

STORM WATER POLLUTION
PREVENTION PLAN
(SWPPP)

CONSTRUCTION STORM WATER
GENERAL NPDES PERMIT

FOR

Atmos Energy
Hamilton SIMP - Highway 45 Gas Line
Monroe County, Mississippi

March 2026

PREPARED BY:

Headwaters, Inc.
167 Orchard Lane
Madison, Mississippi



HEADWATERS

TABLE OF CONTENTS

I.	Introduction.....	2
II.	Site Assessment	2
	A. Location	
	B. Description of Work	
	C. Potential Pollution Sources	
	D. Non-Storm Water Solid Materials	
	E. Drainage Patterns	
	F. Receiving Waters	
	G. Wetlands	
III.	Best Management Practices (BMPs).....	3
	A. Erosion and Sediment Control	
	B. Spill Prevention and Response Procedures	
	C. Operation and Maintenance	
	D. Record Keeping	
	E. Employee Training	
	F. Housekeeping Practices	
IV.	Construction Sequence.....	6
V.	Implementation Schedule.....	7
	A. Structural Measures	
	B. Proof of Coverage	
VI.	Inspections and Reporting.....	7
	A. Inspections	
	B. Reporting	
VII.	Revisions.....	8
VIII.	Termination of Coverage.....	9
IX.	Appendix I - Location Maps	
X.	Appendix II - Storm Water Management Plan Maps	
XI.	Appendix III - Soil Report	
XII.	Appendix IV - Seed Chart	
XIII.	Appendix V - USACE Coordination	

I. INTRODUCTION

The purpose of the Storm Water Pollution Prevention Plan (SWPPP) is to provide a site-specific description of the best management practices to prevent contamination of the site storm water flows from potential pollutants associated with construction activities. The SWPPP has been prepared for ATMOS ENERGY, as required by the Mississippi Department of Environmental Quality (MDEQ) in compliance with the applicable regulations for coverage under the Construction Storm Water General NPDES Permit. Headwaters, Inc. has developed this SWPPP to be incorporated into the routine construction activities associated with the proposed project development plans. The plan also outlines implementation, inspection, and maintenance requirements. The erosion and sediment control practices should be monitored, and the plan should be revised if storm water compliance is not achieved.

II. SITE ASSESSMENT

- A. **Location:** The project is a proposed gas line to provide services to residents, businesses, and industries in Monroe County, Mississippi. The following GPS coordinates can be used to locate the project area:

Northern Terminus: 33.821777, -88.51469

Southern Terminus: 33.759131, -88.451877

- B. **Description of Work:** The project will include the construction of approximately 6.74 miles of new, 40-foot-wide permanent easement and 20-foot-wide adjacent temporary workspace that totals 48.86 acres. Construction activities will include the clearing of vegetation and the construction of the gas line utilizing open trenching and directional boring methods.

The proposed gas line (ROW) that is to be cleared will be mulched and/or seeded during the construction process in order to stabilize those areas. As the clearing progresses, areas that will be bored via HDD will be seeded for temporary stabilization. As the areas of open trench construction are completed, remaining exposed soils will be seeded and mulched for stabilization purposes. The total disturbance of the gas line right-of-way is approximately 48.86 acres. There will not be more than fifty acres disturbed at one time throughout the duration of the project.

- C. **Potential Pollution Sources:** The most significant potential pollutants are soil particles subject to removal by storm water. Other potential pollutants

subject to removal by storm water are spilled fuel and lubricants. Material may also be inadvertently tracked off-site or blown off-site when distributed by hauling equipment. The storm water, which leaves the site, shall meet the non-numeric limitations of being free from oil, scum, debris, other floating materials, and eroded soils.

- D. **Non-Storm Water Solid Materials:** The on-site generation of solid materials will be minimal, and its proper disposal will be closely monitored. All solid waste will be taken off-site for proper disposal.
- E. **Drainage Patterns:** Most of the rainwater that falls on areas disturbed by construction activities will sheet flow off the ROW.
- F. **Receiving Waters:** Nichols Creek and Broyles Creek and unnamed tributaries are the primary drainage features in the project area. The project will utilize the horizontal directional drilling (HDD) method to bore under all stream crossings. According to the MDEQ TMDL Tool (V1.4), there are no impaired streams within the project area or immediately down gradient of the named receiving streams. Further, the Tombigbee River nor the Tennessee Tombigbee River are listed in this area. By utilizing BMPs, and HDD, the project will not cause or contribute to exceedances of the water quality standards to any receiving streams in accordance with the Large Construction General Permit.
- G. **Wetlands:** The entire alignment has been delineated. All streams within the proposed right-of-way will be avoided by utilizing HDD methods. All wetlands will be trenched and permanently converted to emergent wetlands. To address the impacts to wetlands, a PCN for a Nationwide Permit 12 was submitted to the USACE Mobile Office and assigned file number SAM-2026-00285. A copy of the NWP 12 verification letter is attached (Appendix V). Stumps within the wetlands will not be excavated. Mulching conducted within the wetland habitats will be done in a manner to allow the chips to fall as they may and will not be purposefully compiled or aggregated. Given that the fill will decompose, will not convert the wetland to upland, will not increase the base elevation, and will not change the use of the waters, the USACE is not considering it a loss and therefore is not requiring mitigation. All wetland and stream habitats will be protected by BMP's.

As previously stated, Nichols Creek and Broyles Creek and unnamed tributaries are the primary receiving waters for the proposed project.

According to the MDEQ TMDL Tool (V1.4), there are no impaired streams within the project area or immediately down gradient of the named receiving streams. Further, the Tombigbee River nor the Tennessee Tombigbee River are listed in this area. By utilizing BMPs, and HDD, the project will not cause or contribute to exceedances of the water quality standards to any receiving streams in accordance with the Large Construction General Permit. To prevent any secondary adverse impacts to waters of the State, BMPs will be utilized to help prevent any sediment discharges from contaminating waters of the State downstream of the project area. Specifically, the SWPPP exhibits will depict the exact location of the planned erosion and sediment controls that will be utilized during construction. Hay wattles will be installed and maintained along top banks of all streams and wetland areas. Mulch (temporary practice) will act as a secondary layer of control since it will not be feasible to maintain 50' vegetative buffers. The use and maintenance of the BMPs will ensure that no secondary impacts occur as a result of sediment discharges off the project site.

A key concern of the project during construction is contaminated soil particles entering surface waters via storm water runoff. The utilization of BMPs is vital to minimizing and preventing sediment discharges into waters of the State. To prevent sediment discharges during construction, hay wattles will be installed and maintained. Additionally, the use of the HDD construction method for all stream crossings will further protect the potential for sediment discharges during construction.

Properly designed and well-maintained BMPs are required to provide the attainment of water quality standards. For the proposed project, sediment discharges during construction are to be prevented by the installation and maintenance of hay wattles. The revegetation of the bore areas immediately after clearing and the mulching of the wetland habitats will further protect water quality associated with the project.

According to Rule 2.4 of the Mississippi Commission on Environmental Quality Regulations for Water Quality Criteria for Intrastate, Interstate, and Coastal Waters, waters of the State that do not have a listed classified use shall be classified for fish and wildlife. As no classified use has been given to any of the named or unnamed receiving waters of the project, these waters would assume the classification of fish and wildlife use. Waters with a fish and wildlife classification are intended for fishing, propagation of fish, aquatic life, and wildlife. Waters that meet the fish and wildlife

criteria shall also be suitable for secondary contact recreation. Secondary contact recreation is defined as incidental contact with water during activities such as wading, fishing, and boating that are not likely to result in full body submersion. The project, as proposed, would not have any adverse effect to the classified use of these waters. BMPs incorporated into the SWPPP to be utilized during the construction phases of the project will significantly reduce the potential for erosion as a result of the project. Additionally, the proposed impacts to waters of the State by the proposed project would all be considered temporary. Each wetland crossing along the right of way alignment would be restored to preconstruction conditions and contours. Further, to ensure water quality, the proposed crossings of all streams identified would be completed via horizontal directional drilling (HDD) and/or other boring methods.

Regarding the initial impacts to waters of the State, erosion and sediment controls would be utilized and maintained before and during construction to minimize soil movement and erosion potential. The SWPPP has been prepared to provide site-specific descriptions of sediment and erosion control measures that would prevent pollution of stormwater runoff from potential pollutant sources, namely sedimentation. This SWPPP has been prepared, as required by MDEQ, in compliance with applicable regulations under the Construction Storm Water General NPDES Permit.

III. BEST MANAGEMENT PRACTICES (BMPs)

- A. Erosion and Sediment Control:** Construction activities shall not cause more than minimal and temporal water quality degradation of any adjacent wetlands, stream or water body. Appropriately chosen erosion and sediment control BMPs will be used to prevent sediment from leaving the site or entering adjacent wetlands or other waters. Given the nature of the project and the requirement for long term maintenance of the right of way, vegetative buffers along the streams and wetlands are not feasible. Due to the need to clear the entire right of way, additional BMP's are included at each wetland and stream located within the project right of way. Additional control measures could include but are not limited to the use of mulch, secured hay wattles, silt fencing and/or seeding of exposed or disturbed areas. All BMPs implemented for the site will be in accordance with the standards set forth in the most current edition of the MDEQ "Planning and Design Manual for the Control of Erosion, Sediment and Storm Water." The contractor will be responsible for inspecting and maintaining the erosion and sediment controls for the duration of the project until final

stabilization (70%) of the site is achieved, and a Notice of Termination has been issued by MDEQ. The site plan found in Appendix II will detail where each BMP will be used.

1. **Structural Practices**

- Construction Entrance/Exit (Rock) (Temporary Practice) - Due to the nature of linear projects, construction entrances are not typically used for long periods of time. Therefore, temporary construction entrances may be utilized as deemed necessary during construction. Aggregate should be at least six (6) inches thick and 50 feet long using DOT#1 coarse aggregate. The entrances will be inspected weekly and periodic top dressing with new gravel may be necessary when it becomes clogged with dirt and/or debris to prevent the tracking of mud and dirt onto the roadway. In addition, dirt and debris that accumulates on the roadway should be removed immediately. The GP interprets immediately to mean no later than the next workday.
- Hay Wattles (Temporary Practice) - Wattles will be installed and staked as shown on the SWPPP exhibits. They will be placed between the area to be disturbed, the wetland areas and stream crossings as needed and at any other locations deemed necessary by the contractor once construction begins. Sediment will be removed when it reaches one third to one half the height of the barrier. Straw wattle must be at minimum eighteen (18) inches in diameter. All removed sediment deposits shall be properly disposed of within the project site and in accordance with this plan.
- Silt Fence, (If Needed, Temporary Practice) - Silt fence will be installed on an as needed basis. It will be placed at any locations deemed necessary once construction begins including HDD entrances/exits. The use of silt fences along the project ROW will be at the discretion of the contractor. Sediment will be removed when it reaches one third to one half the height of the barrier. All removed sediment deposits shall be properly disposed of within the project site and in accordance with this plan.
- Matting - In areas of the ROW where standard BMP's are not sufficient, (along slopes, banks and crossing water) the installation of matting should be considered or may be required in order to prevent runoff. Once matting is installed contractors must use the mats to traverse the ROW. The use of mats will be at the discretion of the contractor.
- Fueling and Vehicle Maintenance Locations - Fueling and vehicle maintenance areas shall use BMPs for industrial activities to ensure that pollutants do not impact the storm water runoff. Impervious dikes and

berms shall be used to contain potential spills. Drums and containers for holding and transporting contaminated materials should be on site.

2. **Vegetative Practices**

- **Vegetated Buffers** – Vegetative buffers will not be feasible for the project due to the requirement of annual right of way maintenance. Due to the absence of vegetated buffers, the applicant will utilize additional BMP's at each wetland and stream crossing. In areas where tree clearing is required adjacent to the top bank of a stream, stumps will be mulched, and grading will be avoided to maintain the bank stabilization. Incorporating forestry mulching along the primary streams is required to avoid potential damage to stream bank slopes causing excessive sediment discharge throughout the life of the project. Construction traffic must avoid traversing across the streams unless bridged in a way that will prevent bank degradation. Immediately following clearing practices, the stream banks must be seeded with a perennial mix as required by the General Permit. No stockpiling of soil within close proximity to the streams, wetlands or anywhere near a water body is permitted. Supplemental seeding will be used as needed in areas where mulching and other BMPs are not sufficient during construction.
- **Temporary Seeding (Temporary Practice)** – Soil stabilization-vegetative stabilization measures must be initiated whenever any clearing, grading, grubbing, excavation, or other land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of fourteen (14) calendar days or more. Once the HDD stream crossings have been cleared, these areas should be seeded for stabilization purposes. The appropriate temporary or permanent vegetative practices shall be initiated immediately. MDEQ defines immediately to mean no later than the next workday.
- **Mulching (Temporary)** – Mulch will be used whenever possible and in all vegetated areas to aid in slope stabilization to hold moisture, dampen temperature extremes and retard erosion on steep slopes until temporary or permanent seeding can be implemented. All areas that are mulched will be considered temporarily stabilized. Heavily mulched areas will be graded prior to final seeding.
- **Permanent Seeding** - Permanent stabilization measures shall be initiated in a project area as soon as construction activities have permanently ceased. When weather and/or logistical factors prevent immediate stabilization, measures should be initiated no later than 14 days after the construction activity in that portion of the site has permanently ceased. In accordance

with the GP, in areas where heavy equipment is utilized, the top 4 inches of the soil bed should be tilled before re-vegetation. Topsoil will be stockpiled and used in areas that will be re-vegetated.

- B. **Spill Prevention and Response Procedures:** If single wall tanks are used, then secondary containment measures shall be implemented. Double-wall tanks do not require secondary containment measures. If on-site above ground oil storage (gasoline, diesel, hydraulic, transformer, etc.) exceeds either 660 gallons in a single container or exceeds 1,320 gallons in aggregate storage, a SPCC plan would be required.
- C. **Operation and Maintenance:** The best management practices and outfalls/discharge points must be properly installed and maintained as designed and inspected after rain events that produce a discharge and at least weekly for a minimum of four (4) inspections per month. Any poorly functioning erosion or sediment controls, non-compliant discharges, or any other deficiencies observed during the inspections shall be corrected as soon as possible, but not to exceed 24 hours of the inspection unless prevented by unsafe weather conditions as documented on the inspection form.
- D. **Record Keeping:** Records shall be retained for three years of all maintenance activities, spills, and inspections, including a description of the quality and quantity of storm water.
- E. **Employee Training:** The Permittee understands the requirements of the GP as it pertains to installation, routine maintenance, corrective action, and weekly inspections and will make sure that their contractors understand the need for Permit compliance in accordance with General Permit Act5 T-20 and T-21. Pre-construction training with all on-site workers is required to discuss the requirements and responsibilities of all environmental permitting required by the project. A training roster must be signed and maintained on site. All employees joining the project after the initial meeting must receive the environmental training and sign the roster.
- F. **Housekeeping Practices:** Pollutants that may enter storm water from construction sites because of poor housekeeping include oils, grease, paints, gasoline, solvents, litter, debris, and sanitary waste. During construction activities, the contractor is required to:
 - 1. designate areas for equipment maintenance and repair
 - 2. provide waste receptacles at convenient locations and provide regular

collection of waste

3. provide protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials
4. provide adequately maintained sanitary facilities
5. designate an area for concrete truck wash off
6. streets will be swept as needed to remove sediment or other debris that has been tracked from construction site. No later than the next workday.
7. sediment or other pollutants will be periodically removed from control measures, when deposits reach one-third to one-half the height of the control, conveyance channels, or storm drain inlets.
8. All removed sediment deposits shall be properly disposed of in accordance with this plan. Nonfunctioning controls shall be repaired, replaced or supplemented with functioning controls within twenty - four (24) hours of discovery or as soon as field conditions allow.

IV. CONSTRUCTION SEQUENCE

Below is the construction sequence for this project. This sequence could change depending on the sequence of letting bids, contracting, etc. An updated construction sequence will be submitted to MDEQ if changes occur.

1. Obtain plan approval and all other permits as needed.
2. Have a pre-construction conference to review all needed BMPs.
3. Install the construction entrances as needed.
4. Begin vegetation clearing within the right of way.
5. Install all erosion and sediment controls as indicated on the site plan prior to site construction.
6. Complete HDD Bores at streams, roads and cultural sites (if applicable).
7. Perform temporary seeding at each HDD bore location.
8. Begin open trench construction of the gas line.
9. Perform weekly reviews of site conditions along with erosion and sediment practices to ensure compliance with the SWPPP. Inspection reports will be kept on site with an updated SWPPP.
10. As the project is constructed, maintain BMPs as needed to ensure minimal erosion and sedimentation problems.
11. Perform any temporary seeding as needed and instructed throughout the construction process.
12. Final grading, seeding, sodding, mulching, and fertilizing.
13. Ensure final stabilization (70%) is achieved within the project site.
14. Removal of any temporary measures.

V. IMPLEMENTATION SCHEDULE

- A. **Structural Measures:** The non-existing structural measures shall be installed as the weather permits, and the existing measures shall be re-conditioned as well. General implementation principles are:
1. install down-slope and perimeter controls before other site work
 2. divert upslope water around area before major site grading
 3. do not disturb an area until it is necessary
 4. time construction activities to limit impact from seasonal weather
 5. cover or stabilize disturbed area as soon as possible
 6. do not remove temporary controls until after site stabilization
 7. The permittee shall limit clearing, excavation, and the placement of fill materials to areas essential to the project. The remainder of the property shall be left in its natural state.
- B. **Proof of Coverage:** A copy of the Large Construction Storm Water General Permit certificate and a copy of the Storm Water Pollution Prevention Plan should be kept onsite or locally available. Copies of these documents are provided in the Appendix.

VI. INSPECTIONS AND REPORTING

- A. **Inspections:** Inspections of the best management practices and other storm water pollution prevention plan requirements shall be performed as follows:
1. At least weekly for a minimum of four inspections per month.
 2. After a rainfall event that produces a discharge and as often as necessary to ensure that appropriate erosion and sediment controls have been properly implemented and maintained.

The minimum inspection requirement in no way relieves the permittee of performing whatever inspections are needed to ensure safe and pollution free facility operation.

- B. **Reporting:** The owner and/or contractor must inspect, as described in the section above, and maintain controls and prepare weekly reports noting damages or deficiencies and corrective measures. These inspection reports are kept on-site until the Request for Termination (RFT) form is submitted.

As previously stated, all records, reports, and information resulting from activities required by this plan and the issued permit shall be retained for at least three years from the date of the CNOI, inspection, or report.

A rain gauge shall be placed in a central location on the site and used to obtain rainfall amounts. This information will be needed for proper completion of the inspection report.

VII. REVISIONS

The storm water pollution prevention plan will be kept current by the company representative and will be revised as changes in site conditions warrant. The company representative may notify the SWPPP developer for assistance when necessary. Factors that would compel the SWPPP to be modified include:

- Inadequacies revealed by routine inspections.
- Changes in identified sources, non-storm water discharges, or non-storm water solid wastes.
- MDEQ Office of Pollution Control notification that the plan does not meet one or more of the minimum requirements.
- Changes in design, construction, operation, or maintenance, which has affected the discharge of pollutants to waters of the State and which were not otherwise addressed in the SWPPP.
- Identification of any new contractor and/or subcontractor that will implement a measure of the SWPPP.
- Install additional erosion and sediment controls when existing controls prove to be ineffective.
- Any additions, removals, or modifications to construction entrances as shown on the site plans.
- All revisions to the SWPPP must be approved by the company representative.

A plan revision will be completed within 30 days of the date if determined that a revision is warranted. If the modification is in response to a request by the Office of Pollution Control (OPC), the permittee must submit to the OPC certification that the requested changes have been made.

VIII. TERMINATION OF COVERAGE


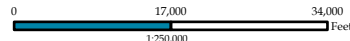
Within thirty (30) days of final stabilization (70%), the Office of Pollution Control must be notified by a completed Request for Termination (RFT) of Coverage form (copy provided). MDEQ staff will inspect the site and if no sediment or erosion problems are identified and adequate permanent controls are established, the owner or operator will receive a termination letter. Coverage is not terminated until notified in writing by MDEQ. Failure to submit an RFT form is a violation of permit conditions.

IX. APPENDIX I - LOCATION MAPS



Project Termini
33.821777,-88.51469

Project Termini
33.759131,-88.451877


	
	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

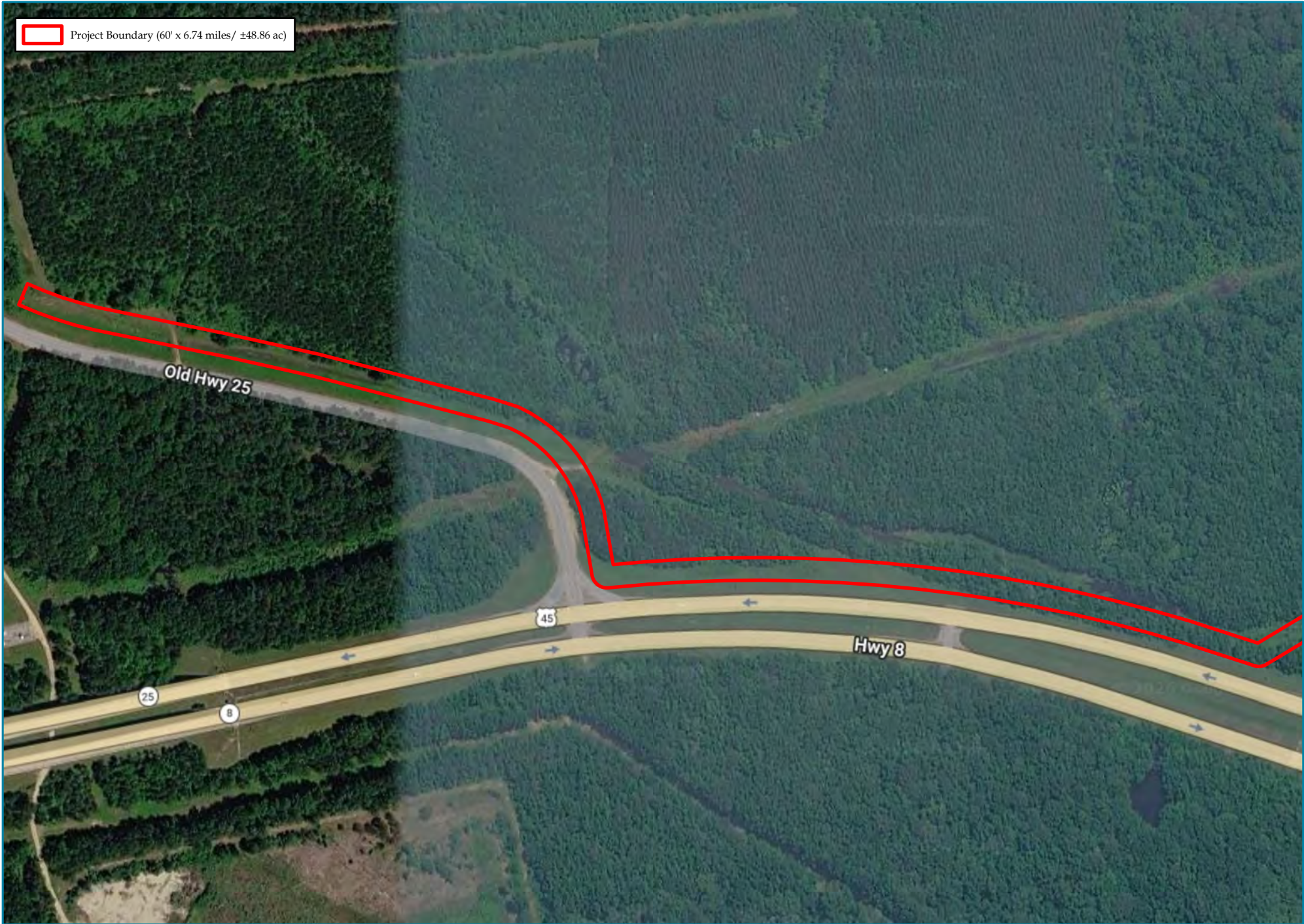



General Location Map	
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



HEADWATERS
www.headwaters-inc.com

 Project Boundary (60' x 6.74 miles/ ±48.86 ac)




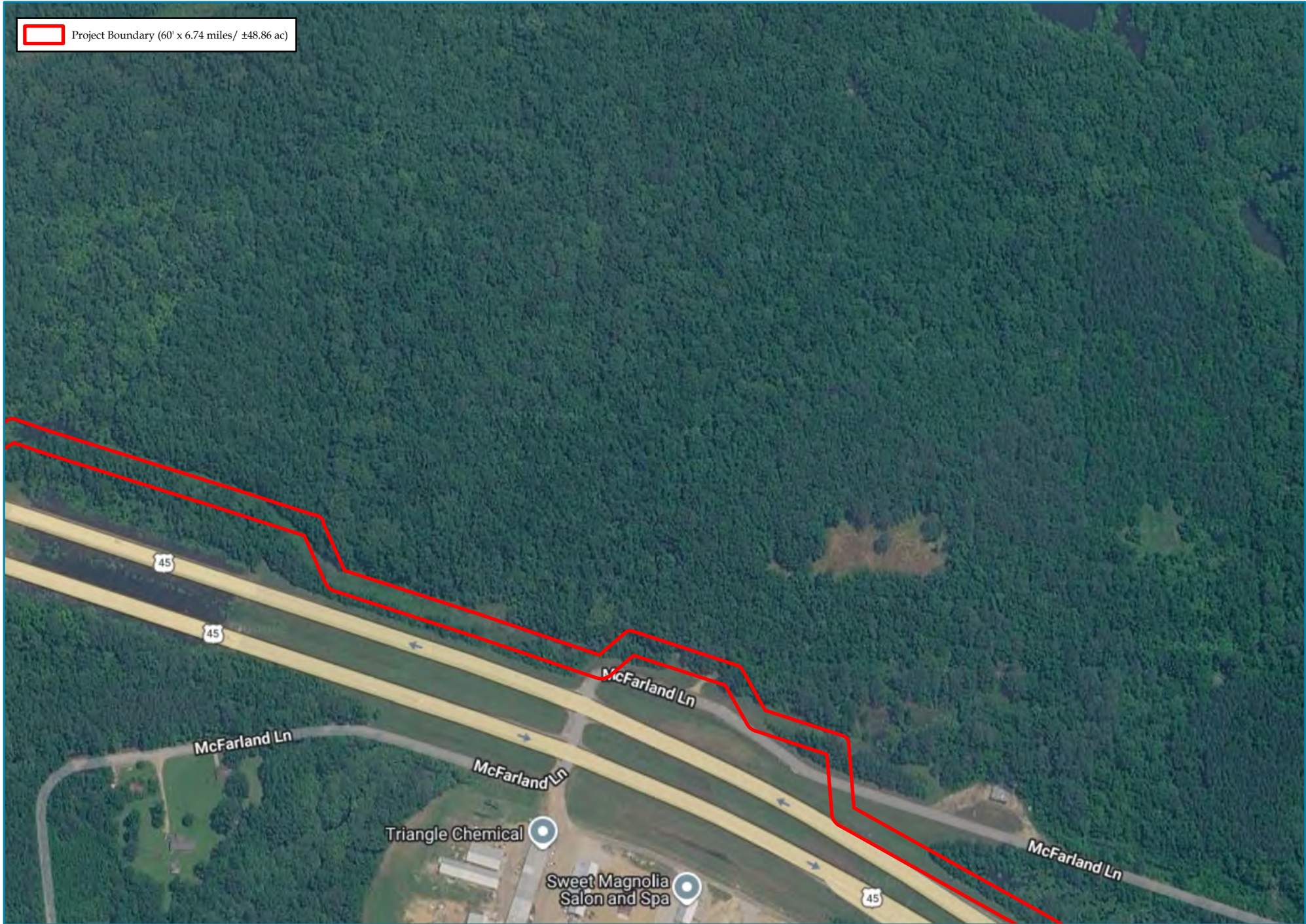
	0 275 550 14,000 Feet
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map	Page 1 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map Page 2 of 12

25-133 MDOT Permit - HWY 45

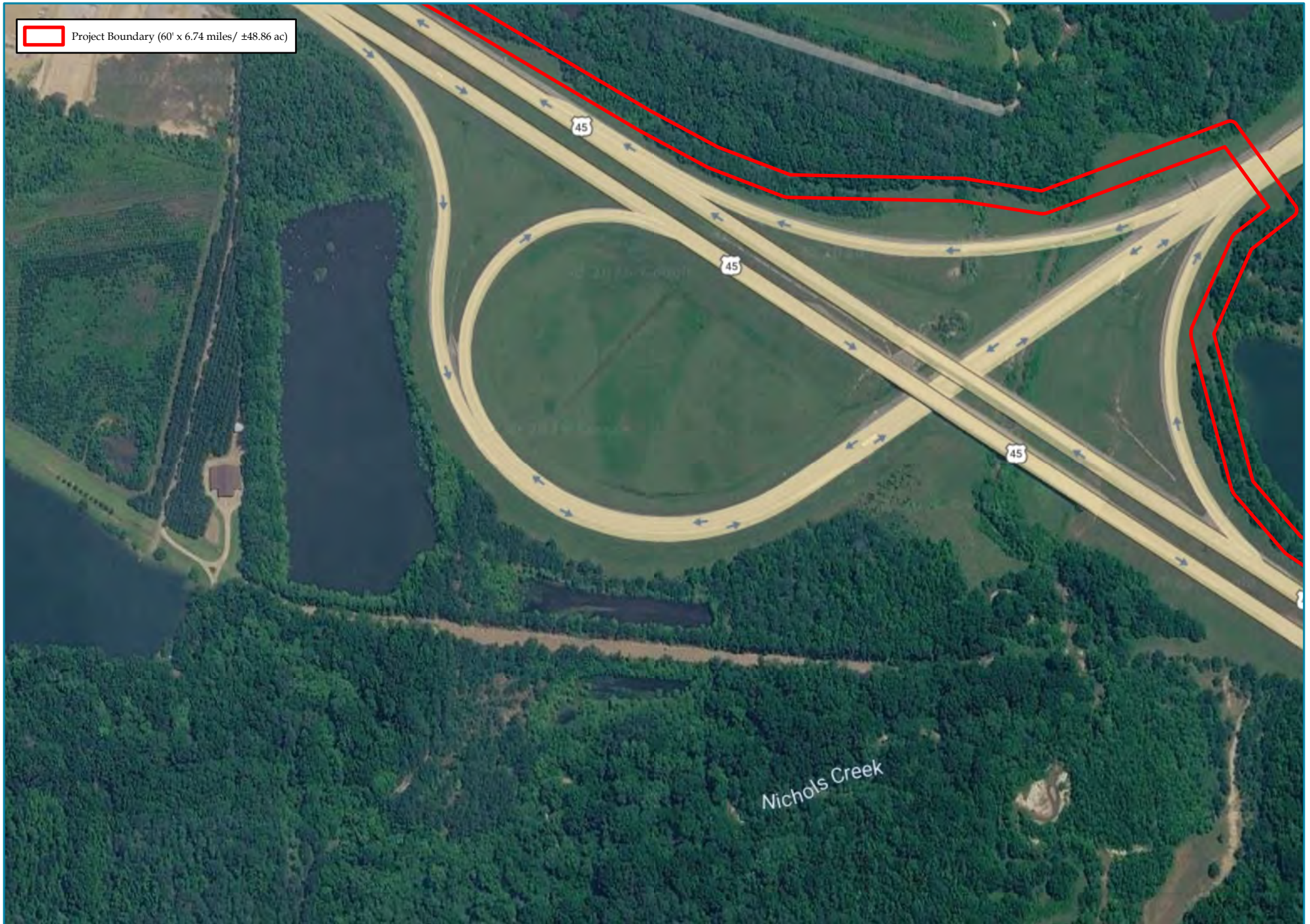
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



Nichols Creek



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map

25-133 MDOT Permit - HWY 45

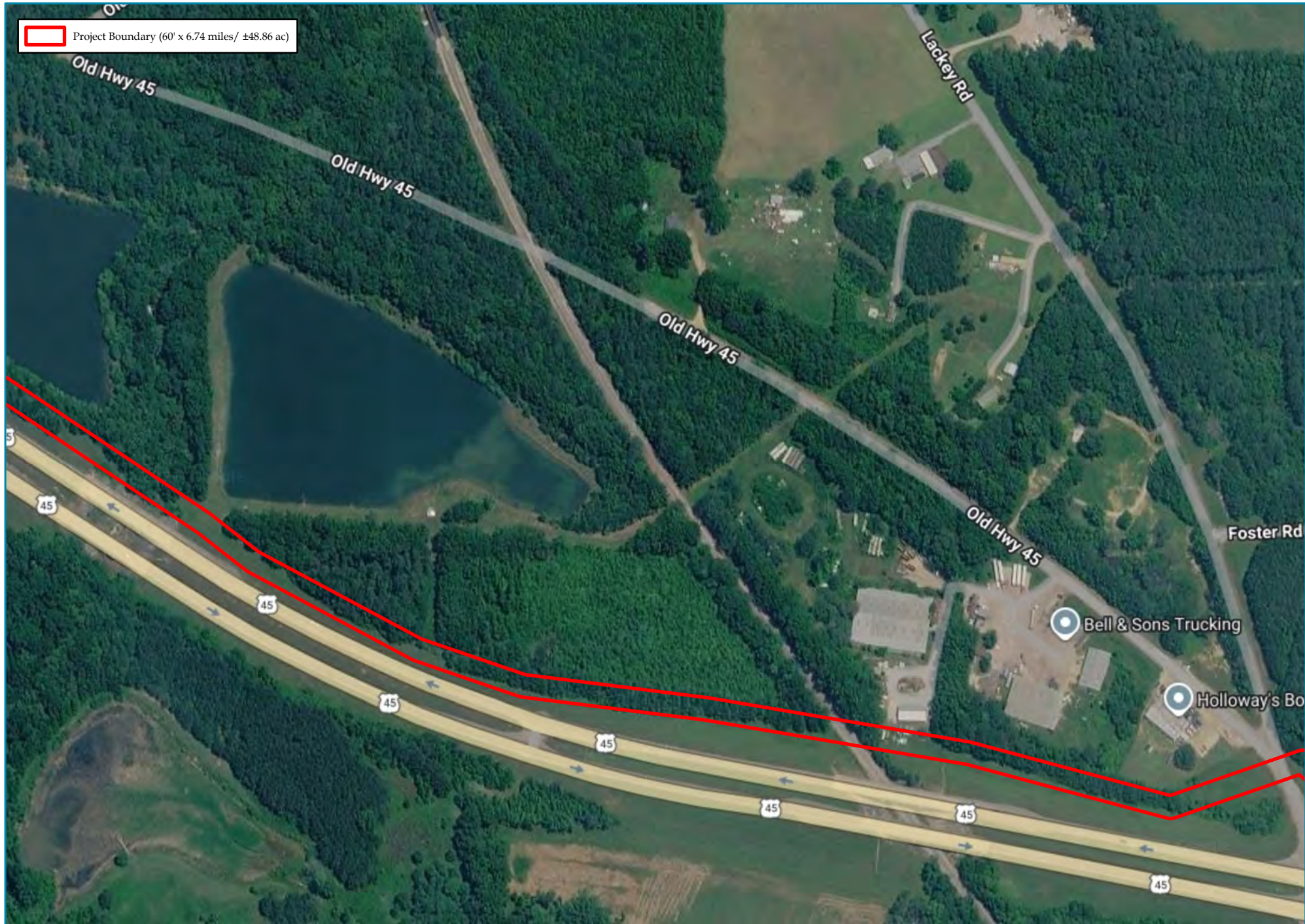
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

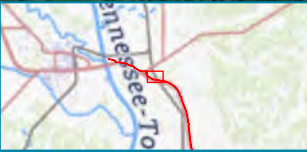
Monroe County, Mississippi



Project Boundary (60' x 6.74 miles/ ±48.86 ac)




BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A





Site Location Map		Page 4 of 12
25-133 MDOT Permit - HWY 45		
Atmos Energy		
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W		Monroe County, Mississippi

HEADWATERS
www.headwaters-inc.com

 Project Boundary (60' x 6.74 miles/ ±48.86 ac)




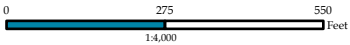
 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map	Page 5 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map


25-133 MDOT Permit - HWY 45

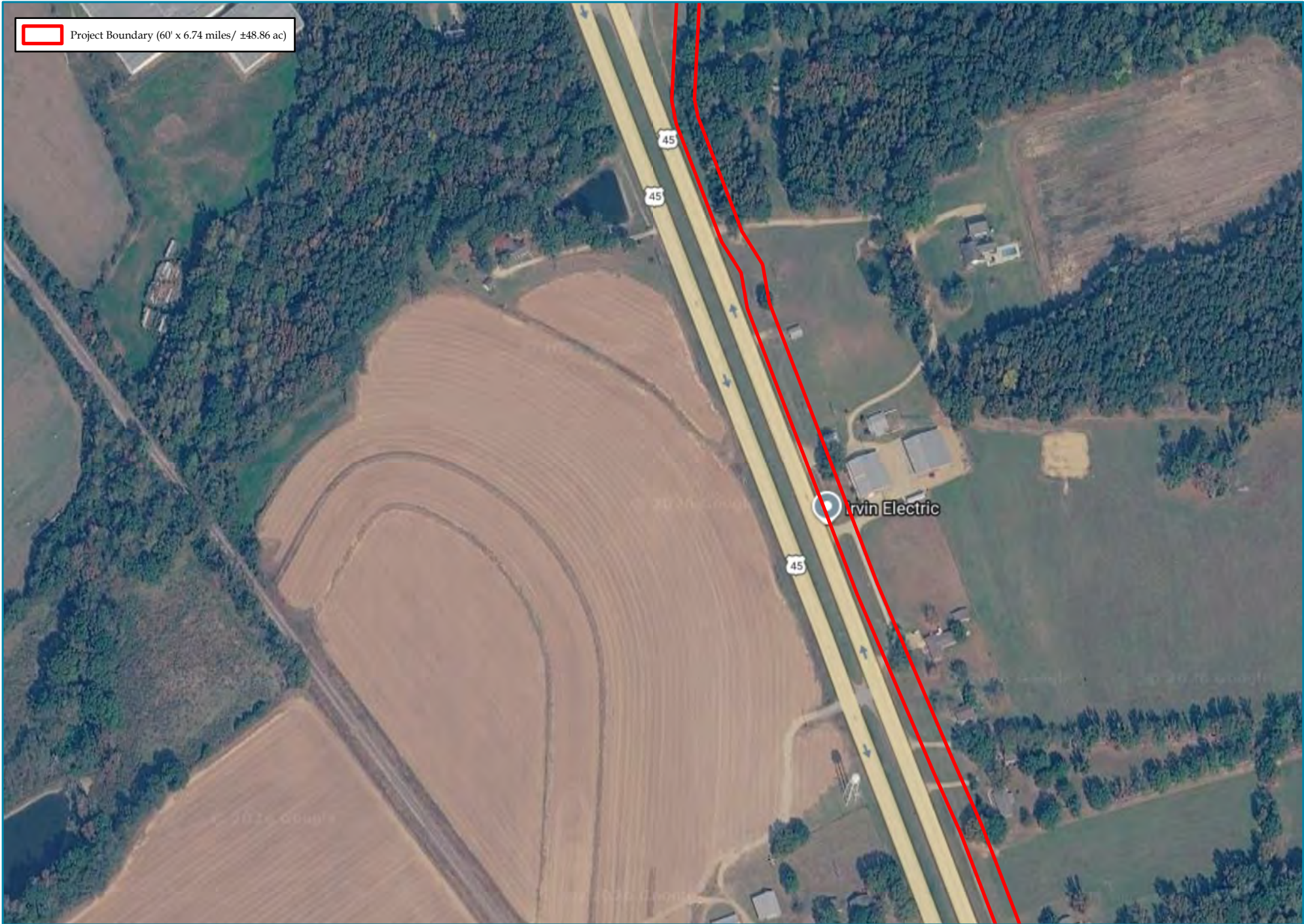
Atmos Energy


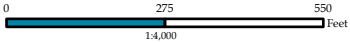
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles / ±48.86 ac)




  <small>14,000</small> Feet	BASEMAP:	Google Hybrid Imagery Basemap
	SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
	DATE:	2/9/2026
	CREATOR:	JWB
	PROJECT #:	N/A

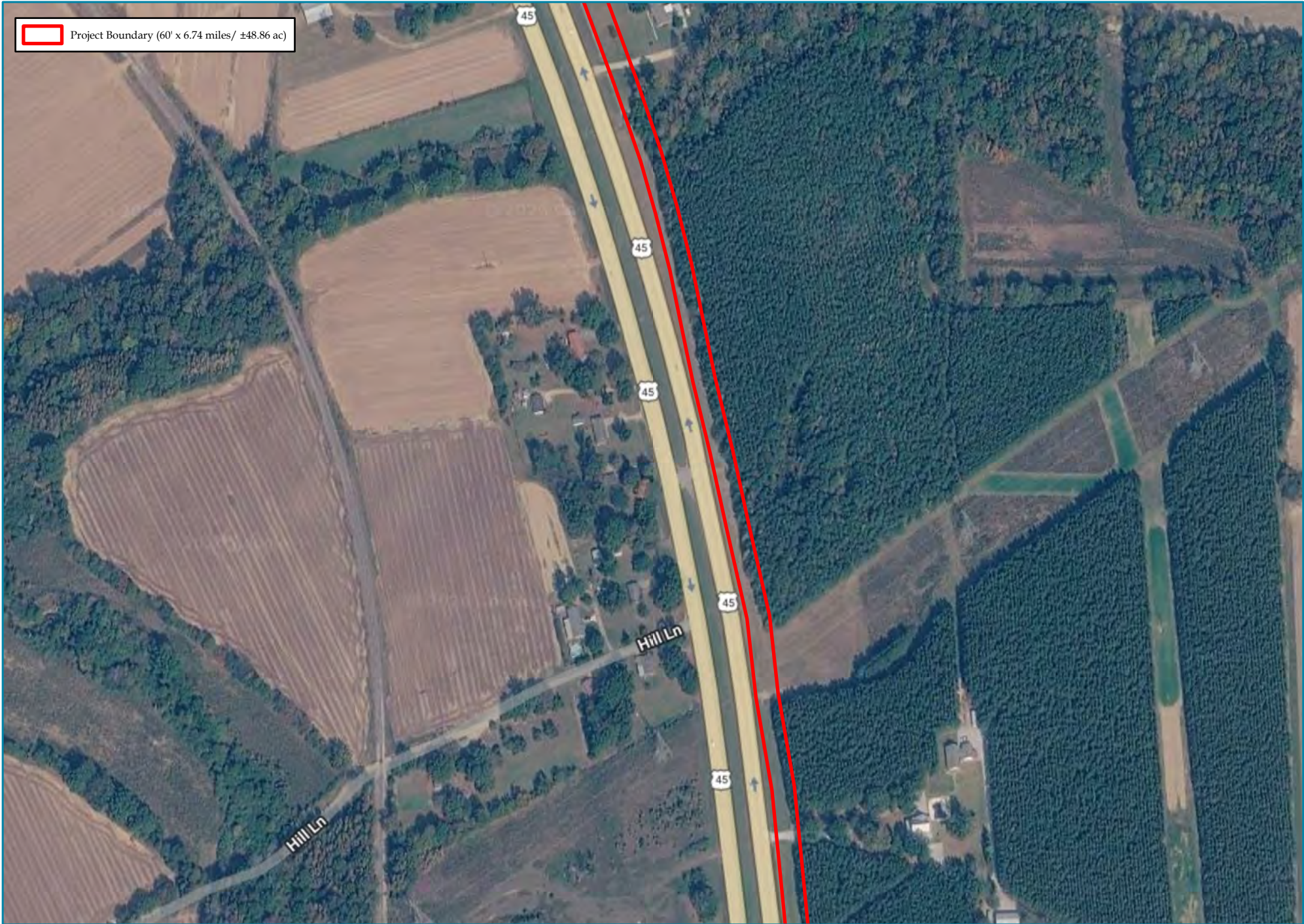


Site Location Map Page 7 of 12	
25-133 MDOT Permit - HWY 45	
Atmos Energy	
<small>Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W</small>	<small>Monroe County, Mississippi</small>



HEADWATERS
www.headwaters-inc.com

 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map

25-133 MDOT Permit - HWY 45

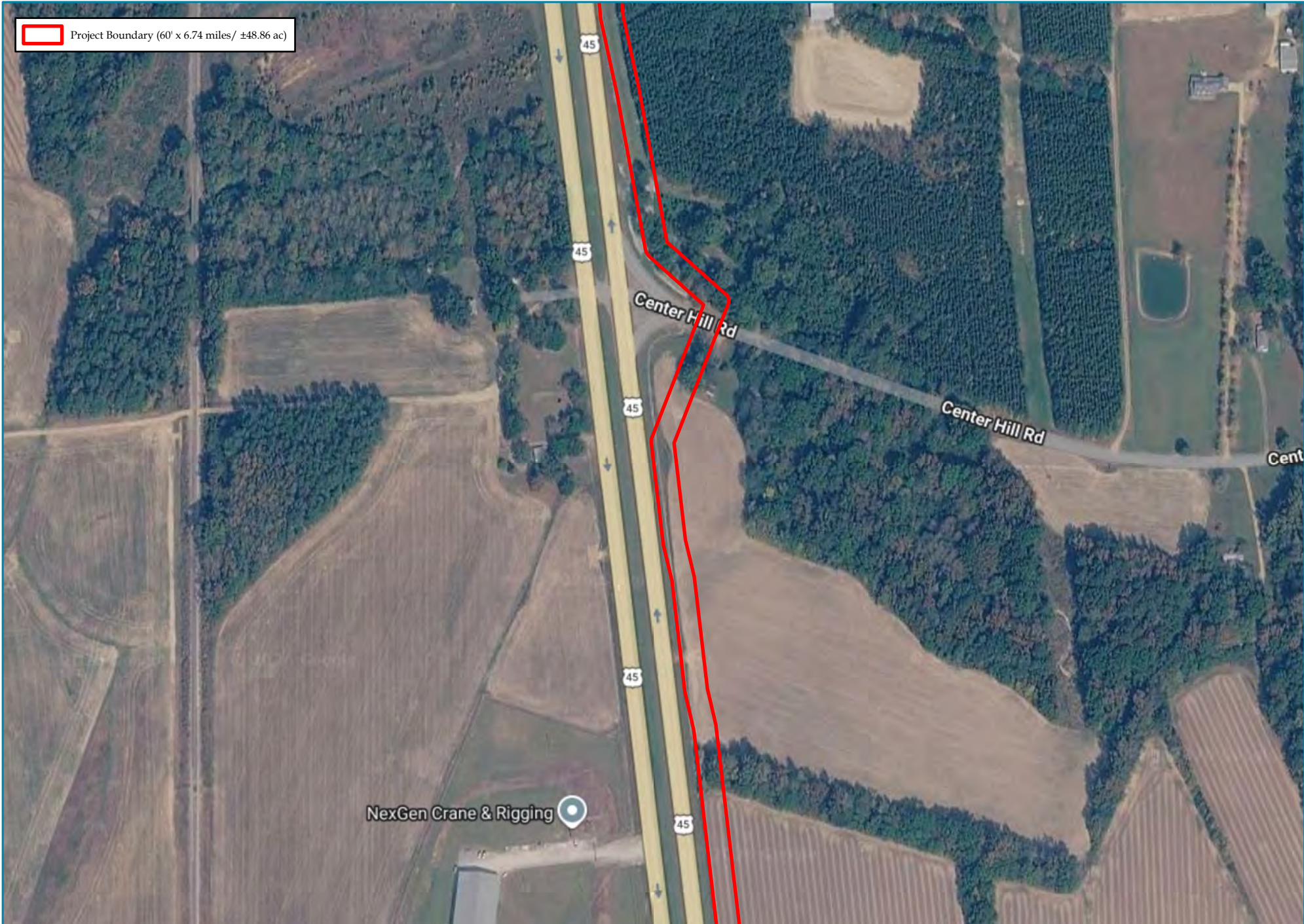
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



Project Boundary (60' x 6.74 miles / ±48.86 ac)



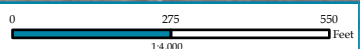
NexGen Crane & Rigging

45
45
45
45
45
45
45
45

Center Hill Rd

Center Hill Rd

Cent



Site Location Map

25-133 MDOT Permit - HWY 45

Atmos Energy

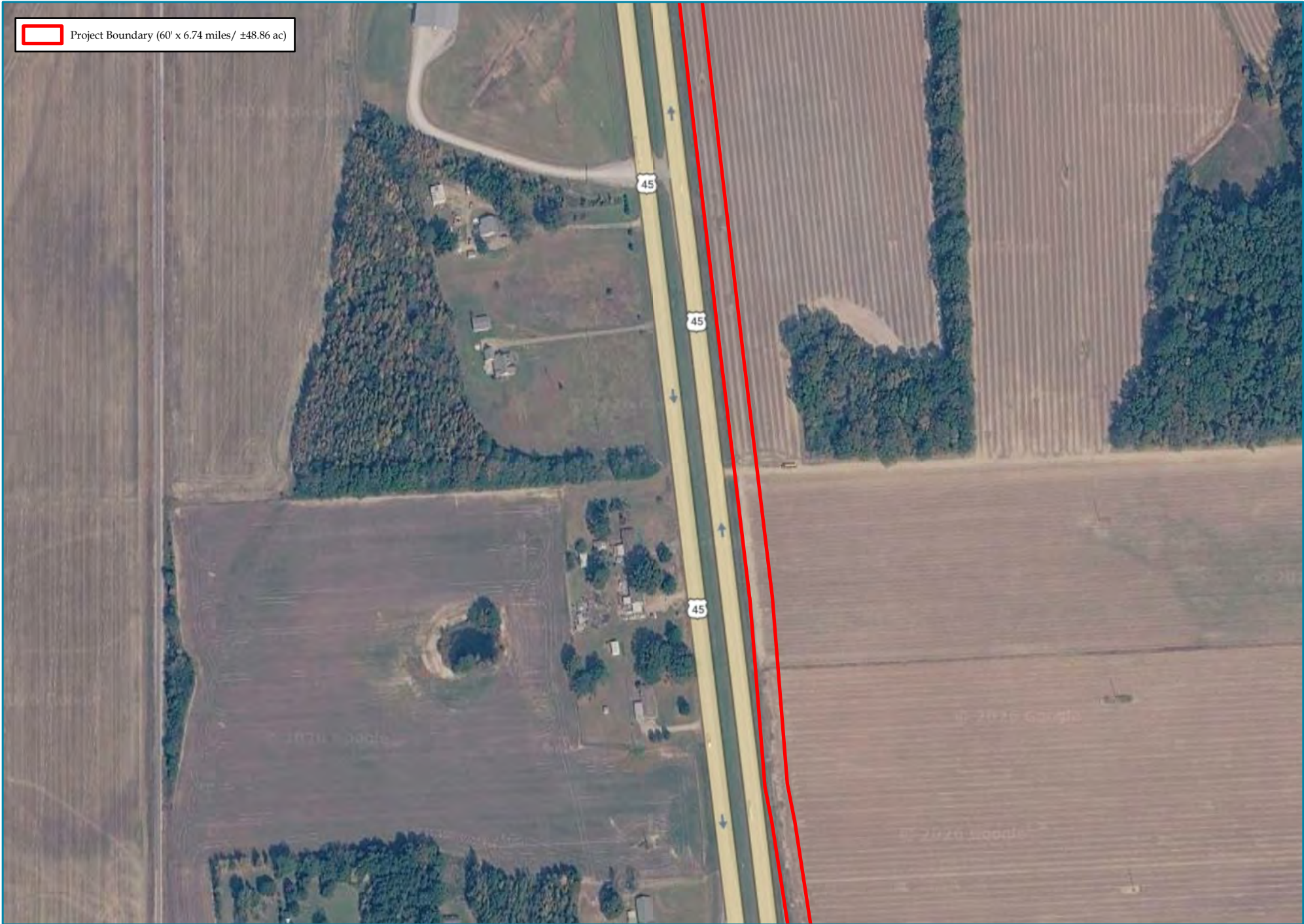
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi

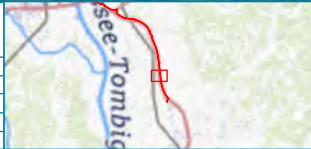
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Project Boundary (60' x 6.74 miles/ ±48.86 ac)



0 275 550
14,000 Feet



Site Location Map

25-133 MDOT Permit - HWY 45

Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

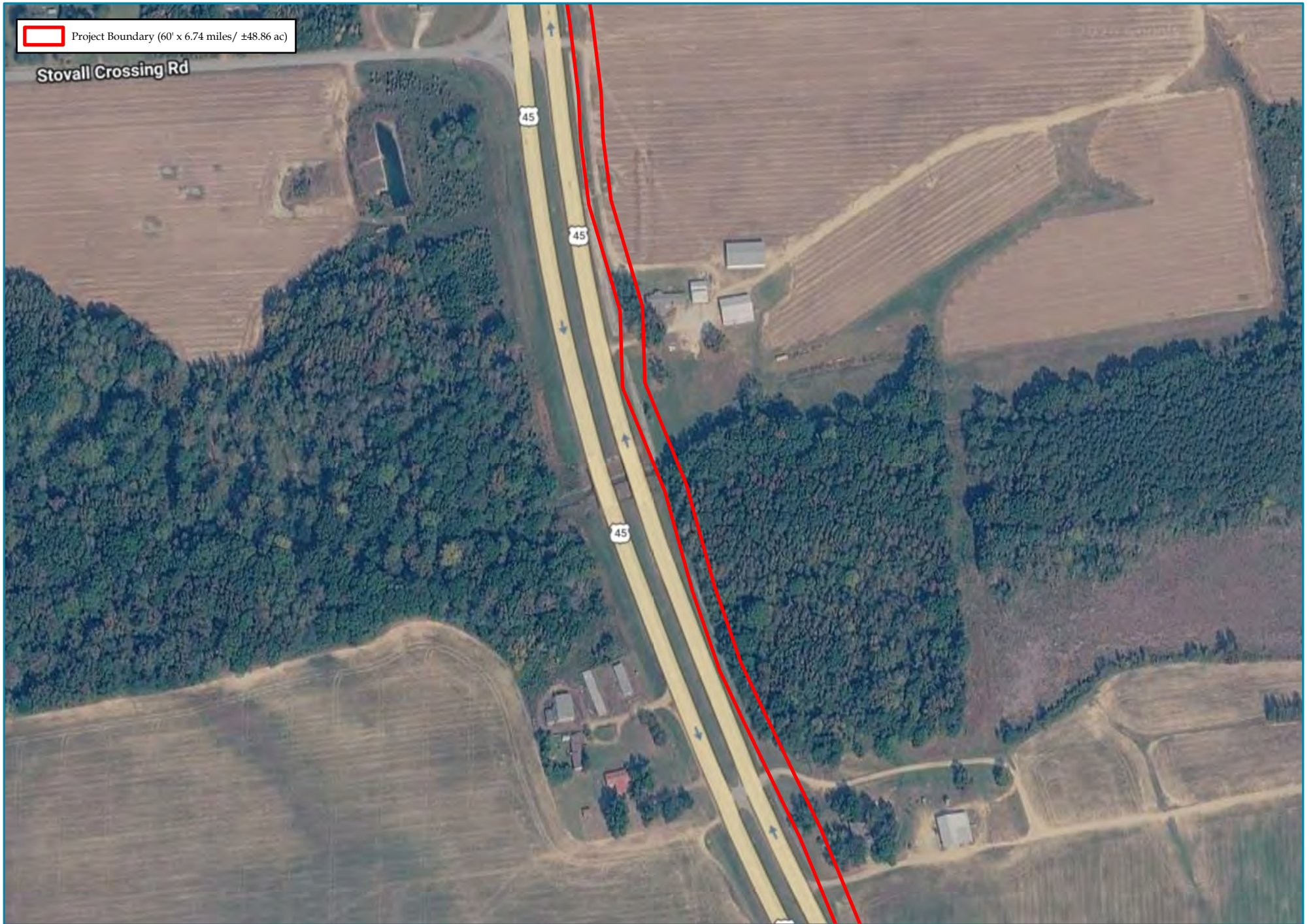
Monroe County, Mississippi

BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)

Stovall Crossing Rd



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map


25-133 MDOT Permit - HWY 45

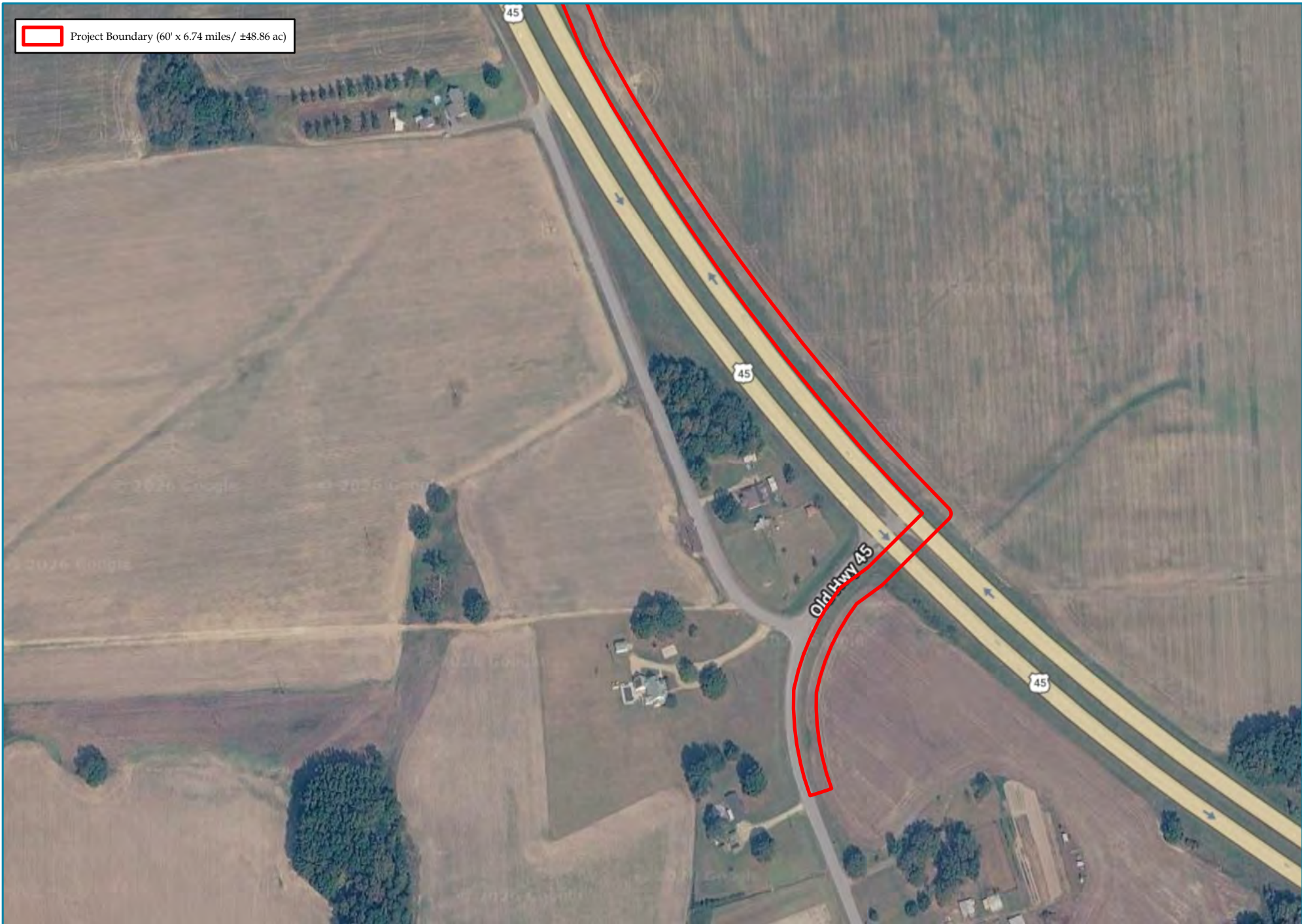
Atmos Energy


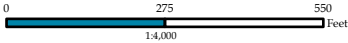
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

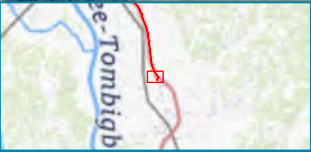
Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



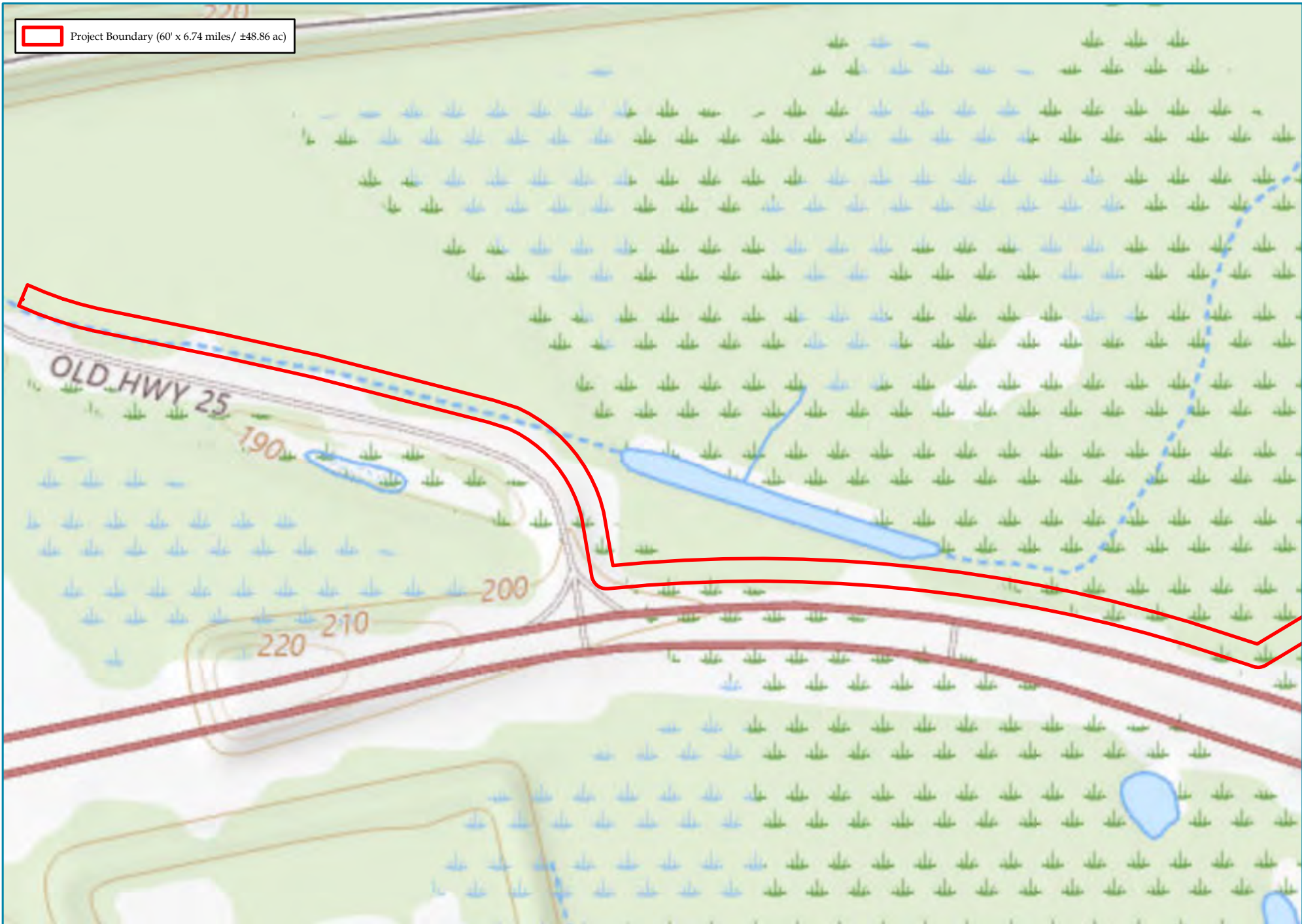
 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A


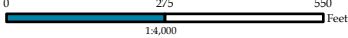


Site Location Map	Page 12 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi


HEADWATERS
www.headwaters-inc.com

 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



 	BASEMAP:	USGS Topo Imagery Basemap
	SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
	DATE:	2/9/2026
	CREATOR:	JWB
	PROJECT #:	N/A



Site Location Map	Page 1 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)




BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

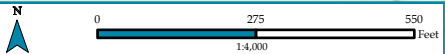
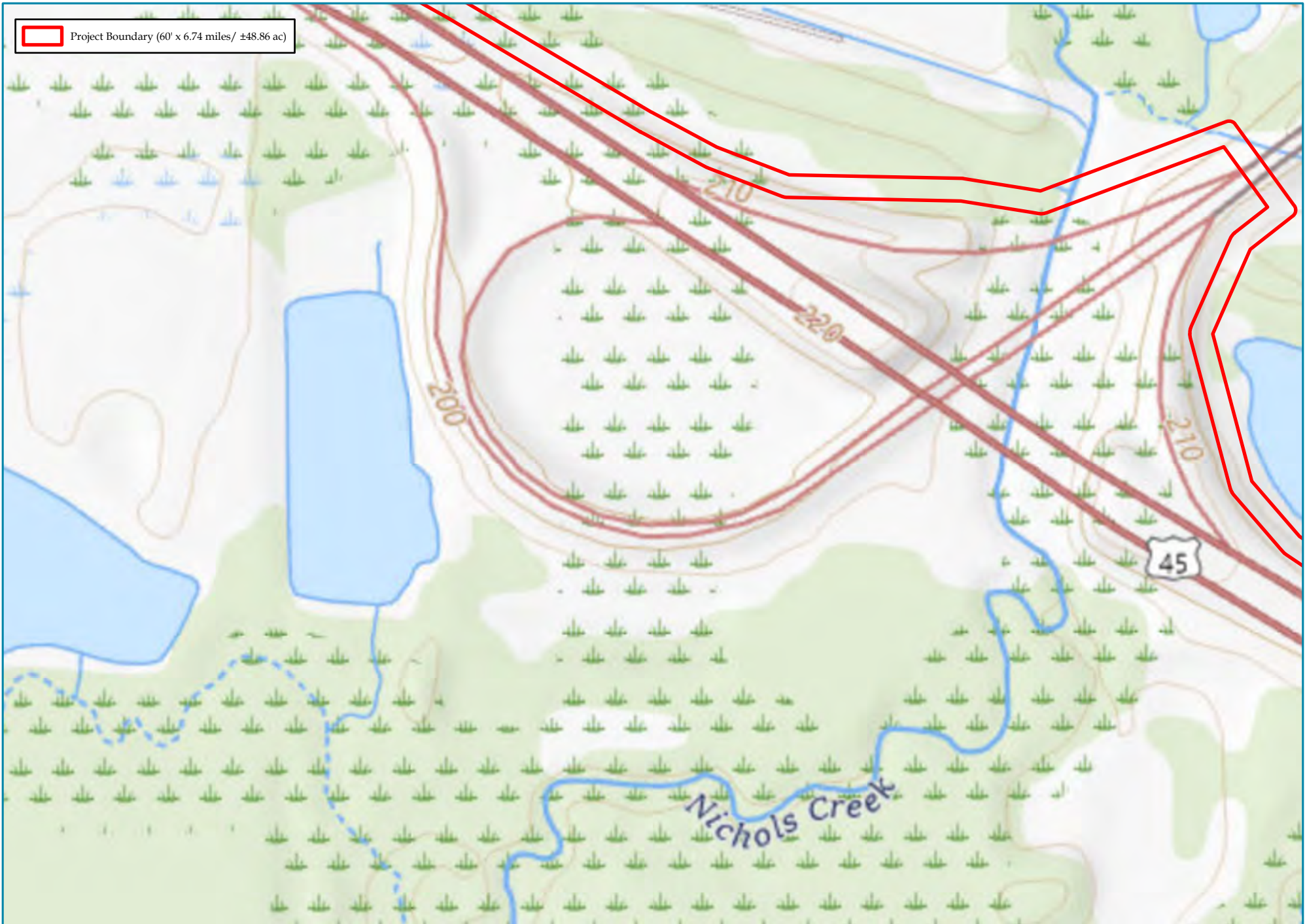


Site Location Map		Page 2 of 12
25-133 MDOT Permit - HWY 45		
Atmos Energy		
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi	



HEADWATERS
www.headwaters-inc.com

 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



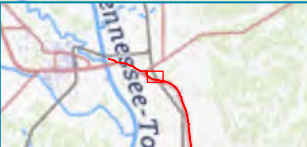
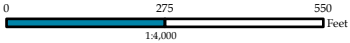
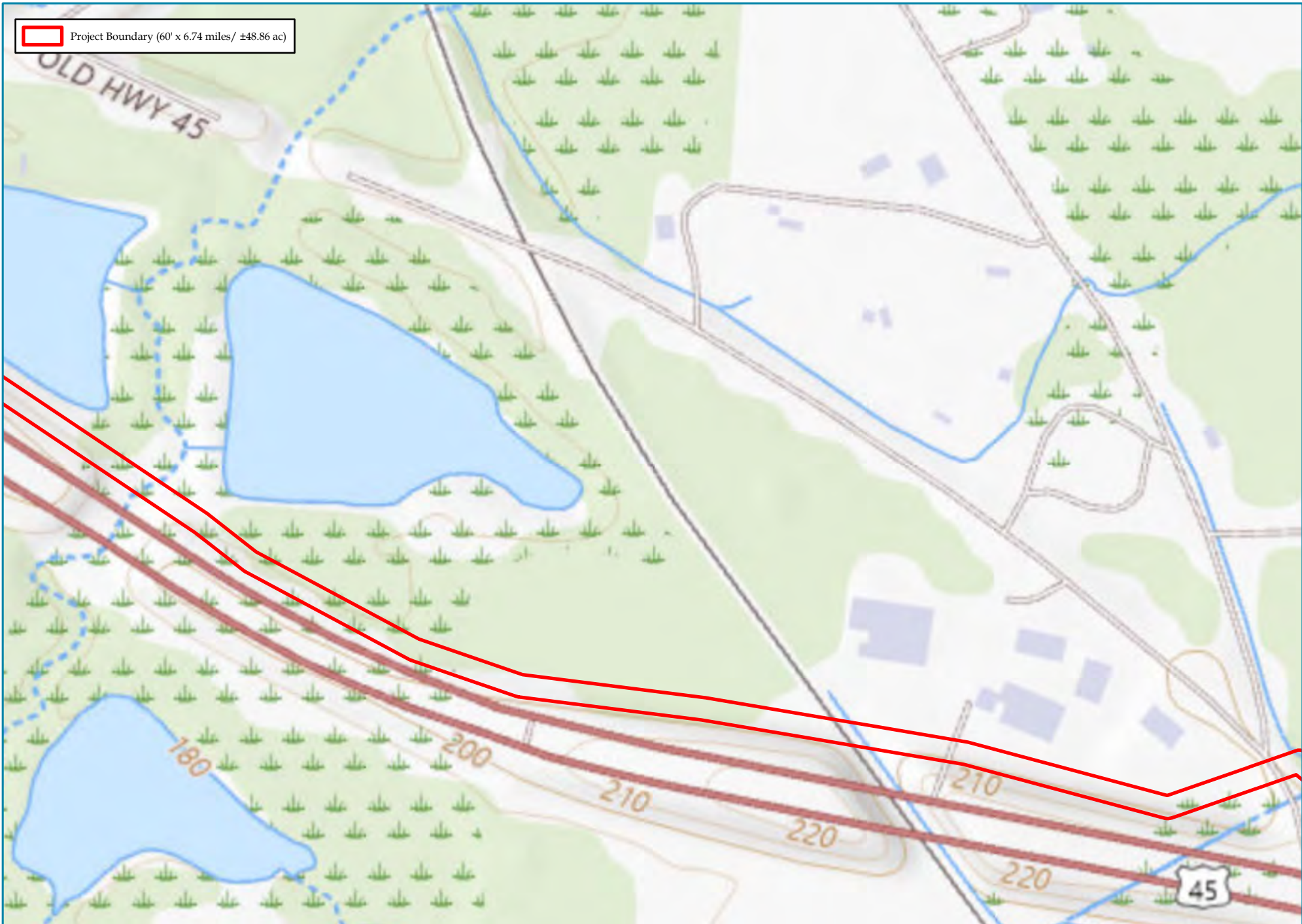
BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map	Page 3 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map

25-133 MDOT Permit - HWY 45

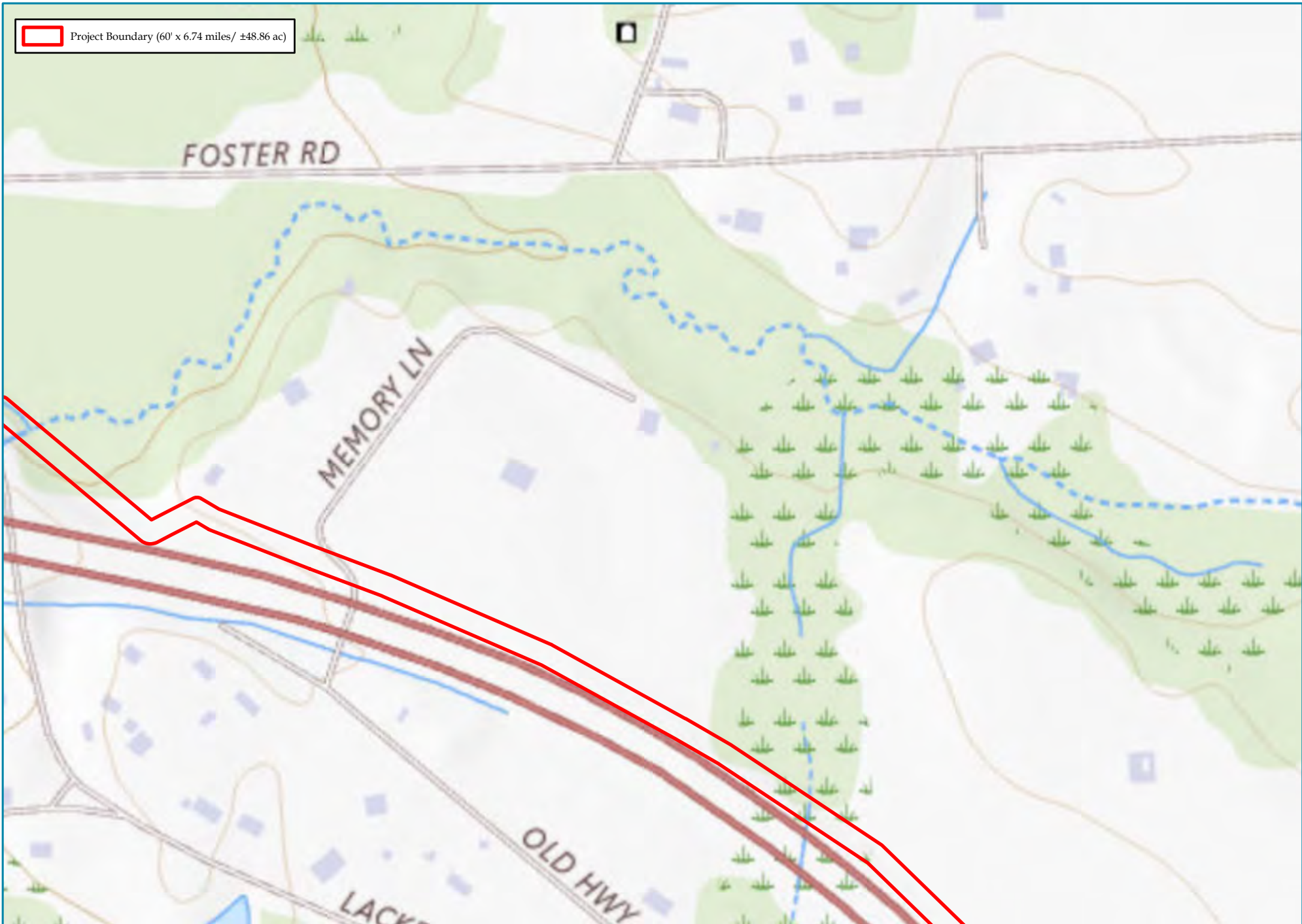
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map Page 5 of 12

25-133 MDOT Permit - HWY 45

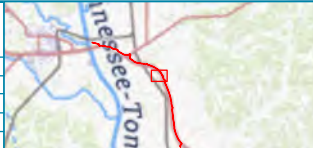
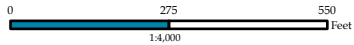
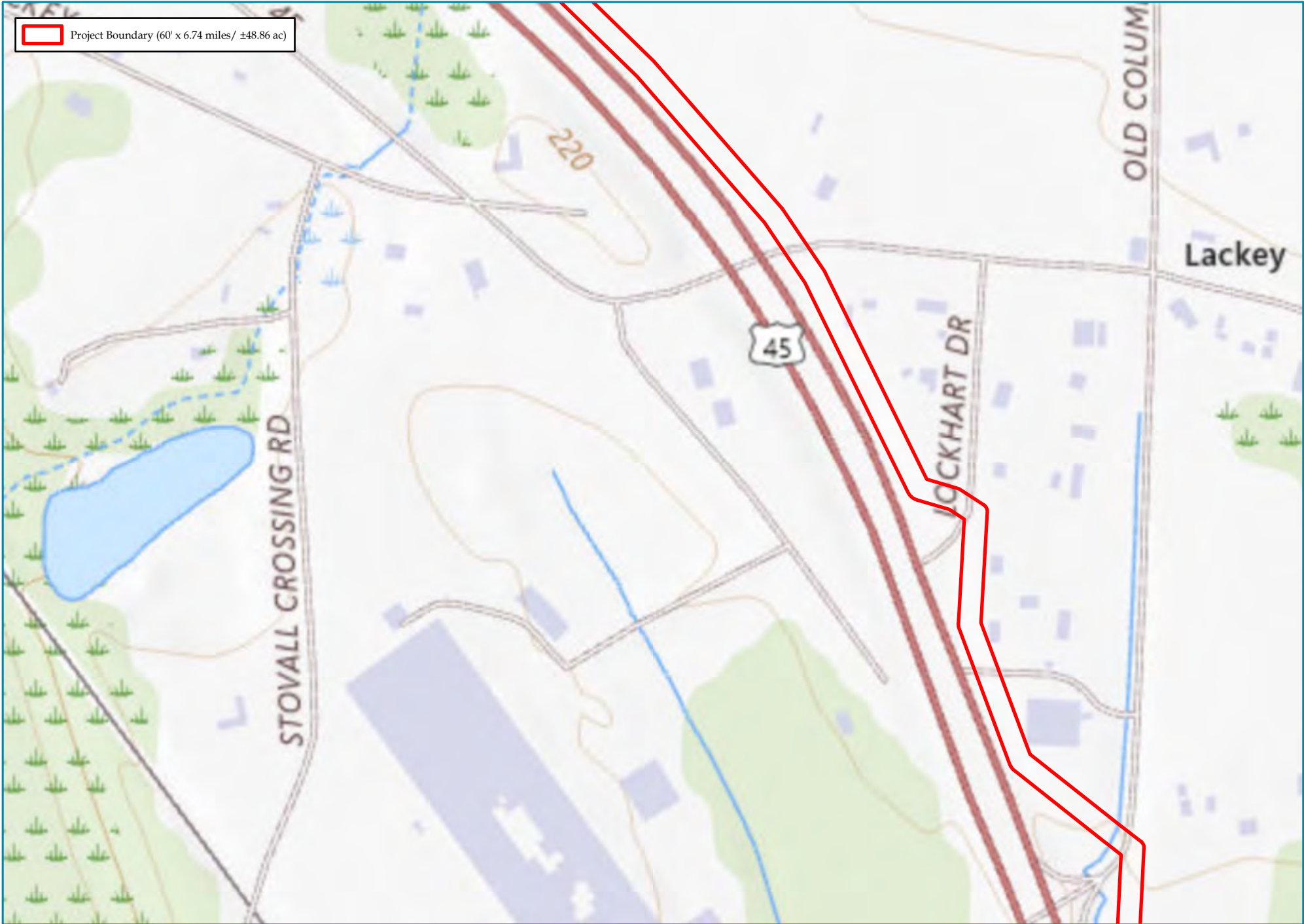
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



Project Boundary (60' x 6.74 miles/ ±48.86 ac)



Site Location Map

25-133 MDOT Permit - HWY 45


Atmos Energy

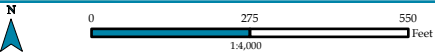
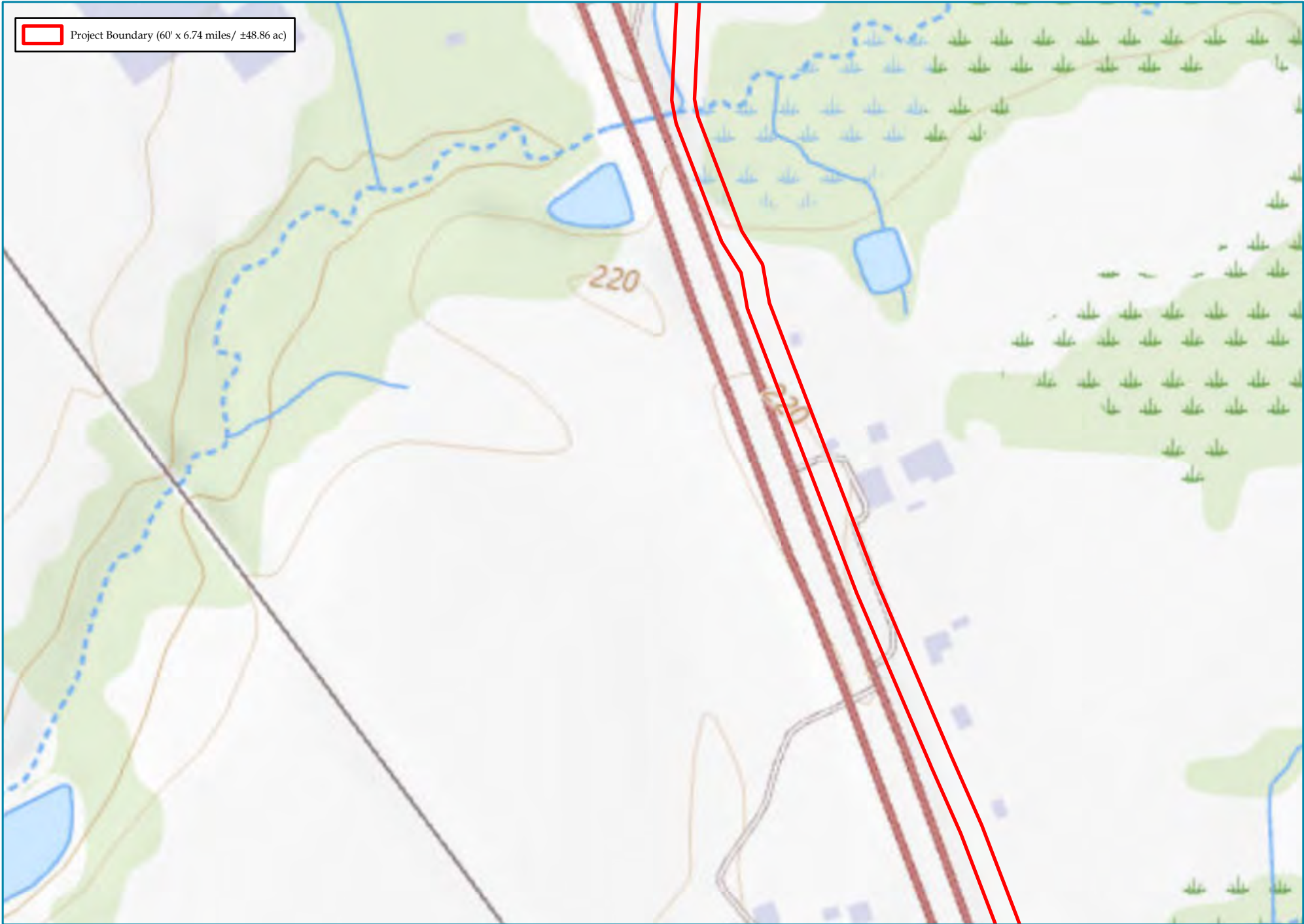
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi

BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



Site Location Map

25-133 MDOT Permit - HWY 45


Atmos Energy

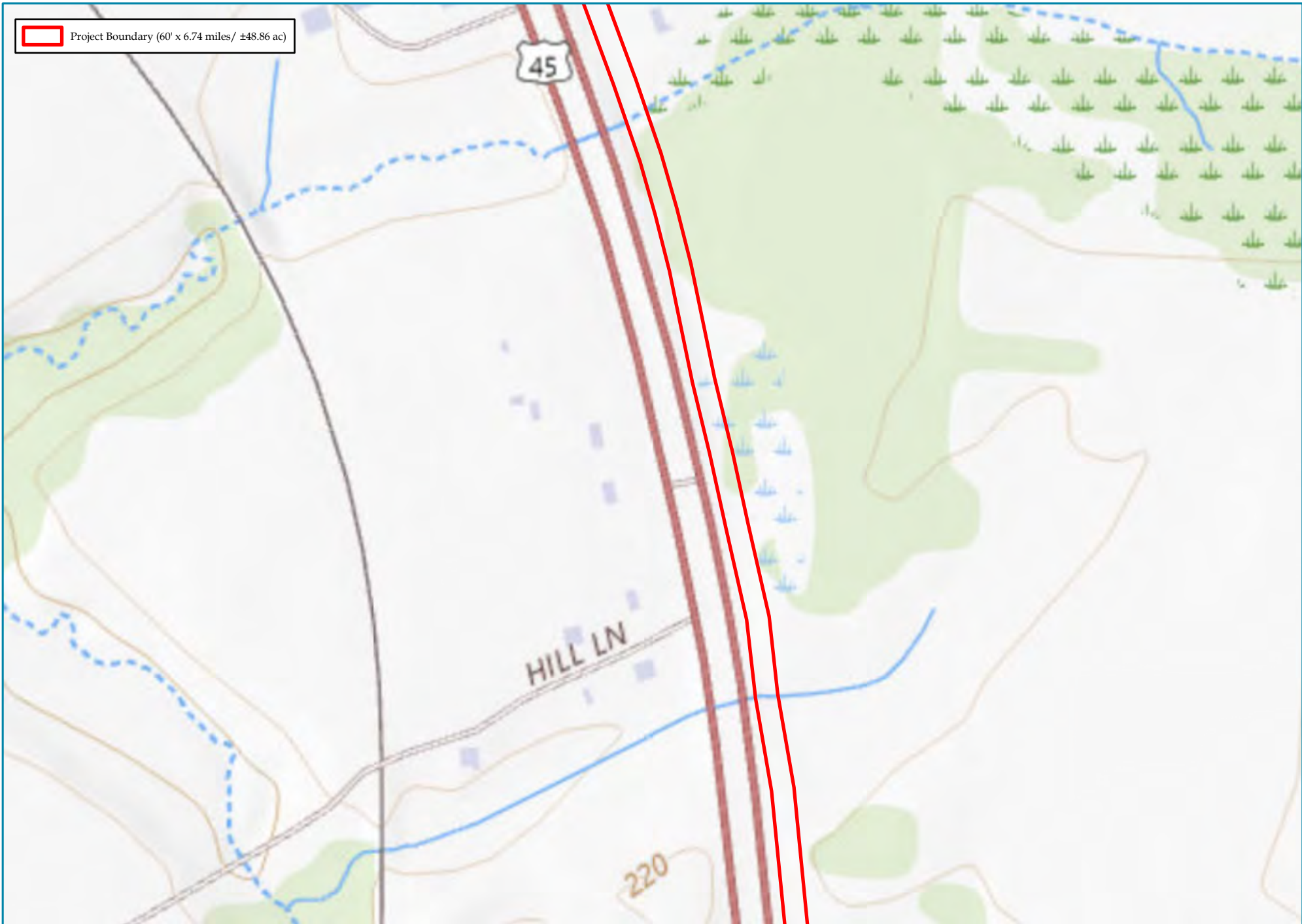
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi

BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map Page 8 of 12

25-133 MDOT Permit - HWY 45

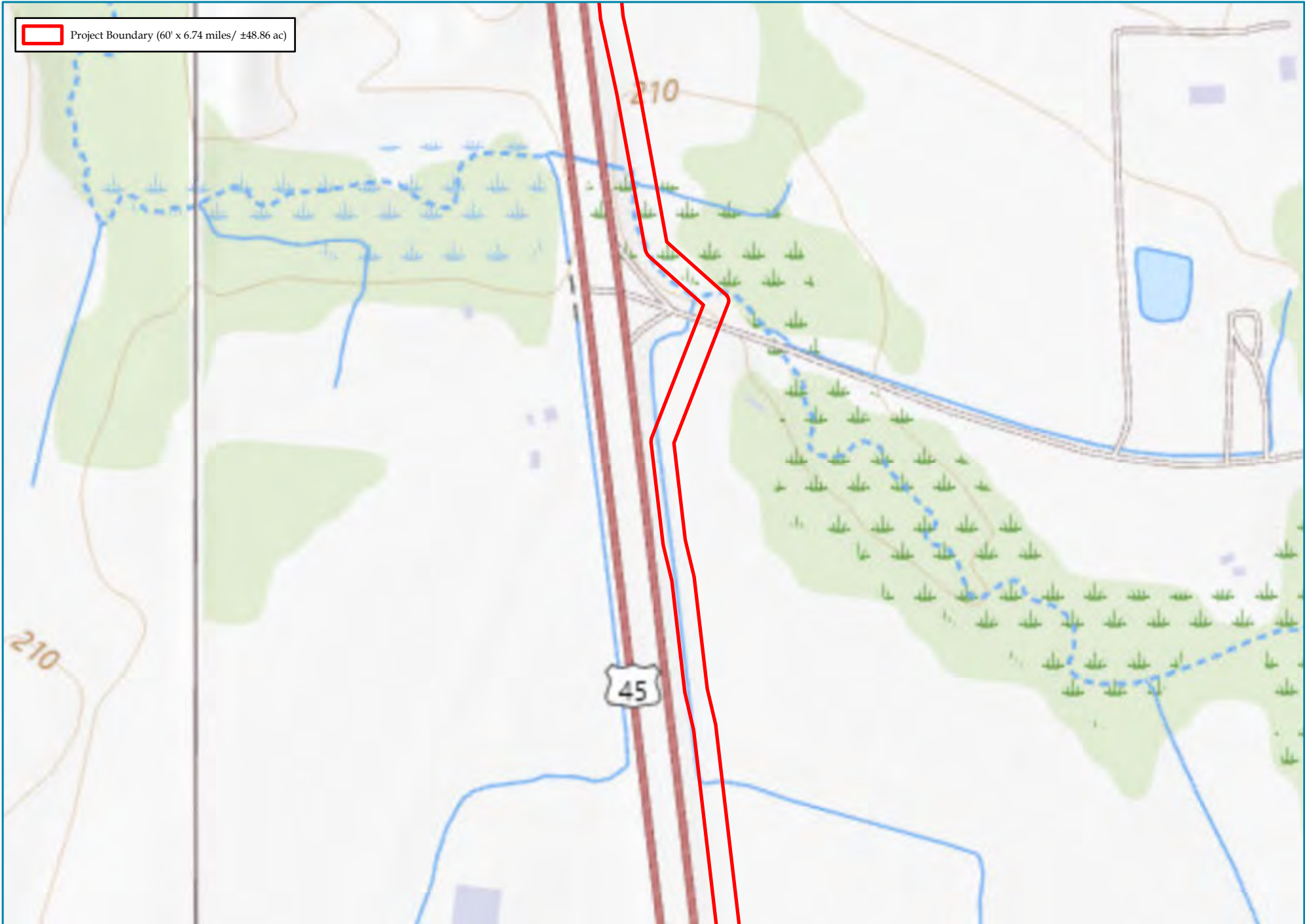
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map


25-133 MDOT Permit - HWY 45

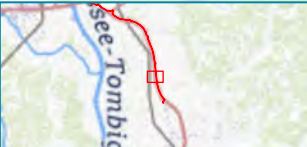
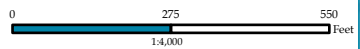
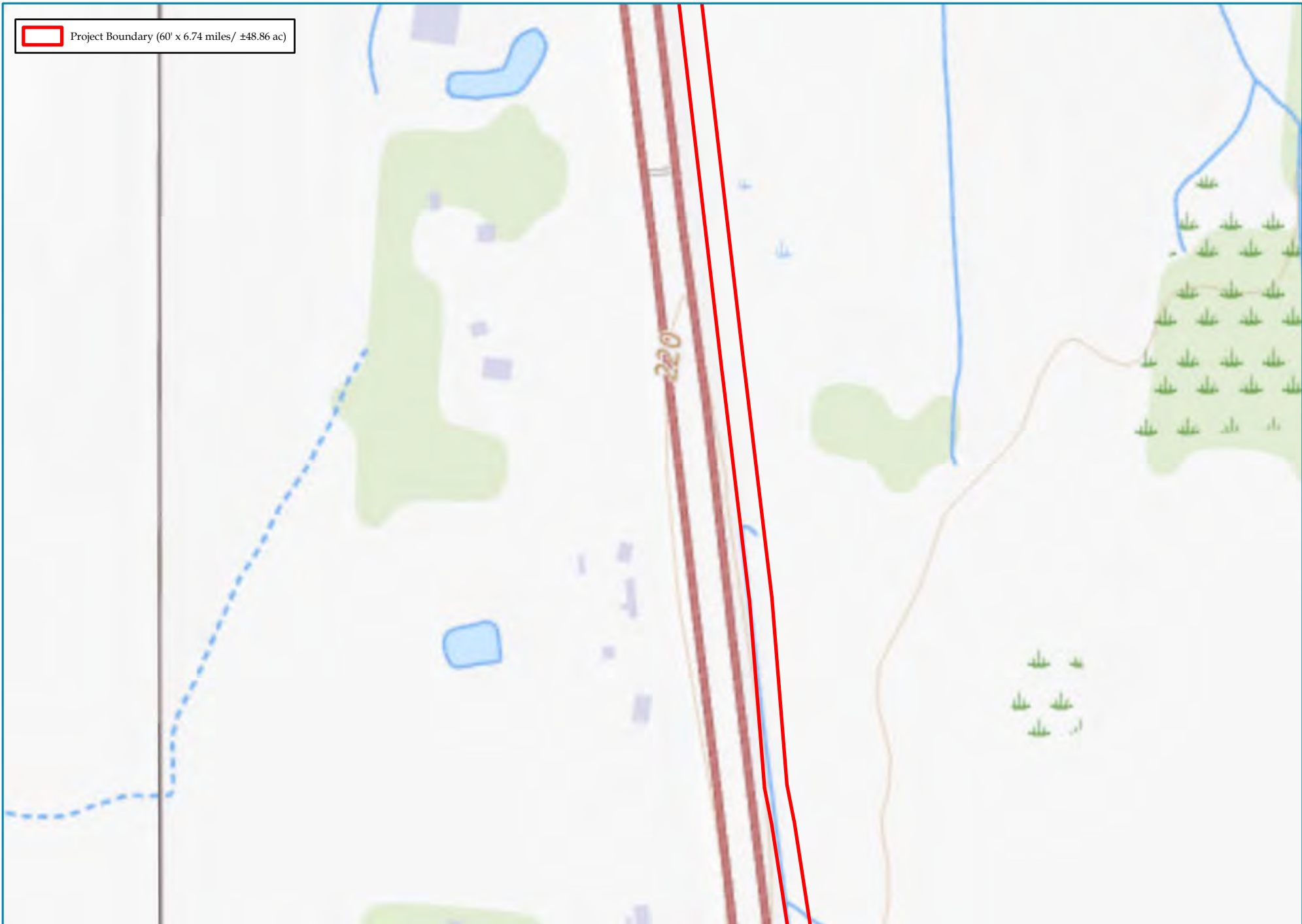
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



 Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F4 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map

25-133 MDOT Permit - HWY 45

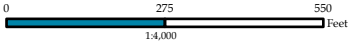
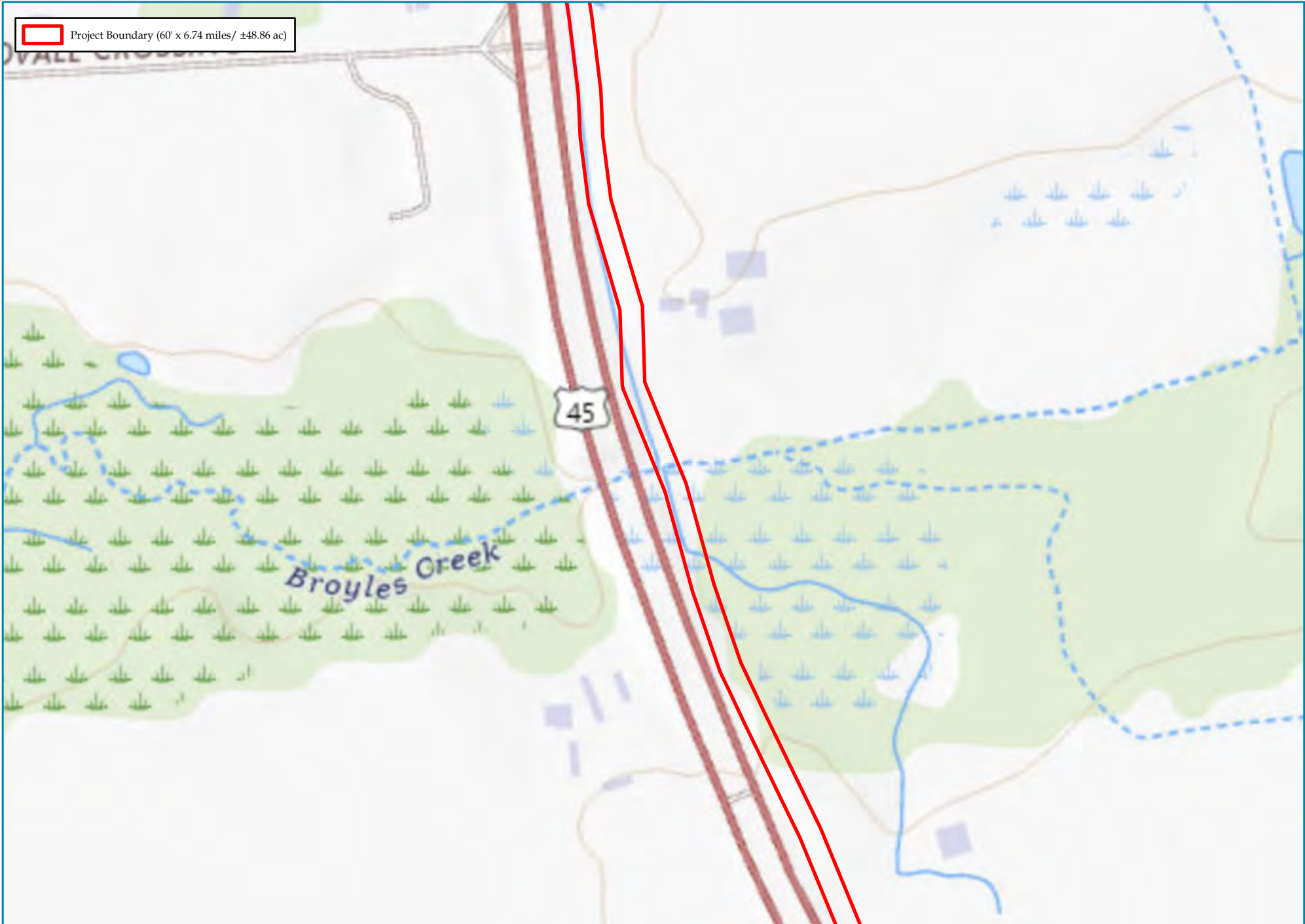
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi



Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A

Site Location Map Page 11 of 12

25-133 MDOT Permit - HWY 45

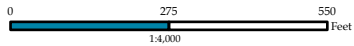
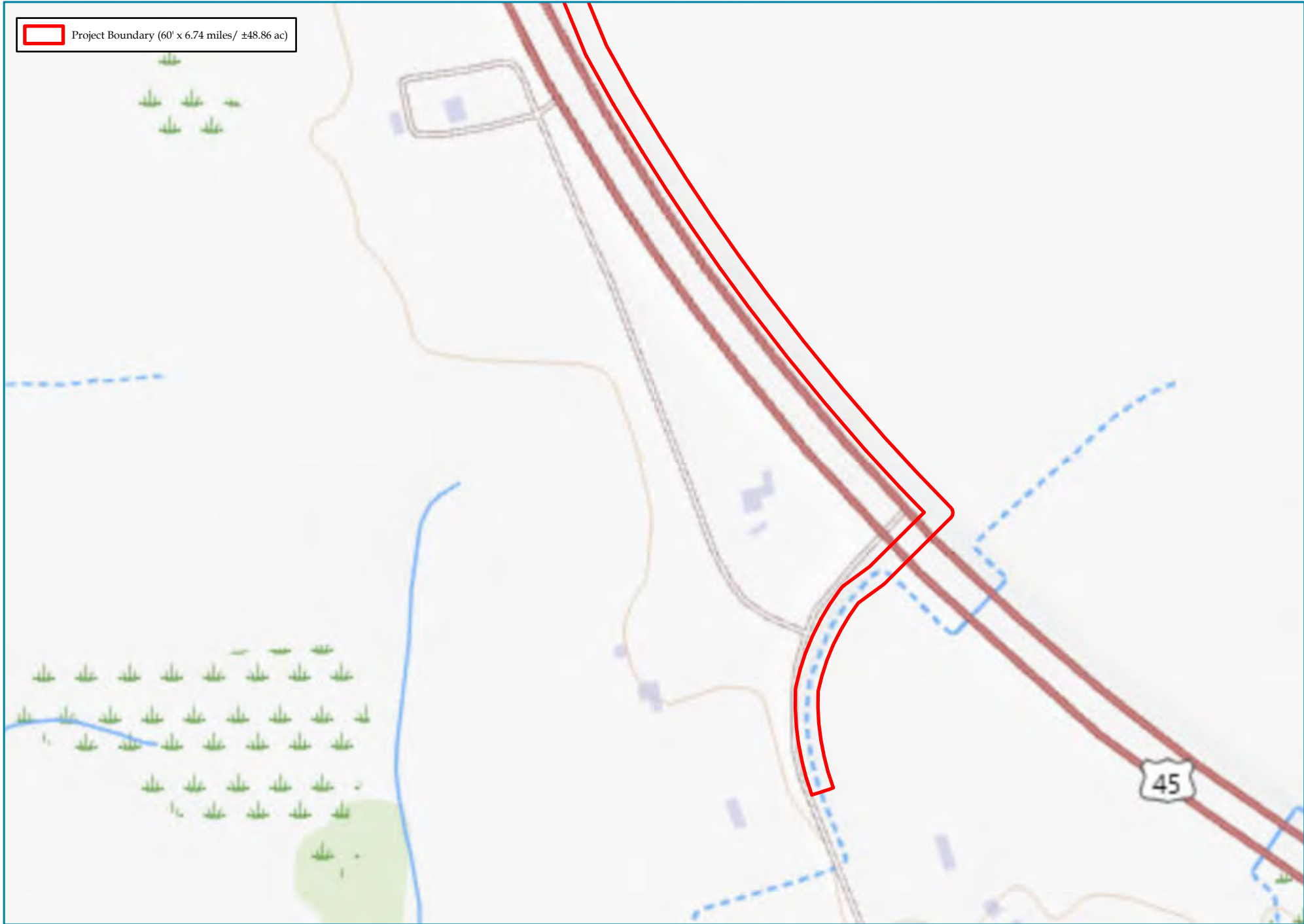
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

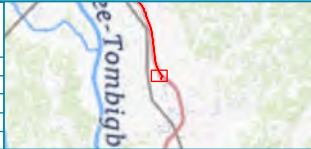
Monroe County, Mississippi



Project Boundary (60' x 6.74 miles/ ±48.86 ac)



BASEMAP:	USGS Topo Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



Site Location Map

Page 12 of 12

25-133 MDOT Permit - HWY 45

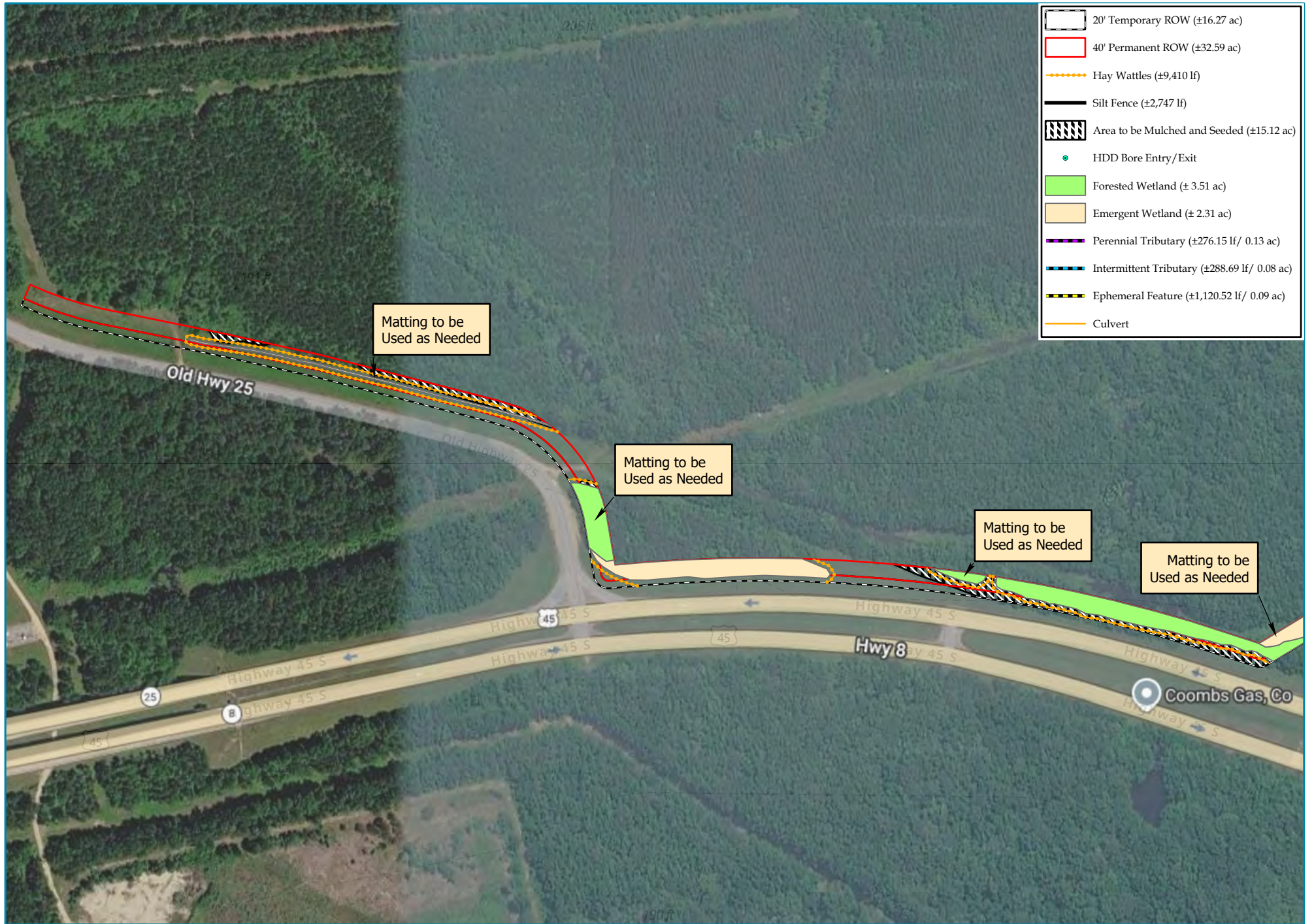
Atmos Energy

Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W

Monroe County, Mississippi















X. APPENDIX II - STORM WATER MANAGEMENT PLANS



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A



BMP Location Map	Page 1 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert



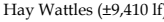
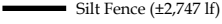




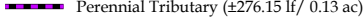
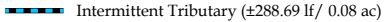
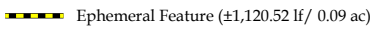



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A


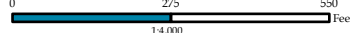


BMP Location Map		Page 2 of 12
25-133 MDOT Permit - HWY 45		
Atmos Energy		
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W		Monroe County, Mississippi

HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert




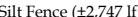


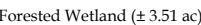
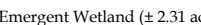
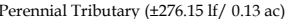
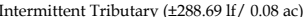
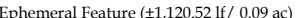



 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A



BMP Location Map	Page 3 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert



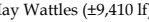





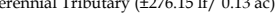
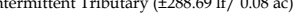
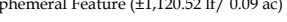



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A


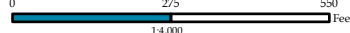


BMP Location Map	Page 4 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert



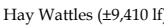


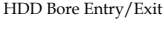


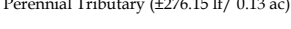
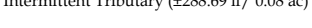
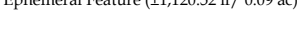
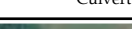


 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A


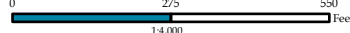


BMP Location Map	Page 5 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

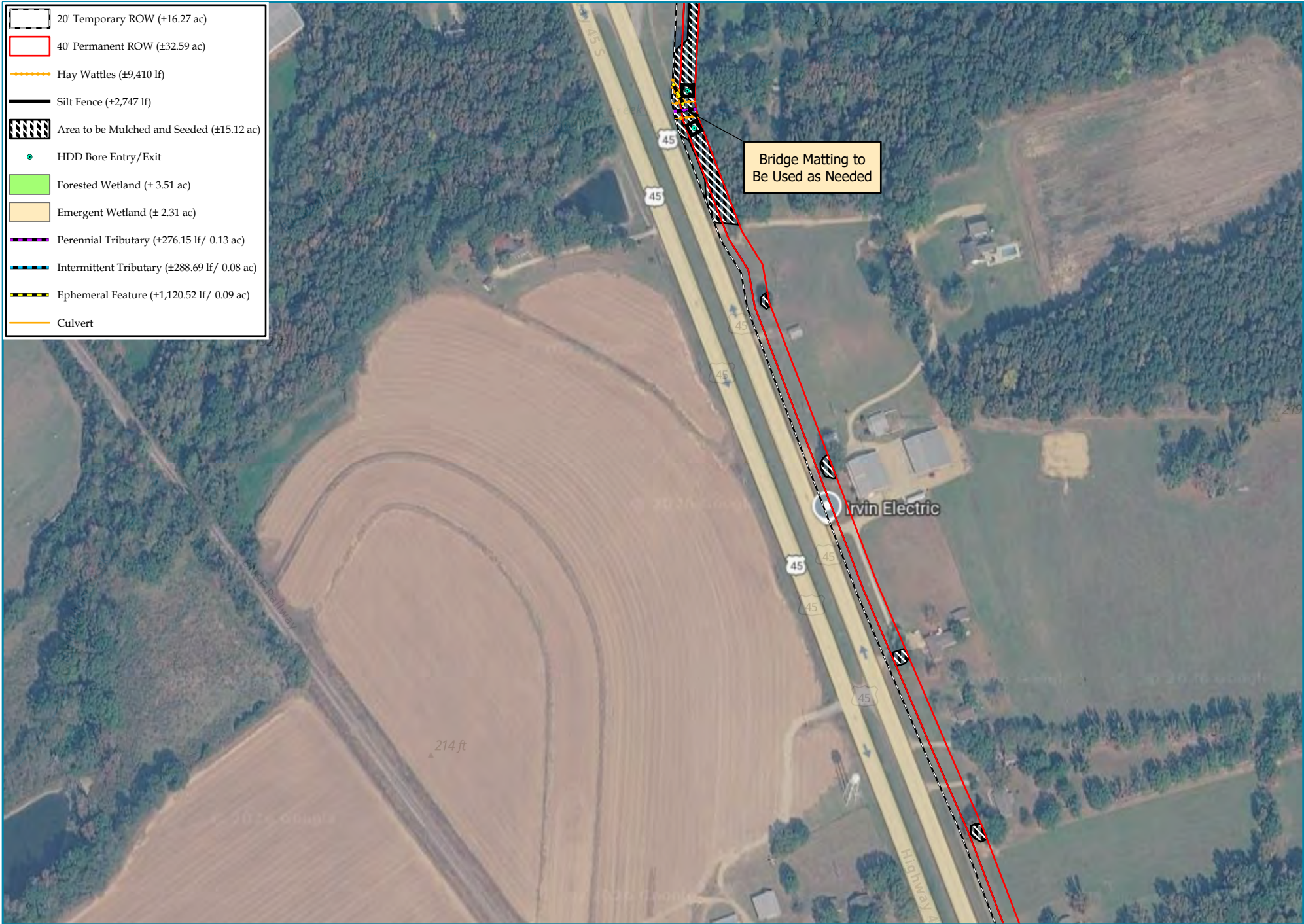



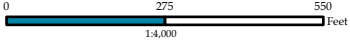
BMP Location Map	Page 6 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert











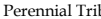
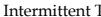


  14,000	BASEMAP:	Google Hybrid Imagery Basemap
	SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
	DATE:	3/20/2026
	CREATOR:	JWB
	PROJECT #:	N/A

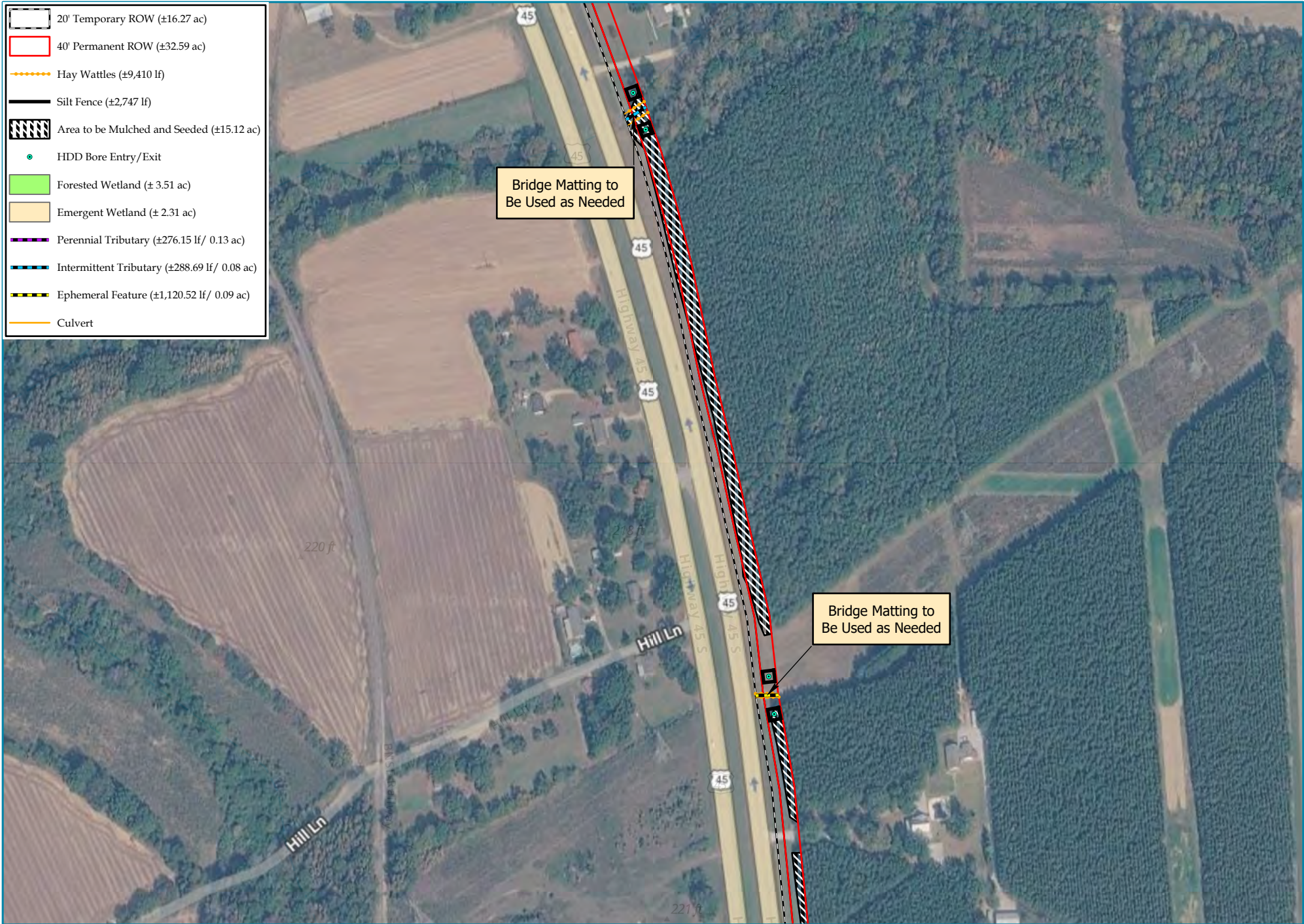




BMP Location Map Page 7 of 12
25-133 MDOT Permit - HWY 45
Atmos Energy
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W
Monroe County, Mississippi



HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

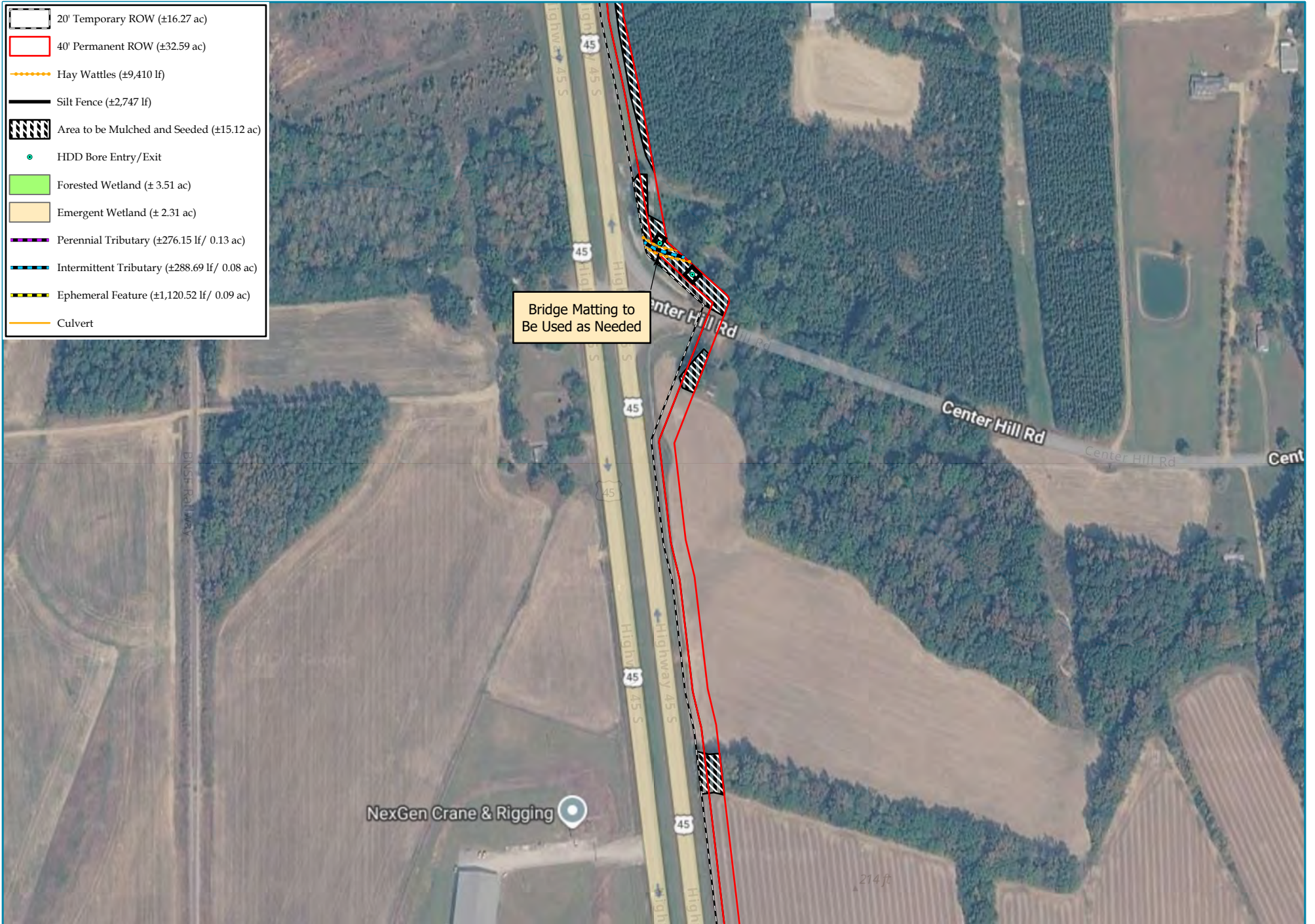



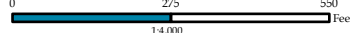
BMP Location Map	Page 8 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















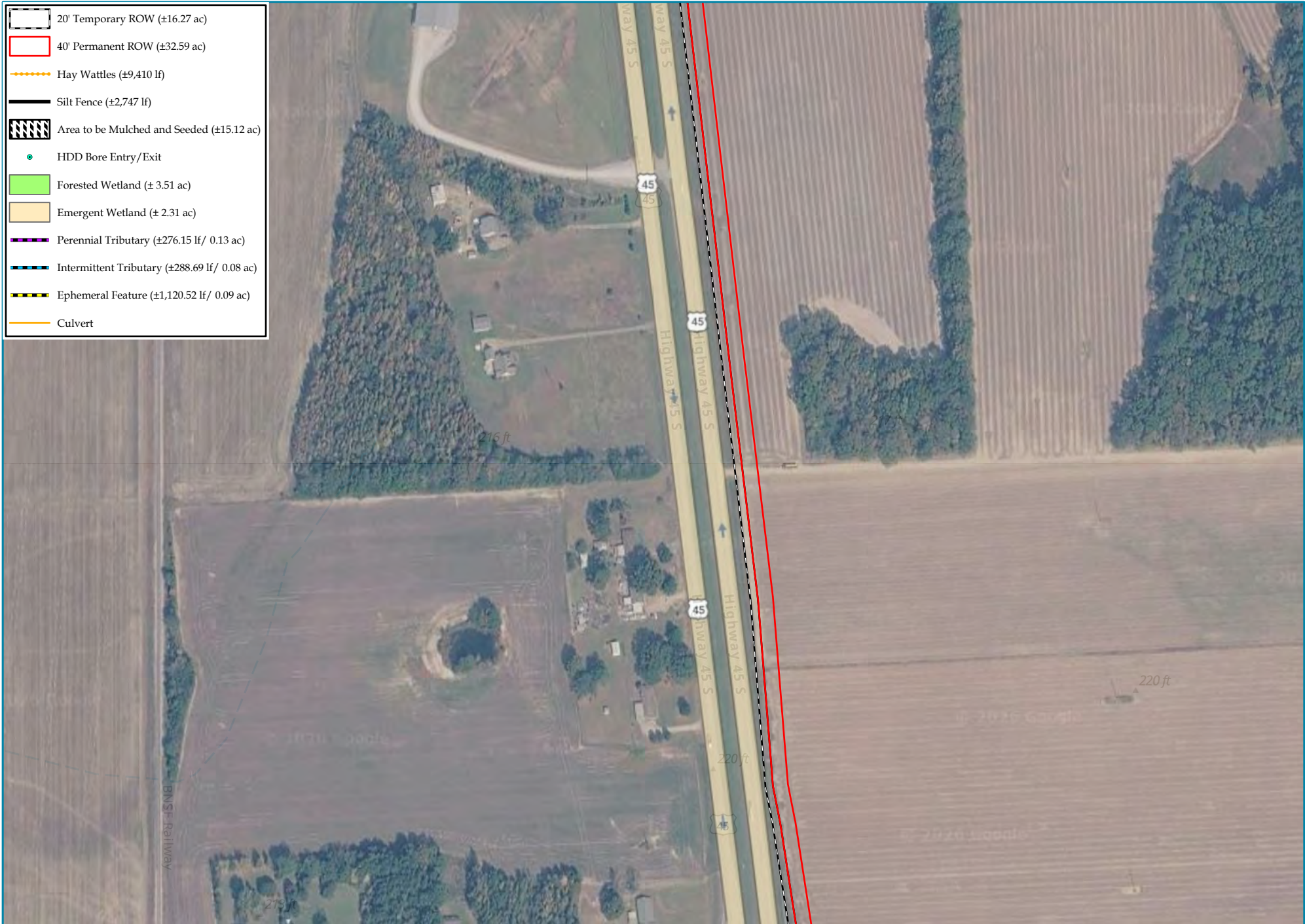
 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A


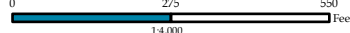


BMP Location Map	Page 9 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert









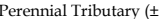
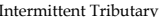




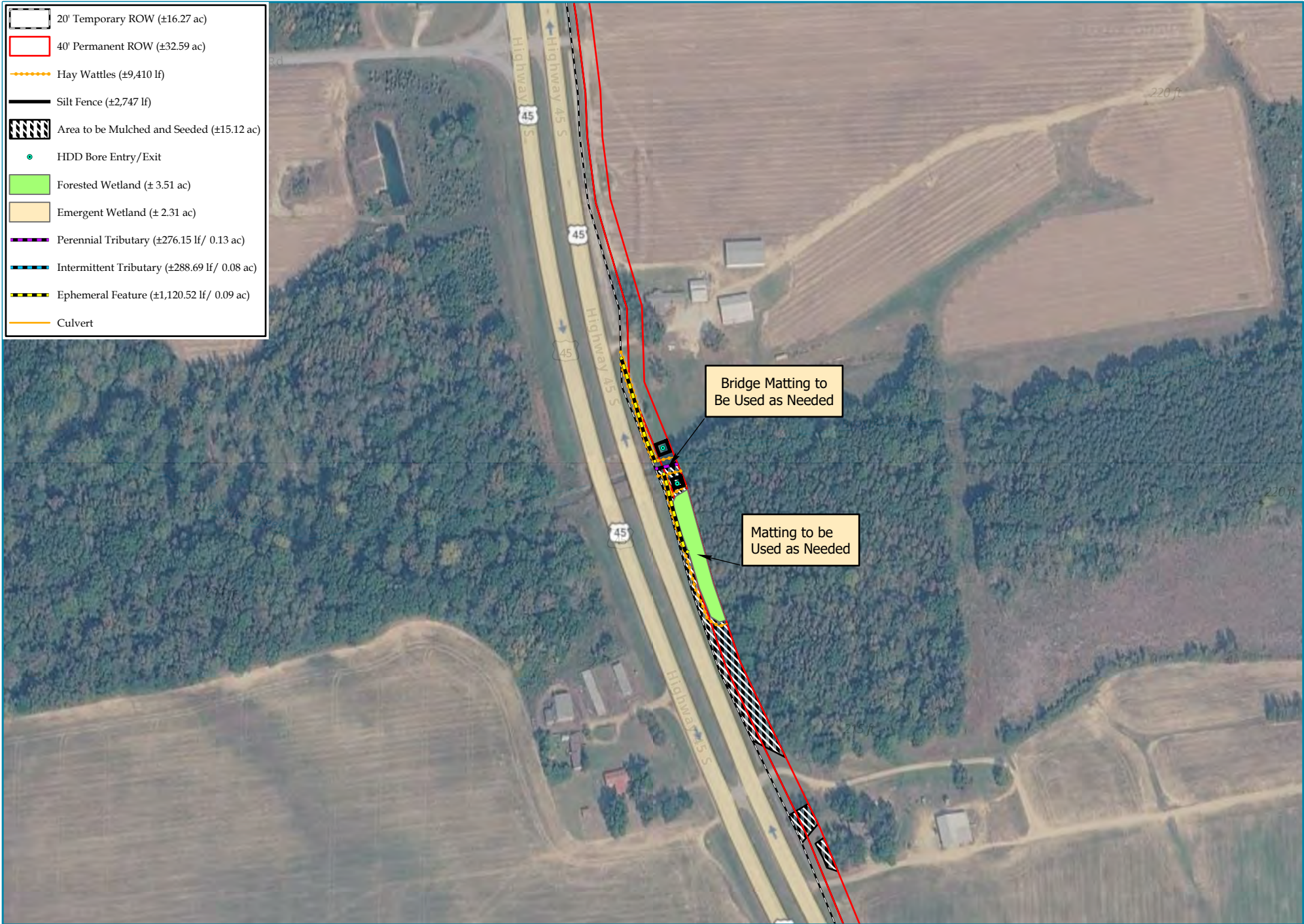
 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A


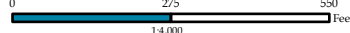


BMP Location Map	Page 10 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

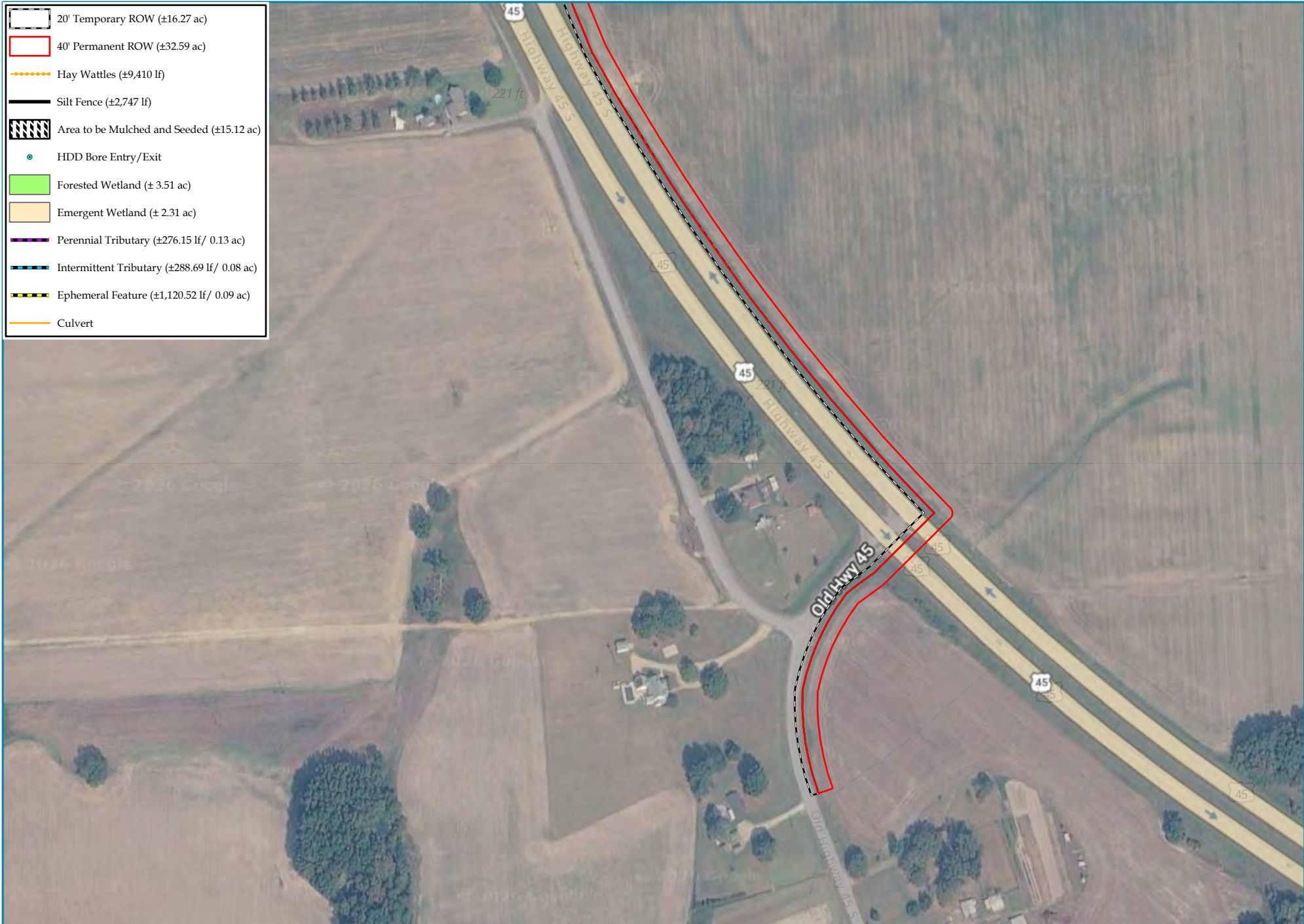



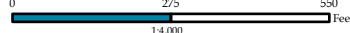
BMP Location Map	Page 11 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

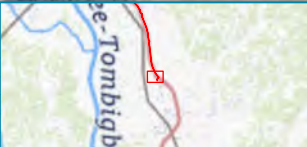


HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert



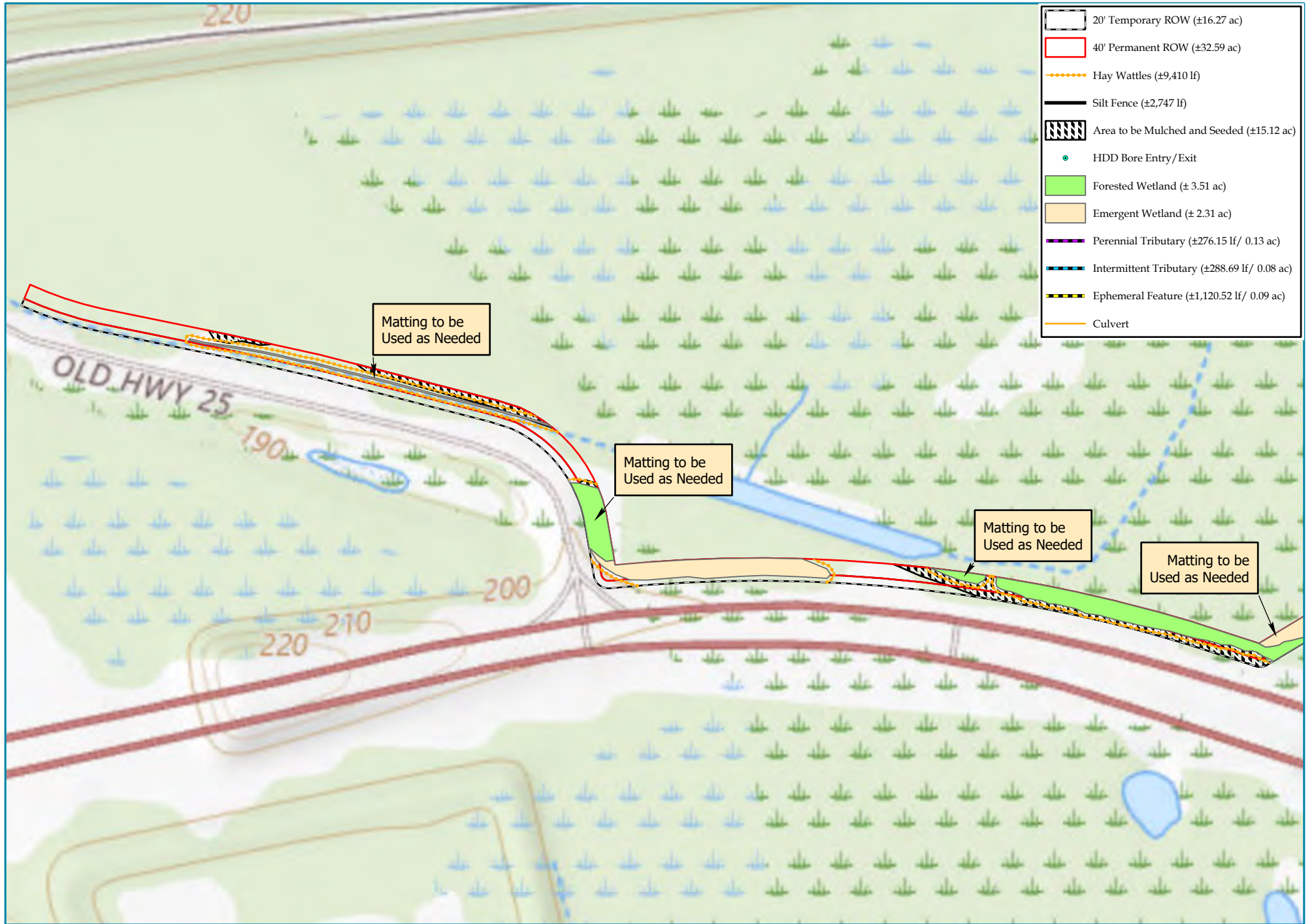
 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A



BMP Location Map	Page 12 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi















www.headwaters-inc.com

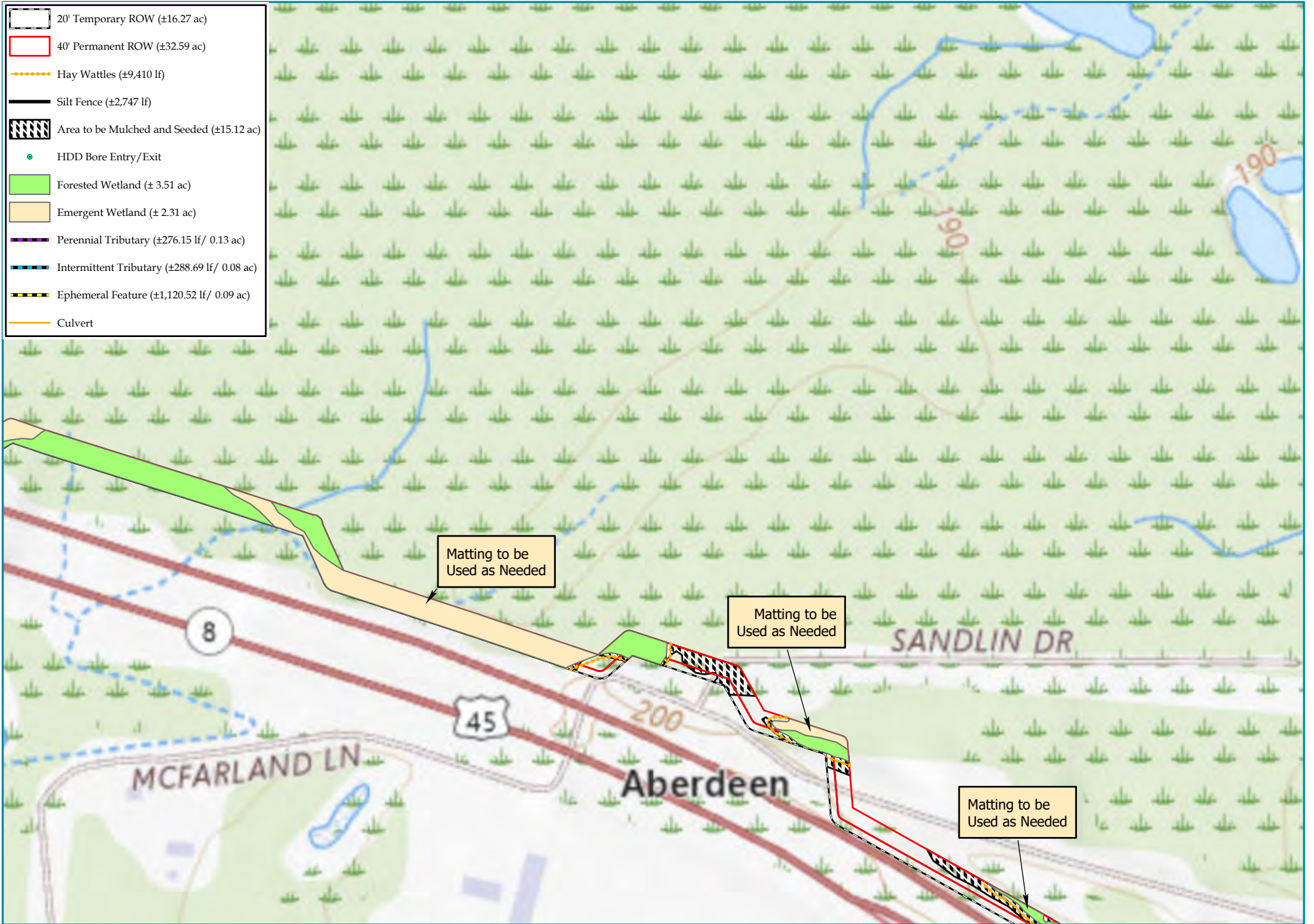



BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A



BMP Location Map	Page 1 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert



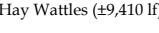
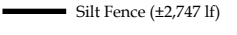




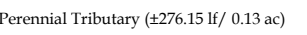
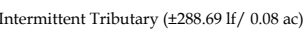
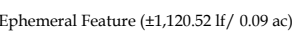



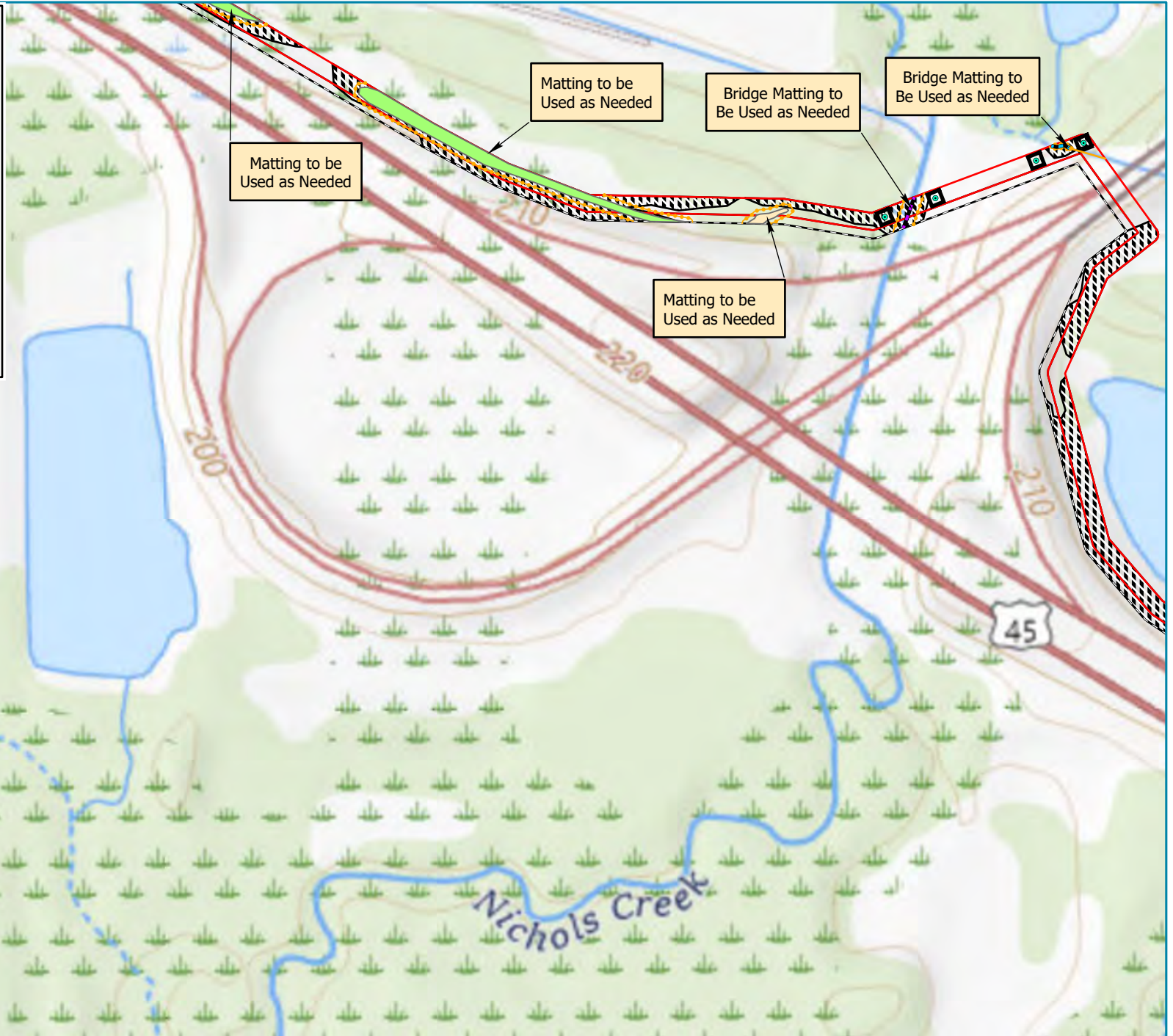
	0 275 550 14,000 Feet
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A




BMP Location Map	Page 2 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert





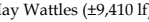





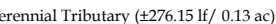
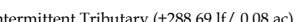
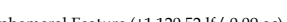

	0 275 550 14,000 Feet
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

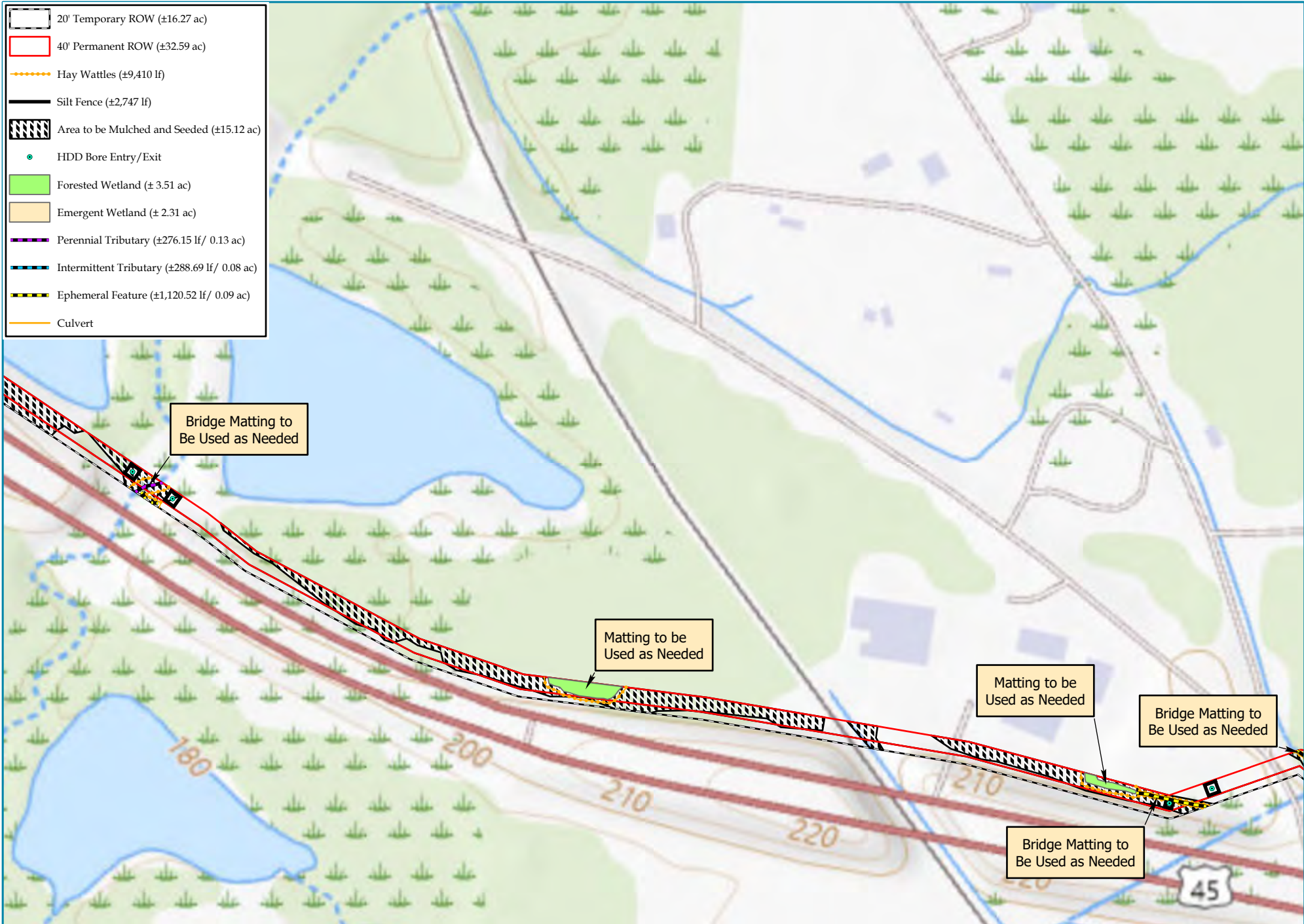


BMP Location Map	Page 3 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A




BMP Location Map	Page 4 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert





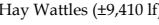
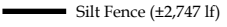




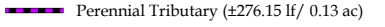
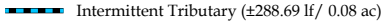
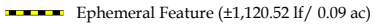

	0 275 550 14,000 Feet
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

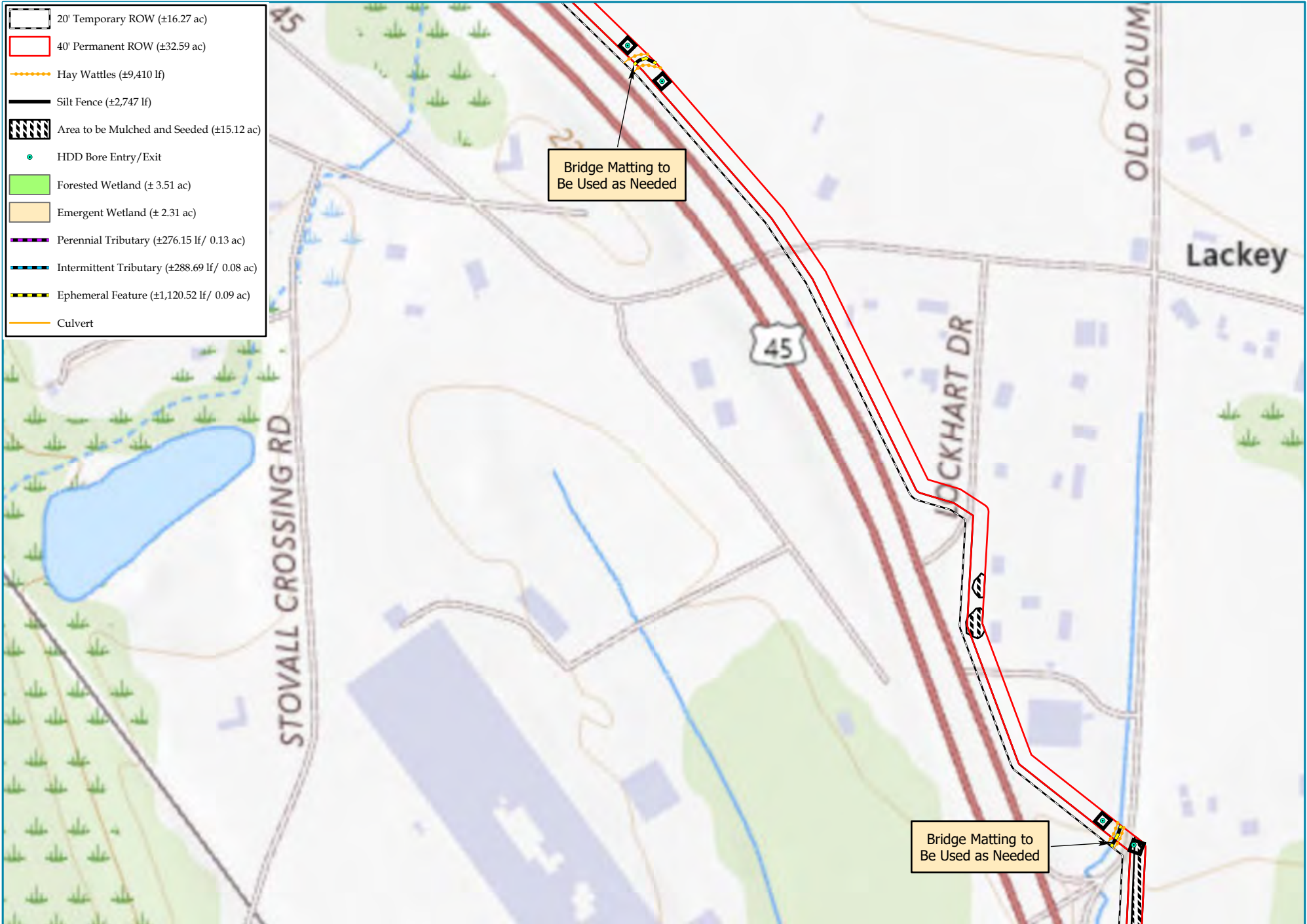



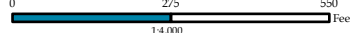
BMP Location Map		Page 5 of 12
25-133 MDOT Permit - HWY 45		
Atmos Energy		
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W		Monroe County, Mississippi



HEADWATERS
www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















 	
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

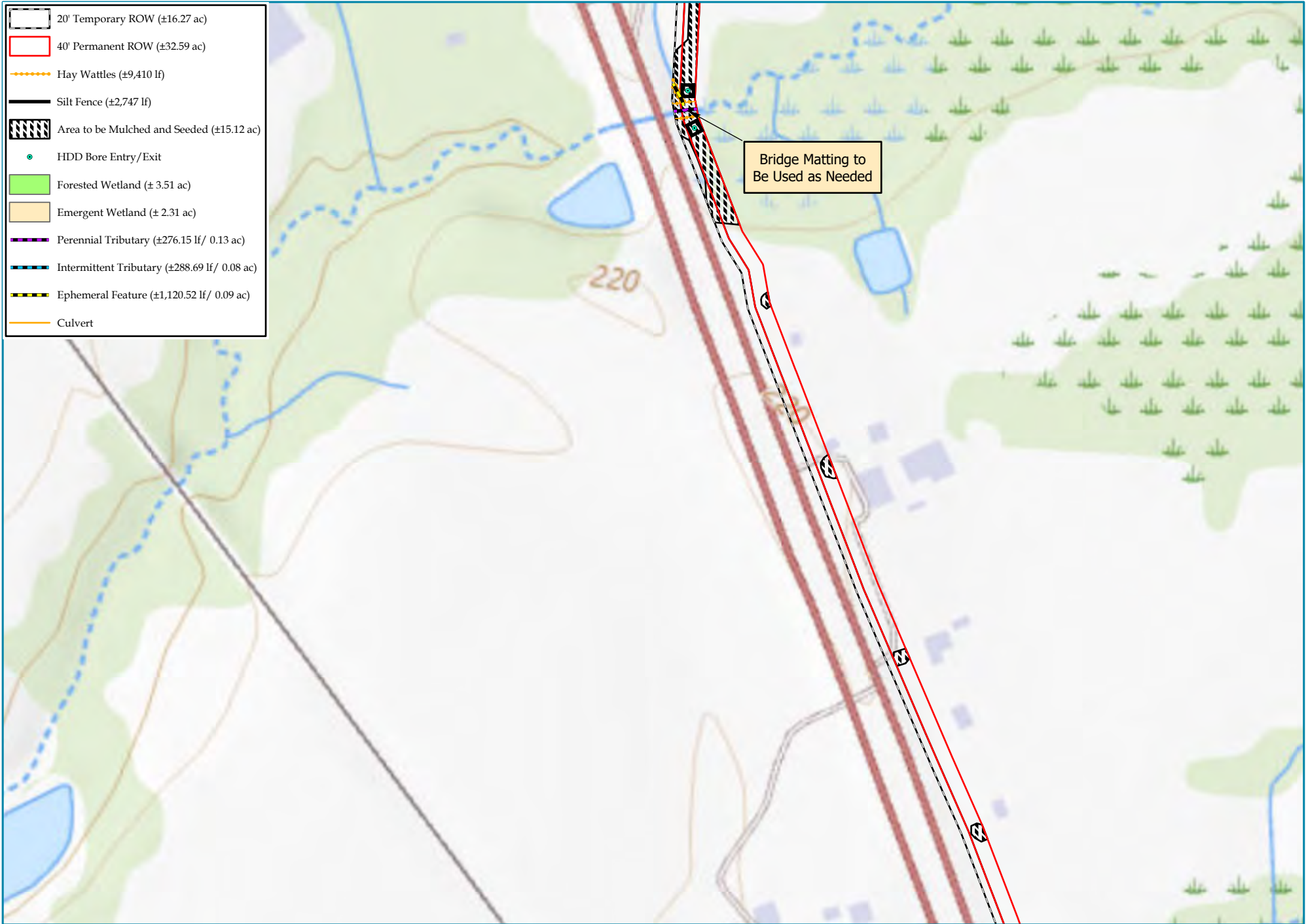


BMP Location Map	Page 6 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi


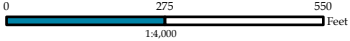


www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert





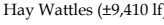
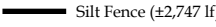

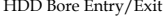
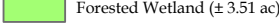
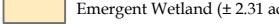
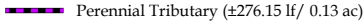
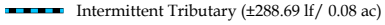
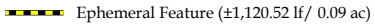

Bridge Matting to Be Used as Needed

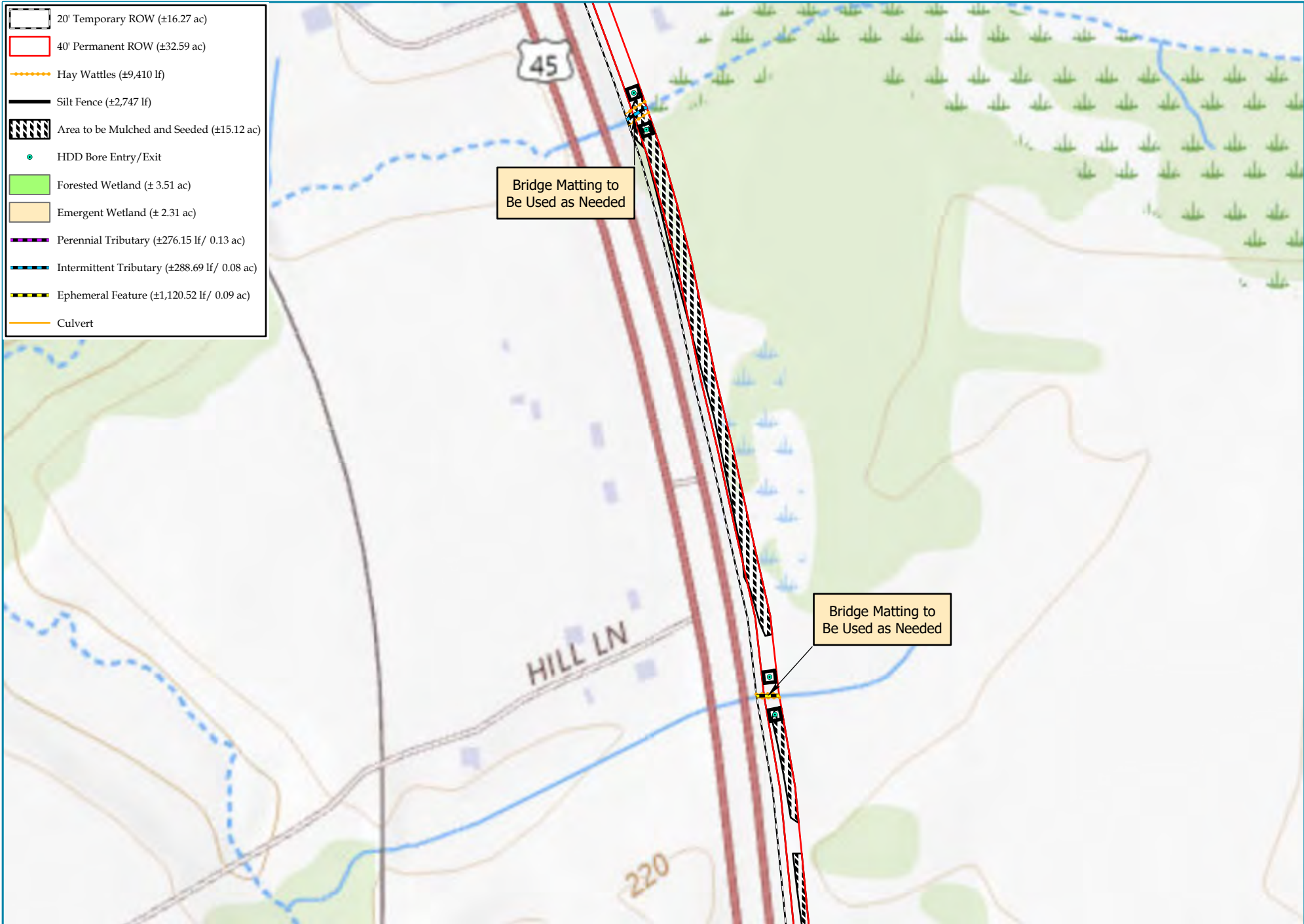
 	
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A



BMP Location Map Page 7 of 12
25-133 MDOT Permit - HWY 45
Atmos Energy
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W Monroe County, Mississippi






-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















Bridge Matting to Be Used as Needed

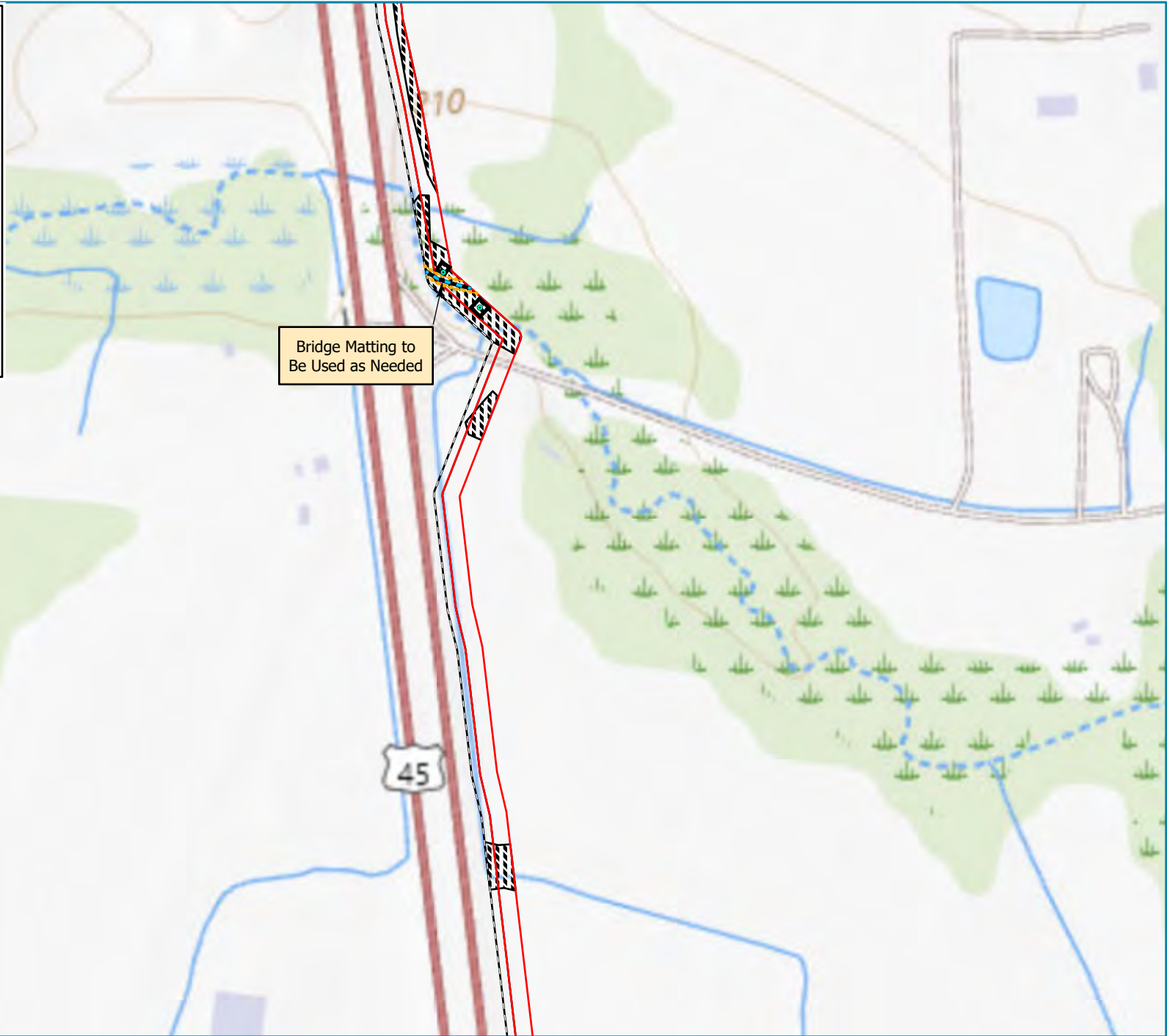
Bridge Matting to Be Used as Needed


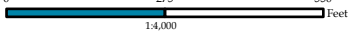
  	BASEMAP:	USCS TOPO Imagery Basemap
	SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
	DATE:	3/20/2026
	CREATOR:	JWB
	PROJECT #:	N/A

BMP Location Map	Page 8 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















 	
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

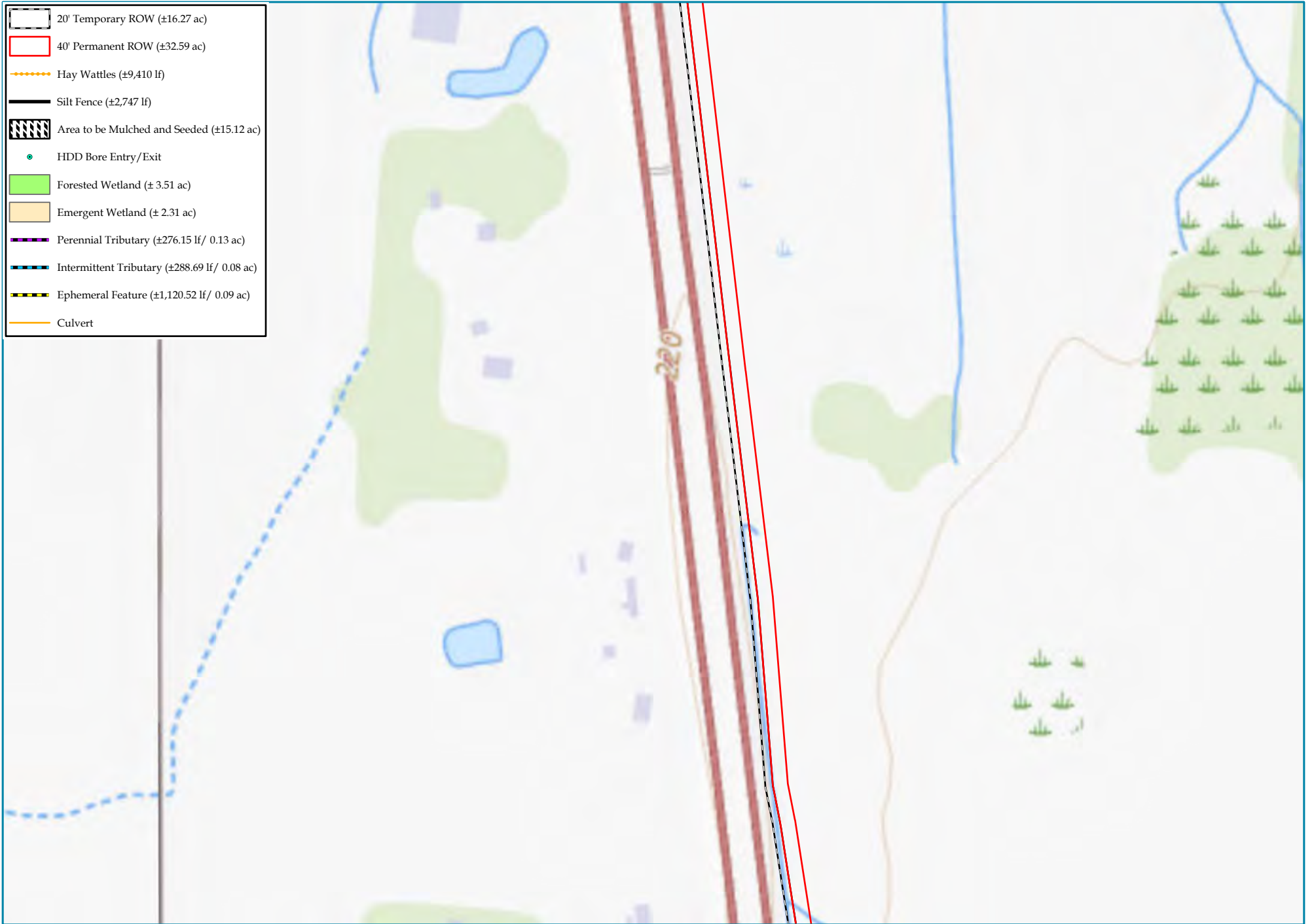



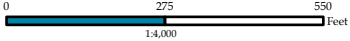
BMP Location Map	Page 9 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















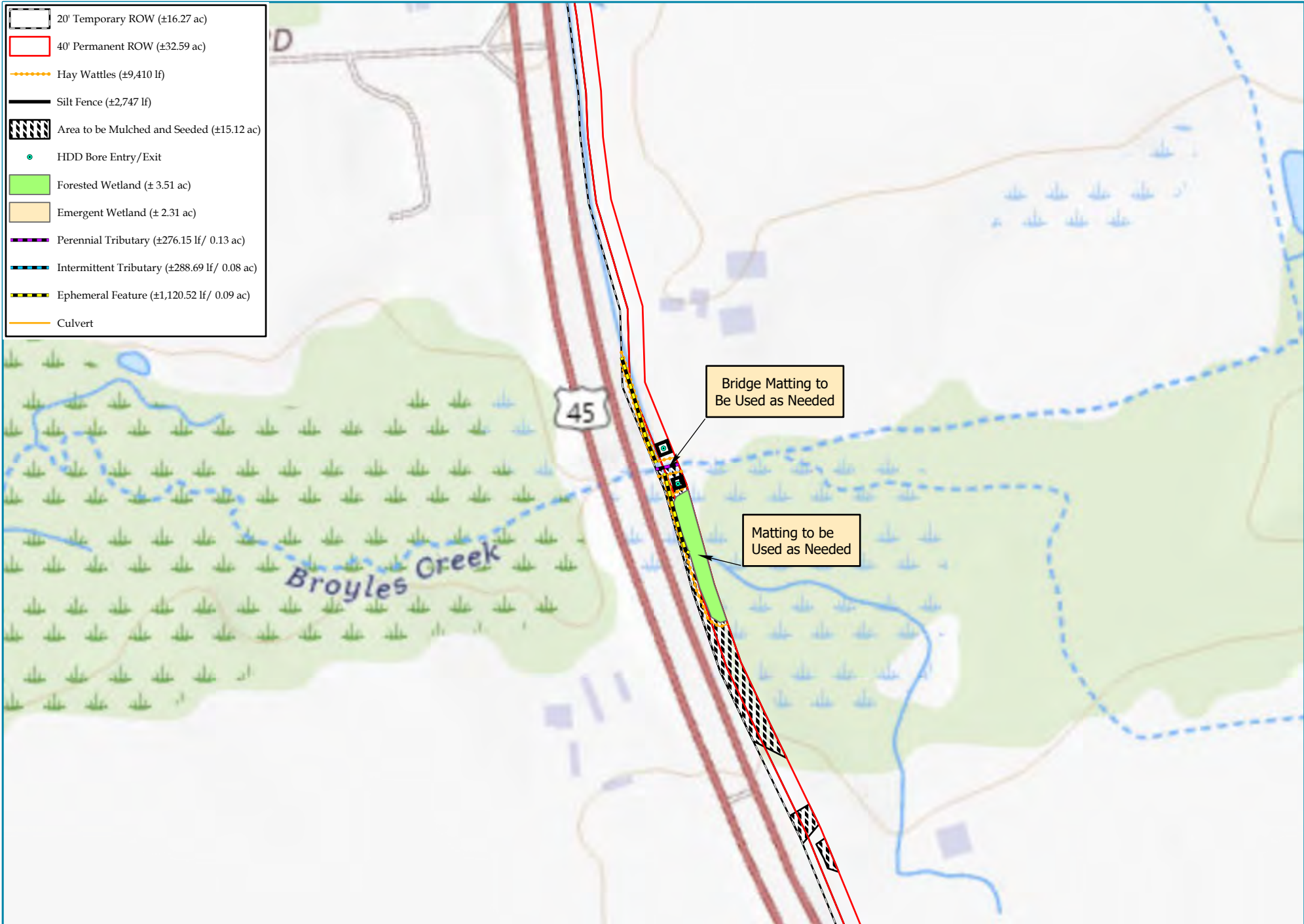
 	
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A


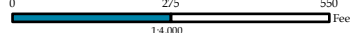


BMP Location Map	Page 10 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert















 	
BASEMAP:	USCS TOPO Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A

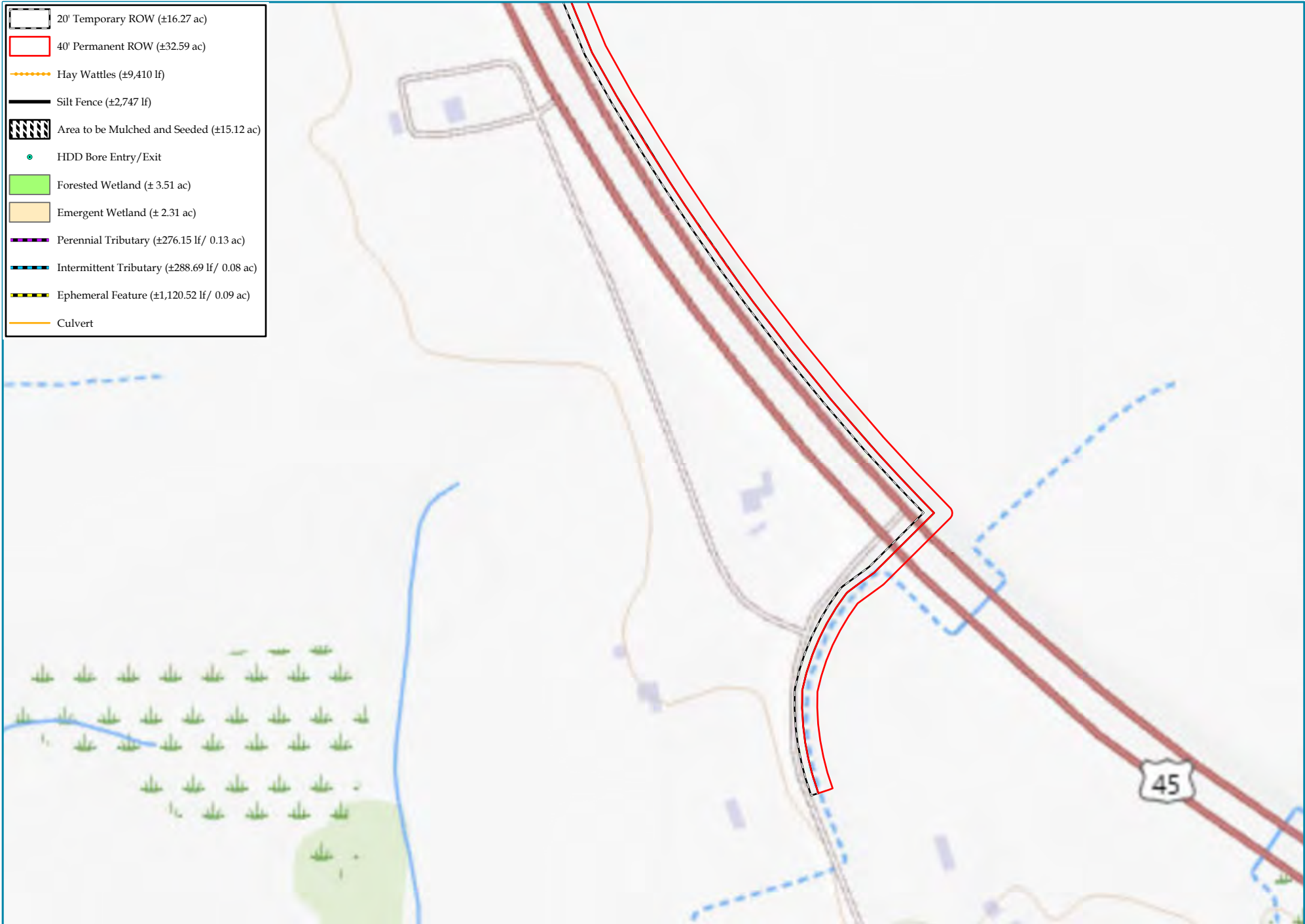


BMP Location Map	Page 11 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

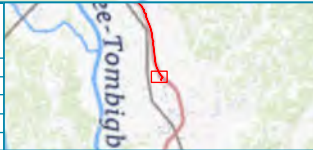


HEADWATERS
 www.headwaters-inc.com

-  20' Temporary ROW (±16.27 ac)
-  40' Permanent ROW (±32.59 ac)
-  Hay Wattles (±9,410 lf)
-  Silt Fence (±2,747 lf)
-  Area to be Mulched and Seeded (±15.12 ac)
-  HDD Bore Entry/Exit
-  Forested Wetland (± 3.51 ac)
-  Emergent Wetland (± 2.31 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Culvert



BASEMAP:	USCS TOPO Imagery Basemap
	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	3/20/2026
CREATOR:	JWB
PROJECT #:	N/A



BMP Location Map Page 12 of 12	
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi



XI. APPENDIX III - SOIL REPORT



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Monroe County, Mississippi**

25-133 MDOT Permit - HWY 45



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface	2
How Soil Surveys Are Made	5
Soil Map	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Monroe County, Mississippi.....	14
Bm—Mantachie-Kinston-Kirkville complex, 0 to 2 percent slopes, frequently flooded.....	14
CaB2—Cahaba fine sandy loam, 2 to 5 percent slopes, eroded.....	16
CaC3—Cahaba fine sandy loam, 5 to 8 percent slopes, severely eroded..	17
EsA—Eustis loamy sand, terrace, 0 to 2 percent slopes.....	18
Ma—Mantachie soils.....	19
My—Myatt fine sandy loam, 0 to 2 percent slopes.....	20
PrA—Prentiss fine sandy loam, 0 to 2 percent slopes.....	21
PrB2—Prentiss fine sandy loam, 2 to 5 percent slopes, eroded.....	23
St—Stough fine sandy loam, 0 to 2 percent slopes.....	24
TfA—Savannah fine sandy loam, 0 to 2 percent slopes.....	25
TfB—Savannah fine sandy loam, 2 to 5 percent slopes.....	27
TfB2—Savannah fine sandy loam, 2 to 5 percent slopes, moderately eroded.....	28
TfC2—Savannah fine sandy loam, 5 to 8 percent slopes, moderately eroded.....	29
Soil Information for All Uses	32
Suitabilities and Limitations for Use.....	32
Land Classifications.....	32
Hydric Rating by Map Unit.....	32
References	38

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

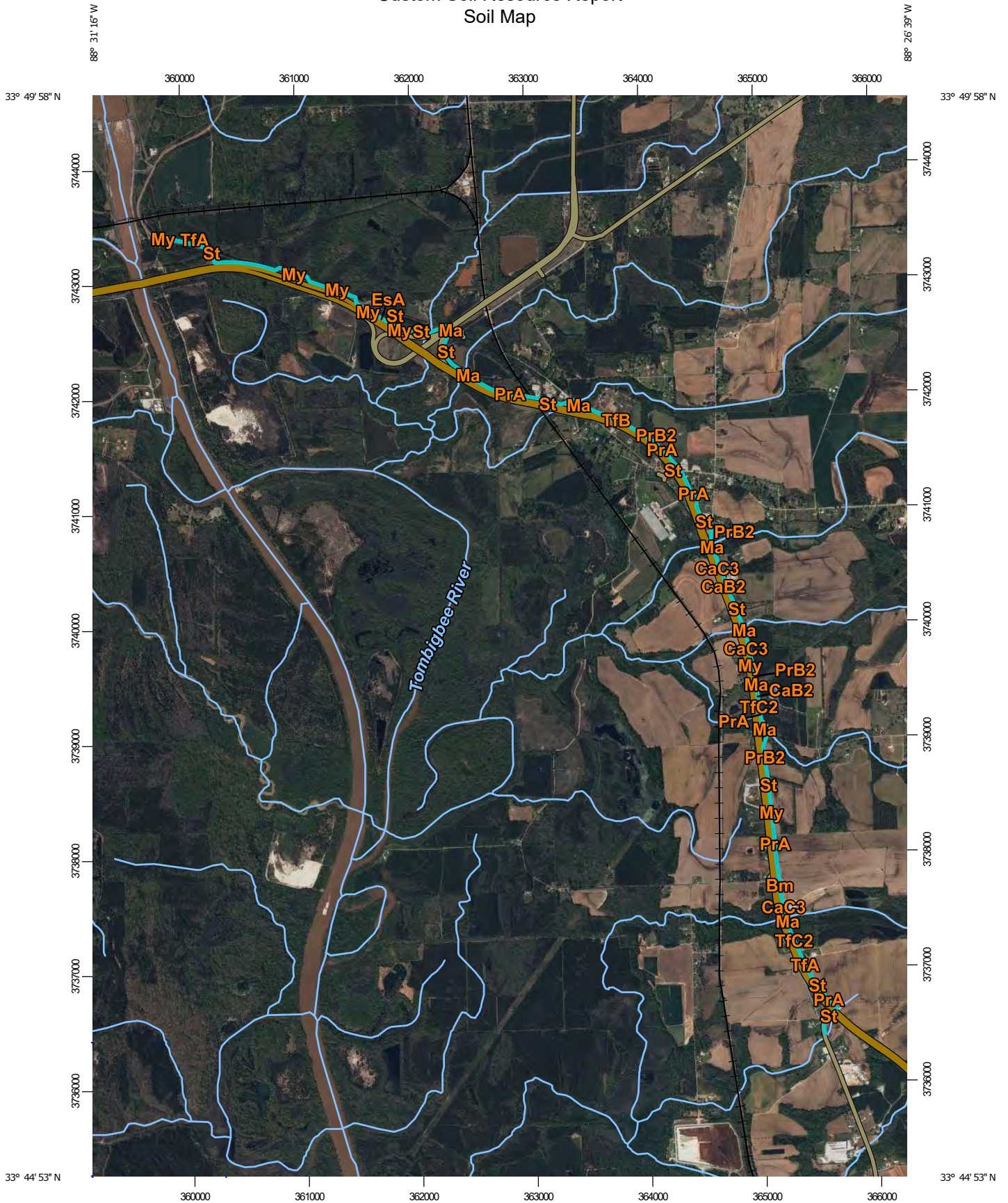
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

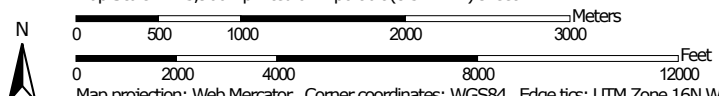
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:45,900 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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 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: Monroe County, Mississippi
 Survey Area Data: Version 22, Sep 8, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 2, 2021—Apr 4, 2021

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
Bm	Mantachie-Kinston-Kirkville complex, 0 to 2 percent slopes, frequently flooded	1.4	2.9%
CaB2	Cahaba fine sandy loam, 2 to 5 percent slopes, eroded	1.9	3.8%
CaC3	Cahaba fine sandy loam, 5 to 8 percent slopes, severely eroded	0.7	1.5%
EsA	Eustis loamy sand, terrace, 0 to 2 percent slopes	1.6	3.2%
Ma	Mantachie soils	5.5	11.3%
My	Myatt fine sandy loam, 0 to 2 percent slopes	7.3	14.9%
PrA	Prentiss fine sandy loam, 0 to 2 percent slopes	9.3	19.1%
PrB2	Prentiss fine sandy loam, 2 to 5 percent slopes, eroded	3.1	6.3%
St	Stough fine sandy loam, 0 to 2 percent slopes	13.2	27.0%
TfA	Savannah fine sandy loam, 0 to 2 percent slopes	1.6	3.3%
TfB	Savannah fine sandy loam, 2 to 5 percent slopes	2.5	5.2%
TfB2	Savannah fine sandy loam, 2 to 5 percent slopes, moderately eroded	0.2	0.4%
TfC2	Savannah fine sandy loam, 5 to 8 percent slopes, moderately eroded	0.6	1.2%
Totals for Area of Interest		48.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class.

Custom Soil Resource Report

Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The

Custom Soil Resource Report

pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Monroe County, Mississippi

Bm—Mantachie-Kinston-Kirkville complex, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 30wc6
Landscape: Coastal plains
Elevation: 50 to 300 feet
Mean annual precipitation: 40 to 60 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Mantachie and similar soils: 42 percent
Kinston and similar soils: 40 percent
Kirkville and similar soils: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mantachie

Setting

Landscape: Coastal plains
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coastal plains loamy alluvium

Typical profile

Ap - 0 to 8 inches: loam
Bw - 8 to 20 inches: loam
Bg1 - 20 to 51 inches: loam
Bg2 - 51 to 70 inches: clay loam
Cg - 70 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: B/D
Hydric soil rating: No

Description of Kinston

Setting

Landscape: Coastal plains
Landform: Slough flood plains
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Coastal plains loamy alluvium

Typical profile

A - 0 to 15 inches: loam
Bg - 15 to 49 inches: clay loam
Cg1 - 49 to 56 inches: clay loam
Cg2 - 56 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Description of Kirkville

Setting

Landscape: Coastal plains
Landform: Natural levee flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coastal plains loamy alluvium

Typical profile

Ap - 0 to 15 inches: fine sandy loam
Bw1 - 15 to 25 inches: loam
Bw2 - 25 to 39 inches: loam
Bg - 39 to 58 inches: sandy loam
Cg - 58 to 80 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Custom Soil Resource Report

Depth to water table: About 18 to 26 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.4
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

CaB2—Cahaba fine sandy loam, 2 to 5 percent slopes, eroded

Map Unit Setting

National map unit symbol: c5nv
Elevation: 180 to 280 feet
Mean annual precipitation: 45 to 55 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 230 to 290 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Cahaba and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cahaba

Setting

Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

H1 - 0 to 7 inches: fine sandy loam
H2 - 7 to 59 inches: loam
H3 - 59 to 80 inches: loamy sand

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None

Custom Soil Resource Report

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

CaC3—Cahaba fine sandy loam, 5 to 8 percent slopes, severely eroded

Map Unit Setting

National map unit symbol: c5nw

Landscape: Coastal plains

Elevation: 800 to 1,800 feet

Mean annual precipitation: 45 to 55 inches

Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 230 to 290 days

Farmland classification: Not prime farmland

Map Unit Composition

Cahaba and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cahaba

Setting

Landscape: Coastal plains

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy alluvium

Typical profile

H1 - 0 to 4 inches: fine sandy loam

H2 - 4 to 59 inches: loam

H3 - 59 to 80 inches: loamy sand

Properties and qualities

Slope: 5 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

EsA—Eustis loamy sand, terrace, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: c5p3
Elevation: 160 to 230 feet
Mean annual precipitation: 45 to 55 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 230 to 290 days
Farmland classification: Not prime farmland

Map Unit Composition

Eustis and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eustis

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

H1 - 0 to 6 inches: loamy fine sand
H2 - 6 to 24 inches: sand
H3 - 24 to 76 inches: loamy sand
H4 - 76 to 98 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (6.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: A
Hydric soil rating: No

Ma—Mantachie soils

Map Unit Setting

National map unit symbol: c5pv
Elevation: 160 to 440 feet
Mean annual precipitation: 45 to 55 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 230 to 290 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Mantachie and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Mantachie

Setting

Landform: Flood plains
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

H1 - 0 to 11 inches: silt loam
H2 - 11 to 61 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Hydric soil rating: No

Minor Components

Unnamed hydric soils (133fp)

Percent of map unit: 5 percent
Landform: Flood plains
Landform position (three-dimensional): Talf

Custom Soil Resource Report

Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

My—Myatt fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2vxx2
Landscape: Coastal plains
Elevation: 50 to 400 feet
Mean annual precipitation: 54 to 67 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 215 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Myatt and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Myatt

Setting

Landscape: Coastal plains
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy alluvium derived from sedimentary rock

Typical profile

A - 0 to 10 inches: fine sandy loam
Btg - 10 to 50 inches: clay loam
Cg - 50 to 72 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w

Custom Soil Resource Report

Hydrologic Soil Group: B/D
Hydric soil rating: Yes

Minor Components

Savannah

Percent of map unit: 6 percent
Landscape: Coastal plains
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F133CA999AL - MLRA 133C ES concept, subject to change.
Hydric soil rating: No

Stough

Percent of map unit: 4 percent
Landscape: Coastal plains
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

PrA—Prentiss fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2w8y8
Landscape: Coastal plains
Elevation: 50 to 440 feet
Mean annual precipitation: 53 to 69 inches
Mean annual air temperature: 52 to 77 degrees F
Frost-free period: 215 to 270 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Prentiss and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Prentiss

Setting

Landscape: Coastal plains
Landform: Fluviomarine terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from sedimentary rock

Custom Soil Resource Report

Typical profile

Ap - 0 to 8 inches: fine sandy loam
Bt - 8 to 26 inches: loam
Btx - 26 to 81 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 24 to 35 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 24 to 35 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Ecological site: F133CA999AL - MLRA 133C ES concept, subject to change.
Hydric soil rating: No

Minor Components

Stough

Percent of map unit: 6 percent
Landscape: Coastal plains
Landform: Terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Savannah

Percent of map unit: 4 percent
Landscape: Coastal plains
Landform: Fluvio-marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Base slope
Down-slope shape: Convex
Across-slope shape: Convex
Hydric soil rating: No

Quitman

Percent of map unit: 3 percent
Landscape: Coastal plains
Landform: Fluvio-marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

Bibb

Percent of map unit: 2 percent
Landscape: Coastal plains
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: F133CA999AL - MLRA 133C ES concept, subject to change.
Hydric soil rating: Yes

PrB2—Prentiss fine sandy loam, 2 to 5 percent slopes, eroded

Map Unit Setting

National map unit symbol: c5q7
Elevation: 180 to 410 feet
Mean annual precipitation: 53 to 62 inches
Mean annual air temperature: 61 to 66 degrees F
Frost-free period: 250 to 310 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Prentiss and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Prentiss

Setting

Landform: Terraces
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Crest, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium deposits

Typical profile

H1 - 0 to 5 inches: fine sandy loam
H2 - 5 to 24 inches: loam
H3 - 24 to 73 inches: loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 20 to 32 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 24 to 29 inches
Frequency of flooding: None
Frequency of ponding: None

Custom Soil Resource Report

Available water supply, 0 to 60 inches: Low (about 3.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No

St—Stough fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2shs0

Landscape: Coastal plains

Elevation: 200 to 400 feet

Mean annual precipitation: 57 to 69 inches

Mean annual air temperature: 59 to 68 degrees F

Frost-free period: 215 to 270 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Stough and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Stough

Setting

Landscape: Coastal plains

Landform: Terraces

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy fluviomarine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 4 inches: fine sandy loam

B/E - 4 to 10 inches: fine sandy loam

Bt - 10 to 20 inches: fine sandy loam

Btx1 - 20 to 38 inches: fine sandy loam

Btx2 - 38 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 18 to 30 inches to fragipan

Drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 8 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Custom Soil Resource Report

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): 2w
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Bibb

Percent of map unit: 5 percent
Landscape: Coastal plains
Landform: Flood plains
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: Yes

Mashulaville

Percent of map unit: 5 percent
Landscape: Fluvio-marine terraces
Landform: Drainageways
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

TfA—Savannah fine sandy loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2shsl
Landscape: Coastal plains
Elevation: 50 to 490 feet
Mean annual precipitation: 54 to 68 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 230 to 260 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Savannah and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Savannah

Setting

Landscape: Coastal plains
Landform: Nearly level fluvio-marine terraces
Landform position (two-dimensional): Shoulder

Custom Soil Resource Report

Landform position (three-dimensional): Crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Fine-loamy marine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 6 inches: fine sandy loam
Bt - 6 to 23 inches: loam
Btx - 23 to 80 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 25 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 18 to 20 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Hydric soil rating: No

Minor Components

Izagora

Percent of map unit: 5 percent
Landscape: Coastal plains
Landform: Stream terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Quitman

Percent of map unit: 5 percent
Landscape: Coastal plains
Landform: Fluvio-marine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Concave
Hydric soil rating: No

TfB—Savannah fine sandy loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2rzvb
Landscape: Coastal plains
Elevation: 50 to 490 feet
Mean annual precipitation: 54 to 67 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 230 to 270 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Savannah and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Savannah

Setting

Landscape: Coastal plains
Landform: Slightly dissected fluviomarine terraces
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Loamy fluviomarine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 5 inches: fine sandy loam
E - 5 to 10 inches: fine sandy loam
Bt - 10 to 27 inches: sandy clay loam
Btx - 27 to 71 inches: sandy clay loam
BC - 71 to 88 inches: sandy loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: 18 to 36 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 16 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e

Custom Soil Resource Report

Hydrologic Soil Group: C

Ecological site: F133CA999AL - MLRA 133C ES concept, subject to change.

Hydric soil rating: No

Minor Components

Mashulaville

Percent of map unit: 5 percent

Landscape: Fluviomarine terraces

Landform: Drainageways

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: Yes

Ora

Percent of map unit: 5 percent

Landscape: Coastal plains

Landform: Terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

TfB2—Savannah fine sandy loam, 2 to 5 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 2xz8j

Landscape: Coastal plains

Elevation: 50 to 490 feet

Mean annual precipitation: 54 to 67 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 230 to 270 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Savannah and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Savannah

Setting

Landscape: Coastal plains

Landform: Slightly dissected fluviomarine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Concave

Parent material: Loamy fluviomarine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 5 inches: fine sandy loam

E - 5 to 10 inches: fine sandy loam

Bt - 10 to 27 inches: sandy clay loam

Btx - 27 to 71 inches: sandy clay loam

BC - 71 to 88 inches: sandy loam

Properties and qualities

Slope: 2 to 5 percent

Depth to restrictive feature: 18 to 36 inches to fragipan

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 16 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F133CA999AL - MLRA 133C ES concept, subject to change.

Hydric soil rating: No

Minor Components

Ora

Percent of map unit: 10 percent

Landscape: Coastal plains

Landform: Terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

TfC2—Savannah fine sandy loam, 5 to 8 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 2xz8k

Landscape: Coastal plains

Elevation: 50 to 490 feet

Mean annual precipitation: 54 to 67 inches

Mean annual air temperature: 59 to 70 degrees F

Custom Soil Resource Report

Frost-free period: 230 to 270 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Savannah and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Savannah

Setting

Landscape: Coastal plains

Landform: Slightly dissected fluviomarine terraces

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Riser

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Loamy fluviomarine deposits derived from sedimentary rock

Typical profile

Ap - 0 to 5 inches: fine sandy loam

E - 5 to 10 inches: fine sandy loam

Bt - 10 to 27 inches: sandy clay loam

Btx - 27 to 71 inches: sandy clay loam

BC - 71 to 88 inches: sandy loam

Properties and qualities

Slope: 5 to 8 percent

Depth to restrictive feature: 18 to 36 inches to fragipan

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: About 16 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F133CA999AL - MLRA 133C ES concept, subject to change.

Hydric soil rating: No

Minor Components

Ora

Percent of map unit: 10 percent

Landscape: Coastal plains

Landform: Terraces

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Hydric soil rating: No

Custom Soil Resource Report

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Hydric Rating by Map Unit

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Custom Soil Resource Report

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

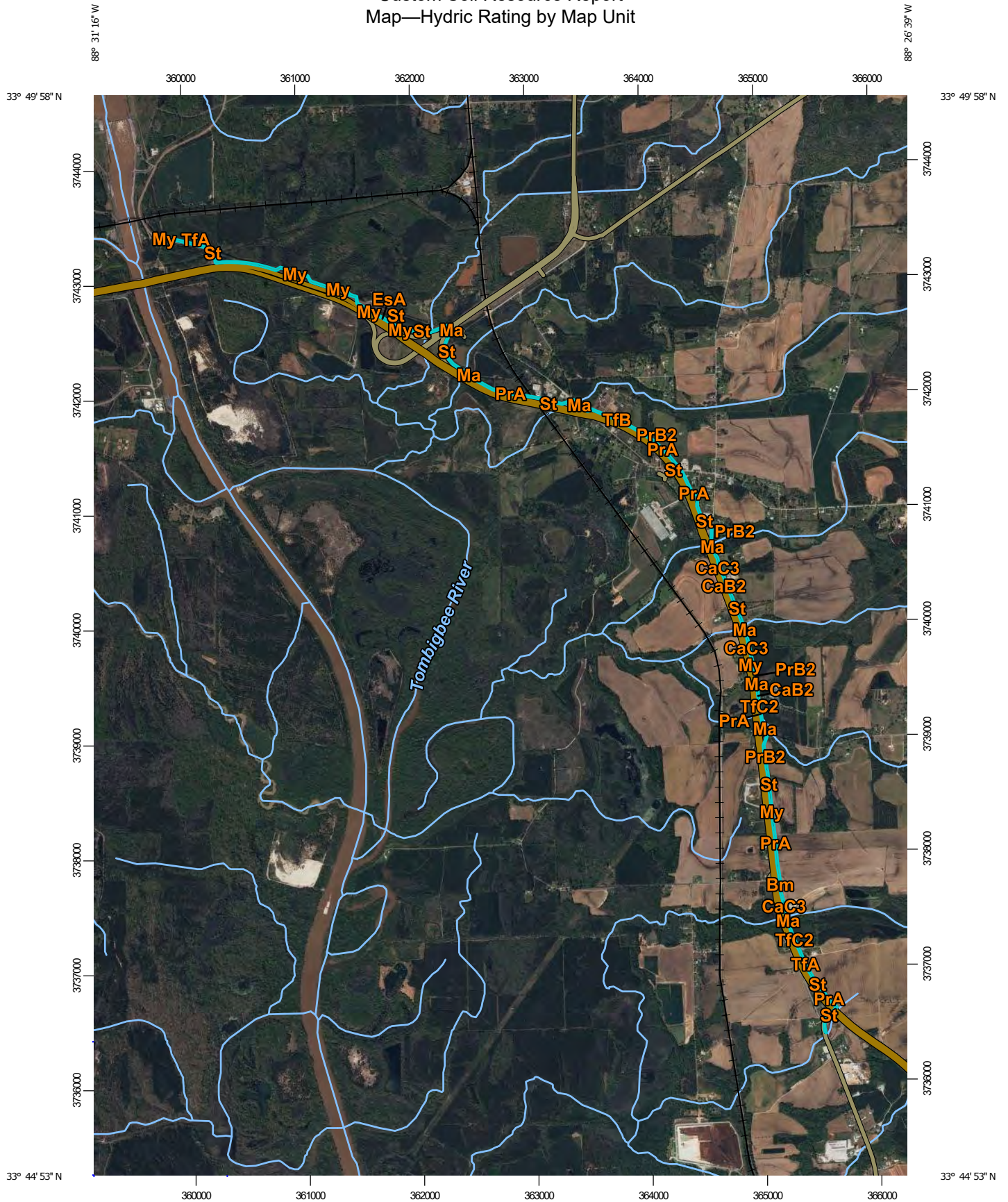
Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Custom Soil Resource Report Map—Hydric Rating by Map Unit




Map Scale: 1:45,900 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84







MAP LEGEND

Area of Interest (AOI)







 Area of Interest (AOI)

Soils







Soil Rating Polygons

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Soil Rating Lines

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available






Soil Rating Points

-  Hydric (100%)
-  Hydric (66 to 99%)
-  Hydric (33 to 65%)
-  Hydric (1 to 32%)
-  Not Hydric (0%)
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

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 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: Monroe County, Mississippi
 Survey Area Data: Version 22, Sep 8, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 2, 2021—Apr 4, 2021

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.

Table—Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Bm	Mantachie-Kinston-Kirkville complex, 0 to 2 percent slopes, frequently flooded	40	1.4	2.9%
CaB2	Cahaba fine sandy loam, 2 to 5 percent slopes, eroded	0	1.9	3.8%
CaC3	Cahaba fine sandy loam, 5 to 8 percent slopes, severely eroded	0	0.7	1.5%
EsA	Eustis loamy sand, terrace, 0 to 2 percent slopes	0	1.6	3.2%
Ma	Mantachie soils	5	5.5	11.3%
My	Myatt fine sandy loam, 0 to 2 percent slopes	90	7.3	14.9%
PrA	Prentiss fine sandy loam, 0 to 2 percent slopes	2	9.3	19.1%
PrB2	Prentiss fine sandy loam, 2 to 5 percent slopes, eroded	0	3.1	6.3%
St	Stough fine sandy loam, 0 to 2 percent slopes	10	13.2	27.0%
TfA	Savannah fine sandy loam, 0 to 2 percent slopes	0	1.6	3.3%
TfB	Savannah fine sandy loam, 2 to 5 percent slopes	5	2.5	5.2%
TfB2	Savannah fine sandy loam, 2 to 5 percent slopes, moderately eroded	0	0.2	0.4%
TfC2	Savannah fine sandy loam, 5 to 8 percent slopes, moderately eroded	0	0.6	1.2%
Totals for Area of Interest			48.9	100.0%

Rating Options—Hydric Rating by Map Unit

Aggregation Method: Percent Present

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

Custom Soil Resource Report

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Percent Present" returns the cumulative percent composition of all components of a map unit for which a certain condition is true. For example, attribute "Hydric Rating by Map Unit" returns the cumulative percent composition of all components of a map unit where the corresponding hydric rating is "Yes". Conditions may be simple or complex. At runtime, the user may be able to specify all, some or none of the conditions in question.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Lower

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
- American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Federal Register. September 18, 2002. Hydric soils of the United States.
- Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.
- National Research Council. 1995. Wetlands: Characteristics and boundaries.
- Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262
- Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577
- Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580
- Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
- United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.
- United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374
- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

XII. APPENDIX IV – SEED CHART

SEEDING CHART FOR THE STATE OF MISSISSIPPI

*For a more comprehensive vegetation schedule, see “Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas (Three Volumes)”

SPECIES	SEEDING RATE/ACRE	PLANTING TIME	DESIRED pH RANGE	FERTILIZATION RATE/ACRE	METHOD OF ESTABLISHMENT	ZONE OF ADAPTABILITY	NATIVE/INTRODUCED
Common Bermuda	15 lbs. alone 10 lbs. mixture	3/1 - 7/15 9/1 - 11/30	6.0 - 7.0	600 lbs. 13-13-13	seed or sod	All	Introduced *Potential for Invasiveness
Bahia	40 lbs. alone 30 lbs. mixture	3/1 - 7/15 9/1 - 11/30	6.0 - 7.0	600 lbs. 13-13-13	seed	Central & South	Introduced
Fescue	40 lbs. alone 30 lbs. mixture	9/1 - 11/30	6.0 - 7.0	600 lbs. 13-13-13	seed	North & Central	Native
Saint Augustine	--	3/1 - 7/15	6.0 - 7.0	600 lbs. 13-13-13	sod only	Central & South	Native
Centipede	4 lbs. alone 2.5 lbs. mix	3/1 - 7/15	6.0 - 7.0	600 lbs. 13-13-13	seed or sod	All	Introduced
Carpet Grass	15 lbs. alone 10 lbs. mixture	3/1 - 7/15	6.0 - 7.0	600 lbs. 13-13-13	seed or sod	All	Native
Zoysia Grass	--	3/1 - 7/15	6.0 - 7.0	600 lbs. 13-13-13	sod only	All	Introduced
Creeping Red Fescue	30 lbs. alone 22.5 lbs. mix	9/1 - 11/30	6.0 - 7.0	600 lbs. 13-13-13	seed	All	Native
Weeping Lovegrass	10 lbs. alone 5 lbs. mix	3/1 - 7/15	6.0 - 7.0	600 lbs. 13-13-13	seed	All	Introduced
Sericea Lespedeza	40 lbs.	3/1 - 7/15 9/1 - 11/30	6.0 - 7.0	400 lbs. 6-24-24	seed	All	Introduced
*Wheat	90 lbs. alone	9/1 - 11/30	6.0 - 7.0	600 lbs. 13-13-13	seed	All	Native
*Ryegrass	30 lbs.	9/1 - 11/30	6.0 - 7.0	600 lbs. 13-13-13	seed	All	Native
*White Clover	5 lbs.	9/1 - 11/30	6.0 - 7.0	400 lbs. 6-24-24	seed	All	Introduced
*Crimson Clover	15 lbs.	9/1 - 11/30	6.0 - 7.0	400 lbs. 6-24-24	seed	All	Introduced
*Hairy Vetch	30 lbs.	9/1 - 11/30	6.0 - 7.0	400 lbs. 6-24-24	seed	All	Introduced
*Browntop Millet	40 lbs. alone 15 lbs. mix	4/1 - 8/30	6.0 - 7.0	600 lbs. 13-13-13	seed	All	Introduced

*Note on Annuals. For permanent seeding, annuals can only be used in a mixture with perennials.

North-north of Hwy. 82
Central- south of Hwy. 82 & north of Hwy. 84
South- south of Hwy. 84

XIII. APPENDIX V - USACE COORDINATION



DEPARTMENT OF THE ARMY
U.S. ARMY COPRS OF ENGINEERS, MOBILE DISTRICT
100 CANAL STREET
MOBILE, AL 36602-1901

March 19, 2026

Special Projects Branch
Regulatory Division

SUBJECT: Department of the Army Nationwide Permit, File Number SAM-2026-00285-BAL, Atmos Energy Corporation, Highway 45 Project, Monroe County, Mississippi

Atmos Energy Corporation
Attention: Mr. Chad Keim
790 Liberty Road
Flowood, Mississippi 39232
Email: chad.keim@atmosenergy.com

Dear Mr. Keim:

This letter is in response to your request for verification of Department of the Army Nationwide Permit (NWP) authorization for the installation of a new natural gas pipeline through waters of the U.S. in Monroe County, Mississippi. The project has been assigned file number SAM-2026-00285-BAL, which should be referred to in any future correspondence with this office concerning this project. The project is located along Highway 45; within Sections 25, 26, 27, 31, and 36, Township 14 South, Range 18 West; starting at Latitude 33.821777° North and Longitude 88.51469° West and ending at Latitude 33.759131° North and Longitude 88.451877° West; Monroe County, Alabama.

Department of the Army permit authorization is necessary because your project involves work in waters of the United States, including wetlands, under our regulatory jurisdiction. The project activities include the following:

Construction of 6.74 miles of new, underground, 6-inch natural gas pipeline. Project activities include the permanent conversion of 3.51 acres of forested wetlands to emergent wetlands to accommodate a permanent 40-foot-wide utility and access easement for the natural gas pipeline, and temporary side casting of fill material from trenching activities into 0.3615 acre of wetlands. Impacts are to occur as follows:

Wetland ID	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Temporary Impacts (Acres)	Permanent Conversion Forested to Emergent (Acres)
W-1	33.821162	-88.511681	0.0014	n/a
W-2	33.820114	-88.509718	0.0543	0.2736

W-3	33.819699	-88.506497	0.1925	2.0606
W-4	33.817109	-88.496512	0.0156	0.1255
W-5	33.81575	-88.494526	0.0070	0.0913
W-6	33.814715	-88.492337	0.0353	0.4306
W-7	33.809472	-88.481961	0.0113	0.1383
W-8	33.808763	-88.47742	0.0075	0.0525
W-9	33.806087	-88.468785	0.0121	n/a
W-10	33.767557	-88.455289	0.0244	.3329

The upper portion of the trench will be backfilled with excavated material, and the wetlands will be restored to pre-construction contours. No permanent impacts to wetlands are authorized. The project also includes horizontal directional drilling (HDD) under 17 stream features; however, none of these features are on the CESAM Section 10 waters list so no permit is needed for HDD activities.

Based upon the information and plans you provided, we hereby verify the work described above, which would be performed in accordance with the attached drawings, is authorized by six separate NWP 12's, *Oil or Natural Gas Pipeline Activities*, in accordance with 33 CFR Part 330 of our regulations. This NWP and associated Regional and General Conditions are attached for your review and compliance.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 15, 2031. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP.

Your use of this NWP is subject to the following special conditions:

- a. The activity shall be conducted in accordance with the information submitted and meet the conditions applicable to the NWP, as described in Parts B and C of the NWP Program and State Water Quality Certification Conditions.
- b. Within 30 days of completion of the work authorized, the attached Compliance Certification must be completed and submitted to the USACE.
- c. No building materials, tools or other equipment associated with project construction shall be stockpiled in wetlands or other waters of the United States. All excess materials, tools and equipment shall be removed immediately upon completion of the activity.

d. To avoid an adverse effect to the Indiana Bat, the felling of trees over 5-inches diameter at breast height (dbh) must occur only during the non-maternity season (September 1st through May 14th).

e. It is the permittee's responsibility to ensure the contractors working on this project are aware of all general and special permit conditions and to ensure compliance with the conditions.

f. Prior to the discharge of fill material into waters of the United States, the permittee shall submit to the U.S. Army Corps of Engineers (USACE), Mobile District via email at Beverly.a.lowery@usace.army.mil, proof-of-purchase of 3.51 wetland mitigation credits for the permanent conversion of forested wetlands to emergent wetlands from a Corps approved mitigation bank. The number of credits purchased shall include any additional credits that may be required due to the need to apply proximity factor calculations or other bank-specific multipliers, as specified in the selected bank's approved mitigation banking instrument.

g. Should artifacts or archaeological features be encountered during project activities, all heavy equipment operations within a 35-foot buffer surrounding the potentially significant artifact(s) or the observation site, shall cease and the USACE and the MDAH State Historic Preservation Officer shall be consulted immediately.

USACE, Mobile District,
Attention: Regulatory Division,
100 Canal Street, Mobile, Alabama 36602-1901;
251-690-2658.

MDAH, Post Office Box 571,
Jackson, Mississippi 39205;
601-576-6850.

h. If any evidence of the presence of endangered and threatened species is found during construction, ground/bottom disturbing activities in the immediate vicinity must cease, and the permittee shall notify the U.S. Army Corps of Engineers (USACE), Mobile District and the U.S. Fish and Wildlife Service immediately.

i. All temporary fill placed in waters of the U.S. must be removed in their entirety upon completion of construction activities and the affected areas must be returned to pre-construction elevations as well as revegetated.

j. Best Management Practices (BMPs) shall be implemented to minimize the loss of turbidity and sediment to adjacent wetlands and waters of the United States. Appropriate erosion, sediment, and turbidity control measures must be utilized and maintained in effective operating condition during construction. All exposed soil surfaces and fill material must be permanently stabilized at the earliest practicable

opportunity and all temporary erosion control features shall remain in place until permanent stabilization measures have been completed and become fully effective.

This letter also contains a preliminary jurisdictional determination (PJD). This PJD treats all wetlands and waters of the U.S. on the site as jurisdictional for the purposes of determining impacts and mitigation requirements. The PJD is a non-binding action and shall remain in effect unless new information or a request for an approved jurisdictional determination supporting a revision is provided to this office. Please note that since this jurisdictional determination is preliminary, it is subject to change and therefore is not an appealable action under the USACE administrative appeal procedures defined at 33 CFR 331.

Nothing in this letter shall be construed as excusing you from compliance with other federal, state, or local statutes, ordinances, or regulations which may affect this work. Revisions to your proposal may invalidate this authorization. In the event changes to this project are contemplated, it is recommended that you coordinate with us prior to proceeding with the work.

You are receiving an electronic copy only of this verification letter. If you wish to receive a paper copy, you should send a written request to this office at the following address:

U.S. Army Corps of Engineers, Mobile District,
Regulatory Division,
100 Canal Street,
Mobile, Alabama 36602-1901.

Electronic copies of this permit are being provided to your agent, Headwaters, Inc., Attention: Cullen Dendy at cullen@headwaters-inc.com and the Department of Marine Resources Attention: Willa Brantley, at willa.brantley@dmr.ms.gov.

Please contact me at (251) 386-4023, or by e-mail at Beverly.a.lowery@usace.army.mil if you have any questions. For additional information about our Regulatory Program, visit our web site at <http://www.sam.usace.army.mil/Missions/Regulatory.aspx>, and please take a moment to complete our customer satisfaction survey. Your responses are appreciated and will allow us to improve our services.

Sincerely,

Beverly Lowery
Project Manager
Special Projects Branch
Regulatory Division

Attachments

When the structures or work authorized by Nationwide Permits # 12, *Oil or Natural Gas Pipeline* (file number **SAM-2026-00285-BAL**) are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFeree)

(DATE)

COMPLIANCE CERTIFICATION



**US Army Corps of Engineers
Mobile District**

Permit Number: **SAM-2026-00285-BAL**

Name of Permittee: **Atmos Energy Corporation, Attention: Chad Keim**

Date of Issuance: **March 19, 2026**

Upon completion of the activity authorized by this permit and any mitigation required by the permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Mobile District
Regulatory Division
100 Canal Street
Mobile, Alabama 36602-1901

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with all terms and conditions of this permit, the permit is subject to permit suspension, modification, or revocation and you are subject to an enforcement action by this office.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit including any general or specific conditions, and the required mitigation was completed in accordance with the permit conditions and documentation required by 33 CFR 332.3(l)(3) has been provided to this office.

Signature of Permittee

Date



US Army Corps
of Engineers®

This notice of authorization must be
conspicuously displayed at the site of work.

A permit to perform work authorized by statutes and regulations of the Department of the Army at


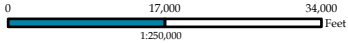
has been issued to _____ on _____

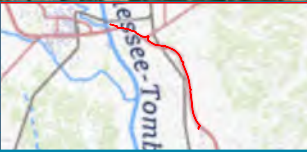
Address of Permittee: _____

PERMIT NUMBER

For the District Commander



	
	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/9/2026
CREATOR:	JWB
PROJECT #:	N/A



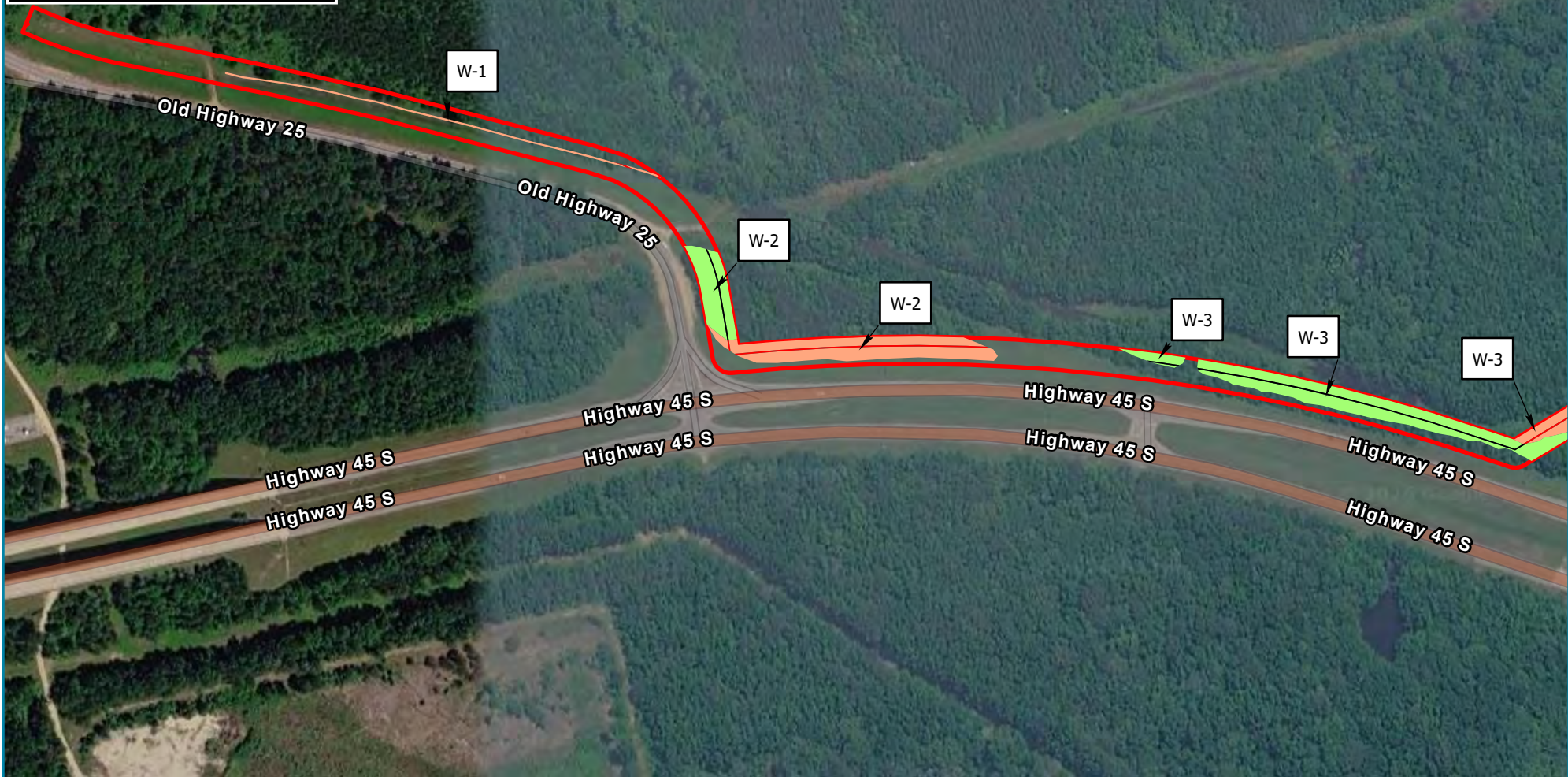
General Location Map	
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL



HEADWATERS
www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A

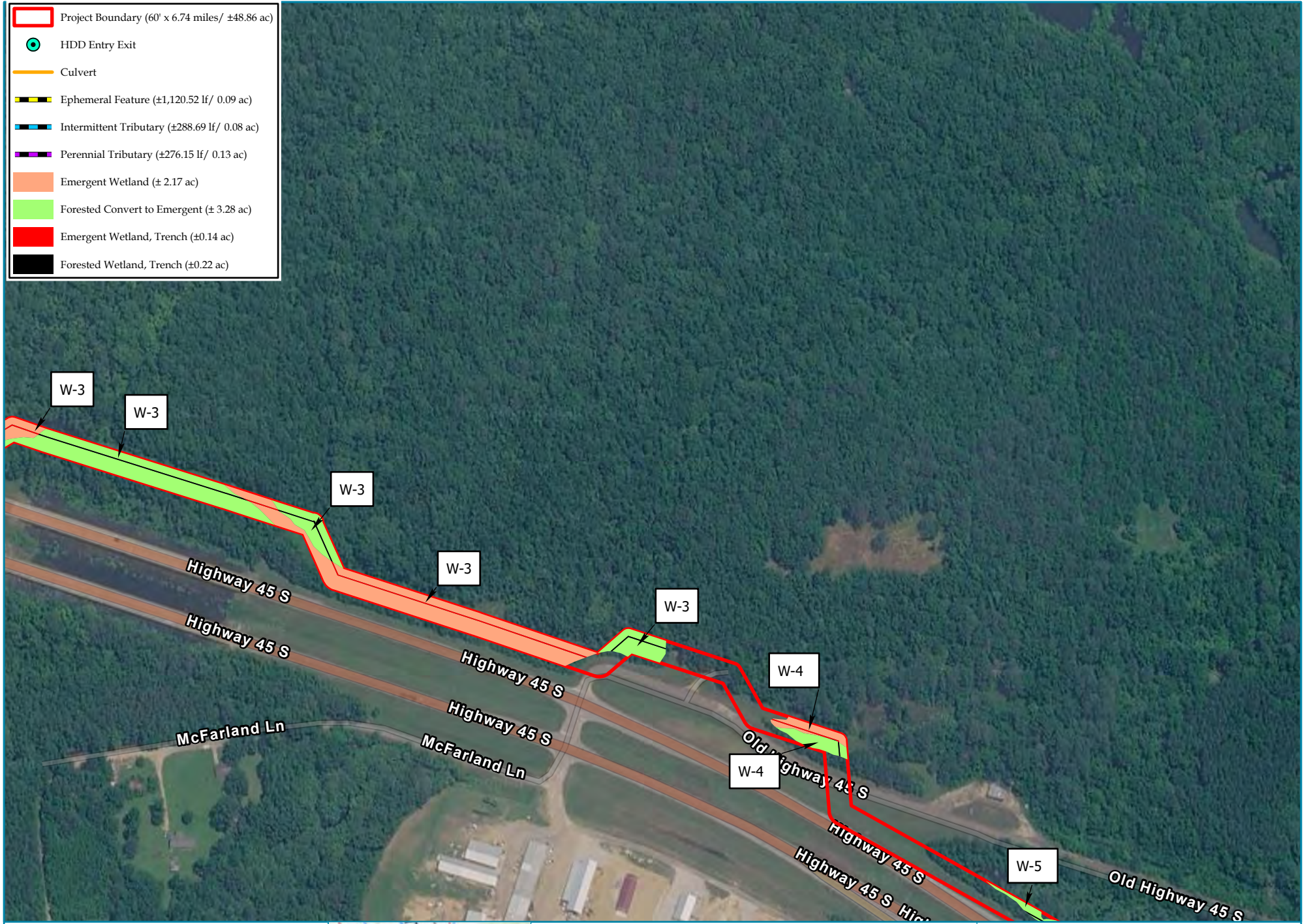


Wetland Impact Map	Page 1 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



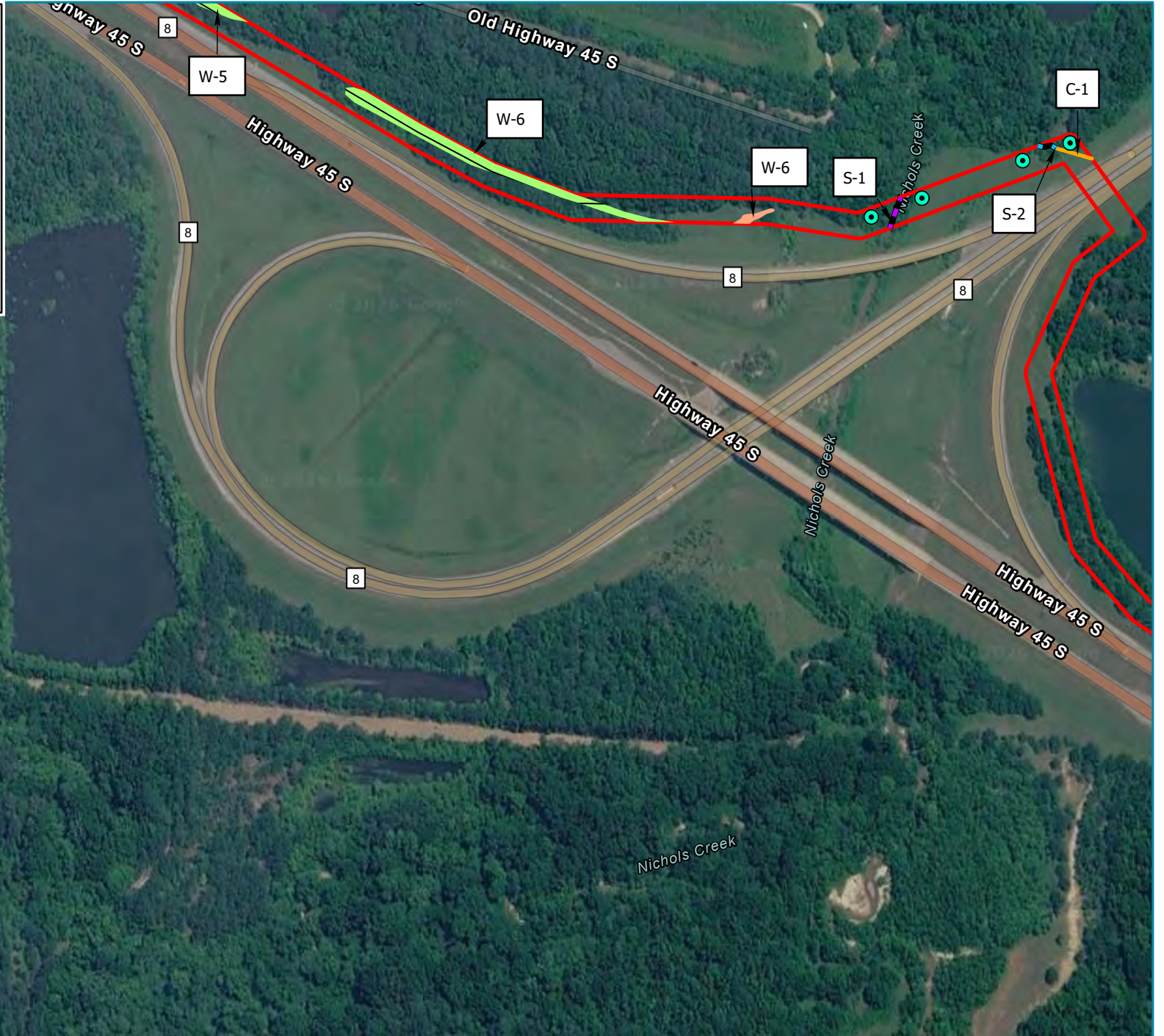
Wetland Impact Map	Page 2 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

HEADWATERS

www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)



N	0 275 550 14,000 Feet
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 3 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

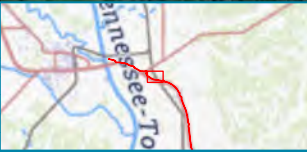


HEADWATERS
www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)













BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A




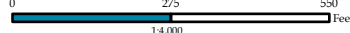
Wetland Impact Map	Page 4 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

www.headwaters-inc.com

-  Project Boundary (60' x 6.74 miles/ ±48.86 ac)
-  HDD Entry Exit
-  Culvert
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Emergent Wetland (± 2.17 ac)
-  Forested Convert to Emergent (± 3.28 ac)
-  Emergent Wetland, Trench (±0.14 ac)
-  Forested Wetland, Trench (±0.22 ac)



 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 5 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL


HEADWATERS
www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)



N	0 275 550 14,000 Feet
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 6 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL



HEADWATERS
www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)













N	0 275 550 Feet
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A

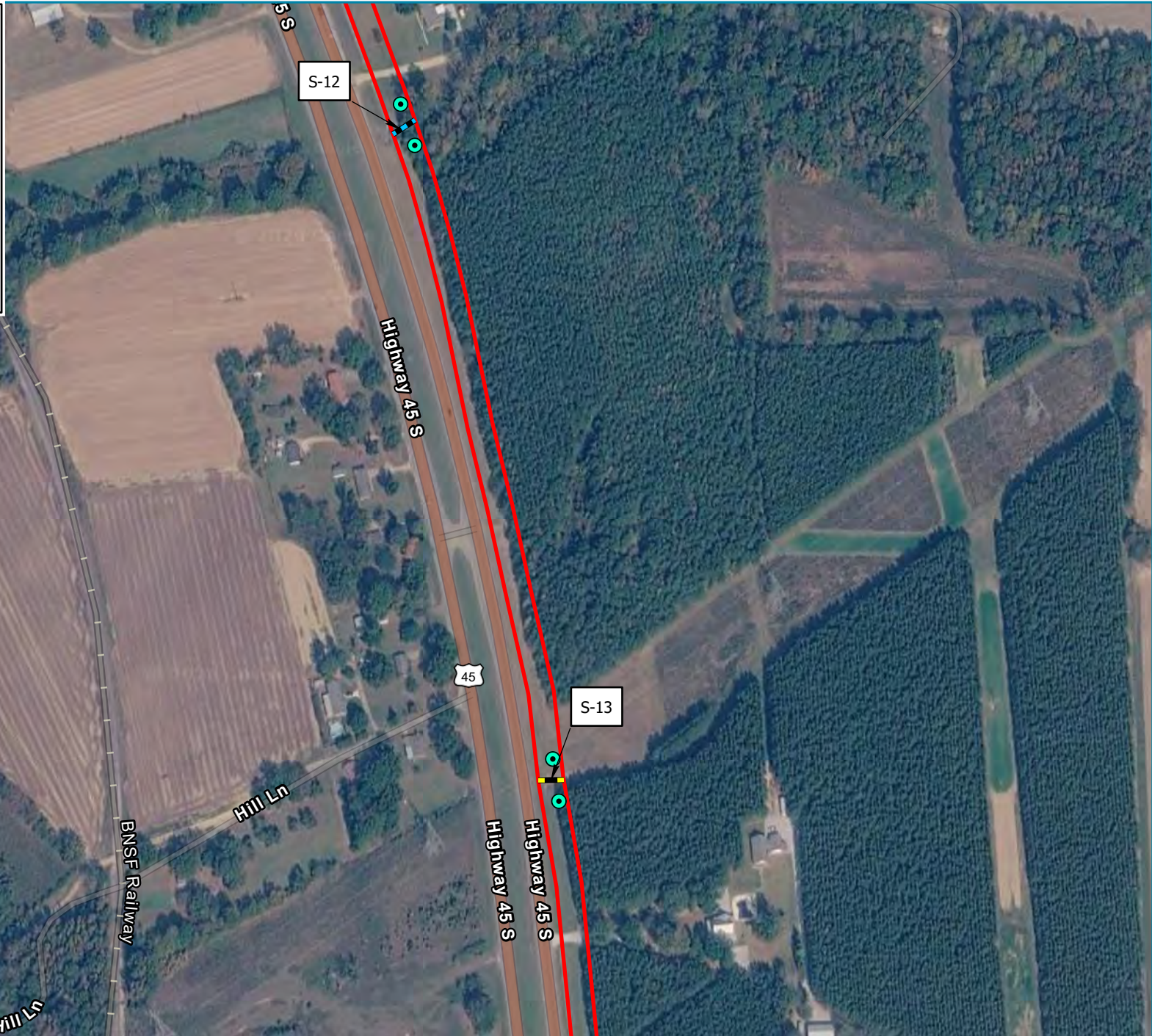



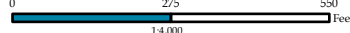
Wetland Impact Map	Page 7 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

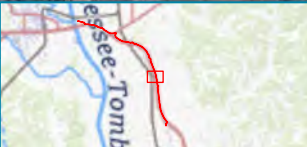
Department of the Army // SAM-2026-00285-BAL

HEADWATERS
www.headwaters-inc.com

-  Project Boundary (60' x 6.74 miles/ ±48.86 ac)
-  HDD Entry Exit
-  Culvert
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Emergent Wetland (± 2.17 ac)
-  Forested Convert to Emergent (± 3.28 ac)
-  Emergent Wetland, Trench (±0.14 ac)
-  Forested Wetland, Trench (±0.22 ac)



 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 8 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

 www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)













BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A

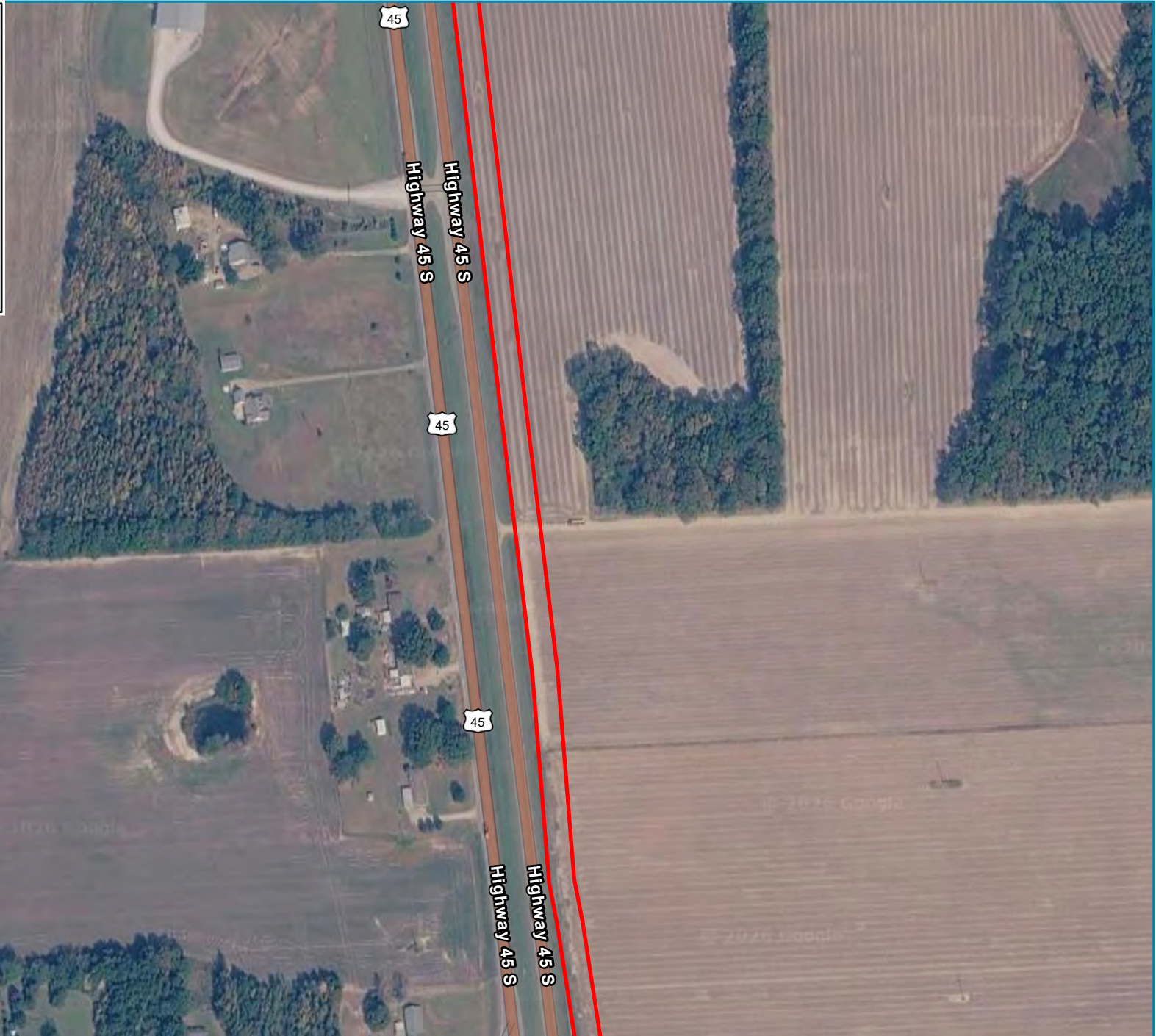



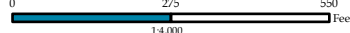
Wetland Impact Map	Page 9 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

HEADWATERS
www.headwaters-inc.com

-  Project Boundary (60' x 6.74 miles/ ±48.86 ac)
-  HDD Entry Exit
-  Culvert
-  Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
-  Intermittent Tributary (±288.69 lf/ 0.08 ac)
-  Perennial Tributary (±276.15 lf/ 0.13 ac)
-  Emergent Wetland (± 2.17 ac)
-  Forested Convert to Emergent (± 3.28 ac)
-  Emergent Wetland, Trench (±0.14 ac)
-  Forested Wetland, Trench (±0.22 ac)



 	
BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 10 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

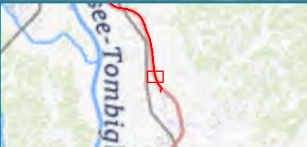
Department of the Army // SAM-2026-00285-BAL

 www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 11 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

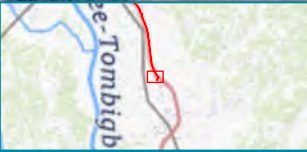
Department of the Army // SAM-2026-00285-BAL

www.headwaters-inc.com

- Project Boundary (60' x 6.74 miles/ ±48.86 ac)
- HDD Entry Exit
- Culvert
- Ephemeral Feature (±1,120.52 lf/ 0.09 ac)
- Intermittent Tributary (±288.69 lf/ 0.08 ac)
- Perennial Tributary (±276.15 lf/ 0.13 ac)
- Emergent Wetland (± 2.17 ac)
- Forested Convert to Emergent (± 3.28 ac)
- Emergent Wetland, Trench (±0.14 ac)
- Forested Wetland, Trench (±0.22 ac)



BASEMAP:	Google Hybrid Imagery Basemap
SPATIAL REF:	NAD 1983 2011 StatePlane Mississippi East FIPS 2301 F1 US
DATE:	2/20/2026
CREATOR:	JWB
PROJECT #:	N/A



Wetland Impact Map	Page 12 of 12
25-133 MDOT Permit - HWY 45	
Atmos Energy	
Sec. 25, 26, 27, 31, 36 - T 14S - R 19W & Sec. 6, 7, 8, 17 - T 15S - R 18W	Monroe County, Mississippi

Department of the Army // SAM-2026-00285-BAL

HEADWATERS
www.headwaters-inc.com

Nationwide Permit 12 – Oil or Natural Gas Pipeline Activities
Effective Date: March 15, 2026 / Expiration Date: March 15, 2031
Authority: Section 10 and 404

Activities required for the construction, maintenance, repair, and removal of oil and natural gas pipelines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Oil or natural gas pipelines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of oil and natural gas pipelines. There must be no change in pre-construction contours of waters of the United States. An “oil or natural gas pipeline” is defined as any pipe or pipeline for the transportation of any form of oil or natural gas, including products derived from oil or natural gas, such as gasoline, jet fuel, diesel fuel, heating oil, petrochemical feedstocks, waxes, lubricating oils, and asphalt.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a French drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Oil or natural gas pipeline substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities (e.g., oil or natural gas or gaseous fuel custody transfer stations, boosting stations, compression stations, metering stations, pressure regulating stations) associated with an oil or natural gas pipeline in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for above-ground oil or natural gas pipelines: This NWP authorizes the construction or maintenance of foundations for above-ground oil or natural gas pipelines in all waters of the United States, provided the foundations are the minimum size necessary.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of oil or natural gas pipelines, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize oil or natural gas pipelines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see

33 CFR part 322). Oil or natural gas pipelines routed in, over, or under section 10 waters without a discharge of dredged or fill material may require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing oil or natural gas pipelines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing oil or natural gas pipelines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the oil or natural gas pipeline activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if:

- (1) a section 10 permit is required;
- (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States; or
- (3) the proposed oil or natural gas pipeline activity is associated with an overall project that is greater than 250 miles in length and the project purpose is to install new pipeline (vs. conduct repair or maintenance activities) along the majority of the distance of the overall project length. If the proposed oil or gas pipeline is greater than 250 miles in length, the pre-construction notification must include the locations and proposed impacts (in acres or other appropriate unit of measure) for all crossings of waters of the United States that require DA authorization, including those crossings authorized by an NWP would not otherwise require pre-construction notification. (See general condition 32.)

Note 1: Where structures or work are authorized in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, the permittee should provide a copy of the ‘as-built drawings’ and the geographic coordinate system used in the ‘as-built drawings’ to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), to inform updates to nautical charts and Coast Pilot corrections. The information should be transmitted via email to ocs.ndb@noaa.gov.

Note 2: For oil or natural gas pipeline activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Oil or natural gas pipeline activities must comply with 33 CFR 330.6(d).

Note 3: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the oil or natural gas pipeline must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 4: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, and may require a permit from the U.S. Coast Guard pursuant to the General Bridge Act of 1946. However, any discharges of dredged or fill material into waters of the United States associated with such oil or natural gas pipelines will require a section 404 permit (see NWP 15).

Note 5: This NWP authorizes oil or natural gas pipeline maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

Note 7: Where structures or work are proposed in navigable waters of the United States, project proponents should ensure they provide the location and dimensions of the proposed structures to the U.S. Coast Guard (USCG) prior to submittal of a Pre-Construction Notification, or prior to beginning construction. The USCG may assess potential navigation-related concerns associated with the location of proposed structures or work and may inform project proponents of marking and lighting requirements necessary to comply with General Condition 1 (Navigation). For assistance identifying the appropriate USCG District or Sector Waterways Management Staff responsible for the area of the proposed work, contact USCG at CGWWM@uscg.mil.

REGIONAL CONDITIONS:

For applicable Water Quality Certification (WQC) and Coastal Zone Management Act (CZMA) determinations or requirements see the Mississippi Department of Marine Resources (MDMR) and Mississippi Department of Environmental Quality (MDEQ) conditions attached to this document, also available on the Mobile District Regulatory website at: <https://www.sam.usace.army.mil/Missions/Regulatory/NWP/>

GENERAL CONDITIONS:

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation.

- (a) No activity may cause more than a minimal adverse effect on navigation.
- (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

- (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.
3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.
4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.
6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.
8. **Adverse Effects from Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.
9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows, including tidal flows. The activity must not restrict or impede the passage of normal or high flows, including tidal flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g. stream restoration or relocation activities).
10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.
11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance. If mats are used to minimize soil disturbance, the affected areas must be returned to pre-construction elevations, and revegetated as appropriate. In circumstances where the use of mats has caused significant

Nationwide Permit 12 - Activities, Regional Conditions, General Conditions, and Definitions

soil compaction, efforts using techniques (e.g., soil re-aeration techniques) to break up the 47 compaction should be employed to return the soil to a pre-construction state prior to returning to pre-construction elevations.

12. *Soil Erosion and Sediment Controls.* Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.
13. *Removal of Structures and Fills.* Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.
14. *Proper Maintenance.* Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.
15. *Single and Complete Project.* The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.
16. *Wild and Scenic Rivers.*
 - (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.
 - (b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.
 - (c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: <http://www.rivers.gov/>.
17. *Tribal Rights.* No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
18. *Endangered Species.*
 - (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation.
 - (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.
 - (c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.
 - (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species specific permit conditions to the NWPs.
 - (e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.
 - (f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal permittee should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the

Nationwide Permit 12 - Activities, Regional Conditions, General Conditions, and Definitions

- non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.
- (g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their web pages at <http://www.fws.gov/> or <http://www.fws.gov/ipac> and <http://www.nmfs.noaa.gov/pr/species/esa/> respectively.
19. *Migratory Birds and Bald and Golden Eagles.* The permittee is responsible for ensuring that an action authorized by NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.
20. *Historic Properties.*
- (a) No activity is authorized under any NWP which may have the potential to cause effects on properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.
- (b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.
- (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.
- (d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.
- (e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.
21. *Discovery of Previously Unknown Remains and Artifacts.* Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activities authorized by NWPs, must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
22. *Designated Critical Resource Waters.* Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.
- (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 5258 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.
- (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.
23. *Mitigation.* The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:
- (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (*i.e.*, on site).

Nationwide Permit 12 - Activities, Regional Conditions, General Conditions, and Definitions

- (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.
 - (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.
 - (d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, because streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).
 - (e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.
 - (f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.
 - (1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.
 - (2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f)).
 - (3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.
 - (4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.
 - (5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).
 - (6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).
 - (g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.
 - (h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.
 - (i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.
24. *Safety of Impoundment Structures.* To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.
25. *Water Quality.*
- (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not

Nationwide Permit 12 - Activities, Regional Conditions, General Conditions, and Definitions

- previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed activity which may result in any discharge from a point source into waters of the United States must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by the certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed activity which may result in any discharge from a point source into waters of the United States in order for the activity to be authorized by an NWP.
- (b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed activity which may result in any discharge from a point source into waters of the United States is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge into waters of the United States, the permittee must submit a copy of the certification to the district engineer. The discharge into waters of the United States is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied (i.e., by the issuance of a water quality certification or a waiver and completion of the Section 401 (a)(2) process).
- (c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.
26. *Coastal Zone Management.* In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.
27. *Regional and Case-By-Case Conditions.* The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.
28. *Use of Multiple Nationwide Permits.* The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:
- (a) The total acreage loss of waters of the United States for a single and complete project cannot exceed the acreage limit of the NWP with the highest specified acreage limit when multiple NWPs are used to authorize an activity.
- (b) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States for that single and complete project cannot exceed that specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14 (which has an acreage limit of 1/3-acre in tidal water), with associated bank stabilization authorized by NWP 13 (which does not have a specified acreage limit), the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.
- (c) If two or more of the NWPs used to authorize the single and complete project have specified acreage limits, the acreage loss of waters of the United States authorized by each of those NWPs cannot exceed the specified acreage limits of each of those NWPs. For example, if a commercial development is constructed under NWP 39 (which has a 1/2-acre limit), and the single and complete project includes the filling of a ditch authorized by NWP 46 (which has a 1-acre limit), the maximum acreage loss of waters of the United States for the construction of the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States caused by the combination of the NWP 39 and NWP 46 activities cannot exceed 1 acre.
29. *Transfer of Nationwide Permit Verifications.* If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:
- “When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”*
- _____
- (Transferee)
- _____
- (Date)
30. *Compliance Certification.* Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The successful completion of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:
- (a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;
- (b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and
- (c) The signature of the permittee certifying the completion of the activity and mitigation. The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.
31. *Activities Affecting Structures or Works Built by the United States.* If an NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.
32. *Pre-Construction Notification.*
- (a) *Timing.* Where required by the terms of the NWP, the permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not

- commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:
- (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or
 - (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the pr set forth in 33 CFR 330.5(d)(2).
- (b) *Contents of Pre-Construction Notification:* The PCN must be in writing and include the following information:
- (1) Name, address and telephone numbers of the prospective permittee;
 - (2) Location of the proposed activity;
 - (3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;
 - (4)
 - (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.
 - (ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project and does not change those non-PCN NWP activities into NWP PCNs.
 - (iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans).
- (5) The PCN must include a delineation of waters, wetlands, and other special aquatic sites on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate. For NWP 27 activities that require PCNs because of other general conditions or regional conditions imposed by division engineers, see Note 2 of that NWP;
 - (6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the compensatory mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.
 - (7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act.
 - (8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act.
 - (9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and
 - (10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.
- (c) *Form of Pre-Construction Notification:* The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.
- (d) *Agency Coordination:*
- (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.
 - (2) Agency coordination is required for:
 - (i) All NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States;

- (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and
 - (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.
- (3) When agency coordination is required, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or email that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so, contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.
- (4) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.
- (5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

DISTRICT ENGINEER'S DECISION:

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.
2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an

NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add activity-specific conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed NWP activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. However, compensatory mitigation shall not be required for activities authorized by NWP 27 because those activities must result in net increases in aquatic resource functions and services (see the text of NWP 27). The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal when determining whether the net adverse environmental effects of the proposed NWP activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the proposed activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.
4. If the district engineer determines that the adverse environmental effects of the proposed NWP activity are more than minimal, then the district engineer will notify the applicant either:
 - (a) That the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit;
 - (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or
 - (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district

Nationwide Permit 12 - Activities, Regional Conditions, General Conditions, and Definitions

engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

FURTHER INFORMATION:

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

DEFINITIONS:

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic ecosystem restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on: (1) the structure, functions, and dynamics of an aquatic ecosystem type or a riparian area type that currently exists in the region; (2) the structure, functions, and dynamics of an aquatic ecosystem type or riparian area type that existed in the region in the past; and/or (3) indigenous and local ecological knowledge that apply to the aquatic ecosystem type or riparian area type (i.e., a cultural ecosystem). Cultural ecosystems are ecosystems that have developed under the joint influence of natural processes and human management activities (e.g., fire stewardship). An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National

Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Nature-based solutions: Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an

action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: Re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e.,

by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. The substrate may also be comprised, in part, of organic matter, such as large or small wood fragments, leaves, algae, and other organic materials. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

Tribal lands: Any lands title to which is either: (1) Held in trust by the United States for the benefit of any Indian tribe or individual; or (2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).



State of Mississippi

TATE REEVES
Governor

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

CHRIS WELLS, EXECUTIVE DIRECTOR

December 5, 2025

Mr. Bryan Williamson
U.S Army Corps of Engineers
Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Re: U.S. Army Corps of Engineers
Nationwide Permit No. 12
Oil and Gas Pipeline Activities
WQC No. WQC2025060

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Mississippi Department of Environmental Quality (MDEQ) issues this Certification, after public notice and opportunity for public hearing, to the U.S. Army Corps of Engineers, an applicant for a Federal License or permit to conduct the following activity:

U.S. Army Corps of Engineers, Nationwide Permit No. 12:

Nationwide Permits (NWP) are general permits issued on a nationwide basis to streamline the authorization of activities that have no more than minimal and cumulative adverse effects on the aquatic environment. The U.S. Army Corps of Engineers issues NWP to authorize certain activities that require Department of the Army permits under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899.

12. Oil or Natural Gas Pipeline Activities. Activities required for the construction, maintenance, repair, and removal of oil and natural gas pipelines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Oil or natural gas pipelines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or

OFFICE OF POLLUTION CONTROL
POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 •
www.mdeq.ms.gov

Facebook: @mdeq.ms • Twitter: @MDEQ • Instagram:
@MDEQ AN EQUAL OPPORTUNITY EMPLOYER

repair of oil and natural gas pipelines. There must be no change in pre-construction contours of waters of the United States. An “oil or natural gas pipeline” is defined as any pipe or pipeline for the transportation of any form of oil or natural gas, including products derived from oil or natural gas, such as gasoline, jet fuel, diesel fuel, heating oil, petrochemical feedstocks, waxes, lubricating oils, and asphalt.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Oil or natural gas pipeline substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities (e.g., oil or natural gas or gaseous fuel custody transfer stations, boosting stations, compression stations, metering stations, pressure regulating stations) associated with an oil or natural gas pipeline in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for above-ground oil or natural gas pipelines: This NWP authorizes the construction or maintenance of foundations for above-ground oil or natural gas pipelines in all waters of the United States, provided the foundations are the minimum size necessary. Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of oil or natural gas pipelines, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize oil or natural gas pipelines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Oil or natural gas pipelines routed in, over, or under section 10 waters without a discharge of dredged or fill material may require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing oil or natural gas pipelines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing oil or natural gas pipelines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the oil or natural gas pipeline activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) a section 10 permit is required; (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States; or (3) the proposed oil or natural gas pipeline activity is associated with an overall project that is greater than 250 miles in length and the project purpose is to install new pipeline (vs. conduct repair or maintenance activities) along the majority of the distance of the overall project length. If the proposed oil or gas pipeline is greater than 250 miles in length, the pre-construction notification must include the locations and proposed impacts (in acres or other appropriate unit of measure) for all crossings of waters of the United States that require DA authorization, including those crossings authorized by an NWP would not otherwise require pre-construction notification. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where structures or work are authorized in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes,

and United States territories, the permittee should provide a copy of the ‘as-built drawings’ and the geographic coordinate system used in the ‘as-built drawings’ to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), to inform updates to nautical charts and Coast Pilot corrections. The information should be transmitted via email to ocs.ndb@noaa.gov.

Note 2: For oil or natural gas pipeline activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Oil or natural gas pipeline activities must comply with 33 CFR 330.6(d).

Note 3: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the oil or natural gas pipeline must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 4: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, and may require a permit from the U.S. Coast Guard pursuant to the General Bridge Act of 1946. However, any discharges of dredged or fill material into waters of the United States associated with such oil or natural gas pipelines will require a section 404 permit (see NWP 15).

Note 5: This NWP authorizes oil or natural gas pipeline maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For NWP 12 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, “District Engineer’s Decision.” The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23 of NWP 12).

Note 7: Where structures or work are proposed in navigable waters of the United States, project proponents should ensure they provide the location and dimensions of the proposed structures to the U.S. Coast Guard (USCG) prior to submittal of a Pre-Construction Notification, or prior to beginning construction. The USCG may assess potential navigation-related concerns associated with the location of proposed structures or work, and may inform project proponents of marking and

lighting requirements necessary to comply with General Condition 1 (Navigation). For assistance identifying the appropriate USCG District or Sector Waterways Management Staff responsible for the area of the proposed work, contact USCG at CGWWM@uscg.mil. [NWP No. 12, WQC2025060].

MDEQ certifies that the above-described activity will be in compliance with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act and Section 49-17-29 of the Mississippi Code of 1972, if the applicant complies with the following conditions:

1. The permittee must obtain all other required permits from the Permit Board prior to commencing work on the project, unless the activity is exempted from permit requirements by a regulation promulgated by the Commission in accordance with Miss. Code Ann. 49-17-29 (2)(b). (Statement A, E, & H) (11 Miss. Admin. Code Pt. 6, R. 1.1.1.B.)
2. A pre-construction notification (PCN) shall be provided to MDEQ for all projects for which one is required by USACE. (Statement E) (11 Miss. Admin. Code Pt. 6, R. 1.3.4.A(3))
3. Discharges of cuttings, drilling mud, hydrostatic testing water, or any other material are prohibited unless approved in writing by MDEQ. (Statement A & E) (11 Miss. Admin. Code Pt. 6, R. 1.3.4.A. (4))
4. The permittee shall obtain appropriate wastewater permits and/or approvals for the proposed activity prior to the commencement of construction activities. (Statement G) (11 Miss. Admin. Code Pt. 6, R. 1.1.1.B.)
5. For projects greater than five acres of total ground disturbances including clearing, grading, excavating, or other construction activities, the applicant shall obtain the necessary coverage under the State of Mississippi's Large Construction Storm Water General NPDES Permit. For projects greater than one, to less the five acres of total ground disturbances including clearing, grading, excavating, or other construction activities, the applicant shall follow the conditions and limitations of the State of Mississippi's Small Construction Storm Water General NPDES Permit. No construction activities shall begin until the necessary approvals and/or permits have been obtained. (Statement F) (11 Miss. Admin. Code Pt. 6, R. 1.1.1.B.)
6. The Department shall be furnished copies of authorizations of coverages under this NWP. (Statement E) (11 Miss. Admin. Code Pt. 6, R. 1.3.4.A.(4))
7. Turbidity outside the limits of a 750-foot mixing zone shall not exceed the ambient turbidity by more than 50 Nephelometric Turbidity Units. (Statement A) (11 Miss. Admin. Code Pt. 6, R. 2.2.A.(3))

8. No sewage, oil, refuse, or other pollutants shall be discharged into the watercourse.
(Statement A) (11 Miss. Admin. Code Pt. 6, R. 2.2.A.(3))

As part of the Scope of Review for Application Decisions, 11 Mississippi Administrative Code Part 6, Rule 1.3.4(B), the above conditions are necessary for MDEQ to ensure that appropriate measures will be taken to eliminate unreasonable degradation and irreparable harm to waters of the State, such that the activity will not meet the criteria for denial:

- (A) The proposed activity permanently alters the aquatic ecosystem such that water quality criteria are violated and/or it no longer supports its existing or classified uses. An example is the channelization of streams.
- (B) There is a feasible alternative to the activity which reduces adverse consequences on water quality and classified or existing uses of waters of the State.
- (C) The proposed activity adversely impacts waters containing State or federally recognized threatened or endangered species.
- (D) The proposed activity adversely impacts a special or unique aquatic habitat, such as National or State Wild and Scenic Rivers and/or State Outstanding Resource Waters.
- (E) The proposed activity in conjunction with other activities may result in adverse cumulative impacts.
- (F) Nonpoint source/storm water management practices necessary to protect water quality have not been proposed.
- (G) Denial of wastewater permits and/or approvals by the State with regard to the proposed activities.
- (H) The proposed activity results in significant environmental impacts which may adversely impact water quality.

MDEQ also certifies that there are no limitations under Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper modifications and/or approvals may result in a violation of the 401 Water Quality Certification. If you have any questions, please contact Carrie Barefoot at (601) 961-5171.

December 5, 2025

Sincerely,



Becky Simonson
Chief, Environmental Permits Division

cc: U.S. Army Corps of Engineers, Mobile District
U.S. Army Corps of Engineers, Memphis District
U.S. Army Corps of Engineers, Nashville District
U.S. Army Corps of Engineers, New Orleans District
Mississippi Department of Marine Resources
U.S. Fish and Wildlife Service
U.S Environmental Protection Agency, Region 4



STATE OF MISSISSIPPI

Tate Reeves

Governor

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

Joe Spraggins, Executive Director

October 29, 2025

Mr. Bryan Williamson
Chief, Mississippi Branch/Deputy
Regulatory Division
U.S. Army Corps of Engineers, Vicksburg District
4155 Clay Street
Vicksburg, Mississippi 39183-3435

RE: FCC25-000015; Reissuance of Nationwide Permits 2025; CZM Letter

Dear Ms. Williamson:

The Mississippi Department of Marine Resources (MDMR) in cooperation with other state agencies is responsible under the Mississippi Coastal Program (MCP) for managing the coastal resources of Mississippi. Proposed activities in the coastal area are reviewed to ensure that the activities are in compliance with the MCP.

MDMR has completed review of the Department of the Army, Corps of Engineers' Proposal to Reissue and Modify Nationwide Permits published in the Federal Register on June 18, 2025.

The above proposed Nationwide Permits and the activities they would authorize have been reviewed based upon provisions of the MCP and Section 307 of the Coastal Zone Management Act of 1972 (as amended). MDMR objects to the Vicksburg District's determination that the activities will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the MCP (the State's approved management program) in the following locations and habitats within the Coastal Zone of Mississippi, which consists of Hancock, Harrison, and Jackson Counties:

- i. All Coastal Wetlands (as defined by MS Code § 49-27-5(a), attached);
- ii. All jurisdictional wetlands having a surface hydrological connection to Coastal Wetlands, and that are located within 200 feet landward of the ordinary high

water mark;


iii. All marsh habitats (i.e. all tidal emergent wetlands dominated by salt or estuarine marsh plant species, and all non-tidal emergent wetlands dominated by freshwater marsh plant species, abutting and/or adjacent to tidal emergent wetlands) in Hancock, Harrison, and Jackson counties (except pine savannah and pitcher plant bogs) having a surface hydrological connection to tidal waters in Hancock, Harrison, and Jackson counties, whether saltwater, brackish, or freshwater marshes and including high marsh habitat, even if located more than 200 feet landward of the ordinary high water mark; and,

iv. All jurisdictional stream habitats, whether perennial, intermittent, or ephemeral.

Outside of the above-identified locations and habitats, MDMR concurs with the Vicksburg District's determination that the activities will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the MCP (the State's approved management program). Please note that any projects that pass under the above-identified locations and habitats by way of directional drilling will be considered to be outside those locations, provided that the entrance and exit locations are outside those locations.

The above granted consistency certification was based upon the proposal presented. If you have any questions regarding this letter, please contact Willa Brantley with the Bureau of Wetlands Permitting at 228-523-4108 or willa.brantley@dmr.ms.gov.

Sincerely,


[Joe Spragg \(Signed\) \(Sep 29, 2025 18:18:22 CDT\)](#)

Joe Spraggins
Executive Director
Mississippi Department of Marine Resources

JS/wjb

cc: Mr. Dylan Hendrix, USACE, Mobile District
Ms. Carrie Barefoot, OPC
Mr. Raymond Carter, SOS


Consistency 2025

Final Audit Report

2025-09-29

Created:	2025-09-29
By:	Willa Brantley (willa.brantley@dmr.ms.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAawID6HIGSr7670VgwUaCMNcBRWWP5D1ZI

"Consistency 2025" History

-  Document created by Willa Brantley (willa.brantley@dmr.ms.gov)
2025-09-29 - 6:07:04 PM GMT
-  Document emailed to Joe Spraggins (joe.spraggins@dmr.ms.gov) for signature
2025-09-29 - 6:07:08 PM GMT
-  Email viewed by Joe Spraggins (joe.spraggins@dmr.ms.gov)
2025-09-29 - 7:11:26 PM GMT
-  Document e-signed by Joe Spraggins (joe.spraggins@dmr.ms.gov)
Signature Date: 2025-09-29 - 11:18:22 PM GMT - Time Source: server
-  Agreement completed.
2025-09-29 - 11:18:22 PM GMT

Document: Miss. Code Ann. § 49-27-5

Miss. Code Ann. § 49-27-5

Copy Citation

Current through the 2019 Regular Session.

Mississippi Code 1972 Annotated Title 49. Conservation and Ecology (Chs. 1 — 37) Chapter 27. Coastal Wetlands Protection Act (§§ 49-27-1 — 49-27-71)

§ 49-27-5. Definitions.

- (a) "Coastal wetlands" means all publicly-owned lands subject to the ebb and flow of the tide; which are below the watermark of ordinary high tide; all publicly-owned accretions above the watermark of ordinary high tide and all publicly-owned submerged water-bottoms below the watermark of ordinary high tide and includes the flora and fauna on the wetlands and in the wetlands.
- (b) "Department" means the Department of Marine Resources.
- (c) "Regulated activity" means any of the following activities:
- (i) The dredging, excavating or removing of soil, mud, sand, gravel, flora, fauna or aggregate of any kind from any coastal wetland;
 - (ii) The dumping, filling or depositing of any soil, stones, sand, gravel, mud, aggregate of any kind or garbage, either directly or indirectly, on or in any coastal wetlands;
 - (iii) Killing or materially damaging any flora or fauna on or in any coastal wetland;
 - (iv) The erection on coastal wetlands of structures which materially affect the ebb and flow of the tide; and
 - (v) The erection of any structure or structures on suitable sites for water dependent industry.
- (d) "Dredging" means the removal or displacement by any means of soil, sand, gravel, shells or other material, whether of intrinsic value or not, from coastal wetlands.
- (e) "Executive director" means the Executive Director of the Department of Marine Resources.
- (f) "Filling" means either the displacement of waters by the deposition into coastal wetlands of soil, sand, gravel, shells or other material; or the artificial alteration of water levels or water currents by physical structures, drainage ditches or otherwise.
- (g) "Person" means any natural person, partnership, joint stock company, corporation, unincorporated association or society, or the state and any agency thereof, or any county, municipality or political subdivision, or any other corporation of any character whatsoever.
- (h) "Commission" means the Mississippi Commission on Marine Resources.
- (i) "Water dependent industry" means those commercial, industrial or manufacturing activities which, for purposes basic to their existence must occur or locate on or adjacent to the estuaries, sounds, channels, shores or marshlands of the coast. "Suitable sites for water dependent industry" means those areas of land which are suitable for the development of water dependent industry because of their proximity to waters of navigable depth, size and configuration, topography, soil conditions and access to other means of transportation. After consultation with local governments, port authorities, development commissions, port and harbor commissions and other interested parties, and after full consideration of zoning ordinances duly adopted by local governments, the commission shall designate those sites it deems suitable for water dependent industry. The definition of "suitable sites for water dependent industry" shall be limited to, but not necessarily inclusive of, waterfront sites owned by county port authorities, development commissions and port and harbor commissions, and to areas that are now or are later made to be within one

thousand (1,000) feet of the centerline of any natural or maintained channel having a depth of seven (7) feet or greater at mean low water. However, additional sites may be included in the definition of suitable sites for water dependent industry with the concurrence of the board of supervisors in the county affected.

History

Laws, 1973, ch. 385, § 3; Laws, 1974, ch. 401, § 1; Laws, 1979, ch. 492, § 2; Laws, 1994, ch. 578, § 28; Laws, 2005, ch. 371, § 1, eff from and after July 1, 2005.

Mississippi Code 1972 Annotated

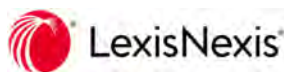
Copyright © 2020 The State of Mississippi All rights reserved.

Content Type:

Terms:

Narrow By: -None-

Date and Time: Dec 14, 2020 04:28:52 p.m. EST



[Cookie Policy](#)

[Terms & Conditions](#)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Atmos Energy Corporation Attention: Chad Keim		File Number: SAM-2026-00285-BAL	Date: 3/19/2026
Attached is:			See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL WITHOUT PREJUDICE	C	
	PERMIT DENIAL WITH PREJUDICE	D	
	APPROVED JURISDICTIONAL DETERMINATION	E	
x	PRELIMINARY JURISDICTIONAL DETERMINATION	F	

SECTION I

The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/appeals/> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C. PERMIT DENIAL WITHOUT PREJUDICE: Not appealable

You received a permit denial without prejudice because a required Federal, state, and/or local authorization and/or certification has been denied for activities which also require a Department of the Army permit before final action has been taken on the Army permit application. The permit denial without prejudice is not appealable. There is no prejudice to the right of the applicant to reinstate processing of the Army permit application if subsequent approval is received from the appropriate Federal, state, and/or local agency on a previously denied authorization and/or certification.

D: PERMIT DENIAL WITH PREJUDICE: You may appeal the permit denial

You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information for reconsideration

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- **RECONSIDERATION:** You may request that the district engineer reconsider the approved JD by submitting new information or data to the district engineer within 60 days of the date of this notice. The district will determine whether the information submitted qualifies as new information or data that justifies reconsideration of the approved JD. A reconsideration request does not initiate the appeal process. You may submit a request for appeal to the division engineer to preserve your appeal rights while the district is determining whether the submitted information qualifies for a reconsideration.

F: PRELIMINARY JURISDICTIONAL DETERMINATION: Not appealable

You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision you may contact:
Beverly Lowery
Project Manager
Regulatory Division– Mobile District
100 Canal Street
Mobile, Alabama 36602-1901
Beverly.a.lowery@usace.army.mil
251-386-4023

If you have questions regarding the appeal process, or to submit your request for appeal, you may contact:
Krista Sabin
Regulatory Review Officer
South Atlantic Division
60 Forsyth St SW, Floor M9
Atlanta, Georgia 30303-8803
Krista.D.Sabin@usace.army.mil
904-314-9631

SECTION II – REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. Use additional pages as necessary. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation and will have the opportunity to participate in all site investigations.

<hr/> <p>Signature of appellant or agent.</p>	Date:
Email address of appellant and/or agent:	Telephone number: