West Feliciana, Winn	Yes	
Bayhead Swamp	Bayhead swamp	Natural Community	G3?	S3			Beauregard, Jackson, Natchitoches, Ouachita, Rapides, St. Tammany, Vernon, Washington, Winn	Yes	
Big Brown Bat	Eptesicus fuscus	Mammal	G5	S2			Allen, Beauregard, Bienville, Bossier, Caldwell, De Soto, Grant, Jackson, La Salle, Lincoln, Natchitoches, Orleans, Ouachita, Rapides, Sabine, St. Helena, Tangipahoa, Tensas, Union, Vernon, West Feliciana, Winn	Yes	Yes
Blue Sucker	Cycleptus elongatus	Fish	G3G4	S3			Beauregard, Bossier, Caddo, Calcasieu, Concordia, Morehouse, Plaquemines, Rapides, Red River, Sabine, Union, Vernon		
Bluehead Shiner	Pteronotropis hubbsi	Fish	G3	S2			Avoyelles, Catahoula, La Salle, Madison, Morehouse, Ouachita, Rapides, Union		Yes
Bog Moss	Mayaca fluviatilis	Plant	G5	S2			Evangeline, Rapides, St. Charles, St. Tammany, Washington		Yes
Bottomland Hardwood Forest	Bottomland hardwood forest	Natural Community	G4G5	S4			Avoyelles, Bossier, Caddo, Calcasieu, Caldwell, Catahoula, Concordia, East Baton Rouge, East Carroll, Franklin, Grant, Iberville, Lincoln, Livingston, Madison, Natchitoches, Orleans, Plaquemines, Rapides, Richland, Sabine, St.	Yes	

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
						Landry, St. Martin, St. Tammany, Tangipahoa, Tensas, Union, Vernon, Webster, West Baton Rouge, West Carroll, Winn		
Calcasieu Creek Crawfish	Procambarus pentastylus	Crustacean	G3	S3		Allen, Beauregard, Calcasieu, Rapides, Vernon		
Calcasieu Painted Crawfish	Faxonius hathawayi blacki	Crustacean	G3T2	S1		Allen, Beauregard, Calcasieu, Rapides, Vernon	Yes	Yes
Chub Shiner	Notropis potteri	Fish	G4	S3		Avoyelles, Bossier, Caddo, Caldwell, Catahoula, Concordia, Grant, Natchitoches, Rapides, Red River		
Coastal Plain Lobelia	Lobelia flaccidifolia	Plant	G5	S3		Allen, Beauregard, Calcasieu, Jefferson Davis, Rapides, Vernon		
Creeper	Strophitus undulatus	Mollusk	G5	S2		Claiborne, Lincoln, Madison, Rapides, Union		Yes
Crested Coralroot	Hexalectris spicata	Plant	G5	S2		Caldwell, Claiborne, Evangeline, Jackson, Lincoln, Natchitoches, Ouachita, Rapides, Union, Vernon, Webster, West Feliciana		Yes
Cypress Swamp	Cypress swamp	Natural Community	G4G5	S4		Ascension, Bienville, Bossier, Catahoula, Evangeline, Franklin, Iberia, Iberville, Rapides, Richland, St. Landry, St. Martin, St. Mary, Tangipahoa, Vermilion, Webster	Yes	
Cypress-tupelo Swamp	Cypress-tupelo swamp	Natural Community	G3G5	S4		Ascension, Assumption, Bossier, East Baton Rouge, Franklin, Iberia, Iberville, Livingston, Natchitoches, Pointe Coupee, Rapides, St. Charles, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, West Feliciana, Winn		
Dusky Roadside- Skipper	Amblyscirtes alternata	Insect	G2G3	S2S3		Caddo, Natchitoches, Rapides, St. Helena, Vernon		Yes
Dusted Skipper	Atrytonopsis hianna	Insect	G4G5	S3		Bienville, Caldwell, East Baton Rouge, East Feliciana, Grant, Jackson, La Salle, Livingston, Natchitoches, Rapides, St. Helena, Tangipahoa, Vernon, Winn		
Eastern Hog- nosed Snake	Heterodon platirhino	s Reptile	G5	S3		Bienville, Catahoula, Rapides, Sabine, St. Tammany, Tangipahoa, Vernon, Winn		
Fleming Calcareous Prairie	Fleming calcareous prairie	Natural Community	G1	S1		Natchitoches, Rapides, Vernon	Yes	Yes
Fleming Glade	Fleming glade	Natural Community	G1	S1		Rapides	Yes	Yes

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Frosted Elfin	Callophrys irus	Insect	G2G3	S2S3		Bossier, Caddo, Claiborne, De Soto, Grant, Natchitoches, Rapides, Red River, Sabine, Vernon, Webster		Yes
Georgia Satyr	Neonympha areolatu	s Insect	G3G4	S3		Beauregard, Calcasieu, Evangeline, Grant, Natchitoches, Rapides, St. Helena, St. Tammany, Vernon		
Gulf Chub	Macrhybopsis tomellerii	Fish	GNR	SNR		Allen, East Baton Rouge, East Feliciana, Pointe Coupee, Rapides, St. Helena, West Baton Rouge, West Feliciana		
Gulf Coast Waterdog	Necturus beyeri	Amphibian	GNR	S3		Allen, Ascension, Beauregard, East Feliciana, Grant, Livingston, Rapides, Sabine, St. Helena, St. Tammany, Tangipahoa, Vernon, Washington		
Hardwood Slope Forest	Hardwood slope forest	Natural Community	G2G3	S3		Bienville, Bossier, Caddo, Caldwell, Catahoula, East Carroll. East Feliciana, Evangeline, Grant, Jackson, La Salle, Natchitoches, Ouachita, Rapides, St. Helena, St. Mary, St. Tammany, Tangipahoa, Union, Washington, West Carroll, West Feliciana	Yes	Yes
Henslow's Sparrow	Centronyx henslowii	Bird	G4	S3N		Allen, Beauregard, Bossier, Morehouse, Natchitoches, Rapides, Sabine, St. Tammany, Tangipahoa, Vernon		
Hispid Pocket Mouse	Chaetodipus hispidus	Mammal	G5	S2		Beauregard, Natchitoches, Rapides, Sabine, Vernon		Yes
Hurter's Spadefoot	Scaphiopus hurterii	Amphibian	G5	S3		Bienville, Bossier, Caddo, Calcasieu, De Soto, Grant, Jackson, La Salle, Lincoln, Natchitoches, Ouachita, Rapides, Red River, Sabine, Union, Vernon, Webster, Winn		
Ironcolor Shiner	Notropis chalybaeus	Fish	G4	S3		Beauregard, Bossier, Grant, Jackson, Lincoln, Madison, Morehouse, Rapides, St Tammany, Tangipahoa, Tensas, Washington, Webster, Winn		
Javelin Crawfish	Procambarus jaculus	Crustacean	G4	S1		Avoyelles, Rapides		Yes
King's Hairstreak	Satyrium kingi	Insect	G3G4	SU		Jefferson, Natchitoches, Orleans, Rapides, St. Tammany, Tangipahoa, Vernon, Washington, West Feliciana		
Kisatchie Painted Crawfish	Faxonius maletae	Crustacean	G2	S2		Grant, Natchitoches, Rapides, Red River, Sabine, Winn	Yes	Yes
Long-tailed Weasel	Mustela frenata	Mammal	G5	53	Restricted	Allen, Bienville, Bossier, East Baton Rouge, Lincoln, Livingston, Ouachita, Pointe Coupee, Rapides, Sabine, St. James, St. Tammany, Union, Vernon, West Feliciana	Yes	
Louisiana Bluestar	· Amsonia ludoviciana	Plant	G3	53		Allen, Bienville, Calcasieu, Grant, Natchitoches, Ouachita, Rapides, Red River, Sabine, Union, Vernon, Winn		

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK	FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Louisiana Needlefly	Leuctra szczytkoi	Insect	G1	S1			Grant, Jackson, Ouachita, Rapides		Yes
Louisiana Pearlshell	Margaritifera hembeli	Mollusk	G1G2	S1	Threatened	Threatened	Grant, Rapides		Yes
Louisiana Pigtoe	Pleurobema riddellii	Mollusk	G1G2	S1S2			Allen, Natchitoches, Rapides, Red River, Vernon		Yes
Louisiana Pinesnake	Pituophis ruthveni	Reptile	G1G2	S2	Threatened	Threatened	Beauregard, Bienville, Grant, Jackson, Natchitoches, Rapides, Sabine, Vernon	Yes	Yes
Louisiana Slimy Salamander	Plethodon kisatchie	Amphibian	G3G4	S1			Catahoula, Grant, Jackson, La Salle, Natchitoches, Ouachita, Rapides, Winn		Yes
Meske's Skipper	Hesperia meskei	Insect	G3G4	S1			Natchitoches, Rapides, Vernon		Yes
Millet Beak Sedge	Rhynchospora miliacea	Plant	G5	S2			Allen, Calcasieu, Livingston, Rapides, St. Mary, Terrebonne, Vernon, Winn	Yes	Yes
Mixed Hardwood- loblolly Forest	Mixed hardwood- loblolly forest	Natural Community	G3G4	S3			Allen, Bienville, Bossier, Caddo, Caldwell, Catahoula, Claiborne, East Feliciana, Evangeline, Franklin, Grant, Jackson, La Salle, Lincoln, Natchitoches, Ouachita, Rapides, Richland, Sabine, St. Tammany, Tangipahoa, Union, Vernon, Washington, Webster, West Carroll, West Feliciana, Winn	Yes	
Mottled Duskywing	Erynnis martialis	Insect	G3	S3			Natchitoches, Rapides, St. Helena, St. Tammany, Vernon		
Nodding Pogonia	Triphora trianthophora	Plant	G4	S2			Bossier, Caddo, Iberville, Natchitoches, Rapides, St. Martin, West Feliciana	Yes	Yes
Northern Burmannia	Burmannia biflora	Plant	G4G5	S3			Bienville, Bossier, Caddo, Catahoula, De Soto, Grant, La Salle, Natchitoches, Ouachita, Rapides, St. Tammany, Vernon, Webster, Winn		
Northern Long- eared Bat	Myotis septentrionalis	Mammal	G2G3	S1	Threatened	Threatened	Avoyelles, Bienville, Bossier, Caldwell, Catahoula, De Soto, Grant, Jackson, La Salle, Morehouse, Natchitoches, Ouachita, Rapides, Richland, Sabine, Union, Vernon, Webster, West Feliciana, Winn		Yes
Northern Red Oak	Quercus rubra	Plant	G5	S1S3			Caddo, Caldwell, De Soto, East Carroll, Morehouse, Ouachita, Rapides, Richland, St. Tammany, Union, Washington, West Carroll		Yes
One-flowered Broomrape	Orobanche uniflora	Plant	G5	S1			Rapides, Tangipahoa, Vernon		Yes
Ouachita Fencing Crawfish	Faxonella creaseri	Crustacean	G2	S2			Avoyelles, Bienville, Caldwell, Catahoula, Claiborne, Grant, Jackson, La Salle, Lincoln, Natchitoches, Ouachita, Rapides, Red River, Union, Webster, Winn	Yes	Yes

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK	FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Pepper and Salt Skipper	Amblyscirtes hegon	Insect	G5	SU			Bienville, Claiborne, De Soto, Grant, Lincoln, Natchitoches, Rapides, Red River, Sabine, Union, Vernon, Webster, Winn		
Pine Flatwoods	Pine flatwoods	Natural Community	G2G3	S3			Allen, Grant, Rapides, St. Tammany, Vernon	Yes	Yes
Pitcher Plant Spiketail	Cordulegaster sarracenia	Insect	GNR	S1			Grant, Jackson, Natchitoches, Ouachita, Rapides, Vernon		Yes
Prairie Evening Primrose	Oenothera pilosella ssp. sessilis	Plant	G5T2	S1?			Allen, Bossier, Claiborne, Jefferson Davis, Morehouse, Rapides		Yes
Pygmy Rattlesnake	Sistrurus miliarius	Reptile	G5	S2			Allen, Bienville, Bossier, Caddo, Catahoula, De Soto, East Baton Rouge, East Feliciana, Evangeline, Grant, Iberia, Jackson, Lafayette, Livington, Morehouse, Natchitoches, Orleans, Plaquemines, Rapides, Sabine, St. Bernard, St. Helena, St. Landry, St. Tammany, Tangipahoa, Union, Washington, Winn		Yes
Red Milkweed	Asclepias rubra	Plant	G4G5	S3			Beauregard, Natchitoches, Rapides, Vernon		
Red River Mudpuppy	Necturus Iouisianensis	Amphibian	G4	S3			Bienville, East Carroll, Evangeline, Grant, Jackson, Morehouse, Natchitoches, Ouachita, Rapides, Red River, Union, Webster, Winn		
Red-cockaded Woodpecker	Dryobates borealis	Bird	G3	S2	Endangered/Proposed Threatened	Endangere	d Allen, Beauregard, Bienville, Bossier, Caddo, Calcasieu, Catahoula, De Soto, Evangeline, Grant, Jackson, La Salle, Lincoln, Livingston, Morehouse, Natchitoches, Ouachita, Rapides, Red River, Sabine, St. Helena, St. Tammany, Tangipahoa, Union, Vernon, Webster, Winn	Yes	Yes
Redspot Darter	Etheostoma artesiae	Fish	G5	S3			Catahoula, East Feliciana, Grant, La Salle, Natchitoches, Rapides, Sabine, Washington, West Feliciana		
Sandbank Pocketbook	Lampsilis satura	Mollusk	G2?	S2			Allen, Beauregard, Calcasieu, Rapides, Vernon		Yes
Sandhill Crane	Antigone canadensis	Bird	G5	S2N			Calcasieu, Cameron, Franklin, Madison, Morehouse, Rapides, Vermilion, West Carroll	Yes	Yes
Sandstone Glade	Sandstone glade	Natural Community	G1G2	S2			Natchitoches, Rapides, Sabine, Vernon	Yes	Yes
Shortleaf Pine/oak-hickory Forest	Shortleaf pine/oak- hickory forest	Natural Community	G2G3	S1			Bienville, Bossier, Caddo, De Soto, Grant, Lincoln, Natchitoches, Rapides, St. Tammany, Tangipahoa, Vernon, Washington, Webster, Winn	Yes	Yes

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Shrub Swamp	Shrub swamp	Natural Community	GNR	S4		Avoyelles, Concordia, Rapides		
Silver-haired Bat	Lasionycteris noctivagans	Mammal	G3G4	SNA		Avoyelles, Catahoula, La Salle, Lincoln, Rapides, Vernon, Winn	Yes	
Slash Pine/Post Oak Forest	Slash pine/post oak	Natural Community	GNR	\$3\$4		Rapides, St. Tammany		
Slender Glass Lizard	Ophisaurus attenuatus	Reptile	G5	S3		Acadia, Allen, Beauregard, Bossier, Caddo, Calcasieu, Caldwell, Cameron, De Soto, Evangeline, Grant, Morehouse, Natchitoches, Ouachita, Rapides, St. Tammany, Vermilion, Vernon, Webster, Winn		
Small Stream Forest	Small stream forest	Natural Community	G3	S2		Bienville, Bossier, Caddo, Claiborne, De Soto, East Baton Rouge, East Feliciana, Franklin, Grant, La Salle, Lincoln, Livingston, Natchitoches, Rapides, Sabine, St. Helena, St. Tammany, Tangipahoa, Vernon, Washington, Webster, West Feliciana, Winn	Yes	Yes
Small-toothed Caric Sedge	Carex microdonta	Plant	G4	S3		Acadia, Calcasieu, Grant, Iberia, La Salle, Natchitoches, Rapides, Vernon, Winn		
Snow Melanthera	Melanthera nivea	Plant	G5	S2		Ascension, Avoyelles, Concordia, Iberia, Iberville, La Salle, Rapides, St. Helena, Tensas	Yes	Yes
Southern Crawfish Frog	n Lithobates areolatus areolatus	Amphibian	G4T4	S1		Acadia, Allen, Beauregard, Caddo, Ouachita, Rapides, Richland, Vernon, Webster		Yes
Southern Creekmussel	Pseudodontoideus subvexus	Mollusk	G3	S1		Ascension, Beauregard, Calcasieu, Livingston, Rapides, Vernon, Winn	Yes	Yes
Southern Hickorynut	Obovaria arkansasensis	Mollusk	GNR	S1S2		Allen, Beauregard, East Baton Rouge, East Feliciana, Livingston, Natchitoches, Rapides, Sabine, St. Helena, St. Tammany, Vernon		Yes
Southern Lady's- slipper	Cypripedium kentuckiense	Plant	G3	S1		Bienville, Bossier, Caldwell, Catahoula, De Soto, Evangeline, Grant, Jackson, Lincoln, Natchitoches, Ouachita, Rapides, Red River, Sabine, Union, Vernon, Winn	Yes	Yes
Southern Red- backed Salamander	Plethodon serratus	Amphibian	G5	S1	Prohibited	Catahoula, De Soto, Natchitoches, Rapides		Yes
Southern Shield Woodfern	Dryopteris Iudoviciana	Plant	G4	S2		Bienville, East Baton Rouge, East Feliciana, Grant, Iberia, Rapides, St. Mary, Tangipahoa, West Feliciana	Yes	Yes

COMMON NAME	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK FEDI	ERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Southwestern Creek Crawfish	Procambarus dupratz	i Crustacean	G5	S2			Beauregard, Natchitoches, Rapides, Sabine, Vernon		Yes
Strecker's Giant- Skipper	Megathymus strecker	i Insect	G5	S1			Bienville, De Soto, Grant, Natchitoches, Rapides, Red River, Sabine, Vernon, Winn		Yes
Summer Spurge	Euphorbia discoidalis	Plant	G4	S1			Rapides		Yes
Teche Painted Crawfish	Faxonius hathawayi	Crustacean	G3	S3			Acadia, Allen, Evangeline, Jefferson Davis, Rapides		
Texas Emerald	Somatochlora margarita	Insect	G2G3	S2			Bienville, Bossier, Caldwell, Claiborne, Jackson, Lincoln, Natchitoches, Ouachita, Rapides, Red River, Webster, Winn		Yes
Threeway Sedge	Dulichium arundinaceum	Plant	G5	S2			Bienville, Caddo, Rapides, St. Tammany, Washington		Yes
Tricolored Bat	Perimyotis subflavus	Mammal	G3G4	S4 Prop	oosed Endangered		Allen, Bienville, Bossier, Caddo, Caldwell, Catahoula, De Soto, Grant, Jackson, La Salle, Lincoln, Natchitoches, Ouachita, Rapides, Red River, Sabine, St. Tammany, Tangipahoa, Union, Vernon, Webster, West Feliciana, Winn		Yes
Waterbird Nesting Colony	g Colonial Waterbird Nesting Area	Animal Aggregation	GNR	SNR			Acadia, Allen, Ascension, Assumption, Avoyelles, Beauregard, Bossier, Caddo, Calcasieu, Caldwell, Cameron, Catahoula, Concordia, Evangeline, Franklin, Grant, Iberia, Iberville, Jefferson, Jefferson Davis, Lafourche, Livingston, Madison, Morehouse, Natchitoches, Orleans, Ouachita, Plaquemines, Pointe Coupee, Rapides, Red River, Richland, Sabine, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Landry, St. Martin, St. Mary, St. Tammany, Tangipahoa, Tensas, Terrebonne, Vermilion, Vernon, Washington, Webster, West Baton Rouge, West Feliciana		
Western Acidic Longleaf Pine Savanna	Western acidic Iongleaf pine savanna	Natural Community	G2G3	52			Allen, Beauregard, Calcasieu, Jefferson Davis, Natchitoches, Rapides, Vernon	Yes	Yes
Western Chicken Turtle	Deirochelys reticularia miaria	Reptile	G5T5	S2			Acadia, Allen, Avoyelles, Beauregard, Caddo, Calcasieu, Caldwell, Cameron, Catahoula, Concordia, De Soto, East Carroll, Evangeline, Franklin, Iberia, Iberville, Jefferson Davis, Lincoln, Morehouse, Natchitoches, Ouachita, Pointe Coupee, Rapides, Richland, St. John the Baptist, St. Landry, St. Martin, Union, Vermilion, Vernon, West Baton Rouge, West Carroll, Winn		Yes
Western Hillside Seepage Bog	Western hillside seepage bog	Natural Community	G2G3	S1			Beauregard, Grant, Natchitcohes, Rapides, Vernon, Winn	Yes	Yes

	SCIENTIFIC NAME	ELEMENT TYPE	GLOBAL RANK	STATE RANK FEDERAL STATUS	STATE STATUS	PARISH	FACT SHEET	IMPERILED OR CRITICALLY IMPERILED
Western Sand Darter	Ammocrypta clara	Fish	G3	S2		Avoyelles, Beauregard, Bossier, Caddo, De Soto, Morehouse, Natchitoches, Ouachita, Rapides, Red River, Sabine, Union, Vernon		Yes
Western Umbrella Sedge	Fuirena simplex var. aristulata	Plant	G5T4	S1		Natchitoches, Rapides, St. Charles, St. Landry		Yes
Western Upland Longleaf Pine Forest	Western upland longleaf pine forest	Natural Community	G2G3	S3		Allen, Beauregard, Bienville, Grant, Natchitoches, Rapides, Sabine, Vernon, Winn	Yes	Yes
Worm-eating Warbler	Helmitheros vermivorum	Bird	G5	S3B		Catahoula, East Feliciana, La Salle, Natchitoches, Rapides, St. Helena, Vernon, West Feliciana		
Yellow Coneflower	Ratibida pinnata	Plant	G5	S2		Bossier, Caddo, Caldwell, La Salle, Natchitoches, Rapides, Vernon, Winn		Yes
Yucca Giant- Skipper	Megathymus yuccae	Insect	G5	S1		Caddo, Catahoula, Natchitoches, Rapides, Tangipahoa, Vernon, West Feliciana		Yes

Appendix G

Cultural Resources

February 14, 2024

Kristin Sanders State Historic Preservation Officer Louisiana Office of Cultural Development P.O. Box 44247 Baton Rouge, LA 70804-4241

Section 106 Consultation: PHMSA Pipeline Replacement Project in Woodworth, Louisiana Grant Recipient: Town of Woodworth Project Location: Town of Woodworth, Rapides Parish, Louisiana

Dear Kristin Sanders:

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 Town of Woodworth (Grant Recipient) for the replacement of pipelines (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 Recipients proposes to replace a total of 6.25 miles of plastic pipeline that was installed during the 1970s. The vulnerable pipeline to be replaced is located within the Town of Woodworth's (Town) existing right-of-way (ROW) and would not require any new ROW or easements. The existing ROW encompasses various roads, signage, sidewalks, and grassy areas throughout the Town. Project location maps are enclosed in **Attachment A**. Photographs showing the overall character of the project areas are included in **Attachment B**.

The replacement gas lines would be installed at a depth of 3 feet below grade. Construction methods would include trenching and directional boring. At most locations, the replacement gas lines would be located adjacent to the existing gas lines, ideally between 12 to 60 inches from the existing pipeline within the grassy areas adjacent to the roadway. However, depending on the limitations in the area and the location of other utilities, the replacement gas line may need to be installed on the opposite side of the street.

The Grant Recipient would abandon the vintage pipe in place after utility services have been moved to the replacement pipeline. Abandonment of the existing pipeline (versus excavation and removal) would minimize ground disturbance and facilitate the replacement process in a more efficient manner. The maximum depth of disturbance for pipeline replacement is expected to be 6 feet, and the width of disturbance is expected to be between 12 and 48 inches.

The Undertaking would also involve the replacement of existing service lines within existing utility easements. The maximum depth for service line replacements is expected to be 3 feet, and the width of disturbance is expected to be between 12 inches and 36 inches.

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. Based on the proposed scope of work, PHMSA has delineated the APE for this Undertaking to encompass the existing ROW and utility easements where the pipeline and service line replacements will take place. There are two segments of the APE; the APE along Highway 470 and Robinson Bridge Road extends from 31.15471, -92.43680 to 31.13448, -92.41391, and the APE along Chickamaw Road and Thompson Road extends from 31.12364, - 92.43848 to 31.09268, -92.42285. The APE includes the limits of disturbance and any resources that may be particularly susceptible to any potential vibration or physical effects of the Undertaking and extends to the depth of proposed ground disturbance of up to 6 feet. The Undertaking does not have the potential to cause visual or audible effects after the completion of construction. The APE is shown on the map in **Attachment A**.

Identification and Evaluation

To identify historic properties in the APE, individuals 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 received from the Louisiana Division of Historic Preservation. Individuals who meet the SOI Professional Qualification Standards also conducted research to determine if there are any previously unidentified properties within the APE that are 45 years of age or older and may be eligible for listing in the NRHP.

Historic Architecture

There are two NRHP-listed above-ground resources within the APE: Chickama (NRHP No. 16000302) and the Pegram Plantation House (NRHP No. 03001064). A search in the Louisiana Historic Resource Inventory (LHRI) and Louisiana Office of Cultural Development's Cultural Resources Map database found no other known NRHP-listed or NRHP-eligible above-ground resources within the APE. Only one other above-ground resource was previously surveyed within the APE: the house at 533 Chickamaw Road, which was recommended not eligible for listing in the NRHP in a 2019 survey.

Chickama, located at 687 Chickamaw Road, is a 1913 Colonial Revival-style farmhouse. It is significant under Criterion C in the area of architecture as an example of a transitional Colonial Revival style and vernacular farmhouse from the early-twentieth century; the house's floorplan resembles a Queen Anne style floor plan, but its exterior details are Colonial Revival in style.

The Pegram Plantation House, located at 881 Chickamaw Road, is a c. 1850 Greek Revival-style house. It is listed under Criterion C in the area of architecture as an excellent example of a surviving Greek Revival residence in Rapides Parish.

Project work within and adjacent to these two properties is limited to below-ground pipeline and service line replacements within the existing ROW and utility easements. No above-ground activities are anticipated at these locations.

Due to the scale and nature of the Undertaking, which is limited to the replacement of pipelines and service lines within existing ROW and utility easements, 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 work will not have any 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

The Louisiana Office of Cultural Development's Cultural Resources Map database was reviewed for the presence of previously recorded archaeological sites and previously conducted archaeological surveys within one quarter of a mile of the APE. The review revealed two archaeological sites and six archaeological surveys within one quarter of a mile of the APE (see Tables 1 and 2).

Site Number	Туре	NRHP	Citation
16RA318	Historic artifact scatter	Not Eligible	Heartfield, Price, and Greene, Inc. 1982
16RA893	Historic artifact scatter	Not Eligible	Girard 1999

Table 1. Archaeological Sites within One Quarter of a Mile of the APE

Both previously recorded archaeological sites within the search radius are historic-age sites. Site 16RA318, is the potential remnants of a brick kiln related to the Smith Plantation dating to the mid-1800s, and site 16RA893 is presumed to be related to twentieth-century logging activities. Both sites are not eligible for listing in the NRHP. None of the archaeological sites and previous survey areas intersect the APE.

Table 2. Archaeological Surveys within One Quarter of a Mile of the APE

Report	Citation	Report Number
Feasibility Study of Various Alignments for the Proposed North- South Expressway: Opelousas - Alexandria Area	Spencer and Perry 1976	22-0155
A Cultural Resource Survey and Evaluation of the Opelousas to Shreveport Portion of the Proposed North-South Expressway: Phases I and II	Heartfield et al. 1978	22-0478
A Cultural Resources Survey of Possible Re-alignments of the Proposed Louisiana North-South Expressway (I-49) between Stations 630+50 and 896+74(L.B.) /889+77(L.A.) and Stations 889+77 and 130+30, Rapides Parish, Louisiana.	Heartfield, Price, and Greene, Inc. 1982	22-1097
Regional Archaeology Program, Management Unit 1, Tenth Annual Report	Girard 1999	22-2335
A Phase I Archaeological Direct Effects and Visual Effects Survey for the Proposed Lamourie Tower, Rapides Parish, Louisiana	Johnson and Davidson 2018	22-6085
A Phase I Cultural Resources Survey Bayou Boeuf 3D Seismic Survey, Avoyelles, Evangeline, Rapides, and St. Landry Parishes, Louisiana	Chapman and Hale 2020	22-6632

An examination of Web Soil Survey data reveals 4 soil types, plus areas of water within the APE. These types, along with their drainage class, slope, and APE percentage are detailed in Table 3. Well drained and moderately well drained soils can be indicative of human habitation during both the pre-contact and historic periods. Typically slopes greater than 15 percent are not suitable for human occupation. The APE is comprised of nearly all well drained soils with little to no slope, indicating suitable conditions for human habitation in both the pre-contact and historic periods. Additionally, topographic maps reveal that the APE is located adjacent to Bayou Lamourie and Bayou Boeuf. Proximity to major waterways generally indicates a suitable environment for both precontact and historic human activity.

Soil Type	Drainage Class	Slope	Percent of APE					
Coushatta silt loam	Well drained	0 to 1 percent	80.2					
Coushatta silty clay loam	Well drained	0 to 1 percent	<1					
Latanier clay, rarely flooded	Somewhat poorly drained	0 to 1 percent	3.1					
Moreland clay, rarely flooded	Somewhat poorly drained	0 to 3 percent	14.0					

Table 3. Soil Types within the APE

Soil Type	Drainage Class	Slope	Percent of APE		
Water	N/A	N/A	2.7		

Historic topographic maps and historic aerial photographs were examined for archaeological resource sensitivity within the APE. The presence of structures on historic maps and aerial photography may indicate the likelihood of historic period archaeological deposits associated with the occupation of these structures. The APE is comprised of rural development along Highway 470 and Robinson Bridge Road as well as Chickamaw Road and Thompson Road. The 1935, 1957, and 1972 topographic quadrangles show the two roadways in the same alignment as today with numerous buildings within the APE. There has been some infill development within the APE, but the majority of the buildings remain from the 1930s based on the quadrangles. Aerial imagery from 1955 and 1971 reinforces the development of the two roadways seen in the topographic maps. The rural areas show a regular pattern of agricultural fields within one quarter of a mile of the APE with buildings found along the roadways. There are a few areas that have not been developed and remain wooded from the 1950s to today.

Background research revealed no archaeological sites and archaeological surveys intersect the APE. However, there are two NRHP-listed properties located within the APE, as noted in the above *Historic Architecture* section. The presence of known historic-age resources within the APE indicates a moderate to high potential for archaeological deposits to exist within the APE. Soil types within the APE also indicate a suitable environment for precontact and historic habitation in most portions of the APE. Additionally, topographic maps and aerial imagery reveal considerable historical development within the APE.

However, the proposed Undertaking will be limited to installing replacement pipeline and service lines along a portion of Highway 470 and Robinson Bridge Road and a portion of Chickamaw Road and Thompson Road. This work will occur within the existing ROW and utility easements. Most ground disturbing activities will occur adjacent to the original pipeline, which will be abandoned in place once the replacement pipeline is operational. Modern aerial imagery indicates the proposed pipeline installation will occur in areas nearest the roadway in moderate to heavily disturbed areas. While the APE has not been archaeologically surveyed and there is moderate to high potential for archaeological deposits within the APE, the ground disturbance caused by previous utility installation and road construction has likely compromised the integrity and context of any archaeological deposits that may exist within the APE. Therefore, due to the limited scope of work, lack of significant archaeological sites in the vicinity of the APE, and previous disturbance of the APE, an archaeological survey is not recommended at this time.

Determination of Effect

Based on the aforementioned identification and evaluation, PHMSA finds that there are two historic properties as defined in 36 CFR 800.16(l) within the APE: the NRHP-listed Chickama and the NRHP-listed Pegram Plantation House.

Although these two properties are located within the APE, the Undertaking is limited to the below-ground replacement of existing pipelines and service lines and will not alter any of the characteristics or contributing features of these properties that qualify them as eligible for inclusion in the NRHP under Criterion C in a manner that would diminish their integrity. The Undertaking will not result in lasting physical, visual, or audible effects to these two properties. The Undertaking does not include land acquisition, nor would it limit access to or change the use of these properties. Furthermore, project work will take place within existing, previously disturbed ROW and utility easements, which demonstrate a low probability for intact significant archaeological resources.

While the exact staging areas for the Undertaking are currently unknown, staging should be confined to paved areas; if staging cannot be confined to paved areas, geotextile fabric or other similar protective measures (such as pressure distributing mats) must be laid in any affected unpaved area to minimize ground disturbance, prevent soil compaction, and protect potential archaeological features and artifacts.

Therefore, in accordance with 36 CFR § 800.5, PHMSA has determined the Undertaking will result in No Adverse Effect to Historic Properties.

Consulting Party Outreach

PHMSA identified parties that may be interested in the Undertaking and its effects on historic properties. PHMSA invites the individuals/organizations copied on this letter to participate as Section 106 consulting parties. Invited parties should indicate their willingness to participate as a consulting party and provide comments on the enclosed form (**Attachment C**) within 30 calendar days from the date on this letter. Note that a 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 concerns 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
- Caddo Nation of Oklahoma
- Choctaw Nation of Oklahoma
- Coushatta Tribe of Louisiana
- Jena Band of Choctaw Indians
- Mississippi Band of Choctaw Indians
- Tunica-Biloxi Indian Tribe

Request for Section 106 Concurrence

Based on the information presented above, PHMSA finds that the Undertaking will result in No Adverse Effect to Historic Properties. 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 Amy Hootman, Section 106 specialist, at PHMSASection106@dot.gov or 857-998-9981.

Sincerely,

Mart Tult

Matt Fuller Senior Environmental Protection Specialist

MF/ah

 cc: Jason Holloman, Environmental Protection Specialist, USDOT Volpe Center Dana White, PHMSA Grant Coordinator
 Mary Pringle, Town Clerk, Town of Woodworth Charles Charrier, President, The Historical Association of Central Louisiana

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



Ν

Name: Woodworth, Louisiana Gas Line Replacement Scale: 70,000 Total Acreage: 345 Rapides Parish, LA Service Layer Credits: CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Maxar


Scale: 15,000 Total Acreage: 140 Rapides Parish, LA

CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Maxar



Scale: 20,000 Total Acreage: 205 Rapides Parish, LA

TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



Total Acreage: 205 Rapides Parish, LA



Service Layer Credits: Esri Community Maps Contributors, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar



Total Acreage: 205 Rapides Parish, LA



Service Layer Creatiss: Esri Community Maps Contributors, (© OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar

ATTACHMENT B

Project Area Photographs



Photo 1. APE along LA Highway 470, view facing southeast.



Photo 2. APE along LA Highway 470, view facing southeast.



Photo 3. APE along LA Highway 470, view facing southeast.



Photo 4. APE along Chickamaw Road, view facing south.



Photo 5. APE along Thompson Road, view facing west.



Photo 6. APE along Chickamaw Road, view facing north.



Photo 7. APE along Chickamaw Road, view facing south.

ATTACHMENT C

Consulting Party Response Form

Section 106 Consulting Party Response Form

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

Project Name/Location:

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

Please check one of the following:

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

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

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

Comments:

Please return by:

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

Rapides Parish, LA

.5 miles Ring around the Area Population: 351 Area in square miles: 11.05



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	97%
Spanish	1%
French, Haitian, or Cajun	1%
Total Non-English	3%

COMMUNITY INFORMATION

♦EPA



White: 72% Black: 15% American Indian: 0% Asian: 0% Hawaiian/Pacific Islander: 0% Other race: 0% Two or more races: 7% Hispanie: 6% BREAKDOWN BY AGE

 From Ages 1 to 4
 6%

 From Ages 1 to 18
 22%

 From Ages 18 and up
 78%

 From Ages 65 and up
 19%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish Speak Other Indo-European Languages	100% 0%
Speak Asian-Pacific Island Languages	0%
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.

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 colo populations with a single environmental indicator.



SUPPLEMENTAL INDEXES

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



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation. Report for .5 miles Ring around the Area

 \equiv

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE In state	USA AVERAGE	PERCENTILE In USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m ³)	8.2	8.62	19	8.08	50
Ozone (ppb)	58.7	59.8	17	61.6	29
Diesel Particulate Matter (µg/m ³)	0.096	0.247	13	0.261	15
Air Toxics Cancer Risk* (lifetime risk per million)	30	32	10	25	52
Air Toxics Respiratory HI*	0.34	0.38	1	0.31	31
Toxic Releases to Air	110	15,000	14	4,600	24
Traffic Proximity (daily traffic count/distance to road)	6.9	86	21	210	13
Lead Paint (% Pre-1960 Housing)	0.12	0.22	47	0.3	38
Superfund Proximity (site count/km distance)	0.012	0.076	2	0.13	6
RMP Facility Proximity (facility count/km distance)	0.1	0.62	23	0.43	30
Hazardous Waste Proximity (facility count/km distance)	0.065	1.1	14	1.9	13
Underground Storage Tanks (count/km ²)	0.11	2.2	26	3.9	28
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0038	49	58	22	59
SOCIOECONOMIC INDICATORS					
Demographic Index	28%	41%	36	35%	47
Supplemental Demographic Index	12%	17%	30	14%	48
People of Color	28%	43%	41	39%	47
Low Income	28%	40%	35	31%	52
Unemployment Rate	5%	7%	56	6%	59
Limited English Speaking Households	2%	2%	79	5%	62
Less Than High School Education	8%	15%	34	12%	49
Under Age 5	6%	6%	59	6%	62
Over Age 64	19%	17%	65	17%	63
Low Life Expectancy	19%	22%	20	20%	49

*Diese 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 furthers trudy. It is important to remember that the air toxics data presented here provide to health risks over geographic areas of the country, not definitive risk 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: <u>fittics//www.epa.gov/haspair-toxics-data-update</u>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	2
Air Pollution	1
Brownfields	0
Toxic Release Inventory	1

Other community features within defined area:

Schools	0
Hospitals	0
Places of Worship	5

Other environmental data:

Air Non-attainment	No
Impaired Waters	Yes

 Selected location contains American Indian Reservation Lands*
 No

 Selected location contains a "Justice40 (CEJST)" disadvantaged community
 Yes

 Selected location contains an EPA IRA disadvantaged community
 Yes

Report for .5 miles Ring around the Area

HEALTH INDICATORS							
INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE							
Low Life Expectancy	19%	22%	20	20%	49		
Heart Disease	7.4	7	59	6.1	76		
Asthma	9.6	9.9	47	10	43		
Cancer	6.6	5.9	74	6.1	59		
Persons with Disabilities	22.4%	15.9%	85	13.4%	91		

CLIMATE INDICATORS							
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE		
Flood Risk	24%	25%	67	12%	88		
Wildfire Risk	19%	7%	90	14%	83		

CRITICAL SERVICE GAPS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Broadband Internet	18%	20%	52	14%	69	
Lack of Health Insurance	6%	8%	39	9%	47	
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	

Footnotes

Report for .5 miles Ring around the Area

www.epa.gov/ejscreen

EJScreen Community Report

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

Rapides Parish, LA

County: Rapides Parish Population: 130,459 Area in square miles: 1361.51



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	95%
Spanish	2%
French, Haitian, or Cajun	1%
Total Non-English	5%

COMMUNITY INFORMATION

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White: 61% Black: 31% American Indian: 1% Asian: 1% Hawaiian/Pacific Other race: 0% Two or more races: 3% Hispanic: 3% BREAKDOWN BY AGE

From Ages 1 to 4 From Ages 1 to 18 From Ages 18 and up

7%

25%

75%

16%

LIMITED ENGLISH SPEAKING BREAKDOWN

From Ages 65 and up

Speak Spanish Speak Other Indo-European Languages	65% 14%
Speak Asian-Pacific Island Languages Speak Other Languages	17% 5%

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

Environmental Justice & Supplemental Indexes

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

EJ INDEXES

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



SUPPLEMENTAL INDEXES

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



SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION

These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation. Report for County: Rapides Parish

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SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE In state	USA AVERAGE	PERCENTILE In USA	
POLLUTION AND SOURCES						
Particulate Matter (µg/m ³)	8.45	8.62	45	8.08	56	
Ozone (ppb)	58.5	59.8	14	61.6	28	
Diesel Particulate Matter (µg/m³)	0.155	0.247	38	0.261	33	
Air Toxics Cancer Risk* (lifetime risk per million)	30	32	10	25	52	
Air Toxics Respiratory HI*	0.38	0.38	1	0.31	31	
Toxic Releases to Air	250	15,000	22	4,600	35	
Traffic Proximity (daily traffic count/distance to road)	42	86	55	210	36	
Lead Paint (% Pre-1960 Housing)	0.23	0 <u>.</u> 22	65	0.3	51	
Superfund Proximity (site count/km distance)	0.014	0.076	9	0.13	9	
RMP Facility Proximity (facility count/km distance)	1.2	0.62	83	0.43	91	
Hazardous Waste Proximity (facility count/km distance)	0.96	1.1	61	1.9	60	
Underground Storage Tanks (count/km ²)	1.8	2.2	64	3.9	57	
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.074	49	87	22	80	
SOCIOECONOMIC INDICATORS						
Demographic Index	40%	41%	54	35%	64	
Supplemental Demographic Index	17%	17%	52	14%	68	
People of Color	39%	43%	52	39%	58	
Low Income	41%	40%	52	31%	70	
Unemployment Rate	6%	7%	61	6%	66	
Limited English Speaking Households	1%	2%	78	5%	59	
Less Than High School Education	13%	15%	52	12%	67	
Under Age 5	7%	6%	63	6%	66	
Over Age 64	16%	17%	53	17%	52	
Low Life Expectancy	22%	22%	41	20%	70	

-puese 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 Hunited 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 over geographic areas of the country, not definitive risk 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 cancer locations of cound are <u>fitters/lowwereag.org/haps/air-toxics-data-update</u>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	11
Water Dischargers	
·	647
Air Pollution	78
Brownfields	15
Toxic Release Inventory	19

Other community features within defined area:

Schools	53
Hospitals	16
Places of Worship	298

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: Rapides Parish

HEALTH INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Low Life Expectancy	22%	22%	41	20%	70	
Heart Disease	7.4	7	57	6.1	74	
Asthma	10	9.9	56	10	52	
Cancer	6.4	5.9	64	6.1	52	
Persons with Disabilities	17.7%	15.9%	65	13.4%	78	

CLIMATE INDICATORS						
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE	
Flood Risk	17%	25%	53	12%	82	
Wildfire Risk	13%	7%	89	14%	82	

CRITICAL SERVICE GAPS					
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	17%	20%	50	14%	67
Lack of Health Insurance	9%	8%	62	9%	63
Housing Burden	Yes	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	Yes	N/A	N/A	N/A	N/A

Footnotes

Report for County: Rapides Parish

www.epa.gov/ejscreen