City of Lanett, AL NGDISM Grant Budget
Budget Summary

Cast Iron Facilities Replacement	$3,868,422.50
Gate Station Replacement	$ 353,900
Leak Detection Equipment	$ 11,437
Total Direct Costs	**$4,233,759.50**
Indirect Costs- 10% de minimis rate	$ 423,375.95
Grand Total Project Cost	**$4,657,135.45**

EXHIBIT "A"

PRELIMINARY OPINION OF PROBABLE COST
FOR
CITY OF LANETT - CAST IRON GAS FACILITIES REPLACEMENT
7/13/2022

DESCRIPTION	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
6" PE Pipe	5,360	L.F.	40.00	214,400.00
4" PE Pipe	32,310	L.F.	30.00	969,300.00
2" PE Pipe	2,195	L.F.	22.00	48,290.00
1" PE Pipe	40	L.F.	19.00	760.00
3/4" PE Service Line	2,000	L.F.	19.00	38,000.00
5/8" PE Service Line	8,000	L.F.	18.00	144,000.00
Tracer Wire	49,905	L.F.	1.00	49,905.00
6" Bores	1,610	L.F.	45.00	72,450.00
4" Bores	9,700	L.F.	35.00	339,500.00
2" Bores	1,610	L.F.	30.00	48,300.00
Service Bores	1,350	L.F.	22.00	29,700.00
12" Steel Casing Railroad Bore	120	L.F.	350.00	42,000.00
10" Steel Casing by Bore	120	L.F.	200.00	24,000.00
8" Steel Casing by Bore	280	L.F.	190.00	53,200.00
6" PE Valves	8	EA.	2,200.00	17,600.00
4" PE Valves	18	EA.	1,800.00	32,400.00
2" PE Valves	76	EA.	1,600.00	121,600.00
6" PE to 8" Steel Connections	1	EA.	7,500.00	7,500.00
6" PE to 4" PE Connections	1	EA.	3,600.00	3,600.00
6" PE to 2" Steel Connections	8	EA.	3,500.00	28,000.00
4" PE to 6" Steel Connections	1	EA.	5,500.00	5,500.00
4" PE to 4" PE Connections	4	EA.	3,000.00	12,000.00
4" PE to 3" Steel Connections	3	EA.	4,500.00	13,500.00
4" PE to 3" PE Connections	3	EA.	3,000.00	9,000.00
4" PE to 2" Steel Connections	73	EA.	3,000.00	219,000.00
4" PE to 1-1/2" Steel Connections	1	EA.	3,000.00	3,000.00
4" PE to 1" Steel Connections	1	EA.	2,000.00	2,000.00

DESCRIPTION	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
2" PE to 2" Steel Connections	1	EA.	3,000.00	3,000.00
2" PE to 1-1/2" Steel Connections	1	EA.	3,000.00	3,000.00
2" Line Stopper Fittings	50	EA.	3,500.00	175,000.00
Service Replacements	70	EA.	1,400.00	98,000.00
Service Reconnections	30	EA.	1,000.00	30,000.00
Asphalt Replacement	1,500	L.F.	50.00	75,000.00
Rock Excavation Removal	11,980	L.F./F.D.	10.00	119,800.00
Line Markers	75	EA.	75.00	5,625.00
Contingency @ 10%				305,793.00
TOTAL ESTIMATED CONSTRUCTION COST				$ 3,363,723.00
ESTIMATED CSX RAILROAD FEES				$ 30,000.00
ESTIMATED ENGINEERING AND ADMINISTRATION				$ 218,700.00
ESTIMATED CONSTRUCTION INSPECTION (320 DAYS)				$ 256,000.00
TOTAL ESTIMATED PROJECT COST				$ 3,868,423.00

EXHIBIT "B"

PRELIMINARY OPINION OF PROBABLE COST
FOR
CITY OF LANETT - GATE STATION REPLACEMENT
7/13/2022

DESCRIPTION	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
M&R Station Replacement - Materials	1	L.S.	80,000.00	80,000.00
M&R Station Replacement - Labor	1	L.S.	70,000.00	70,000.00
6" Hot-Taps and Stops	2	EA.	25,000.00	50,000.00
Demoliton and Removal of Existing Station and Propane Air Plant Facilities	1	L.S.	30,000.00	30,000.00
Odorizer Facilities Replacement	1	L.S.	45,000.00	45,000.00
Contingency @ 10%				27,500.00
TOTAL ESTIMATED CONSTRUCTION COST				$ 302,500.00
ENGINEERING, ADMINISTRATION AND INSPECTION				$ 51,400.00
TOTAL ESTIMATED COST				$ 353,900.00

EXHIBIT "C"

PRELIMINARY OPINION OF PROBABLE COST
FOR
CITY OF LANETT - LEAK DETECTION EQUIPMENT
7/13/2022

DESCRIPTION	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
Laser Gas Trac LZ-30	1	L.S.	10,215.00	10,215.00
Contingency @ 10%				1,021.50
Shipping and Handling				$ 200.00
TOTAL ESTIMATED COST				$ 11,436.50

CITY OF LANETT
2022 GRANT APPLICATION INFORMATION

3. SCOPE OF WORK

A. CAST IRON GAS FACILITIES

The scope of this work is to replace the existing cast iron gas lines remaining in the City of Lanett natural gas system. The replacement of these facilities has been mandated by PHMSA due to the material nature and joints of these lines being significant sources of leaking gas.

The proposed replacement will be with Medium Density Polyethylene (MDPE) gas piping and service lines which is the current industry standard. All mains and services will be buried.

The approximate replacement footage of these lines is as follows:

6" MDPE – 5,360 L.F.
4" MDPE – 32, 310 L.F.
2" MDPE – 2,195 L.F.
Total Estimated Footage – 39,865 L.F. (7.55 miles)

The installation will be by open trench and horizontal directional drill (hdd). All of the project will be located on or within previously disturbed road rights-of-way with the exception of approximately 800 feet south of the railroad crossing and the Lanett Regulating Station. This exception will be adjacent to the existing 6" C.I. gas line. Valves and service lines within these replacement sections will also be installed.

B. METERING, REGULATING AND ODORIZING STATION

The scope of this work is to replace the existing Metering, Regulating and Odorizer station where the City receives it's natural gas supply from Kinder Morgan. These facilities are the original facilities that were installed when the system was built in the early 1960's. This equipment is obsolete as the equipment is no longer manufactured and replacement parts are no longer available.

The existing system also contains an old propane air peak shaving facility which is currently connected on the downstream low-pressure side. This facility needs to be disconnected and removed from the site.

C. LEAK DETECTION EQUIPMENT

The City has inquired and received a price of $10,215 for a Laser Gas Trac LZ-30 leak detector.

4. MAPS OF LOCATION (SEE ATTACHED)

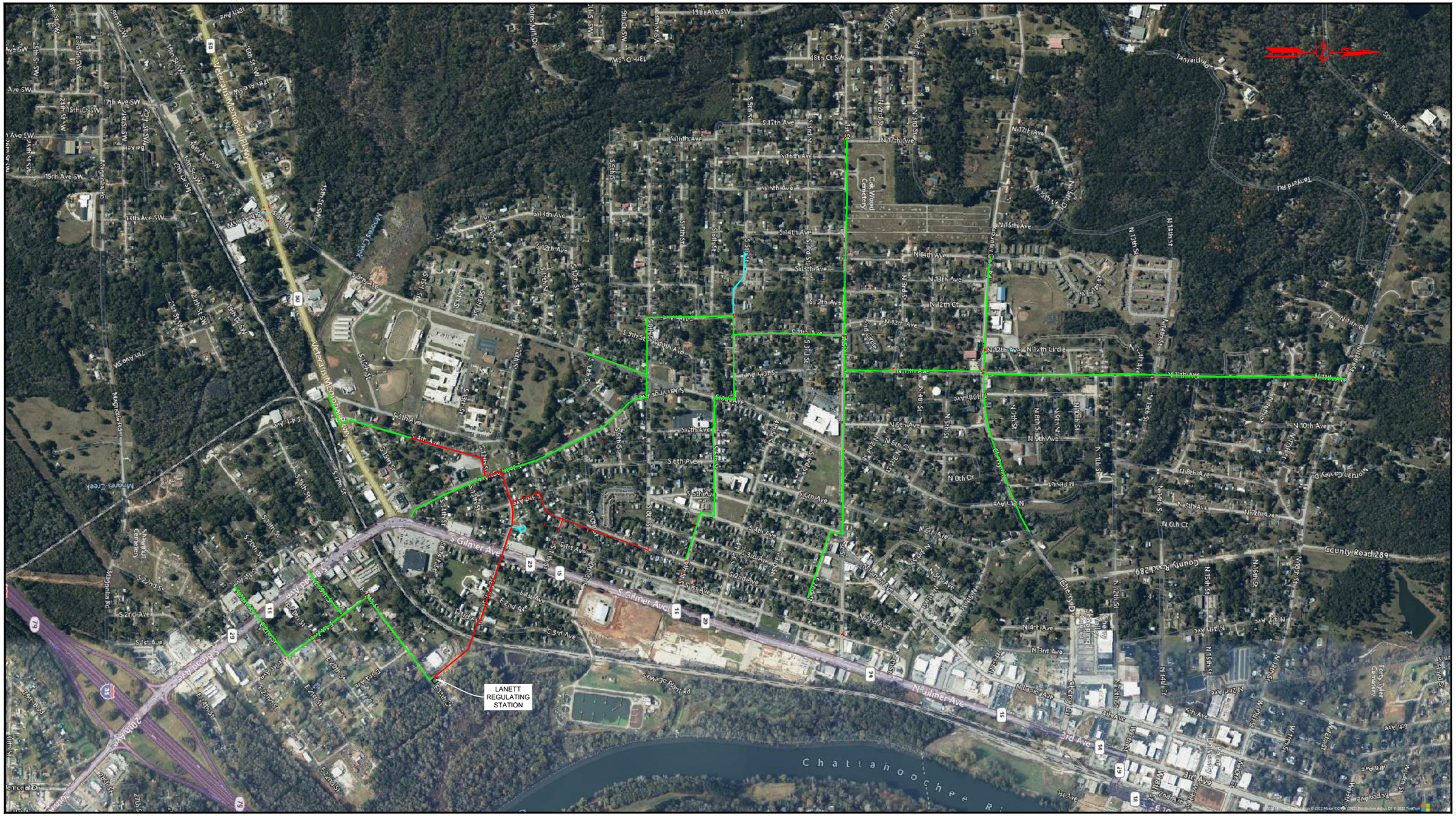
5. PROJECT SCHEDULE (3 YEARS) (PRELIMINARY)

1.	Preparation of Plans and Specifications	12 months	
2.	Bidding and Award of Contract / Material Procurement / Highway Permits	3 months	
3.	Construction (CI Replacement)	21 months}	Concurrent
4.	Construction (M&R Station)	4 months}	Concurrent

6. BUDGET (SEE ATTACHMENT)

7. BUY AMERICAN

The materials for this project will generally be manufactured or produced domestically per the "Buy America" provision. This is a requirement for ALDOT reimbursement projects and has not been an issue.



LEGEND

PROPOSED 6" P.E. GAS LINE	TOTAL FOOTAGE - 5,360L.F.
PROPOSED 4" P.E. GAS LINE	TOTAL FOOTAGE - 24,170 L.F.
PROPOSED 2" P.E. GAS LINE	TOTAL FOOTAGE - 2,195 L.F.
	(INCLUDES TIE-IN FOOTAGE)

CONCEPTUAL ONLY
07/09/22

1000 500 0 1000 2000

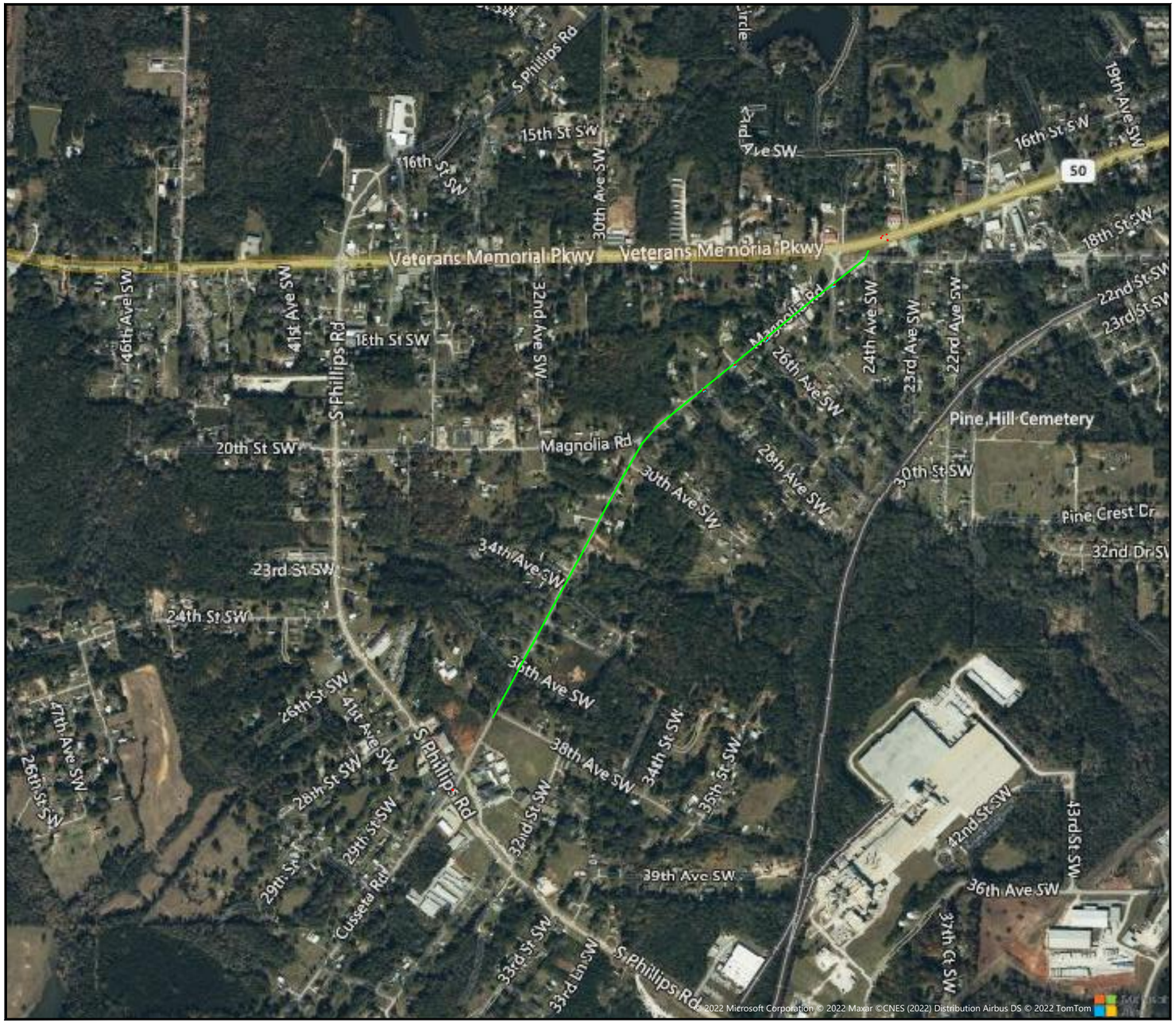
SCALE IN FEET

CITY OF LANETT

OVERALL MAP - LANETT NATURAL GAS FACILITIES REPLACEMENT

DATE: 07/09/22

DWG. NO.: 526-C-OA-01



LEGEND

PROPOSED 6" P.E. GAS LINE	TOTAL FOOTAGE - 0 L.F.
PROPOSED 4" P.E. GAS LINE	TOTAL FOOTAGE - 5,140 L.F.
PROPOSED 2" P.E. GAS LINE	TOTAL FOOTAGE - 0 L.F.

CONCEPTUAL ONLY
07/09/22

1000 500 0 1000 2000
SCALE IN FEET

CITY OF LANETT

OVERALL MAP - HUGULEY NATURAL GAS FACILITIES REPLACEMENT

DATE: 07/09/22

DWG. NO.: 526-C-OA-02

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LANETT SOUTH QUADRANGLE
ALABAMA–GEORGIA
7.5 MINUTE SERIES (TOPOGRAPHIC)

3949 I NE (CANNONVILLE)

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and USCE

Topography by photogrammetric methods from aerial photographs taken 1962. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grids based on Alabama coordinate system, east zone and Georgia coordinate system, west zone
1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

Red tint indicates areas in which only landmark buildings are shown

PROPOSED GAS LINE

UTM GRID AND 1964 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
Interstate Route · U. S. Route · State Route

QUADRANGLE LOCATION

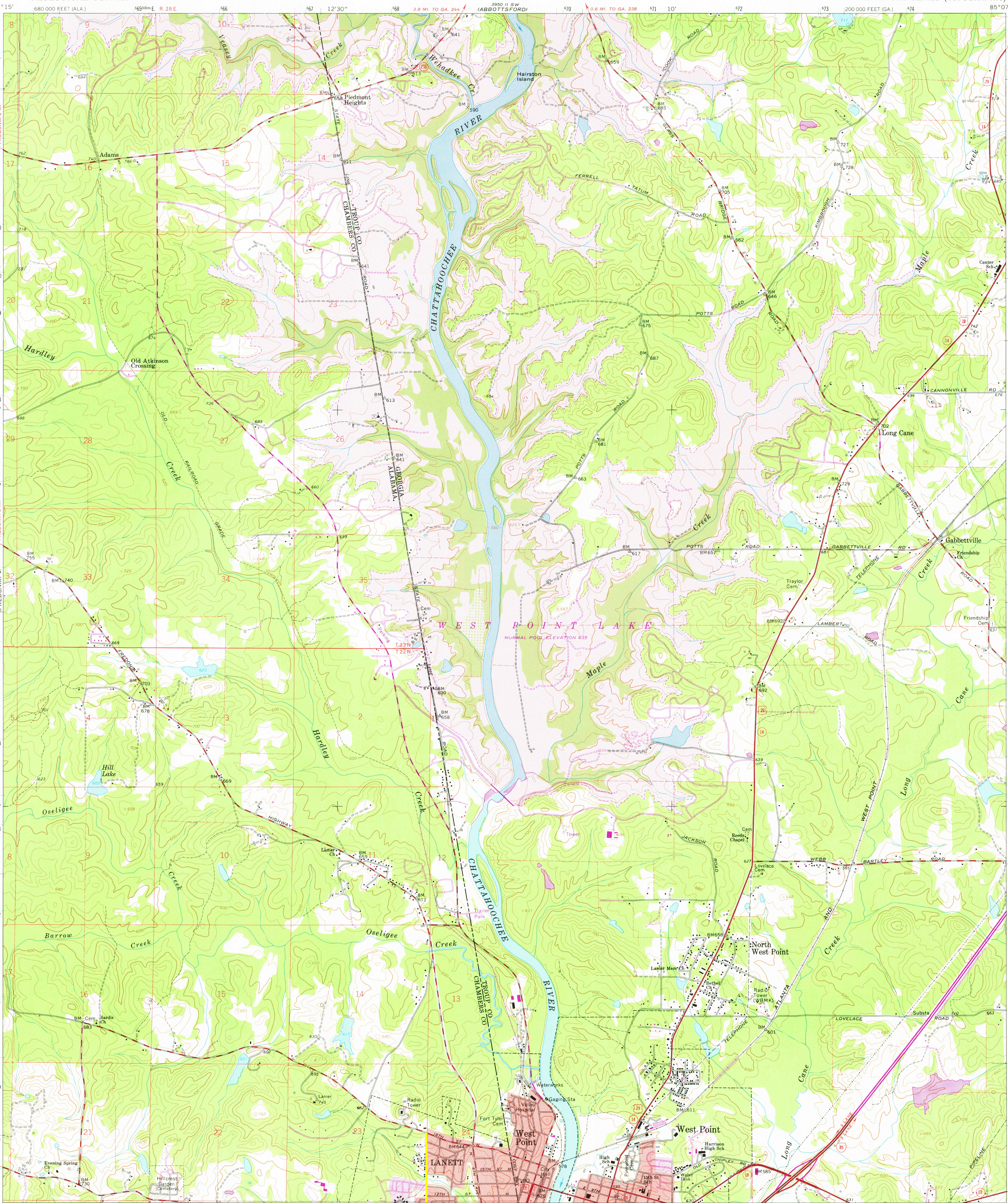
INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1966

LANETT SOUTH, ALA.–GA.
N3245—W8507.5/7.5
1964
AMS 3949 I SW—SERIES V844

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LANETT NORTH QUADRANGLE
GEORGIA–ALABAMA
7.5 MINUTE SERIES (TOPOGRAPHIC)

3950 III SE (FIVE POINTS)
3950 II SW (ABBOTTSFORD)
3950 II SE (LA GRANGE)



85°15′ 33°00′
680 000 FEET (ALA.)
R. 28 E.
12′30″
3.8 MI. TO GA. 244
0.6 MI. TO GA. 238
10′
200 000 FEET (GA.)
85°07′30″ 33°00′
Veasey Creek
Wehadkee Cr.
Piedmont Heights
Hairston Island
CHATTAHOOCHEE RIVER
Adams
FREDONIA 2 MI
LA GRANGE 6 MI.
1 090 000 FEET (GA.)
COOK ROAD
GLASS BRIDGE ROAD
FERRELL TATUM ROAD
KIMBROUGH ROAD
POTTS ROAD
TROUP CO
CHAMBERS CO
STATE LINE ROAD
GEORGIA
ALABAMA
Maple Creek
Center Sch
900 000 FEET (ALA.)
Hardley Creek
Old Atkinson Crossing
OLD RAILROAD GRADE
CANNONVILLE RD
Long Cane
57′30″
GABBETTVILLE RD
Gabbettville
Friendship Ch
Traylor Cem
Friendship Cem
3949 I NE (CANNONVILLE)
3949 IV NE (FREDONIA)
FREDONIA 3 MI.
WEST POINT LAKE
NORMAL POOL ELEVATION 635
LAMBERT ROAD
T. 23 N.
T. 22 N.
FREDONIA
Parking
Cem
Hill Lake
HIGHWAY
Oseligee Creek
55′
Tower
JACKSON ROAD
Reeds Chapel
Cem
WEBB BARTLEY ROAD
Lovelace Cem
WEST POINT AND ATLANTA
TELEPHONE
Long Cane Creek
Lanier Ch
Trailer Park
Barrow Creek
North West Point
Lanier Mem Ch
Bethel Ch
Radio Tower (WBMK)
Substa
LOVELACE ROAD
870 000 FEET (ALA.)
Sardis Ch
Cem
Waterworks
Gaging Sta
Valley Hospital
Fort Tyler Cem
Radio Tower
Lanier
West Point
Harrison High Sch
1 050 000 FEET (GA.)
LANETT
Evening Spring Ch
Hillcrest Garden (Cemetery)
High Sch
Pinewood Cem
City Hall
10th St Sch
Water Tank
OLD CHIPLEY RD
PIPELINE
2 LANE
3.2 MI. TO ALA. 50
17 MI. TO U.S. 27
32°52′30″ 85°15′
170 000 FEET (GA.)
2.5 MI. TO U.S. 29
R. 28 E.
12′30″
(LANETT SOUTH) 3949 I SW
FAIRFAX, ALA. 6 MI.
OPELIKA, ALA. 22 MI.
10′
SHAWMUT, ALA. 2.7 MI.
OPELIKA, ALA. 20 MI.
710 000 FEET (ALA.)
675000m. E.
85°07′30″ 32°52′30″

(CUSSETA) 3949 IV SE

(WHITESVILLE) 3949 I SE

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1977

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, USCE, and Georgia Geodetic Survey

Topography by photogrammetric methods from aerial photographs taken 1962. Field checked 1964

Polyconic projection. 1927 North American datum
10,000-foot grids based on Georgia coordinate system, west zone and Alabama coordinate system, east zone
1000-meter Universal Transverse Mercator grid ticks, zone 16, shown in blue

Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked

Red tint indicates areas in which only landmark buildings are shown

Revisions shown in purple compiled in cooperation with State of Georgia agencies from aerial photographs taken 1973. This information not field checked

Purple tint indicates extension of urban areas

UTM GRID AND 1973 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

GN MN 0°59′ 17 MILS 1° 18 MILS

Purple hatching indicates area to be submerged by West Point Lake

PROPOSED GAS LINE

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

GEORGIA
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty	Light-duty
Medium-duty	Unimproved dirt

Interstate Route U. S. Route State Route

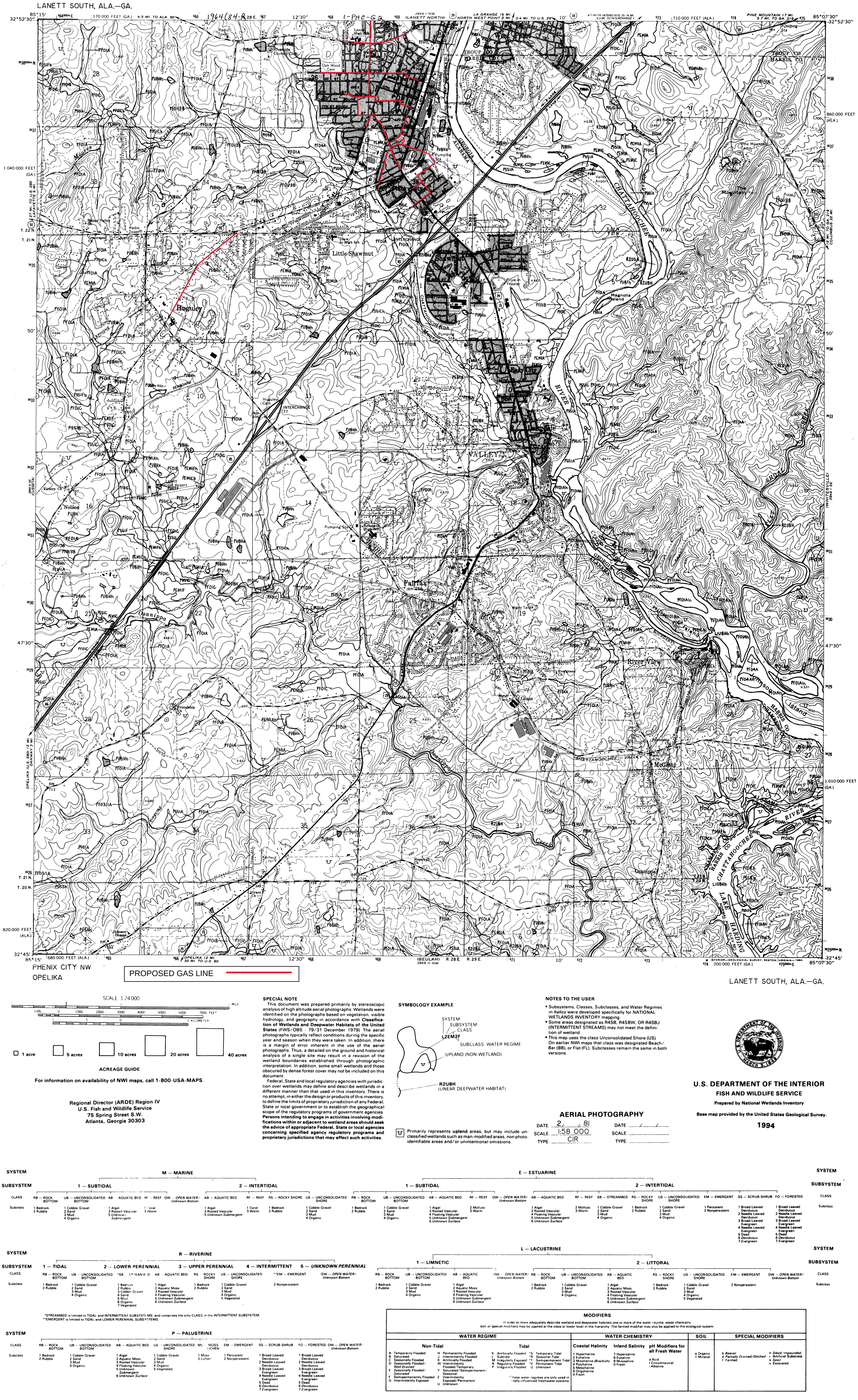
LANETT NORTH, GA.–ALA. 3650
N3252.5—W8507.5/7.5

1964
PHOTOREVISED 1973
AMS 3949 I NW—SERIES V845

NATIONAL WETLANDS INVENTORY

UNITED STATES DEPARTMENT OF THE INTERIOR

LANETT SOUTH, ALA.—GA.



PHENIX CITY NW

OPELIKA

PROPOSED GAS LINE

LANETT SOUTH, ALA.—GA.

SCALE 1:24 000

1 acre | 5 acres | 10 acres | 20 acres | 40 acres

ACREAGE GUIDE

For information on availability of NWI maps, call 1-800-USA-MAPS.

Regional Director (ARDE) Region IV
U.S. Fish and Wildlife Service
75 Spring Street S.W.
Atlanta, Georgia 30303

SPECIAL NOTE

This document was prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with **Classification of Wetlands and Deepwater Habitats of the United States** (FWS/OBS - 79/31 December 1979). The aerial photographs typically reflect conditions during the specific year and season when they were taken. In addition, there is a margin of error inherent in the use of the aerial photographs. Thus, a detailed on the ground and historical analysis of a single site may result in a revision of the wetland boundaries established through photographic interpretation. In addition, some small wetlands and those obscured by dense forest cover may not be included on this document.

Federal, State and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, State or local government or to establish the geographical scope of the regulatory programs of government agencies. **Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, State or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.**

SYMBOLOGY EXAMPLE

Primarily represents **upland** areas, but may include unclassified wetlands such as man-modified areas, non photo-identifiable areas and/or unintentional omissions.

NOTES TO THE USER

- Subsystems, Classes, Subclasses, and Water Regimes in *Italics* were developed specifically for NATIONAL WETLANDS INVENTORY mapping.
- Some areas designated as R4SB, R4SBW, OR R4SBJ (INTERMITTENT STREAMS) may not meet the definition of wetland.
- This map uses the class Unconsolidated Shore (US). On earlier NWI maps that class was designated Beach/Bar (BB), or Flat (FL). Subclasses remain the same in both versions.

AERIAL PHOTOGRAPHY

DATE:	2/ /81	/ /
SCALE:	1:58 000	
TYPE:	CIR	

U.S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Prepared by National Wetlands Inventory

Base map provided by the United States Geological Survey.

1994

SYSTEM: M — MARINE

SUBSYSTEM	1 — SUBTIDAL					2 — INTERTIDAL			
CLASS	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	RF — REEF	OW — *OPEN WATER/ Unknown Bottom*	AB — AQUATIC BED	RF — REEF	RS — ROCKY SHORE	US — UNCONSOLIDATED SHORE
Subclass	1 Bedrock 2 Rubble	1 Cobble Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 5 *Unknown Submergent*	1 Coral 3 Worm		1 Algal 3 Rooted Vascular 5 *Unknown Submergent*	1 Coral 3 Worm	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic

SYSTEM: E — ESTUARINE

SUBSYSTEM	1 — SUBTIDAL					2 — INTERTIDAL							
CLASS	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	RF — REEF	OW — *OPEN WATER/ Unknown Bottom*	AB — AQUATIC BED	RF — REEF	SB — STREAMBED	RS — ROCKY SHORE	US — UNCONSOLIDATED SHORE	EM — EMERGENT	SS — SCRUB-SHRUB	FO — FORESTED
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	2 Mollusc 3 Worm		1 Algal 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	2 Mollusc 3 Worm	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*

SYSTEM: R — RIVERINE

SUBSYSTEM	1 — TIDAL	2 — LOWER PERENNIAL	3 — UPPER PERENNIAL	4 — INTERMITTENT	5 — *UNKNOWN PERENNIAL*
CLASS	RB — ROCK BOTTOM UB — UNCONSOLIDATED BOTTOM	*SB — STREAMBED AB — AQUATIC BED	RS — ROCKY SHORE US — UNCONSOLIDATED SHORE	**EM — EMERGENT	OW — *OPEN WATER/ Unknown Bottom*
Subclass	1 Bedrock 2 Rubble 1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Bedrock 2 Rubble 3 Cobble Gravel 4 Sand 5 Mud 6 Organic 7 Vegetated 1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	1 Bedrock 2 Rubble 1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

*STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

SYSTEM: P — PALUSTRINE

CLASS	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	US — UNCONSOLIDATED SHORE	ML — MOSS LICHEN	EM — EMERGENT	SS — SCRUB-SHRUB	FO — FORESTED	OW — *OPEN WATER/ Unknown Bottom*
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen 4 Needle-Leaved Evergreen 5 Dead 6 *Deciduous* 7 *Evergreen*	

SYSTEM: L — LACUSTRINE

SUBSYSTEM	1 — LIMNETIC				2 — LITTORAL					
CLASS	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	OW — *OPEN WATER/ Unknown Bottom*	RB — ROCK BOTTOM	UB — UNCONSOLIDATED BOTTOM	AB — AQUATIC BED	RS — ROCKY SHORE	US — UNCONSOLIDATED SHORE	EM — EMERGENT	OW — *OPEN WATER/ Unknown Bottom*
Subclass	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*		1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 *Unknown Submergent* 6 *Unknown Surface*	1 Bedrock 2 Rubble	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	2 Nonpersistent	

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system

WATER REGIME

Non-Tidal

- A Temporarily Flooded
- B Saturated
- C Seasonally Flooded
- D *Seasonally Flooded/ Well Drained*
- E *Seasonally Flooded/ Saturated*
- F Semipermanently Flooded
- G Intermittently Exposed
- H Permanently Flooded
- J Intermittently Flooded
- K Artificially Flooded
- W Intermittently Flooded/Temporary
- Y Saturated/Semipermanent/ Seasonal
- Z Intermittently Exposed/Permanent
- U *Unknown*

Tidal

- K *Artificially Flooded*
- L Subtidal
- M Irregularly Exposed
- N Regularly Flooded
- P Irregularly Flooded
- *S Temporary-Tidal
- *R Seasonal-Tidal
- *T Semipermanent-Tidal
- *V Permanent-Tidal
- U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems

WATER CHEMISTRY

Coastal Halinity

- 1 Hyperhaline
- 2 Euhaline
- 3 Mixohaline *(Brackish)*
- 4 Polyhaline
- 5 Mesohaline
- 6 Oligohaline
- 0 Fresh

Inland Salinity

- 7 Hypersaline
- 8 Eusaline
- 9 Mixosaline
- 0 Fresh

pH Modifiers for all Fresh Water

- a Acid
- t Circumneutral
- i Alkaline

SOIL

- g Organic
- n Mineral

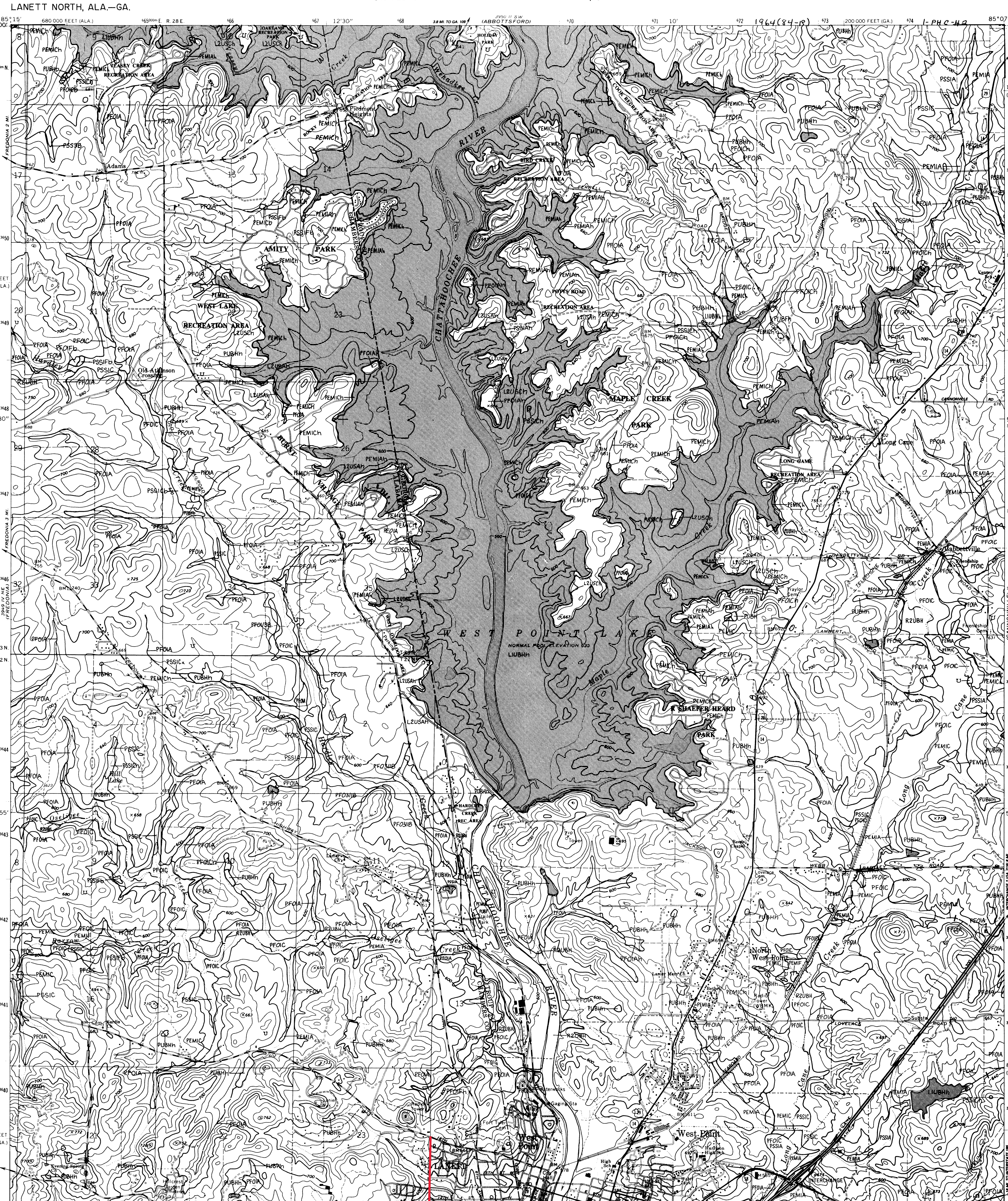
SPECIAL MODIFIERS

- b *Beaver*
- d *Partially Drained/Ditched*
- f Farmed
- h *Diked/Impounded*
- r Artificial Substrate
- s *Spoil*
- x Excavated

NATIONAL WETLANDS INVENTORY

UNITED STATES DEPARTMENT OF THE INTERIOR

LANETT NORTH, ALA.—GA.



PHENIX CITY NW
OPELIKA

PROPOSED GAS LINE

LANETT NORTH, ALA.—GA.

SCALE 1:24 000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

1 acre | 5 acres | 10 acres | 20 acres | 40 acres

ACREAGE GUIDE

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U.S. Fish and Wildlife Service
75 Spring Street S.W.
Atlanta, Georgia 30303

SPECIAL NOTE

This document was prepared primarily by stereoscopic analysis of high altitude aerial photographs. Wetlands were identified on the photographs based on vegetation, visible hydrology, and geography in accordance with **Classification of Wetlands and Deepwater Habitats of the United States** (FWS/OBS - 79/31 December 1979). The aerial photographs typically reflect conditions during the specific year and season when they were taken. In addition, there is a margin of error inherent in the use of the aerial photographs. Thus, a detailed on the ground and historical analysis of a single site may result in a revision of the wetland boundaries established through photographic interpretation. In addition, some small wetlands and those obscured by dense forest cover may not be included on this document.

Federal, State and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, State or local government or to establish the geographical scope of the regulatory programs of government agencies. **Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, State or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.**

SYMBOLOGY EXAMPLE

SYSTEM
SUBSYSTEM
CLASS
L2EM2F
SUBCLASS WATER REGIME
UPLAND (NON-WETLAND)
R2UBH
(LINEAR DEEPWATER HABITAT)

U Primarily represents **upland** areas, but may include unclassified wetlands such as man-modified areas, non photo-identifiable areas and/or unintentional omissions.

NOTES TO THE USER

- Subsystems, Classes, Subclasses, and Water Regimes in *Italics* were developed specifically for NATIONAL WETLANDS INVENTORY mapping.
- Some areas designated as R4SB, R4SBW, OR R4SBJ (INTERMITTENT STREAMS) may not meet the definition of wetland.
- This map uses the class Unconsolidated Shore (US). On earlier NWI maps that class was designated Beach/Bar (BB), or Flat (FL). Subclasses remain the same in both versions.

AERIAL PHOTOGRAPHY

DATE 2 / / 81 — DATE / /
SCALE 1:58 000 — SCALE
TYPE CIR — TYPE

U.S. DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Prepared by National Wetlands Inventory
Base map provided by the United States Geological Survey.
1994

M — MARINE

SUBSYSTEM: 1 — SUBTIDAL

- RB — ROCK BOTTOM: 1 Bedrock, 2 Rubble
- UB — UNCONSOLIDATED BOTTOM: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- AB — AQUATIC BED: 1 Algal, 3 Rooted Vascular, 5 *Unknown Submergent*
- RF — REEF: 1 Coral, 3 Worm
- OW — *OPEN WATER/Unknown Bottom*

SUBSYSTEM: 2 — INTERTIDAL

- AB — AQUATIC BED: 1 Algal, 3 Rooted Vascular, 5 *Unknown Submergent*
- RF — REEF: 1 Coral, 3 Worm
- RS — ROCKY SHORE: 1 Bedrock, 2 Rubble
- US — UNCONSOLIDATED SHORE: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic

E — ESTUARINE

SUBSYSTEM: 1 — SUBTIDAL

- RB — ROCK BOTTOM: 1 Bedrock, 2 Rubble
- UB — UNCONSOLIDATED BOTTOM: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- AB — AQUATIC BED: 1 Algal, 3 Rooted Vascular, 4 Floating Vascular, 5 *Unknown Submergent*, 6 *Unknown Surface*
- RF — REEF: 2 Mollusc, 3 Worm
- OW — *OPEN WATER/Unknown Bottom*

SUBSYSTEM: 2 — INTERTIDAL

- AB — AQUATIC BED: 1 Algal, 3 Rooted Vascular, 4 Floating Vascular, 5 *Unknown Submergent*, 6 *Unknown Surface*
- RF — REEF: 2 Mollusc, 3 Worm
- SB — STREAMBED: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- RS — ROCKY SHORE: 1 Bedrock, 2 Rubble
- US — UNCONSOLIDATED SHORE: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- EM — EMERGENT: 1 Persistent, 2 Nonpersistent
- SS — SCRUB-SHRUB: 1 Broad-Leaved Deciduous, 2 Needle-Leaved Deciduous, 3 Broad-Leaved Evergreen, 4 Needle-Leaved Evergreen, 5 Dead, 6 *Deciduous*, 7 *Evergreen*
- FO — FORESTED: 1 Broad-Leaved Deciduous, 2 Needle-Leaved Deciduous, 3 Broad-Leaved Evergreen, 4 Needle-Leaved Evergreen, 5 Dead, 6 *Deciduous*, 7 *Evergreen*

R — RIVERINE

SUBSYSTEM: 1 — TIDAL; 2 — LOWER PERENNIAL; 3 — UPPER PERENNIAL; 4 — INTERMITTENT; 5 — *UNKNOWN PERENNIAL*

- RB — ROCK BOTTOM: 1 Bedrock, 2 Rubble
- UB — UNCONSOLIDATED BOTTOM: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- *SB — STREAMBED: 1 Bedrock, 2 Rubble, 3 Cobble-Gravel, 4 Sand, 5 Mud, 6 Organic, 7 Vegetated
- AB — AQUATIC BED: 1 Algal, 2 Aquatic Moss, 3 Rooted Vascular, 4 Floating Vascular, 5 *Unknown Submergent*, 6 *Unknown Surface*
- RS — ROCKY SHORE: 1 Bedrock, 2 Rubble
- US — UNCONSOLIDATED SHORE: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic, 5 Vegetated
- **EM — EMERGENT: 2 Nonpersistent
- OW — *OPEN WATER/Unknown Bottom*

*STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM
**EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS

L — LACUSTRINE

SUBSYSTEM: 1 — LIMNETIC

- RB — ROCK BOTTOM: 1 Bedrock, 2 Rubble
- UB — UNCONSOLIDATED BOTTOM: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- AB — AQUATIC BED: 1 Algal, 2 Aquatic Moss, 3 Rooted Vascular, 4 Floating Vascular, 5 *Unknown Submergent*, 6 *Unknown Surface*
- OW — *OPEN WATER/Unknown Bottom*

SUBSYSTEM: 2 — LITTORAL

- RB — ROCK BOTTOM: 1 Bedrock, 2 Rubble
- UB — UNCONSOLIDATED BOTTOM: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- AB — AQUATIC BED: 1 Algal, 2 Aquatic Moss, 3 Rooted Vascular, 4 Floating Vascular, 5 *Unknown Submergent*, 6 *Unknown Surface*
- RS — ROCKY SHORE: 1 Bedrock, 2 Rubble
- US — UNCONSOLIDATED SHORE: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic, 5 Vegetated
- EM — EMERGENT: 2 Nonpersistent
- OW — *OPEN WATER/Unknown Bottom*

P — PALUSTRINE

- RB — ROCK BOTTOM: 1 Bedrock, 2 Rubble
- UB — UNCONSOLIDATED BOTTOM: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic
- AB — AQUATIC BED: 1 Algal, 2 Aquatic Moss, 3 Rooted Vascular, 4 Floating Vascular, 5 *Unknown Submergent*, 6 *Unknown Surface*
- US — UNCONSOLIDATED SHORE: 1 Cobble-Gravel, 2 Sand, 3 Mud, 4 Organic, 5 Vegetated
- ML — MOSS-LICHEN: 1 Moss, 2 Lichen
- EM — EMERGENT: 1 Persistent, 2 Nonpersistent
- SS — SCRUB-SHRUB: 1 Broad-Leaved Deciduous, 2 Needle-Leaved Deciduous, 3 Broad-Leaved Evergreen, 4 Needle-Leaved Evergreen, 5 Dead, 6 *Deciduous*, 7 *Evergreen*
- FO — FORESTED: 1 Broad-Leaved Deciduous, 2 Needle-Leaved Deciduous, 3 Broad-Leaved Evergreen, 4 Needle-Leaved Evergreen, 5 Dead, 6 *Deciduous*, 7 *Evergreen*
- OW — *OPEN WATER/Unknown Bottom*

MODIFIERS

In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.

WATER REGIME

Non-Tidal:
A Temporarily Flooded
B Saturated
C Seasonally Flooded
D *Seasonally Flooded/Well Drained*
E *Seasonally Flooded/Saturated*
F Semipermanently Flooded
G Intermittently Exposed
H Permanently Flooded
J Intermittently Flooded
K Artificially Flooded
W Intermittently Flooded/Temporary
Y Saturated/Semipermanent/Seasonal
Z Intermittently Exposed/Permanent
U Unknown

Tidal:
K *Artificially Flooded*
L Subtidal
M Irregularly Exposed
N Regularly Flooded
P Irregularly Flooded
*S Temporary-Tidal
*R Seasonal-Tidal
*T Semipermanent-Tidal
*V Permanent-Tidal
U *Unknown*

*These water regimes are only used in tidally influenced, freshwater systems

WATER CHEMISTRY

Coastal Halinity: 1 Hyperhaline, 2 Euhaline, 3 Mixohaline *(Brackish)*, 4 Polyhaline, 5 Mesohaline, 6 Oligohaline, 0 Fresh

Inland Salinity: 7 Hypersaline, 8 Eusaline, 9 Mixosaline, 0 Fresh

pH Modifiers for all Fresh Water: a Acid, t Circumneutral, i Alkaline

SOIL

g Organic
n Mineral

SPECIAL MODIFIERS

b *Beaver*
d *Partially Drained/Ditched*
f Farmed
h *Diked/Impounded*
r Artificial Substrate
s *Spoil*
x Excavated

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' NAVD 88. Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 16. **Horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by the Chambers County Revenue Commission. This information was photogrammetrically compiled at a scale of 1" = 100', 1" = 200', or 1" = 400' from aerial photography dated 2007.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations** and **floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

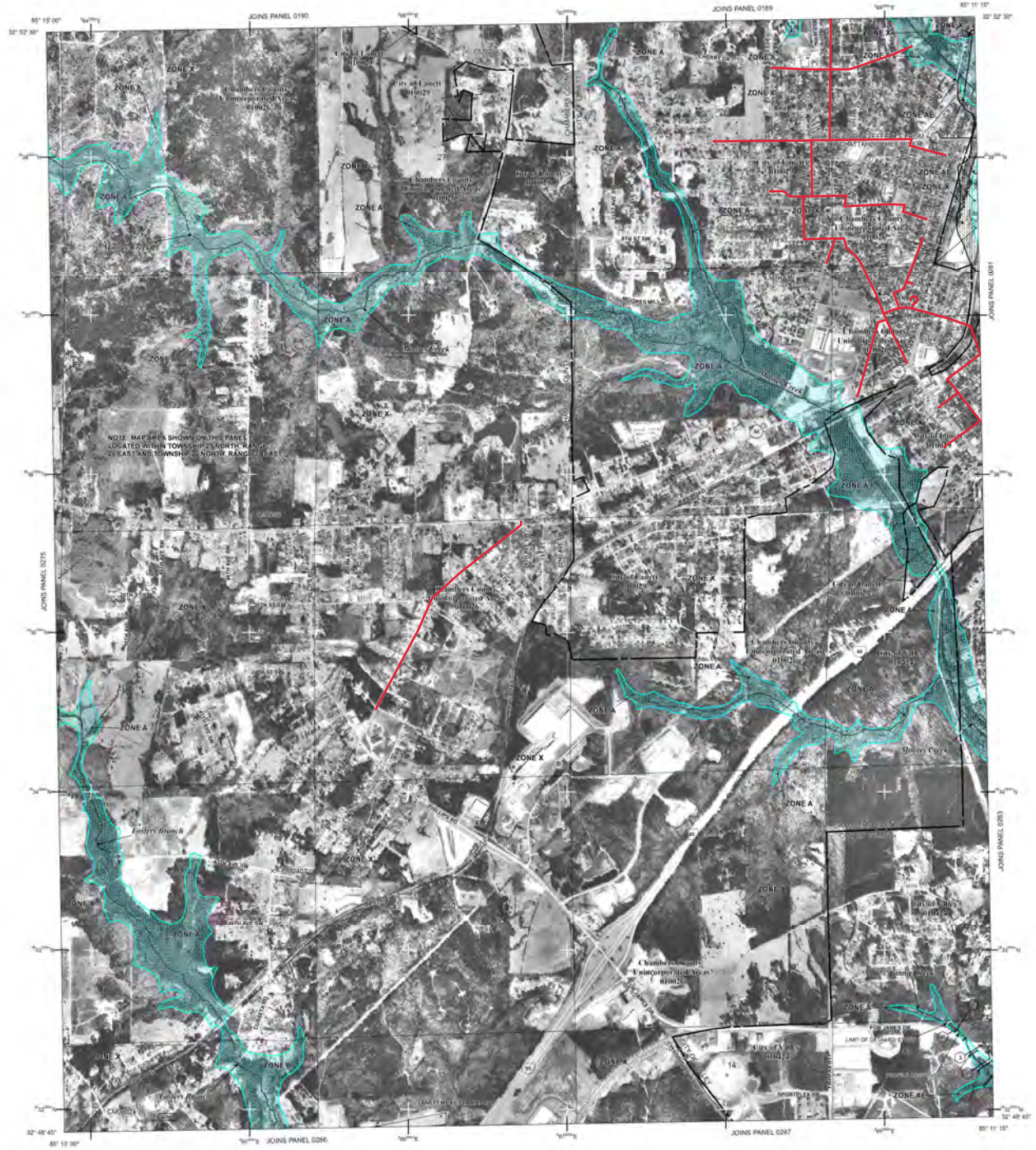
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

STATE OF ALABAMA FIRM PANEL LOCATOR DIAGRAM

In cooperation with the Federal Emergency Management Agency (FEMA) and local communities in Alabama, this Flood Insurance Rate Map was developed by the Alabama Office of Water Resources in a digital statewide format to assist communities in their efforts to minimize the loss of property and life through effectively managing development in flood-prone areas. The State of Alabama has implemented a long term approach to floodplain management to reduce the impacts of flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As part of this effort, the Alabama Office of Water Resources is working closely with FEMA as a Cooperating Technical Partner to produce and maintain this digital FIRM.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAS)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4276 000m E — 1000-meter Universal Transverse Mercator grid values, zone 16
- 600000 FT — 5000-foot grid ticks: Alabama State Plane coordinate system, east zone (FIPSZONE 0101), Lambert Conformal Conic projection
- DX5510 X — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

PROPOSED GAS LINE

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
FEBRUARY 18, 2011

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0280C

FIRM
FLOOD INSURANCE RATE MAP

CHAMBERS COUNTY, ALABAMA
AND INCORPORATED AREAS

PANEL 280 OF 425
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHAMBERS COUNTY	010029	0280	C
LANETT, CITY OF	010029	0280	C
VALLEY, CITY OF	010424	0280	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE	MAP NUMBER
FEBRUARY 18, 2011	01017C0280C

State of Alabama
Federal Emergency Management Agency

NOTES TO USERS

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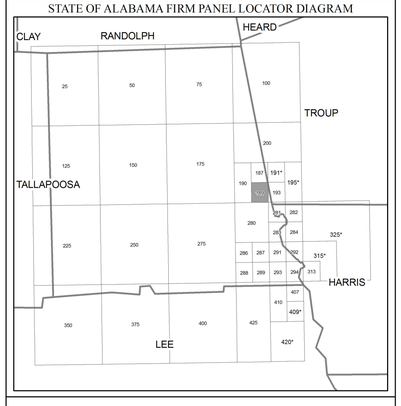

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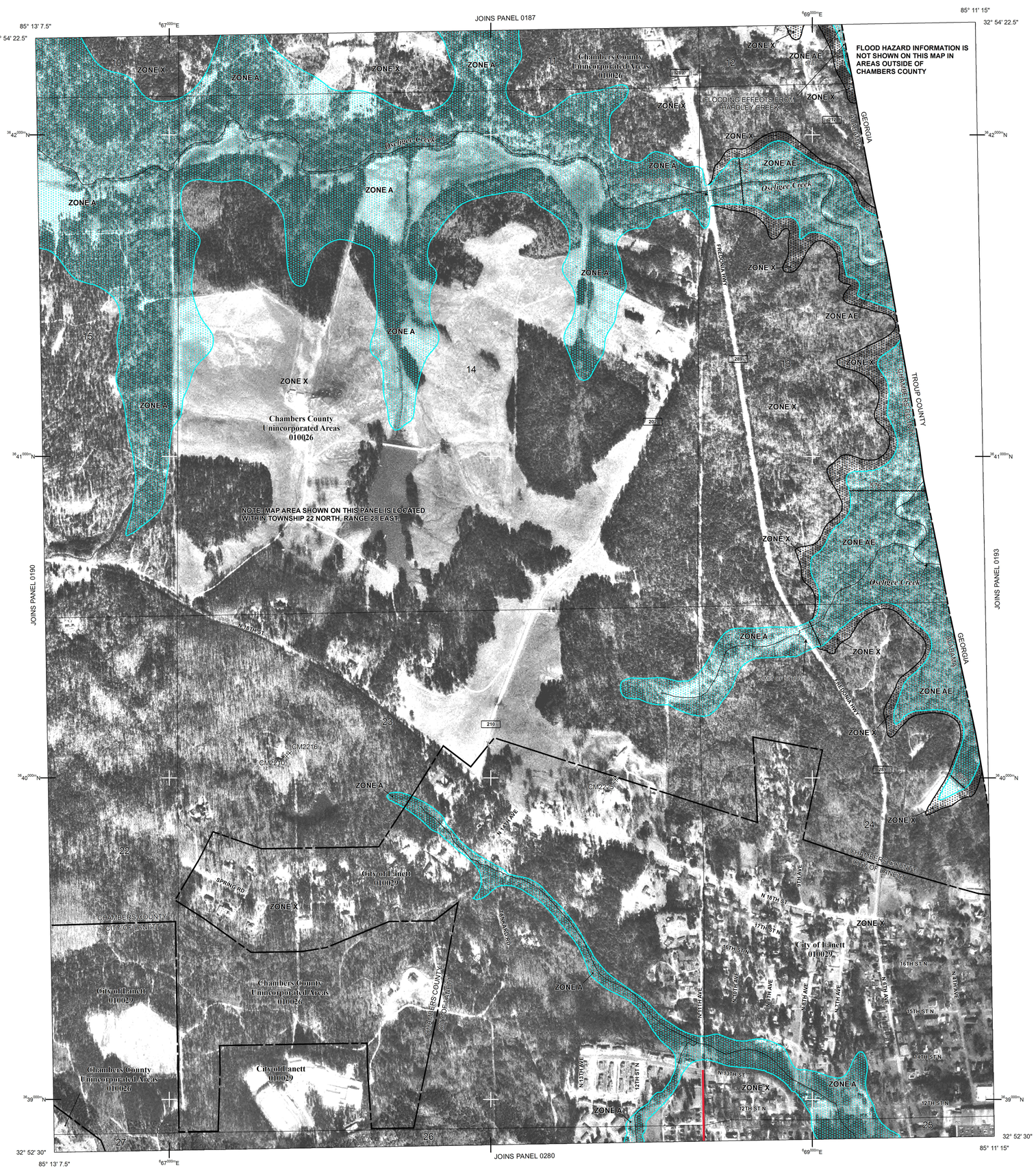

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OTHER AREAS

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	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
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600000 FT	5000-foot grid ticks: Alabama State Plane coordinate system, east zone (FIPSZONE 0101), Lambert Conformal Conic projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
● M1.5	River Mile

PROPOSED GAS LINE

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
FEBRUARY 18, 2011

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'
250 0 500 1000 FEET
150 0 150 300 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0189C

FIRM
FLOOD INSURANCE RATE MAP

CHAMBERS COUNTY, ALABAMA
AND INCORPORATED AREAS

PANEL 189 OF 425
(SEE LOCATOR DIAGRAM OR MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHAMBERS COUNTY	010026	0189	C
LANETT, CITY OF	010029	0189	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

EFFECTIVE DATE **MAP NUMBER**
FEBRUARY 18, 2011 **01017C0189C**

State of Alabama
Federal Emergency Management Agency

Subscribed Regulatory Compliance Service

Municipal Gas Authority of Georgia • 104 TownPark Drive • Kennesaw Georgia 30144

July 11, 2022

Mayor Jamie Heard
City of Lanett
401 North Lanier Avenue
Lanett, AL 36863-2019

Re: Letter of Support for the City of Lanett
Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

Dear Mayor Heard:

The Subscribed Regulatory Compliance Service is happy to be working with you since February of 2022 to assist with natural gas system compliance. It's our goal to help you keep your system in compliance with 49 CFR Part 192 and any related compliance issues that arise. We are here to provide increased support for the implementation and management of your system.

We understand that Lanett is applying for a grant from the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program to replace you cast iron natural gas facilities and include other needed safety measures. We are encouraged by these efforts and are writing to convey our support for your application.

We hope to receive good news of your application's funding as we work together to improve safety and reduce emissions together in Alabama.

Sincerely,

Bill DeFoor
Director, Regulatory Compliance

Direct Line (678) 488-9470 • Direct Fax (678) 819-2939 • bdefoor@gasauthority.com

SOUTHERN UNION
STATE COMMUNITY COLLEGE

July 14, 2022

Mayor Jamie Heard
City of Lanett
401 North Lanier Avenue
Lanett, AL 36863-2019

Re: Letter of Support for the City of Lanett
Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

Dear Mayor Heard,

Southern Union State Community College is in the business of educating and training the Alabama workforce and future workforce for good-paying jobs. One of the programs of study that we offer is welding, which is a specialty needed in construction, repair, and replacement of natural gas systems.

We understand that Lanett is applying for a grant from the Natural Gas Distribution Infrastructure Safety and Modernization Grant Program to replace aged and obsolete cast iron pipes and include other needed safety measures. We are always interested in helping our graduates obtain employment in a good-paying job. Should your grant be funded, we would appreciate any of your efforts to include or promote our graduates into the work of your project.

We hope to receive good news of your application's funding and that we subsequently can work together to create good-paying jobs in Alabama.

Sincerely,

Eric Sewell
Dean of Technical Education & Workforce Development

Eric Sewell
Dean of Technical Education and Workforce Development
Southern Union State Community College
301 Lake Condy Road
Opelika, AL 36801
(334) 745-6437 ext. 5492

DISTRIBUTION INTEGRITY MANAGEMENT PLAN

For City of Lanett Gas Department

401 North Lanier Avenue
Lanett, Alabama 36863

Generated Date: 03/22/2022 Version: 2.0
Effective Date: 03/22/2022 Replaces Version: 2.4.1 Effective: 03/22/2022

DISTRIBUTION INTEGRITY MANAGEMENT PLAN For City of Lanett Gas Department

401 North Lanier Avenue
Lanett, Alabama 36863

Generated Date: 03/22/2022 Version: 2.0 Effective Date: 03/22/2022
Replaces Version: N/A Effective: 3/22/2022 6:38:34 PM

Table of Contents

Revisions

Table 0.1: Plan Version History

Plan Version	Program Version	Date	By User	Notes
2.0	4.0	3/22/22	Gene Taylor/SRCS Jared Meigs/City of Lanett	Reevaluated Plan using 7100 Annual Reports from 2012-2021.

Table 0.2: SHRIMP Version History

Program Version	Date	Notes
4.0	1/1/2022	Migrated Platform to Shrimp 4.0
3.1.3	10/9/2020	Ensure all threat assessments have a probability score of at least one(1). Adjust Other threat scores to 1 or 2.
3.1.2	9/13/2019	Change section targets for CSQ 5
3.1.1	3/1/2017	New Excavation and Natural Forces Threats. New Equipment Threats for Meter Sets. Changes to EQIP-Leak and EQ307.
2.1.19	2/16/2017	New Member Database
2.1.18	10/1/2016	Responsive Web UIX.
2.1.17	9/12/2016	Show all sections for Risk Ranking including low risk sections.
2.1.16	4/9/2015	Background processing of Written Plans
2.1.15	2/1/2014	Shade unused leak data in summaries. Add PM Metrics to plan. Add Data Sources to plan. Add Benchmarks. Add Utility System Type.
2.1.14	11/14/2013	Added Driscopipe 7000/8000 to defective materials.
2.1.13	10/27/2013	Add Consolidated Risk Ranking Report
2.1.12	10/22/2013	Remove Correct mode.
2.1.11	9/9/2013	Allow users to save their own customized, Word version of the latest plan.
2.1.10	7/28/2013	Allow limited changes to Required Settings during Correct mode. Allow direct switch from correct mode to revise mode.
2.1.9	7/9/2013	Correct problem with AA-AC-02 and AA-EC-6a; they had spaces in their lids.
2.1.8	4/25/2013	Modified Threat Assessment wording. Added capability for referencing external sources of information.
2.1.7	2/25/2013	May choose from multiple Plan Years. Detects leak trend changes when Plan Year changed. Updated Relative Risk Model description.
2.1.6	1/2/2013	Data for 2012 may now be entered.
2.1.5	12/13/2012	Corrects crashes due to certain revision notes; Shows plan type (preview or final) in list of Written Plans.
2.1.4	12/2/2012	Corrects prior plan effective date; interview end during review or correct modes; required settings.
2.1.3	11/28/2012	Fix problem with editable areas when using “Correct” mode.
2.1.2	11/18/2012	SHRIMP update adding New Leaks mode and new Required Settings.
2.1.1	4/24/2012	Initial release of SHRIMP with full DIMP version tracking and revisions.

Program Version	Date	Notes
1.1.31	4/24/2012	All versions of SHRIMP prior to the incorporation of version tracking.

Chapter 1. SCOPE

This document is the distribution integrity management plan (Plan) for City of Lanett Gas Department. It is intended to meet the requirements of 49 CFR Part 192, Subpart P Distribution Integrity Management Programs (DIMP).

This Plan covers the Entire system of City of Lanett Gas Department.

This Plan is effective on 03/22/2022.

This Plan is Version 2.0

This Plan replaces Version N/A

This Plan is based on data for the Plan Year ending 2021. Data for 2022 and later have not been used in the threat assessments.

The following people are responsible for ensuring that the requirements of this Plan are carried out:

Table 1.1. Responsible Parties

Name and/or Job Title	Responsible For
Jared Meigs/Assistant Gas Foreman	Scheduling maintenance, field response, and recordkeeping

In addition, assignments for implementing action items found in this Plan are listed in Section 11.1, "IMPLEMENTATION PLAN".

My Scope

The information entered in this Plan was gathered from 7100 Annual Reports from CY2012 through CY2021.

Chapter 2. DEFINITIONS

Excavation damage: Any impact that results in the need to repair or replace an underground facility due to a weakening, or the partial or complete destruction, of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection or the housing for the line device or facility.

Excavation ticket: All receipts of information by the operator from the ONE-CALL notification center requesting marking of the location of gas pipeline facilities.

Hazardous Leak: A leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous. Examples include:

- Escaping gas that has ignited;
- Any indication of gas which has migrated into or under a building, or into a tunnel;
- Any reading at the outside wall of a building, or where gas would likely migrate to an outside wall of a building;
- Any reading of 80% LEL, or greater, in a confined space;
- Any reading of 80% LEL, or greater in small substructures (other than gas associated substructures) from which gas would likely migrate to the outside wall of a building;
- Any leak that can be seen, heard, or felt, and which is in a location that may endanger the general public or property; or
- Any leak which, in the judgment of operating personnel at the scene, is regarded as an immediate hazard.

Chapter 3. KNOWLEDGE OF THE DISTRIBUTION SYSTEM

This Plan was developed based on the design, construction, operation and maintenance records of City of Lanett Gas Department, including: incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience, as well as the judgment and knowledge of City of Lanett Gas Department' employees. The specific elements of knowledge of the infrastructure used to evaluate each threat and prioritize risks are listed in Chapter 4, *THREAT ASSESSMENT*, Chapter 5, *RISK EVALUATION AND PRIORITIZATION* and Section 11.2, "LIST OF ANSWERS AND DATA SOURCES FROM SHRIMP™ INTERVIEWS" of this Plan. Section 11.2, "LIST OF ANSWERS AND DATA SOURCES FROM SHRIMP™ INTERVIEWS" also lists the data sources used to answer each question.

Any additional information needed and the plan for gaining this currently unknown information over time through normal activities is described in Section 11.1, "IMPLEMENTATION PLAN".

The processes used for Threat Evaluation and Risk Prioritization are the processes found in the Simple, Handy, Risk-based Integrity Management Plan™ (SHRIMP™) software package developed by the APGA Security and Integrity Foundation (SIF). SHRIMP™ uses an index model developed by the consultants and advisors of the SIF. Threat assessment is performed using questions developed by the Gas Piping Technology Committee (GPTC) as modified and added to by the SHRIMP™ advisors. A description of the process followed is included in Section 11.4, "DESCRIPTION OF THE PROCESS FOLLOWED TO DEVELOP THIS PLAN".

This Plan will be reviewed at least Every Five (5) Years to continually refine and improve this Plan. Reviews may be performed more frequently as described in Chapter 8, *PERIODIC EVALUATION AND IMPROVEMENT* of this Plan.

Records for all piping system installed after the effective date of this Plan will be captured and retained by City of Lanett Gas Department. This will include the location where new piping and appurtenances are installed and the material of which they are constructed. The manner in which this will be accomplished is described in Section 11.1, "IMPLEMENTATION PLAN".

Chapter 4. THREAT ASSESSMENT

4.1. Overview

The following threats were evaluated on the distribution piping covered under the scope of this Plan: corrosion, natural forces, excavation damage, other outside force damage, material, weld or joint failure (including compression coupling), equipment malfunction, incorrect operation, and any other concerns that could threaten the integrity of the pipeline. The results of these threat assessments are discussed in the following sections. Answers to all questions asked by SHRIMP and the data sources for those answers is found in Section 11.2, "LIST OF ANSWERS AND DATA SOURCES FROM SHRIMP™ INTERVIEWS".

In addition to City of Lanett Gas Department's own information, data from the following external sources were used to assist in identifying potential threats:

- PHMSA advisory bulletins, regulatory updates and other integrity management information sent to SHRIMP subscribers by the APGA Security and Integrity Foundation;
- PHMSA Annual and Incident Report data, used in calculating the incident probability factor in the risk ranking model, described in more detail in Section 11.4.2, "Relative Risk Model".
- Data on leak repair rates, excavation damages per 1000 locate tickets and other aggregated data from all SHRIMP users provided by the APGA SIF to SHRIMP subscribers
- Information provided through membership and/or active participation in the following organizations:
  - American Public Gas Association
  - Gas Technology Institute
  -

4.2. City of Lanett Gas Department Threat Assessment

4.2.1. Corrosion

Atmospheric Corrosion

The threat of Atmospheric corrosion was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

The following were threat indicators:

- No threat indicators were found.

External Corrosion On Cast, Wrought, Ductile Iron Mains And Services (8" Or Smaller)

The threat of External corrosion on cast, wrought, ductile iron mains and services (8 or smaller) was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

The following were threat indicators:

- Responses indicating an actual threat:
    - Exposed pipe inspections indicate a corrosion problem.
    - Confirmed corrosion leaks have occurred on this section.
    - Fractures have occurred on the cast/ductile iron pipes other than those related to excavation activities.
    - Exposed pipe inspections indicate that graphitization is occurring.

External Corrosion On Cast, Wrought, Ductile Iron Mains And Services (larger Than 8")

The threat of External corrosion on cast, wrought, ductile iron mains and services (larger than 8) was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

cast, wrought, ductile iron mains and services (larger than 8) are not present.

External Corrosion On Other Metal

The threat of external corrosion on Other Metal was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Other Metal are not present.

External Corrosion On Plastic Mains And Services With Metal Fittings

The threat of External corrosion on plastic mains and services with metal fittings was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

plastic mains and services with metal fittings are not present.

External Corrosion On Bare, Cathodically Protected, Steel Mains And Services

The threat of external corrosion on bare, cathodically protected, steel mains and services was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

bare, cathodically protected, steel mains and services are not present.

External Corrosion On Coated, Cathodically Protected, Steel Mains And Services

The threat of external corrosion on coated, cathodically protected, steel mains and services was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

The following were threat indicators:

- Responses indicating an actual threat:
    - Confirmed corrosion leaks have occurred on this section.
- Responses indicating higher potential consequences:
    - A failure of this section could result in some effort to evacuate certain facilities (hospitals, schools, nursing homes, etc.).

External Corrosion On Bare, Unprotected, Steel Mains And Services

The threat of external corrosion on bare, unprotected, steel mains and services was assessed to determine if it warranted furtherc onsideration for additional action beyond code compliance or current system practice.

bare, unprotected, steel mains and services are not present.

External Corrosion On Coated, Unprotected, Steel Mains And Services

The threat of external corrosion on coated, unprotected, steel mains and services was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Internal Corrosion

The threat of Internal corrosion was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

The following were threat indicators:

- No threat indicators were found.

4.2.2. Equipment Malfunctions

Equipment Malfunctions Due To Failing Meter Sets

The threat of Equipment malfunctions due to failing meter sets was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to failing meter sets are not present.

Equipment Malfunctions Due To Prone to Failure Meter Sets

The threat of Equipment malfunctions due to meter sets prone to failure was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to meter sets prone to failure are not present.

Equipment Malfunctions Due To Failing Regulators / Relief Valves

The threat of Equipment malfunctions due to failing Regulators/Relief Valves was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to failing Regulators/Relief Valves are not present.

Equipment Malfunctions Due To Regulators / Relief Valves Prone To Failure

The threat of Equipment malfunctions due to Regulators/Relief Valves prone to failure was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to Regulators/Relief Valves prone to failure are not present.

Equipment Malfunctions Due To Failing Valves

The threat of Equipment malfunctions due to failing Valves was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to failing Valves are not present.

Equipment Malfunctions Due To Valves Prone To Failure

The threat of Equipment malfunctions due to Valves prone to failure was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to Valves prone to failure are not present.

Equipment Malfunctions Due To Failing Other Equipment

The threat of Equipment malfunctions due to failing other equipment was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to other equipment prone to failure are not present.

Equipment Malfunctions Due To Other Equipment Prone To Failure

The threat of Equipment malfunctions due to other equipment prone to failure was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Equipment malfunctions due to other equipment prone to failure are not present.

4.2.3. Excavation Damage

Excavation Damage Due To Blasting Damage

The threat of Excavation damage due to Blasting Damage was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Excavation damage due to Blasting Damage are not present.

Excavation Damage Due To Your Crew Or Contractor Damages

The threat of Excavation damage due to Crew or Contractor Damages was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Excavation damage due to Crew or Contractor Damages are not present.

Excavation Damage Due To Third Party Damages

The threat of Excavation damage due to Third Party Damages was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Excavation damage due to Third Party Damages are not present.

Excavation Damage Due To Mislocating Lines

The threat of Excavation damage due to Mislocating Lines was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

The following were threat indicators:

- No threat indicators were found.
- Responses indicating a potential threat:
    - Excavation damages have been caused by unmarked or inaccurately marked facilities (mis-locates).

Excavation Damage Due Damage

The threat of Excavation damage due to Damages was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Excavation damage due to Damages are not present.

4.2.4. Incorrect Operations

Incorrect Operations Due To Drugs And Alcohol

The threat of material, weld or joint failure due to Drugs and Alcohol was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Drugs and Alcohol are not present.

Incorrect Operations Due To Failure To Follow Procedures

The threat of material, weld or joint failure due to Failure To Follow Procedures was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Failure To Follow Procedures are not present.

Incorrect Operations Due To Inadequate Procedures

The threat of material, weld or joint failure due to Inadequate Procedures was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Inadequate Procedures are not present.

Incorrect Operations Due To Operator Qualification Revocation

The threat of material, weld or joint failure due to Operator Qualification Revocation was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Operator Qualification Revocation are not present.

4.2.5. Materials, Welds and Joints

Material, Weld Or Joint Due To Known Problem Materials

The threat of material, weld or joint failure due to Known Materials was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Known Materials are not present.

Material, Weld Or Joint Due To Manufacturing Defects

The threat of material, weld or joint failure due to Manufacturing Defects was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Manufacturing Defects are not present.

Material, Weld Or Joint Due To Workmanship Defects

The threat of material, weld or joint failure due to Workmanship Defects was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Workmanship Defects are not present.

Material, Weld Or Joint Due To Permalock Installations

The threat of material, weld or joint failure due to Permalock was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Material, weld or joint failure due to Permalock are not present.

4.2.6. Natural forces

Natural Force Damages Caused By Earth Movement Due To Subsidence

The threat of Natural force damages caused by Earth Movement due to Subsidence was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Earth Movement due to Subsidence are not present.

Natural Force Damages Caused By Earth Movement Due To Frost Heave

The threat of Natural force damages caused by Earth Movement due to Frost Heave was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Earth Movement due to Frost Heave are not present.

Natural Force Damages Caused By Earth Movement Due To Earthquakes

The threat of Natural force damages caused by Earth Movement due to Earthquakes was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Earth Movement due to Earthquakes are not present.

Natural Force Damages Caused By Earth Movement Due To Landslides Or Mudslides

The threat of Natural force damages caused by Earth Movement due to Landslides or Mudslide was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Earth Movement due to Landslides or Mudslide are not present.

Natural Force Damages Caused By Lightning

The threat of Natural force damages caused by High winds or hurricanes or tornados was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by High winds or hurricanes or tornados are not present.

Natural Force Damages Caused By Flooding

The threat of Natural force damages caused by Flooding was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Flooding are not present.

Natural Force Damages Caused By Scouring Or Washouts Due To Flowing Water

The threat of Natural force damages caused by Scouring or washouts due to flowing water was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Scouring or washouts due to flowing water are not present.

Natural Force Damages Caused By Falling Chunks Of Snow Or Ice

The threat of Natural force damages caused by Falling chunks of snow or ice was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Falling chunks of snow or ice are not present.

Natural Force Damages Caused By High Winds Or Hurricanes Or Tornados

The threat of Natural force damages caused by High winds or hurricanes or tornados was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by High winds or hurricanes or tornados are not present.

Natural Force Damages Caused By Other Forces

The threat of Natural force damages caused by Other Natural Forces was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Natural force damages caused by Other Natural Forces are not present.

4.2.7. Other outside forces

Other Outside Forces

The threat of Other outside forces was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

4.2.8. Other threats

Other Threats

The threat of Other threats was assessed to determine if it warranted further consideration for additional action beyond code compliance or current system practice.

Chapter 5. RISK EVALUATION AND PRIORITIZATION

5.1. Overview

Of the sections identified during the Threat Assessment as requiring further consideration for additional actions, City of Lanett Gas Department has determined that the relative risk of these threats to the integrity of these lines ranks in the following priority, beginning with the highest relative risk.

RANK indicates the final relative risk rank after review and validation by City of Lanett Gas Department.

USER RANK indicates if the threat-segment was re-ranked by City of Lanett Gas Department. A zero indicates it was left where SHRIMP's risk model ranked it – any other number indicates it was moved higher or lower by City of Lanett Gas Department. Where a threat-segment was re-ranked an explanation for the reason is included in the discussion for that segment.

SHRIMP Rank is where SHRIMP's risk ranking model originally ranked the threat-segment. Segments under Other Threats were not ranked by SHRIMP so are initially placed at the bottom of the segment list. City of Lanett Gas Department has placed these segments in the risk ranking list based in its knowledge and judgment.

Relative Risk score is a numeric score from 0-30 based on the four factors listed – Probability, Consequence, Leak Cause Factor and Incident Probability Factor. The risk model is described in detail in Section 11.4.2, "Relative Risk Model".

The risk ranking is based on relative risk, not absolute risk. It should not be construed to suggest that the highest ranked segment is unsafe or that additional actions are required to maintain public safety. It is merely a tool to assist City of Lanett Gas Department to prioritize its inspection and maintenance programs.

5.2. City of Lanett Gas Department Section Risk Ranking

Section: Entire Cast Iron System

Threat: Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)

Description: All Cast Iron Main

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
1	0	1	7.95	6.63	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- Responses indicating an actual threat:

- Exposed pipe inspections indicate a corrosion problem.
- Confirmed corrosion leaks have occurred on this section.
- Fractures have occurred on the cast/ductile iron pipes other than those related to excavation activities.
- Exposed pipe inspections indicate that graphitization is occurring.

Section: Entire Steel System

Threat: Corrosion > Cathodic Protected, Coated Steel

Description: All

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
2	0	2	3.29	2.29	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- Responses indicating an actual threat:
  - Confirmed corrosion leaks have occurred on this section.
- Responses indicating higher potential consequences:
  - A failure of this section could result in some effort to evacuate certain facilities (hospitals, schools, nursing homes, etc.).

Section: Entire System

Threat: Corrosion > Atmospheric Corrosion

Description:

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor

3	0	3	1.2	1	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- No threat indicators were found.

Section: Entire System

Threat: Corrosion > Internal Corrosion

Description: All Steel and Cast Iron Mains

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
4	0	4	1	1	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- No threat indicators were found.

Section:

Threat: Excavation > Mislocating Lines

Description:

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
5	0	5	0.71	0.57	1	1.25

Ranked here, in part, for the following reasons:

The following were threat indicators:

- No threat indicators were found.
- Responses indicating a potential threat:
    - Excavation damages have been caused by unmarked or inaccurately marked facilities (mis-locates).

Chapter 6. ADDITIONAL/ACCELERATED MEASURES TO ADDRESS RISKS

6.1. MANDATORY ADDITIONAL ACTIONS

The following are mandatory additional actions required by DIMP regulations.

LEAK CLASSIFICATION AND ACTION CRITERIA

These leak classification and action criteria are taken from the Guide for Gas Transmission and Distribution Piping Systems, 2003 edition. A complete copy of the GPTC Guide can be purchased at www.aga.org.

Table 6.1. Leak Classification And Action Criteria - Grade 1

LEAK CLASSIFICATION AND ACTION CRITERIA – GRADE 1		
Grade Definition	**Examples**	**Action Criteria**
A leak that represents an existing or probable hazard to persons or property, and requires immediate repair or continuous action until the conditions are no longer hazardous. See §192.703(c).	• Any leak which, in the judgment of operating personnel at the scene, is regarded as an immediate hazard. • Escaping gas that has ignited. • Any indication of gas which has migrated into or under a building, or into a tunnel. • Any reading at the outside wall of a building, or where gas would likely migrate to an outside wall of a building. • Any reading of 80% LEL, or greater, in a confined space. • Any reading of 80% LEL, or greater in small substructures (other than gas associated substructures) from which gas would likely migrate to the outside wall of a building. • Any leak that can be seen, heard, or felt, and which is in a location that may endanger the general public or property.	Requires prompt action* to protect life and property, and continuous action until the conditions are no longer hazardous * The prompt action in some instances may require one or more of the following: • Implementation of emergency plan (§192.615). • Evacuating premises. • Blocking off an area. • Rerouting traffic. • Eliminating sources of ignition. • Venting the area by removing manhole covers, barholing, installing vent holes, or other means. • Stopping the flow of gas by closing valves or other means. • Notifying police and fire departments.

Table 6.2. Leak Classification And Action Criteria - Grade 2

LEAK CLASSIFICATION AND ACTION CRITERIA – GRADE 2		
Grade Definition	**Examples**	**Action Criteria**
A leak that is recognized as being non-hazardous at the time of detection, but justifies scheduled repair based on probable future hazard.	• Leaks Requiring Action Ahead of Ground Freezing or Other Adverse Changes in Venting Conditions. Any leak which, under frozen or other adverse soil conditions, would likely migrate to the outside wall of a building. • Leaks Requiring Action Within Six Months	Leaks should be repaired or cleared within one calendar year, but no later than 15 months from the date the leak was reported. In determining the repair priority, criteria such as the following should be considered. • Amount and migration of gas.

LEAK CLASSIFICATION AND ACTION CRITERIA – GRADE 2		
Grade Definition	**Examples**	**Action Criteria**
	• Any reading of 40% LEL, or greater, under a sidewalk in a wall-to-wall paved area that does not qualify as a Grade 1 leak. • Any reading of 100% LEL, or greater, under a street in a wall-to-wall paved area that has significant gas migration and does not qualify as a Grade 1 leak. • Any reading less than 80% LEL in small substructures (other than gas associated substructures) from which gas would likely migrate creating a probable future hazard. • Any reading between 20% LEL and 80% LEL in a confined space. • Any reading on a pipeline operating at 30 percent SMYS, or greater, in a class 3 or 4 location, which does not qualify as a Grade 1 leak. • Any reading of 80% LEL, or greater, in gas associated substructures. • Any leak which, in the judgment of operating personnel at the scene, is of sufficient magnitude to justify scheduled repair.	• Proximity of gas to buildings and subsurface structures. • Extent of pavement. • Soil type, and soil conditions, such as frost cap, moisture and natural venting. Grade 2 leaks should be reevaluated at least once every six months until cleared. The frequency of reevaluation should be determined by the location and magnitude of the leakage condition.

Table 6.3. Leak Classification And Action Criteria - Grade 3

LEAK CLASSIFICATION AND ACTION CRITERIA – GRADE 3		
Grade Definition	**Examples**	**Action Criteria**
A leak that is nonhazardous at the time of detection and can be reasonably expected to remain non-hazardous.	Leaks Requiring Reevaluation at Periodic Intervals • Any reading of less than 80% LEL in small	These leaks should be reevaluated during the next scheduled survey, or within 15 months of the date reported, whichever occurs

LEAK CLASSIFICATION AND ACTION CRITERIA – GRADE 3		
Grade Definition	**Examples**	**Action Criteria**
	gas associated substructures. • Any reading under a street in areas without wall-to-wall paving where it is unlikely the gas could migrate to the outside wall of a building. • Any reading of less than 20% LEL in a confined space.	first, until the leak is regraded or no longer results in a reading.

LEAK LOCATION PROCEDURE(S) City of Lanett Gas Department has adopted leak location procedures:

6.2. RISK BASED ADDITIONAL ACTIONS

The following lists the additional/accelerated actions that will be taken and describes the part of City of Lanett Gas Department to which each applies to address the priority risks described in the previous section of this Plan. Further details can be found in Section 11.1, "IMPLEMENTATION PLAN".

Section: Entire Cast Iron System

Threat: Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)

Description: All Cast Iron Main

For Corrosion > Cast, Ductile, Wrought Iron (8 or smaller) on the Entire Cast Iron System section, the system will:

- Perform Annual Cast Iron Survey

Section: Entire Steel System

Threat: Corrosion > Cathodic Protected, Coated Steel

Description: All

For Corrosion > Cathodic Protected, Coated Steel on the Entire Steel System section, the system will:

- The relative risk posed by this threat on this section of Test System Name are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

Over the last 10 years, external corrosion has not been an issue for the City of Lanett on cathodically protected steel mains and services. During the review of this threat , it was found that there was only one external corrosion leak on a steel main in the last 10 years. Because of turnover of employees and documentation being misplaced, there are no work orders or paperwork to review for this threat. So, the City of Lanett has to depend on the employees (SME) to make decisions for this threat. From this point, the City of Lanett will document any and all external corrosion leaks on their system through work orders and will track these external corrosion leaks with the DIMP Baseline spreadsheet every year.

Section: Entire System

Threat: Corrosion > Atmospheric Corrosion

Description:

For Corrosion > Atmospheric Corrosion on the Entire System section, the system will:

- The relative risk posed by this threat on this section of Test System Name are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

  The City of Lanett has reviewed this Section and agrees that there are no threats for Atmospheric Corrosion since there were so few instances with this during the last 10 years.

Section: Entire System

Threat: Corrosion > Internal Corrosion

Description: All Steel and Cast Iron Mains

For Corrosion > Internal Corrosion on the Entire System section, the system will:

- The relative risk posed by this threat on this section of Test System Name are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

  The City of Lanett has reviewed this Section and agrees that there is no threat for Internal Corrosion and therefore no additional actions are required.

Section:

Threat: Excavation > Mislocating Lines

Description:

For Excavation > Mislocating Lines on the section, the system will:

- The relative risk posed by this threat on this section of Test System Name are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

  The City of Lanett has reviewed this Section and agrees that there are no threats for Mislocating LInes since there were so few of these instances during the last 10 years.

Chapter 7. MEASURE PERFORMANCE, MONITOR RESULTS AND EVALUATE EFFECTIVENESS

7.1. MANDATORY PERFORMANCE MEASURES

City of Lanett Gas Department will keep records of the following performance measures:

1. The number of hazardous leaks either eliminated or repaired, categorized by cause;
2. The number of excavation damages;
3. The number of excavation tickets received;
4. The number of leaks either eliminated or repaired, categorized by cause; and
5. The number of hazardous leaks either eliminated or repaired, categorized by material.

7.2. RISK BASED PERFORMANCE MEASURES

The following lists the performance measures that will be tracked and describes the part of to which each applies to evaluate the effectiveness of the additional measures taken to address risks as described in the previous section of this Plan.

Section: Entire Cast Iron System

Threat: Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)

Description: All Cast Iron Main

For Corrosion > Cast, Ductile, Wrought Iron (8 or smaller) on the Entire Cast Iron System section, the system will:

- Track the number of leaks caused by external corrosion per mile of main and per 1000 service lines on this section.

Section: Entire Steel System

Threat: Corrosion > Cathodic Protected, Coated Steel

Description: All

For Corrosion > Cathodic Protected, Coated Steel on the Entire Steel System section, the system will:

- The relative risk posed by this threat on this section of the System are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

Over the last 10 years, external corrosion has not been an issue for the City of Lanett on cathodically protected steel mains and services. During the review of this threat , it was found that there was only one external corrosion leak on a steel main in the last 10 years. Because of turnover of employees and documentation being misplaced, there are no work orders or paperwork to review for this threat. So, the City of Lanett has to depend on the employees (SME) to make decisions for this threat. From this point, the City of Lanett will document any and all external corrosion leaks on their system through work orders and will track these external corrosion leaks with the DIMP Baseline spreadsheet every year.

Section: Entire System

Threat: Corrosion > Atmospheric Corrosion

Description:

For Corrosion > Atmospheric Corrosion on the Entire System section, the system will:

- The relative risk posed by this threat on this section of the System are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

  The City of Lanett has reviewed this Section and agrees that there are no threats for Atmospheric Corrosion since there were so few instances with this during the last 10 years.

Section: Entire System

Threat: Corrosion > Internal Corrosion

Description: All Steel and Cast Iron Mains

For Corrosion > Internal Corrosion on the Entire System section, the system will:

- The relative risk posed by this threat on this section of the System are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

  The City of Lanett has reviewed this Section and agrees that there is no threat for Internal Corrosion and therefore no additional actions are required.

Section:

Threat: Excavation > Mislocating Lines

Description:

For Excavation > Mislocating Lines on the section, the system will:

- The relative risk posed by this threat on this section of the System are adequately addressed by current inspection and maintenance. No additional actions are required. The following explanation was provided:

  The City of Lanett has reviewed this Section and agrees that there are no threats for Mislocating LInes since there were so few of these instances during the last 10 years.

7.3. MONITOR RESULTS AND EVALUATE EFFECTIVENESS

Monitoring results and evaluating effectiveness is addressed in Chapter 8, *PERIODIC EVALUATION AND IMPROVEMENT* of this Plan.

7.4. BASELINE PERFORMANCE MEASURE MONITORING & PERFORMANCE MEASURE THRESHOLDS

BASELINE PERFORMANCE MEASURE MONITORING - The City of Lanett will monitor 10 years of Mandatory and, if applicable, Risk Based performance measures, as listed in Chapter 7 of its DIM Plan. The current 10 years will be used as the baseline. If less than 10 years' data is available, data from the available years will be used as the baseline until such time as 10 years' data is available (then the most recent 10 years' data will be the baseline).

PERFORMANCE MEASURE THRESHOLDS - For those that revise or re-evaluate yearly using SHRIMP: • For performance measures that are tracked in SHRIMP, SHRIMP uses the Mann-Kendall test to inform the user if any performance measure is indicating a statistically significant upward or downward trend. If one or more of these performance measures indicates that the A/A Action is not effective, the user WILL consider modifying the A/A Action and/or implementing additional A/A Actions (This will require an Operators to update SHRIMP annually through a Revision OR a Re-Evaluation) For those utilizing the Baseline Tracking Spreadsheet: • For performance measures that are tracked in SHRIMP only when sporadic revisions are made OR only when a Re-Evaluation is done, the Baseline tracking spreadsheet fills this role. The Baseline tracking spreadsheet establishes a Baseline as outlined in BASELINE PERFORMANCE MEASURE MONITORING above. The Baseline tracking spreadsheet then utilizes a “trendline” instead of the Mann-Kendall test to determine upward or downward trend. When a tracked performance measure indicates that the A/A Action is not effective as evidenced by the trendline rising above the baseline, the user WILL consider modifying the A/A Action and/or implementing additional A/A Actions if the user cannot otherwise explain the reason for the increased trend (i.e. Fiber Company bombards an area with contractors to put in fiber resulting in a sharp increase in excavation damages).

Chapter 8. PERIODIC EVALUATION AND IMPROVEMENT

City of Lanett Gas Department will conduct a complete re-evaluation of this Plan no less than Every Five (5) Years. Trends in each of the performance measures listed in Chapter 7, *MEASURE PERFORMANCE, MONITOR RESULTS AND EVALUATE EFFECTIVENESS* will be reviewed during the re-evaluation. If any performance measure indicates that any of the additional action taken is not effective in reducing the risk it is intended to address, will consider implementing additional actions to address that risk.

Re-evaluation of the Plan will also occur when changes occur on the system that may significantly change the risk of failure, including but not limited to:

- Completion of any additional actions listed in Chapter 6, *ADDITIONAL/ACCELERATED MEASURES TO ADDRESS RISKS* of this Plan,
- A review of performance measures concludes that a change of approach is warranted.

Section 11.5, “PLAN CHANGE LOG” provides a log of the plan changes detailing differences between this Plan (Version 2.4.2) and the previous Plan (Version 2.4.1).

A detailed description of the process for plan re-evaluation is found in Section 11.4, “DESCRIPTION OF THE PROCESS FOLLOWED TO DEVELOP THIS PLAN”.

Chapter 9. REPORTING

The following will be submitted annually to the Pipeline And Hazardous Materials Safety Administration (PHMSA) as part of the Distribution Annual Report (Form F7100.1-1) and Alabama Public Service Commission along with the distribution annual report.

PERFORMANCE MEASURES — City of Lanett Gas Department will track and report the following performance measures:

- Number of hazardous leaks either eliminated or repaired, categorized by cause;
- Number of excavation damages;
- Number of excavation tickets;
- Total number of leaks either eliminated or repaired, categorized by cause;

EXCESS FLOW VALVES — will track the number of excess flow valves installed on the system

These data will be sent to the PHMSA Information Resource Manager as part of the Distribution Annual Report (Form F7100.1-1).

Chapter 10. RECORD KEEPING

The following records will be maintained for ten years.

1. This Plan,

2. Copies of previous written DIMP Plans,

3. Records of data required to be collected to calculate performance measures listed in Chapter 7, *MEASURE PERFORMANCE, MONITOR RESULTS AND EVALUATE EFFECTIVENESS*,

4. Data Sources referenced during the Threat Assessments (listed in Section 11.3, "LIST OF DATA SOURCES FROM SHRIMP™ INTERVIEWS"),

5. Records of mechanical fitting failures,

6. Inspection, maintenance and other records relied upon in developing this written DIMP plan, as listed in the Data Source fields in Section 11.2, "LIST OF ANSWERS AND DATA SOURCES FROM SHRIMP™ INTERVIEWS" of this Plan.

Chapter 11. ATTACHMENTS

11.1. IMPLEMENTATION PLAN

This Attachment lists all the action items that are included in this written Distribution Integrity Management Plan.

Section A describes how City of Lanett Gas Department will modify procedures, policies and/or recordkeeping systems to implement:

1. mandatory data collection and recordkeeping requirements in the regulation as listed in Section 7.1, "MANDATORY PERFORMANCE MEASURES" of this Plan, and

2. performance measures specific to Additional/Accelerated Actions as listed in Section 7.2, "RISK BASED PERFORMANCE MEASURES" of this Plan.

Section B describes how City of Lanett Gas Department will implement Additional/Accelerated Actions, if any, listed in Chapter 6, *ADDITIONAL/ACCELERATED MEASURES TO ADDRESS RISKS* of this Plan.

Section C describes how City of Lanett Gas Department will implement procedures to collect additional information needed to fill gaps, if any, found during the development of this Plan.

A. Procedures, policies and/or recordkeeping systems will be modified as follows to collect and retain information required to be collected and retained under the DIMP plan, including:

   1. The following Recordkeeping tasks:

      a. Records for all piping system installed after the effective date of this Plan, including, at minimum, the location where new piping and appurtenances are installed and the material of which they are constructed.

      b. Mechanical fitting failure data, including:

         i. location of the failure in the system,

         ii. nominal pipe size,

         iii. material type,

         iv. nature of failure including any contribution of local pipeline environment,

         v. fitting manufacturer,

         vi. lot number and date of manufacture, and

         vii. other information that can be found in markings on the failed fitting

   2. The following Performance Measures:

For **Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)** on the **Entire Cast Iron System** the system will:

- Track the number of leaks caused by external corrosion per mile of main and per 1000 service lines on this section.

The System will implement as follows: The City of Lanett will track the number of corrosion leaks per mile of cast iron main on DIMP Baseline Spreadsheet. The City of Lanett does not have cast iron services to track.

B. Additional/Accelerated Actions included in this DIMP plan:

For **Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)** on the **Entire Cast Iron System** the system will:

- Perform Annual Cast Iron Survey

  The System will implement as follows: The City of Lanett will perform an annual leakage survey of the entire cast iron system during the Critical Area/Public Buildings Survey

C. The following Procedures to collect additional information needed to fill gaps:

a. The following gaps identified by LANETT GAS SYSTEM, CITY OF.

LANETT GAS SYSTEM, CITY OF will implement as follows:

City of Lanett will document any gaps discovered on work orders of unknown facilities by conducting research on the unknown facilities or electing to replace or remove the facilities. Research /consider, replace, or remove problem facilities. : During the course of day-to-day operations, work orders and other records will be reviewed by the Gas Supt. or other responsible party to ensure that information obtained in the field matches the records in the office. In the event that office records are different from what is discovered in the field, the Gas Supt. or other responsible party shall ensure that office records are updated. Should field observations differ greatly from office records (i.e. PVC, Cast Iron, Bare steel found in the field but office records denote that none of this is in the system), the Gas Supt. or other responsible party shall take the necessary steps to identify the extent of the differences and consider a re-evaluation of it DIMP Plan.

11.2. LIST OF ANSWERS AND DATA SOURCES FROM SHRIMP™ INTERVIEWS

The following lists the interview responses and data sources entered during the threat assessments.

System

System Information

- General System Description (PART B1)

  Your Choice (weight: 0) --

Material	Mains	Services
Plastic	19.5	2124
Unprotected, Bare	0	0
Cathodically Protected, Bare	0	0
Unprotected, Coated	0	0
Cathodically Protected, Coated	49	353
Cast Iron, Wrought Iron	7.5	0
Ductile Iron	0	0
Copper	0	0
Other(1)	0	0
Other(1)	0	0

- Mains By Size (PART B2)

  Your Choice (weight: 0) --

Material	Unknown	2“ or less	Over 2“ thru 4“	Over 4“ thru 8“	Over 8“ thru 12“	Over 12“	Total
PVC	0	0	0	0	0	0	0
PE	0	13	6.5	0	0	0	19.5
ABS	0	0	0	0	0	0	0
Steel	0	48	0	1	0	0	49
Cast Iron, Wrought Iron	0	0	6.5	1	0	0	7.5
Ductile Iron	0	0	0	0	0	0	0
Copper	0	0	0	0	0	0	0
Other (1)	0	0	0	0	0	0	0
Other (2)	0	0	0	0	0	0	0

- Services By Size (PART B3)

Your Choice (weight: 0) --

Material	Unknown	1“ or less	Over 1“ thru 2“	Over 2“ thru 3“	Over 4“ thru 8“	Over 8“	Total
PVC	0	0	0	0	0	0	0
PE	0	2122	2	0	0	0	2124
ABS	0	0	0	0	0	0	0
Steel	0	353	0	0	0	0	353
Cast Iron, Wrought Iron	0	0	0	0	0	0	0
Ductile Iron	0	0	0	0	0	0	0
Copper	0	0	0	0	0	0	0
Other (1)	0	0	0	0	0	0	0
Other (2)	0	0	0	0	0	0	0

- Leaks Eliminated/Repaired (EC110)

  Your Choice (weight: 0) -- No

- System Description By Decade In Service

  Your Choice (weight: 0) --

Decade	Mains	Services
Unknown	64	2409
Pre 1940s	0	0
1940-1949	0	0
1950-1959	0	0
1960-1969	0	0
1970-1979	0	0
1980-1989	0	0

1990-1999	0	0
2000-2009	3.5	39
2010-2019	6	8
2020-2029	2.5	21
Total	76	2477

- Leaks Eliminated/Repaired (PART C1)

  Your Choice (weight: 0) --

Threat	Mains	Services
Corrosion	0	0
Natural Forces	0	0
Excavation	0	2
Other Outside Force Damage	0	1
Material or Welds	0	0
Equipment	0	0
Operations	0	0
Other	0	0
Total	0	3

- Repairs Scheduled (PART C2)

  Your Choice (weight: 0) -- 1

- Leaks on Federal Lands (PART D)

  Your Choice (weight: 0) -- 0

- Unaccounted For Gas (PART E)

  Your Choice (weight: 0) -- 5.9

- Additional Information (PART F)

  Your Choice (weight: 0) --

Corrosion Threat

Atmospheric Corrosion (Entire System)

- Does Test System Name have any facilities that require atmospheric corrosion inspections? (CORRAC101)

  Your Choice (weight: 0) -- Yes

- Over the past 10 years, have any atmospheric corrosion inspections found metal loss due to atmospheric corrosion? (CORRAC103)

  Your Choice (weight: 0) -- No

- Over the past 10 years, have leaks caused by atmospheric corrosion required repair? (CORRAC104)

  Your Choice (weight: 0) -- No

- Have inspections found problems with above ground pipe coatings that could not be fixed by routine maintenance? (CORRAC105)

  Your Choice (weight: 0) -- No

- Are the pressure and/or diameter of this section greater than or about the same as the system as a whole? If this section represents the system as a whole, choose 'About the same. (CORRACCSQ1)

  Your Choice (weight: 0) -- About the same

- Is this section predominantly located in business districts or outside business districts (as those are defined for leak survey)? (CORRACCSQ2)

Your Choice (weight: 0) -- Outside Business Districts

- How long would it typically take utility crews to reach this part of the system after receiving notice of a possible failure? (CORRACCSQ3)

  Your Choice (weight: 0) -- Less than one (1) hour

- What would be the impact on the utility and its customers if this section were to fail? (CORRACCSQ4)

  Your Choice (weight: 0) -- Low

- Could a failure of this section potentially affect schools, hospitals, nursing homes and other difficult to evacuate facilities? (CORRACCSQ5)

  Your Choice (weight: 0) -- No

External Corrosion (Cathodic Protected, Coated Steel - Entire System)

- Are repaired corrosion leaks per mile increasing? (EC102)

Year	Miles of Mains	Corrosion Leaks Repaired	Repaired Leaks/Mile
2012	49	8	0.1632653
2013	49	9	0.1836735
2014	49	5	0.1020408
2015	49	5	0.1020408
2016	49	6	0.122449
2017	49	4	0.0816327
2018	49	6	0.122449
2019	49	5	0.1020408
2020	49	6	0.122449
2021	49	0	0

- SHRIMP has determined that leaks, failures or damages are Not Increasing.(see guidance).

  Do you accept this determination?

  Your Choice (weight: 0) -- Accept

- Are repaired corrosion leaks per service increasing? (EC201))

Year	Corrosion Leaks Repaired	Number of Services	Repaired Leaks/Service
2012	4	472	0.0084746
2013	18	445	0.0404494
2014	7	445	0.0157303
2015	4	427	0.0093677
2016	0	416	0
2017	3	412	0.0072816
2018	2	408	0.004902
2019	0	367	0
2020	0	353	0
2021	0	353	0

- SHRIMP has determined that leaks, failures or damages are Not Increasing.(see guidance).

  Do you accept this determination?

  Your Choice (weight: 0) -- Accept

- Do exposed pipe inspections indicate a corrosion problem? (EC202)

  Your Choice (weight: 0) -- No

- Is cathodic protection of the section adequate? (EC202)

Your Choice (weight: 0) -- Yes

- Have confirmed corrosion leaks occurred on this section? (EC701)

  Your Choice (weight: 1) -- Yes

- Does section contain leaks found and being monitored that are suspected to be corrosion related and reflect a corrosion problem? (EC702)

  Your Choice (weight: 0) -- No

- What percent of your cathodic protection test point readings meet or exceed acceptable cathodic protection criteria? (EC704)

  Your Choice (weight: 0) -- All readings meet CP criteria

- Are there known sources of stray electrical current in the area? (EC705)

  Your Choice (weight: 0) -- No

- What is the condition of the pipeline coating? (EC710)

  Your Choice (weight: 0) -- Good

- Is the section cathodic protection provided by rectifier(s) only, anode(s) only, or a combination? (EC720)

  Your Choice (weight: 0) -- Anode(s) Only

- Are the pressure and/or diameter of this section greater than or about the same as the system as a whole? If this section represents the system as a whole, choose 'About the same. (ECCSQ1)

  Your Choice (weight: 0) -- About the same

- Is this section predominantly located in business districts or outside business districts (as those are defined for leak survey)? (CORRACCSQ2)

  Your Choice (weight: 0) -- Outside Business Districts

- How long would it typically take utility crews to reach this part of the system after receiving notice of a possible failure? (CORRACCSQ3)

  Your Choice (weight: 0) -- Less than one (1) hour

- What would be the impact on the utility and its customers if this section were to fail? (CORRACCSQ4)

  Your Choice (weight: 0) -- Low

- Could a failure of this section potentially affect schools, hospitals, nursing homes and other difficult to evacuate facilities? (CORRACCSQ5)

  Your Choice (weight: 0.2) -- Yes

  External Corrosion (Cast, Ductile, Wrought Iron (8 or smaller) - Entire System)

  - Are repaired corrosion leaks per mile increasing? (EC102)

Year	Miles of Mains	Corrosion Leaks Repaired	Repaired Leaks/Mile
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0	0	0
2019	0	0	0

2020	0	0	0
2021	0	0	0

- SHRIMP has determined that leaks, failures or damages are Not Increasing.(see guidance).

  Do you accept this determination?

  Your Choice (weight: 0) --

- Are repaired corrosion leaks per service increasing? (EC201))

Year	Corrosion Leaks Repaired	Number of Services	Repaired Leaks/Service
2012	0	0	0
2013	0	0	0
2014	0	0	0
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0	0	0
2019	0	0	0
2020	0	0	0
2021	0	0	0

- SHRIMP has determined that leaks, failures or damages are Not Increasing.(see guidance).

  Do you accept this determination?

  Your Choice (weight: 0) --

- Do exposed pipe inspections indicate a corrosion problem? (EC202)

  Your Choice (weight: 1) -- Yes

- Have confirmed corrosion leaks occurred on this section? (EC701)

  Your Choice (weight: 1) -- Yes

- Does section contain leaks found and being monitored that are suspected to be corrosion related and reflect a corrosion problem? (EC702)

  Your Choice (weight: 0) -- No

- Do Cast/Ductile Iron mains have steel laterals connected with no electrical isolation? (CORRECCDWI1)

  Your Choice (weight: 0) -- No

- Have fractures occurred on the Cast/Ductile Iron pipes other than those related to excavation activities? (CORRECCDWI2)

  Your Choice (weight: 2) -- Yes

- Are the fractures limited to certain diameters? If so, indicate sizes experiencing problems. (CORRECCDWI3)

  Your Choice (weight: 0) -- No

- Do exposed pipe inspections indicate that graphitization is occurring? (CORRECCDWI4)

  Your Choice (weight: 1) -- Yes

- Are the pressure and/or diameter of this section greater than or about the same as the system as a whole? If this section represents the system as a whole, choose 'About the same. (ECCSQ1)

  Your Choice (weight: 0) -- About the same

- Is this section predominantly located in business districts or outside business districts (as those are defined for leak survey)? (CORRACCSQ2)

  Your Choice (weight: 0) -- Outside Business Districts

- How long would it typically take utility crews to reach this part of the system after receiving notice of a possible failure? (CORRACCSQ3)

  Your Choice (weight: 0) -- Less than one (1) hour

- What would be the impact on the utility and its customers if this section were to fail? (CORRACCSQ4)

  Your Choice (weight: 0) -- Low

- Could a failure of this section potentially affect schools, hospitals, nursing homes and other difficult to evacuate facilities? (CORRACCSQ5)

  Your Choice (weight: 0) -- No

Internal Corrosion (Entire System)

- Do inspections of the inside of metal pipe or coupons removed from metal pipe show signs of internal corrosion? (CORRIC101)

  Your Choice (weight: 0) -- No

- Have leaks caused by internal corrosion occurred? (CORRIC102)

  Your Choice (weight: 0) -- No

- Do you receive any gas that is not of transmission pipeline quality? (CORRIC103)

Your Choice (weight: 0) -- No

- Have liquids been found in your distribution piping? (CORRIC104)

  Your Choice (weight: 0) -- No

- Are the pressure and/or diameter of this section greater than or about the same as the system as a whole? If this section represents the system as a whole, choose 'About the same. (CORRICCSQ1)

  Your Choice (weight: 0) -- About the same

- Is this section predominantly located in business districts or outside business districts (as those are defined for leak survey)? (CORRICCSQ2)

  Your Choice (weight: 0) -- Outside Business Districts

- How long would it typically take utility crews to reach this part of the system after receiving notice of a possible failure? (CORRACCSQ3)

  Your Choice (weight: 0) -- Less than one (1) hour

- What would be the impact on the utility and its customers if this section were to fail? (CORRACCSQ4)

  Your Choice (weight: 0) -- Low

- Could a failure of this section potentially affect schools, hospitals, nursing homes and other difficult to evacuate facilities? (CORRICCSQ5)

  Your Choice (weight: 0) -- No

Equipment Malfunction Threat

Equipment Malfunction (New System - Entire System)

- Are leaks occurring or do inspections indicate potential equipment malfunctions with any of the following? (EQ101a)

  Your Choice (weight: 0) -- None of Theses

- Does system contain equipment known/prone to malfunction(Industry wide)? (EQ102a)

  Your Choice (weight: 0) -- None of Theses

Incorrect Operations Threat

Incorrect Operations (New System - Entire System)

- Have failures due to inadequate procedures been experienced during the past 5 years? (IOP101)

  Your Choice (weight: 0) -- No

- Have failures due to a failure to follow procedures been experienced? (IOP104)

  Your Choice (weight: 0) -- No

- Have any employees or contractors had operator qualification credentials revoked due to poor performance of any covered task? (IOP105)

  Your Choice (weight: 0) -- No

- Have employees or contractors tested positive for drugs or alcohol (other than pre-hire tests)? (IOP106)

  Your Choice (weight: 0) -- No

Material, Weld or Joint Failure Threat

Material, Weld or Joint Failure (New System - Entire System)

- Have manufacturing defects on pipe or non-pipe components been experienced? (MW101)

  Your Choice (weight: 0) -- No

- Have failures due to workmanship defects been experienced? (MW102)

  Your Choice (weight: 0) -- No

- Have failures due to workmanship defects been experienced? (MW102)

  Your Choice (weight: 0) -- None that apply

- Have you ever installed PermaLock tapping tees on your system? (MW110)

  Your Choice (weight: 0) -- No

Excavation Damage Threat

Excavation (New System - Entire System)

- Over the past few years have any your lines been mis-located? If so, indicate the cause of the mis-locates. (EXC009)

  Your Choice (weight: 0) -- Mis-locates due to inaccurate or incomplete maps and records.

- Has excavation damage been caused by your crews or your contractors? (EXC109)

  Your Choice (weight: 0) -- No

- Has excavation damage been caused by third party crews or contractors? (EXC114)

  Your Choice (weight: 0) -- Yes

- Are there portions of the system located where excavation in the area of pipeline would require the use of explosives? (EXC110)

  Your Choice (weight: 0) -- No

- Are there areas of your system that that are experiencing significantly more locate requests and excavation damages than the rest of the system? (EXC111)

  Your Choice (weight: 0) -- No

Natural Forces Threat

Natural Forces (Entire System)

- Are there areas of the system that are subject to any of the following? (Check all that apply) (NF102)

  Your Choice (weight: 0) -- None of These

Other Outside Forces Threat

Other Threats Threat

11.3. LIST OF DATA SOURCES FROM SHRIMP™ INTERVIEWS

DATA SOURCE REFERENCES

The following lists any data source references entered during the threat assessments.

- Atmospheric Corrosion (Entire System)
  - SMEs
- External Corrosion (Cathodic Protected, Coated Steel - Entire System)
  - Annual 7100 Reports and Annual Cathodic Protection Survey
- External Corrosion (Cast, Ductile, Wrought Iron (8 or smaller) - Entire System)
  - Annual 7100 Reports and SME
- Internal Corrosion (Entire System)
  - Annual 7100 Reports
- Equipment Malfunction (New System - Entire System)
  - Annual 7100 Reports and SME
- Excavation (New System - Entire System)
  - Annual 7100 Reports and SME

11.4. DESCRIPTION OF THE PROCESS FOLLOWED TO DEVELOP THIS PLAN

11.4.1. Process Description

Procedures for developing and implementing DIMP elements using SHRIMP

Creating a written DIMP Plan using SHRIMP should follow the steps shown in the SHRIMP process diagram. Each step should be completed before moving on to the next step.

Figure 11.1. SHRIMP Process Diagram

1. **Enter/confirm system information**

   If your system filed a Distribution Annual Report (Form 7100.1-1) you should find your system data already entered into SHRIMP. Note, this may not be the most current data – at the time SHRIMP was created only the annual reports for 2009 were available. This information is shown only to allow you to confirm that this is your system – it is not used for any other purpose in SHRIMP.

   If your annual report data is not already entered in SHRIMP, e.g. you are a master meter or LP piping system operator that is not required to file annual reports, or your annual report is missing from PHMSA's database, you must enter the data manually.

2. **Select settings**

   The next step is to enter settings for your plan. These include:

   - The name of your system as you want it to appear in the plan,
   - A description of what part of your system this plan covers (default is entire system),
   - The effective date of the plan (for your first plan this should be no later than August 2, 2011 as required by the DIMP rule),
   - The effective date of the DIMP Plan replaced by this Plan – SHRIMP automatically generates this,
   - The History Period – this is how many years back you will enter inspection and maintenance data such as leak repairs, line locate tickets, etc. in the threat interviews. The default and minimum is 5 years and but you can change this to up to 10 years if you have the data. More years data = better DIMP plans.

- A LEAK management policy – Either select one of the two pre-written options in SHRIMP or if you already have a leak management plan that meets the rule's requirements enter a cross reference to that policy, and
- A program re-evaluation period, anywhere from 1 to 5 years.

You can go back and change these at any time by clicking on the Required Settings link in the menu bar on the left side of SHRIMP screens

3. **Complete threat interviews**

SHRIMP uses an interview process to assess each of the eight threats required by the DIMP rule. The 8 threats are:

1. Corrosion
2. Equipment Malfunction
3. Incorrect Operations
4. Material, Weld or Joint Failure
5. Excavation Damage
6. Natural forces
7. Other outside forces
8. Other Threats

Some of the threats are broken down into two or more subthreats. You must complete each threat and subthreat interview before going to Steps 4 and beyond. You can go back and change any of the information you provide in the threat interviews by clicking on the System Overview link on the menu then clicking on the blue "Review" link next to the threat interview in which you wish to make changes. Select the blue question number link by the question and the interview form will open. Make changes, but you may have to re-complete all of the interview questions after that question if your change affects answers to later questions. This is described in more detail later in this users guide.

Note

You can complete the first seven threat interviews in any order, however you MUST complete the first seven interviews before attempting to complete the "Other Threats" interview. The answers you provide in the Other Threats interview depend on the answers you provided in the other 7 threat interviews.

The threat interviews are intended to satisfy the following two requirements of the DIMP rule: Section 192.1007 (a) Knowledge and (b) Identify Threats. These requirements and the procedure followed by SHRIMP are further described in an attachment to this document.

4. **Validate Risk Rankings**

After all 8 threat interviews have been completed SHRIMP will rank each threat and section by relative risk, from highest to lowest, based on a numerical model that considers the likelihood and consequences were a segment of your system to fail due to the threat. A complete description of this risk ranking model is found in an appendix to this user's guide and an attachment to your written DIMP Plan created by SHRIMP.

Click on Risk Ranking in the left menu to open the risk ranking screen. If you entered any threats in the "Other Threats" interview those threats will be listed first with no assigned rank. These threats MUST be manually placed by the user where the user feels these threats belong in the list of threats. The process for that is

described in further detail in the risk ranking section of the user's guide. You should not automatically accept SHRIMP's order of risk ranking. Review it, consider the summary description of why SHRIMP ranked each threat and, if you disagree with the order, rearrange the order of threats as you believe it should be, and be sure to enter a description of what factors you considered that led you to change the order. **This is a very important step!**

The risk ranking validation process is intended to satisfy the following requirement of the DIMP rule: Section 192.1007 (c) Evaluate and rank risk.

5. **Select Additional Actions***

After you are satisfied that all threat-sections are ranked in the correct order, the next step is to select additional actions you will undertake to reduce those threats. Additional actions means actions above and beyond what is required by pipeline safety regulations. Other than implementing a leak management program, the DIMP rule does not presume that any further additional actions are necessary. You must decide whether any of the threats pose a level of risk that warrants additional action. SHRIMP cannot make that determination. There is additional guidance on selecting additional actions in the additional actions section of this user's guide.

SHRIMP offers at least one additional action for each threat. Click on the blue Choose AAs link in the Risk Ranking screen to display a list of possible additional actions for that threat. If you decide additional actions are warranted you can select one or more of SHRIMP's additional actions or you can create your own by clicking on the Manage AAs link in the left-side menu in SHRIMP.

This step is intended to satisfy the following requirement of the DIMP rule: Section 192.1007 (d) Identify and implement measures to address risks.

6. **Select Performance Measures**

The next step is to select performance measures for each of the additional actions you selected in Step 5. If you didn't feel any threats warranted additional actions you can skip this step.

The process of selecting performance measures is identical to selecting additional actions in the prior step. Click on the Choose PMs link then select one or more of the displayed, threat-specific performance measures. You can create your own performance measures by clicking on Manage PMs in the left-side menu.

This step is intended to satisfy the following requirement of the DIMP rule: Section 192.1007 (e) Measure performance, monitor results and evaluate effectiveness.

7. **Create Implementation Plan**

Now you are ready to review the actions required to implement your written DIMP plan. All of the actions required by the rule or selected by you in the additional actions and performance measures steps can be displayed by clicking on "Implementation Plan" in the left-side menu. The Implementation Plan should answer the questions of Who, What, When, Where and How each required action will be accomplished. Action items in your written DIMP Plan can be summarized in the following areas:

1. Describing how you will modify your procedures, policies and recordkeeping system(s) as necessary to collect and retain information required to be collected and retained under the DIMP plan, including mandatory performance measures and performance measures you selected in the previous step, and

2. Describing how you will implement any Additional/Accelerated Actions that you included in your written DIMP plan.

Each action item will be listed separately with a text box in which you must enter a description of how you will accomplish this action.

8. **Download your written DIMP Plan**

   When you are satisfied that Steps 1-7 are complete you should download your written DIMP plan to your computer. Click on Written Plan in the left-side menu and a list of download options will be displayed.

   Review the Required Settings one more time to ensure your system name appears as you want it to appear in your Plan and that the other information is correct.

   Click on Web Page Format to display the written plan on your web browser. You can do this at any time during the process of creating your plan to see how selections you have made up to that point affect what is written into your plan. It is recommended that you look at the Plan in the Web Page Format frequently as you work on Steps 1-7 to see how data you enter appears in your Plan – it may affect how you write some text that will go into your Plan.

   You may save your plan to your computer as a Web Page using the Save command on your web browser.

   Click on Microsoft WORD Document to download your plan as a WORD file that you can edit using Microsoft WORD or other word processing software. (Note that the translator that creates this file may loses some formatting of the Table of Contents and other portions of the Plan. We apologize for any inconvenience this may cause you. We are evaluating other options for creating WORD files.)

   Click on Adobe PDF Format to download you written Plan as an Adobe PDF file.

SHRIMP Procedures Compared To DIMP Rule Requirements

This section describes the procedures to be followed to develop and implement the 7 required elements of the Distribution Integrity Management Programs (DIMP) written Plan. For each required element the text of the DIMP rule is provided, followed by a description of the procedure to develop and implement that element.

a. Knowledge

The Rule: An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information.

1. Identify the characteristics of the pipeline's design and operations and the environmental factors that are necessary to assess the applicable threats and risks to its gas distribution pipeline.

2. Consider the information gained from past design, operations, and maintenance.

3. Identify additional information needed and provide a plan for gaining that information over time through normal activities conducted on the pipeline (for example, design, construction, operations or maintenance activities).

4. Develop and implement a process by which the IM program will be reviewed periodically and refined and improved as needed.

5. Provide for the capture and retention of data on any new pipeline installed. The data must include, at a minimum, the location where the new pipeline is installed and the material of which it is constructed.

The Procedure: (Numbers in parenthesis refer to the requirements shown above)

(1 & 2) During the 8 threat assessments SHRIMP asks questions about the user's system design, operations and environmental factors necessary to assess the applicable threats and risks to distribution pipeline integrity. The user should refer to current and past design, construction, operation, inspection and maintenance records, as well as the knowledge of utility personnel to accurately answer questions posed by SHRIMP. SHRIMP includes a Data Source field with each question for the user to record the source of information used to answer each question. Information entered into this field will be included in an attachment to the written DIMP plan along with a complete list of questions answered during the SHRIMP process. Where past data is requested by

SHRIMP, a minimum of the previous 5 years' data is requested, however if more than 5 years' data is readily available the user is encouraged to use that data as well.

In addition, during the Risk Ranking Validation step, the user should consider any additional factors that may affect the probability and/or consequences of a failure of a particular section of distribution piping but that were not asked about by SHRIMP. Examples could include pipe located near hospitals, schools, nursing homes or other difficult to evacuate facilities; environmental factors such as soil corrosivity; and more. During the Risk Ranking Validation step, any additional knowledge considered by the user to change the relative risk ranking of any section should be described in the text box provided by SHRIMP. This description will be written into the written DIMP Plan in the Risk Ranking section.

(3) If any of the design, construction or environmental factors requested by SHRIMP are not readily available the user should answer "I don't know." SHRIMP will then offer pre-written text describing how the user will gain that information over time through normal activities conducted on the pipeline. The user can accept SHRIMP's plan or enter their own description of how that knowledge will be gained. The SHRIMP text or the user's text will be included in the written DIMP plan.

(4) A process by which the IM program will be reviewed periodically and refined and improved as needed using SHRIMP is under development. This procedure will require the user to revisit each question answered in SHRIMP and either confirm the answer provided is still accurate or update the information. SHRIMP will generate a log of differences between the old plan to the new plan. SHRIMP will save a copy of the old plan for 10 years. The user is also encouraged to download the new and old plans for their records.

(5) SHRIMP includes an attachment that is the implementation plan. This attachment summarizes all the actions required to follow the DIMP plan, including capture and retention of data on any new pipeline installed. Since each user may have a unique recordkeeping system SHRIMP cannot advise the best way to track this data and instead provides a text box for the user to describe how these records will be captured and retained.

b. Identify threats

The Rule: The operator must consider the following categories of threats to each gas distribution pipeline: Corrosion, natural forces, excavation damage, other outside force damage, material, weld or joint failure (including compression coupling), equipment failure, incorrect operation, and other concerns that could threaten the integrity of its pipeline. An operator must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience.

The Procedure: SHRIMP uses an interview process to identify threats. The user must go through interviews for each of the eight threats listed above. In many cases there are two or more subthreat interviews within each threat interview. For example, the corrosion threat interview includes separate interviews for external, internal and atmospheric corrosion, and the external corrosion interview includes further separate interviews for different materials of construction (bare/coated, protected/unprotected steel, cast/wrought iron, etc.). These interviews ask for reasonably available information to identify existing and potential threats. All of the sources of data listed in the rule are directly asked for by SHRIMP except for continuing surveillance – continuing surveillance is the periodic review of other inspection and maintenance data to determine the continued serviceability of the pipe. If prior continuing surveillance reviews resulted in additional inspections or maintenance, the results of those actions should be entered into SHRIMP where SHRIMP asks for the results of such inspection and maintenance, therefore indirectly SHRIMP considers continuing surveillance records.

c. Evaluate and rank risk

The Rule: An operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure. An operator may subdivide its pipeline into regions with similar characteristics (e.g., contiguous areas within a distribution pipeline consisting of mains, services and other appurtenances; areas with common materials or environmental factors), and for which similar actions likely would be effective in reducing risk.

The Procedure: The SHRIMP Advisory Group developed a risk ranking model that assigns a numeric weighting to answers provided by the user. The risk ranking model is described in an attachment to this document.

Subdividing is not required by SHRIMP but encouraged where answers to SHRIMP threat assessment questions are different for different parts of the system. Many of the questions asked by SHRIMP during the threat assessment process are intended to assess the likelihood and consequences of a failure due to the threat being assessed. SHRIMP also asks questions to help determine if certain regions of the pipeline have similar characteristics and for which similar actions would be effective in reducing risk. If actual or potential threats identified during the threat assessment process are concentrated in certain areas, the user is encouraged to subdivide the system for that threat, separating the areas that have an actual or potential threat from those areas that don't. Subsections can be geographic, by material, by type of equipment (for equipment threat), by excavator crews or contractors (for excavation threat) or any other way of subdividing that makes sense for the user's situation.

If the user decides to subsection for any threat those subsections continue through the risk-ranking, implementing additional measures and performance measures steps. The system may be subdivided differently for each threat, since it is unlikely that an area at risk for one threat (e.g. external corrosion) would also be entirely at risk from another threat (e.g. natural forces).

d. Identify and implement measures to address risks
The Rule: Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline. These measures must include an effective leak management program (unless all leaks are repaired when found).

The Procedure: SHRIMP offers the user at least one option to reduce the risk from failure for each threat except "Other." In the risk ranking screen, clicking on "A/A's" brings up a list of potential additional/accelerated actions ("A/A Actions") that the SHRIMP Advisors have determined could be effective in addressing the actual or potential threat. Some A/A Actions may be listed first because answers provided by the user during the threat assessment process suggests these A/A Actions are likely to be effective, whereas other A/A Actions that aren't expected to be effective are listed separately.

The user can select one or more of the A/A Actions included in SHRIMP, which will result in pre-written text being inserted into the "Implement Measures" section of written DIMP plan for the particular subsection of the system and threat. If the user has a better idea, or has already implemented action addressing this threat, the user should create a user-defined A/A Action and select that A/A Action for this threat and subsection. What the user writes when defining the A/A Action will be written into the written DIMP plan.

For some threats SHRIMP will recommend that the user initiate some A/A Action to reduce risk. For most threats the SHRIMP advisors could not agree on any relative risk score or combination of threat interview answers that should automatically require the user to specify an A/A Action. It is therefore up to the user to use his/her best judgment as to which threat-segments merit additional actions to reduce risk. The DIMP rule does not presume that every operator needs to implement additional measures.

If a user elects to include additional measures to reduce risk for any of the threats and/or subdivisions of the distribution system, SHRIMP will offer one or more options for performance measures specific to that threat and subdivision. The use may select pre-written text offered by SHRIMP or substitute a user-defined performance measure. The user is required to select at least one threat and subdivision-specific performance measure for every additional action selected in the previous step.

At the end of the SHRIMP process, SHRIMP displays a list of action items, including mandatory performance measures [(i) through (v) in the next section] and any threat-specific additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat. The user is asked to describe in a text box how each action will be implemented and that information is included in the Implementation Plan included as an attachment to the written DIMP plan.

e. Measure performance, monitor results and evaluate effectiveness

The Rule: Develop and monitor performance measures from an established baseline to evaluate the effectiveness of its IM program. An operator must consider the results of its performance monitoring in periodically re-evaluating the threats and risks. These performance measures must include the following:

i. Number of hazardous leaks either eliminated or repaired as required by Sec. 192.703(c) of this subchapter (or total number of leaks if all leaks are repaired when found), categorized by cause;

ii. Number of excavation damages;

iii. Number of excavation tickets (receipt of information by the underground facility operator from the notification center);

iv. Total number of leaks either eliminated or repaired, categorized by cause;

v. Number of hazardous leaks either eliminated or repaired as required by Sec. 192.703(c) (or total number of leaks if all leaks are repaired when found), categorized by material; and

vi. Any additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat.

The Procedure: The written plan created using SHRIMP includes a section stating that the operator will keep records necessary to report performance measures.(i) through (v). These performance measures must be captured and recorded outside of SHRIMP – SHRIMP does not currently include a recordkeeping or performance measure tracking mechanism, although those enhancements are contemplated in future upgrades.

Where a performance measure requires data that has not previously been collected and retained by the operator, the baseline for such performance measures will be the first year such data is collected and retained. Where the operator does have past data for any performance measure, the user must establish a baseline based on that historical data. The baseline should be included in the implementation plan text for that performance measure.

At the end of the SHRIMP process, SHRIMP displays a list of action items, including mandatory performance measures (i) through (v) above and any threat-specific additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat. The user is asked to describe in a text box how each action will be implemented and that information is included in the Implementation Plan included as an attachment to the written DIMP plan.

f. Periodic Evaluation and Improvement

The Rule: An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one location to other areas. Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. An operator must conduct a complete program re-evaluation at least every five years. The operator must consider the results of the performance monitoring in these evaluations.

The Procedure: The SIF is currently working on a procedure to use SHRIMP to automate the re-evaluation process. SHRIMP includes in the written plan a requirement for periodic complete program re-evaluations at least once every 5 years and more often if certain conditions are met. The user should consider additional events that might trigger a complete program re-evaluation.

A re-evaluation using SHRIMP is essentially revisiting each SHRIMP interview screen to verify the answer is still valid or updating information as necessary. The risk ranking screen must be reviewed to ensure it is still accurate. The user must review each of the 5 mandatory performance measures described above and any threat-specific performance measures included in the written plan and compare results to the baseline [Note: Where a performance measure requires data that has not previously been collected and retained by the operator, the baseline for such performance measures will be the first year such data is collected and retained.] Particular attention should be given to the threat-specific performance measures that measure the effectiveness of specific A/A Actions. If one or more of these performance measures indicates that the A/A Action is not effective, the user should consider modifying the A/A Action and/or implementing additional A/A Actions.

g. Report results

The Rule: Report, on an annual basis, the four measures listed in paragraphs (e)(1)(i) through (e)(1)(iv) of this section, as part of the annual report required by Sec. 191.11. An operator also must report the four measures to the state pipeline safety authority if a state exercises jurisdiction over the operator's pipeline.

The Procedure: The SHRIMP written DIMP Plan includes a Section on reporting results, listing procedures for reporting to both the federal and state pipeline safety agencies. Currently data to report these performance measures must be collected and retained outside of SHRIMP, however the APGA Security and Integrity Foundation (SIF) may modify SHRIMP to enable it to retain and submit these performance measures as well as mechanical fitting failure data and other data required by Distribution Annual Report Form 7100.1-1.

11.4.2. Relative Risk Model

The centerpiece of the Simple, Handy, Risk-based Integrity Management Plan (SHRIMP) is the risk ranking model. SHRIMP uses an index model in which numeric scores are assigned based on answers provided by the user to questions asked by SHRIMP. The index model was developed by the APGA Security and Integrity Foundation (SIF) with guidance by an advisory group comprised of industry and federal and state pipeline safety regulators.

Risk is the product of the probability of a failure times the consequences of a failure. The SHRIMP relative risk model considers both the probability and consequences of a failure for each of the eight threats. The equation is as follows:

Table 11.71.

Relative Risk Score	=	Probability Score (Normalized to 1 - 10)	x	Consequence (1.0 - 1.5)	Score x	Leak History Factor (1 + % of Lks)	x	Incident Probability Factor (1.0 or 1.25)

Each of the four components that go into the relative risk score are described in the following sections.

Probability Scoreis the sum of points assigned by answers to threat interview questions. Each segment receives a relative probability score for each threat based on the answers to a series of questions. The probability questions are based on the GPTC DIMP guidance, as modified and added to by the SIF SHRIMP Advisors. The weighting given to each possible answer are based on the knowledge and experience of the SHRIMP Development Team and the SHRIMP Advisors.

Table 11.72. Probability Scores

Threat	Subthreat category	Maximum Score	Minimum Score	Incident Probability Factor
Natural Forces	No subthreats	19	0	1
Other Outside Forces	No subthreats	12	0	1.0
Excavation Damage	Grouping by concentration of damages or tickets	39	0	1.25
	Grouping by operator crew or operator contractor damage	34	0	1.25
	Grouping by Third Party Damage	31	0	1.25
	Blasting	15	0	1.25
Corrosion	External Corrosion	16	1	1

Threat	Subthreat category	Maximum Score	Minimum Score	Incident Probability Factor
	Internal Corrosion	30	1	1
	Atmospheric Corrosion	25	1	1
Incorrect Operations	Failure to Follow Procedures	5	1	1.25
	Inadequate Procedures	5	1	1.25
	Operator Qualification	5	1	1.25
	Drug & Alcohol	5	1	1.25
Equipment	No subthreats	5	1	1
Material, Welds or Joints	No subthreats	5	1	1
Other	No subthreats	None (User assigns rank)		1

Because there are different numbers of questions for each threat and subthreat, the maximum possible score for each threat and subthreat are different, therefore the probability score for each threat-segment is normalized to a scale of 1 - 10 using this equation:

Normalized probability score = 1 + (9 x (subthreat score - subthreat minimum score) / (subthreat maximum score - subthreat minimum score))

For example, if a segment received a score of 9 for external corrosion the normalized probability score would be 1 + (9 x (9-1) / (16-1) = 1 + 9 x 8/15 = 5.8

Incident Probability Factor

The normalized probability factor described above is useful to rank various sections by the probability of a failure occurring within each of the eight threats, but SHRIMP also must rank sections across the eight threats. Failures due to some threats are more likely to cause death, injury or significant property loss than other threats. DOT Distribution Annual and Incident Report data shown below provide an indication of how likely it is that a failure (e.g. leak) due to one of the 8 threats will result in death, injury or significant property loss.

Table 11.73. Incident Probability Factor

Reported Cause of Incidents and Failures 2005-2007	# of Incidents	# of Failures	Incidents/1000 Failures	Normalized to Corrosion
Corrosion	6	293,933	0.02	1
Excavation Damage	73	338,666	0.22	11
Incorrect Operations	8	30,145	0.27	13
Material, Weld or Joint Failure	8	147,384	0.05	3
Equipment Failure	6	140,442	0.04	2
Natural Force Damage	22	77,229	0.28	14
Other Outside Force Damage	39	37,426	1.04	51
All Other Causes *	NA	NA	NA	

Reported Cause of Incidents and Failures 2005-2007	# of Incidents	# of Failures	Incidents/1000 Failures	Normalized to Corrosion
* Excluding Fire First Incidents				

The results of this analysis find that failures due to three threats (corrosion, material failure and equipment failure) are least likely to result in reportable incidents, that failures due to excavation damage, incorrect operations and natural force damage are moderately likely to result in reportable incidents and that other outside force damage failures are most likely to result in reportable incidents.

The advisors agreed to assign an Incident Probability Factor of 1.0 (no increase in relative risk score) for Corrosion, Materials/Welds, Equipment, and Other Outside Force Threats where it is relatively unlikely a failure will result in a reportable incident. For Excavation, Incorrect Operations, and Natural Force Threats where it is relatively more likely that a failure will result in a reportable incident the advisors agreed on an Incident Probability Factor of 1.25 (e.g. a 25% increase in relative risk score for these threats).

Further investigation of the "other outside force" category revealed that virtually all the incidents involved vehicles striking above ground facilities, usually meter sets. The SHRIMP advisors agreed with the PHMSA Phase 1 report conclusions that there was not enough information to conclude that vehicular damage could have been anticipated at the location of these incidents or whether meter protection existed, therefore no additional weighting is provided for this threat. SHRIMP does, however, include assessment of vehicle damage in the threat assessment and offer additional/accelerated actions if vehicular damage is found to be a significant threat.

If the user sections the system by geographic area, the **Consequence Score** is determined by points assigned based answers to threat interview questions as follows:

Table 11.74. Consequence Score (Geographic Area Sections)

	Question	Possible Answers	Weighting
CSQ-1	Are the pressure and/or diameter of this section greater than or about the same as the system as a whole?	Substantially greater	0.2
		Somewhat greater	0.1
		About the same	0
CSQ-2	Is this section predominantly located in business districts or outside business districts (as those are defined for leak survey)?	Within Business Districts	0.15
		Outside Business Districts	0
CSQ-3	How long would it typically take utility crews to reach this part of the system after receiving notice of a possible failure?	Less than one (1) hour	0
		Between one (1) and two (2) hours	0.025
		More than two (2) hours	0.05
CSQ-4	What would be the impact on the utility and its customers if this section were to fail?	Low	0
		Moderate	0.05
		High	0.1

The base consequence factor is 1.0

1. Greater pressure and/or diameter can increase the consequence factor by up to 20% (1.0 to 1.2)
2. Sections predominantly within business districts get an additional 15% increase in the consequence factor
3. The time to respond to a failure results in an increase in consequence factor of up to 5% (1.0 to 1.05)
4. The significance of the facility can result in an increase in consequence factor of up to 10% (1.0 to 1.1)

These weightings are based on the knowledge of the subject matter experts on the SHRIMP Advisory Group. These increases are added together to calculate the consequence factor for the section. If all four questions were answered so that maximum scores were assigned, the consequences factor would be 1.50 (1.2 + 1.15 + 1.05 + 1.1). The overall relative risk score would be increased by 50%.

If all four questions are answered so the minimum scores are assigned, then the consequence factor will be 1.0 and the relative risk score would be unchanged by this factor.

If the user does not create subsections for a threat, then these consequence questions are not asked.

For the threats shown below where the geography based threat questions do not apply the following threat specific consequence questions are asked:

Table 11.75. Consequence Score (Non-Geographic Area Sections)

	Question	Possible Answers	Weighting
CSQ-EXC1	Have the (crews/contractors/excavators) identified for this section caused damage that resulted in a reportable incident?	Yes	0.3
		No	0
CSQ-EXC2	Considering disruption of service and cost to return the system to service, how serious are the damages caused by the (crews/contractors/excavators) identified for this section when compared to all other excavation caused damages?	More serious	0.3
		Less serious	0
		About the same	0.1
CSQ-GEN1	What would be the potential consequences (injuries and/or property loss) if a failure were to occur because of this problem?	High likelihood of serious injury and/or property loss	0.5
		Moderate likelihood of injury and/or property loss.	0.25
		Not likely to result in injury and/or property loss.	0
EQIPCSQ-1	Is the size/capacity of the equipment substantially greater or lesser than other equipment in the system as a whole?	Substantially greater	0.2
		Somewhat greater	0.1
		About the same	0
EQIPCSQ-2	Does the equipment primarily affect the system located in the business district?	Within Business Districts	0.15
		Outside Business Districts	0

	Question	Possible Answers	Weighting
EQIPCSQ-3	How long would it typically take utility crews to reach this part of the system after receiving notice of a possible failure?	Less than one (1) hour	0
		Between one (1) and two (2) hours	0.025
		More than two (2) hours	0.05
EQIPCSQ-4	What would be the impact on the utility and its customers if this equipment were to fail?	Low	0
		Moderate	0.05
		High	0.1

Leak Cause Factor

While most leaks are repaired without incident, the SHRIMP advisors felt that the users integrity management plan should consider the relative percentage of leaks by cause.

The Leak Cause Factor equals 1 + the percentage of leaks associated with threat to the total number of leaks for the system.

If the number of total leaks over a five year period are less than 50, the national average is used rather than the userís leak history data because with fewer than 50 leak repairs the relative percentages of leaks by cause may be skewed by a handful of leak repairs that are not representative of the system. The national average is shown below, taken from leak repair data reported to PHMSA by all distribution operators on Annual Report Form 7100.1-1..

Table 11.76. Reported Cause Of Failures (2005-2009)

Threat	Failures	Percent	Leak History Factor
Corrosion	399,378	26	1.26
Excavation Damage	161,079	11	1.11
Incorrect Operations	38,416	3	1.03
Material, Weld or Joint Failure	155,255	10	1.10
Equipment Malfunction	326,793	21	1.21
Natural Force Damage	82,565	5	1.05
Other Outside Force Damage	40,529	3	1.03
All Other Causes	329,401	21	NA *
Totals	1,533,416	100	

* Since the threat category "Other" is not assigned a relative risk score by SHRIMP the leak history factor is not used for that threat.

11.5. THREAT, RISK RANK, ADDITIONAL ACTIONS AND PERFORMANCE MEASURES ORGANIZED BY THREAT-SECTION

11.5.1. Overview

Consolidated Report of Risk Based Information.

This section takes the threat assessment, risk ranking, additional action and performance measure information from chapters 4-7 and reorganizes that information for each threat-section. The information is identical to what is found in those chapters. Some users may find it easier to review the Plan when organized by threat-section.

11.5.2. City of Lanett Gas Department Section Risk Ranking (Consolidated)

Risk Ranking

Section: Entire Cast Iron System

Threat: Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)

Description: All Cast Iron Main

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
1	0	1	7.95	6.63	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- Responses indicating an actual threat:
    - Exposed pipe inspections indicate a corrosion problem.
    - Confirmed corrosion leaks have occurred on this section.
    - Fractures have occurred on the cast/ductile iron pipes other than those related to excavation activities.
    - Exposed pipe inspections indicate that graphitization is occurring.

Additional Actions

For **Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)** on the **Entire Cast Iron System** the system will:

- Perform Annual Cast Iron Survey

  The System will implement as follows: The City of Lanett will perform an annual leakage survey of the entire cast iron system during the Critical Area/Public Buildings Survey

Performance Measures

For **Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)** on the **Entire Cast Iron System** the system will:

- Track the number of leaks caused by external corrosion per mile of main and per 1000 service lines on this section.

  The System will implement as follows: The City of Lanett will track the number of corrosion leaks per mile of cast iron main on DIMP Baseline Spreadsheet. The City of Lanett does not have cast iron services to track.

Risk Ranking

Section: Entire Steel System

Threat: Corrosion > Cathodic Protected, Coated Steel

Description: All

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
2	0	2	3.29	2.29	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- Responses indicating an actual threat:
  - Confirmed corrosion leaks have occurred on this section.
- Responses indicating higher potential consequences:
  - A failure of this section could result in some effort to evacuate certain facilities (hospitals, schools, nursing homes, etc.).

Additional Actions

For **Corrosion > Cathodic Protected, Coated Steel** on the **Entire Steel System** the system will:

- None chosen.

Performance Measures

For **Corrosion > Cathodic Protected, Coated Steel** on the **Entire Steel System** the system will:

- None chosen.

Risk Ranking

Section: Entire System

Threat: Corrosion > Atmospheric Corrosion

Description:

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
3	0	3	1.2	1	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- No threat indicators were found.

Additional Actions

For **Corrosion > Atmospheric Corrosion** on the **Entire System** the system will:

- None chosen.

Performance Measures

For **Corrosion > Atmospheric Corrosion** on the **Entire System** the system will:

- None chosen.

Risk Ranking

Section: Entire System

Threat: Corrosion > Internal Corrosion

Description: All Steel and Cast Iron Mains

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
4	0	4	1	1	1.2	1

Ranked here, in part, for the following reasons:

The following were threat indicators:

- No threat indicators were found.

Additional Actions

For **Corrosion > Internal Corrosion** on the **Entire System** the system will:

- None chosen.

Performance Measures

For **Corrosion > Internal Corrosion** on the **Entire System** the system will:

- None chosen.

Risk Ranking

Section:

Threat: Excavation > Mislocating Lines

Description:

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
5	0	5	0.71	0.57	1	1.25

Ranked here, in part, for the following reasons:

The following were threat indicators:

- No threat indicators were found.
- Responses indicating a potential threat:

- Excavation damages have been caused by unmarked or inaccurately marked facilities (mis-locates).

Additional Actions

For **Excavation > Mislocating Lines** on the the system will:

- None chosen.

Performance Measures

For **Excavation > Mislocating Lines** on the the system will:

- None chosen.

Chapter 12. REFORMAT TEMPLATE Heading 1

This chapter is used by the word reformatting macros.

REFORMAT TEMPLATE Sub Heading 1

12.1. REFORMAT TEMPLATE Heading 2

REFORMAT TEMPLATE Sub Heading 2

12.1.1. REFORMAT TEMPLATE Heading 3

REFORMAT TEMPLATE Sub Heading 3

REFORMAT TEMPLATE Heading 4

REFORMAT TEMPLATE Sub Heading 4

REFORMAT TEMPLATE Heading 5

REFORMAT TEMPLATE Sub Heading 5

5-Year Leak History for the City of Lanett (Per PHMSA Annual 7100 Reports)

Year	Corrosion Failure	Natural Forces	Excavation Damage	Outside Force Damage	Pipe, Weld, Joint Failure	Equipment Failure	Incorrect Operations	Other Causes
2017	7	0	16	0	1	0	0	0
2018	8	0	9	0	1	0	0	0
2019	5	0	8	0	0	0	0	0
2020	6	0	4	0	0	0	0	0
2021	0	0	2	1	0	0	0	0
Total	26	0	39	1	2	0	0	0

Total Mains: 76 Miles
Polyethylene Main Totals: 19.5 Miles
Cast Iron Main Totals: 7.5 Miles
Coated Steel Main Totals: 49 Miles

Total Services: 2,477
Polyethylene Services Totals: 2,124
Cast Iron Services Totals: 0
Coated Steel Services Totals: 353

City of Lanett
Budget Narrative

Budget Line Item	Description	Cost
Administrative & Legal Expenses	This item is needed to obtain a railroad permit to cross under the railroad next to an existing easement	$ 30,000.00
Land, structures, etc.	N/A	$ -
Relocation	N/A	$ -
Architectural and Envineering Fees	Engineering and administration are needed on behalf of the utility owner for the following: (a) Develop engineering design drawings and project specifications per industry regulations for replacement of the existing gas facilities. (b) Assist in preparation and submittal of required permit applications for the project. (c) Assist in the bidding process, contractor submittal reviews, contractor pay requests, and record drawing preparation. (d) Assist with project close out documentation and records. ii. The budget cost was calculated using ASCE Curve B –Median Compensation for Basic Services Expressed as a Percentage of Net Construction Cost for Projects of Above Average Complexity.	$ 270,100.00
Other Architectural and Engineering Fees	Construction inspection is needed on behalf of the utility owner as an on-site representative to observe, monitor and assist in determining compliance with the following: (a) Specified materials are being used in the correct locations per the project specifications. (b) Installation requirements are per utilities procedures, project specifications and industry standards. (c) Communicate and consult with the utility owner regarding changes or revisions to the project plans and specifications as field conditions require. (d) Work with the construction contractor in determining the correct pay quantities for inclusion in monthly contractor pay requests or invoices. (e) Communicating utility reconnections and possible outages with the utility owner. (f) Record field changes for inclusion in as-built or record drawings. ii. The budget cost was calculated using an average industry daily rate with estimated expenses.	$ 256,000.00
Project Inspection fees	N/A	$ -

Site work	N/A	$ -
Demolition and removal	MDPE, and 2,195 LF of 2" MDPE for a total of 39,865 LF (7.55 miles). The installation will be by open trench and horizontal directional drill. All of the project will be located on or within previously discurbed road rights-of-way with the exception of an 800 foot railroad crossing. Valves and service lines within these replacement sections will also be installed. A metering, regulating and odorizing station will also be installed. An old propane air peak shaving facility will be disconnected and removed.	$ -
Construction	Construction will replace the existing cast iron gas lines remaining in the City of Lanett's natural gas system. The replacement will be with Medium Density Polyethylene (MDPE) gas piping and service lines which is the current industry standard. All mains and services will be buried. There is approximately 5,360 LF of 6" MDPE, 32,310 LF of 4" MDPE, and 2,195 LF of 2" MDPE, for a total of 39,865 LF or 7.55 miles. A metering, regulating and odorizing station will also be added, and an old propane air peak shaving facility will be removed. These costs are necessary to remove dangerous and obsolete cast iron from the system.	$ 3,331,908.50
Equipment	Laser Gas Trac LZ-30 leak detector is needed to troubleshoot issues and protect health and safety. This detector will be used during field monitoring and when calls come in and will be faster and safer than calling in our contractor.	$ 11,436.50
Miscellaneous	N/A	$ -
Subtotal		$ 3,899,445.00
Contingencies	10% contingency is needed to support the projects completion during the environment of rising costs	$ 334,314.50
Subtotal		$ 4,233,759.50
Program Income	N/A	$ -
Total Project Costs		$ 4,233,759.50
Indirect Costs- 10% de minimis	Lanett is requesting the 10% de Minimis rate	$ 423,375.95
Grand Total Project Cost		**$ 4,657,135.45**

The United States Department of Transportation (USDOT)

Standard Title VI/Non-Discrimination Assurances

The City of Lanett (herein referred to as the "Recipient"), **HEREBY AGREES THAT**, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through the **Pipeline and Hazardous Materials Safety Administration** (PHMSA), is subject to, and will comply with, the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Non-discrimination In Federally-Assisted Programs Of The Department Of Transportation—Effectuation Of Title VI Of The Civil Rights Act Of 1964*);
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda, and/or guidance, the Recipient hereby gives assurance that it will promptly take any measures necessary to ensure that:

> *"No person in the United States shall, on the grounds of race, color, national origin, gender, age, or disability be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including the **Pipeline and Hazardous Materials Safety Administration**.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above General Assurance, the Recipient agrees with and gives the following Assurances with respect to its Federally assisted
PHMSA Natural Gas Distribution Infrastructure Safety and Modernization (NGDISM) Grant:

1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "activity") facilitated or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.

2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all (***PHMSA NGDISM Grant***) and, in adapted form, in all proposals for negotiated agreements regardless of funding source:

   "*The* City of Lanett , *in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that with respect to any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.*"

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.

4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.

5. That where the Recipient receives Federal financial assistance to construct a facility, or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.

6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.

7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:
   a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
   b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transferee for the longer of the following periods:

    a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or
    b. the period during which the Recipient retains ownership or possession of the property.

9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official to whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.

10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, the Recipient also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing the PHMSA access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by PHMSA. You must keep records, reports, and submit the material for review upon request to PHMSA, or its designee in a timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The Recipient gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the ***(PHMSA NGDISM Grant)***. This ASSURANCE is binding on City of Lanett , other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in the ***(PHMSA NGDISM Grant)***. The person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

City of Lanett

_____

(Name of Recipient)

by _____

(Signature of Authorized Official)

DATED 9-2-2022

these appendices are for your use, you do not need to fill out and return

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, ***Pipeline and Hazardous Materials Safety Administration***, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the ***Pipeline and Hazardous Materials Safety Administration*** to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the ***Pipeline and Hazardous Materials Safety Administration***, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the ***Pipeline and Hazardous Materials Safety Administration*** may determine to be appropriate, including, but not limited to:
    a. withholding payments to the contractor under the contract until the contractor complies; and/or
    b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement

as the Recipient or the ***Pipeline and Hazardous Materials Safety Administration*** may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX B

CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the City of Lanett will accept title to the lands and maintain the project constructed thereon in accordance with (The Infrastructure Investment and Jobs Act (IIJA) (Pub. L. 117-58)), the Regulations for the Administration of ***(Natural Gas Distribution Infrastructure Safety and Modernization Grant Program***, and the policies and procedures prescribed by the ***Pipeline and Hazardous Materials Safety Administration*** of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the City of Lanett all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto City of Lanett and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the City of Lanett , its successors and assigns.

The City of Lanett , in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* City of Lanett
(2) that the City of Lanett will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].* (*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

APPENDIX C

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the City of Lanett pursuant to the provisions of Assurance 7(a):

A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that: City of Lanett

1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, City of Lanett will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to a deed, in the event of breach of any of the above Non-discrimination covenants, the City of Lanett will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the City of Lanett and its assigns.*(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by City of Lanett pursuant to the provisions of Assurance 7(b):

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, City of Lanett will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, City of Lanett will there upon revert to and vest in and become the absolute property of City of Lanett and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq*., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq*.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq*.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq*.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

ATTACHMENTS FORM

Instructions: On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

Important: Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

1) Please attach Attachment 1	1235-Budget.pdf	Add Attachment	Delete Attachment	View Attachment
2) Please attach Attachment 2	1236-Scope of Work & Schedule	Add Attachment	Delete Attachment	View Attachment
3) Please attach Attachment 3	1237-Maps.pdf	Add Attachment	Delete Attachment	View Attachment
4) Please attach Attachment 4	1238-Letters of Support.pdf	Add Attachment	Delete Attachment	View Attachment
5) Please attach Attachment 5	1239-Distribution Integrity M	Add Attachment	Delete Attachment	View Attachment
6) Please attach Attachment 6	1240-5-Year Leak History.pdf	Add Attachment	Delete Attachment	View Attachment
7) Please attach Attachment 7		Add Attachment	Delete Attachment	View Attachment
8) Please attach Attachment 8		Add Attachment	Delete Attachment	View Attachment
9) Please attach Attachment 9		Add Attachment	Delete Attachment	View Attachment
10) Please attach Attachment 10		Add Attachment	Delete Attachment	View Attachment
11) Please attach Attachment 11		Add Attachment	Delete Attachment	View Attachment
12) Please attach Attachment 12		Add Attachment	Delete Attachment	View Attachment
13) Please attach Attachment 13		Add Attachment	Delete Attachment	View Attachment
14) Please attach Attachment 14		Add Attachment	Delete Attachment	View Attachment
15) Please attach Attachment 15		Add Attachment	Delete Attachment	View Attachment

Budget Narrative File(s)

*** Mandatory Budget Narrative Filename:** 1241-Budget Narrative.pdf

Add Mandatory Budget Narrative | Delete Mandatory Budget Narrative | View Mandatory Budget Narrative

To add more Budget Narrative attachments, please use the attachment buttons below.

Add Optional Budget Narrative | Delete Optional Budget Narrative | View Optional Budget Narrative

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, ''Disclosure of Lobbying Activities,'' in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, ''Disclosure of Lobbying Activities,'' in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

* APPLICANT'S ORGANIZATION	City of Lanett
* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Prefix:	Mr.
* First Name:	Jamie
Middle Name:	
* Last Name:	Heard
Suffix:	
* Title:	Mayor
* SIGNATURE:	Deborah Gilbert
* DATE:	07/21/2022

Project Narrative File(s)

*** Mandatory Project Narrative File Filename:** 1234-Narrative.pdf

Add Mandatory Project Narrative File | Delete Mandatory Project Narrative File | View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File | Delete Optional Project Narrative File | View Optional Project Narrative File

OMB Number: 4040-0004
Expiration Date: 12/31/2022

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 07/21/2022

4. Applicant Identifier: Gas Grant

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: City of Lanett

* b. Employer/Taxpayer Identification Number (EIN/TIN): 63-6001305

* c. UEI: ZNYLXD36WJT6

d. Address:

* Street1: 401 North Lanier Avenue
Street2:
* City: Lanett
County/Parish:
* State: AL: Alabama
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 36863-2019

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:
* First Name: Sara
Middle Name:
* Last Name: Byard
Suffix:

Title: Grant Consultant

Organizational Affiliation:

* Telephone Number: 334-314-9791
Fax Number:

* Email: sara@byardconsulting.com

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Pipeline and Hazardous Materials Safety Admin

11. Catalog of Federal Domestic Assistance Number:

20.708

CFDA Title:

Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

*** 12. Funding Opportunity Number:**

693JK322NF0018

* Title:

FY 2022 Natural Gas Distribution Infrastructure Safety and Modernization Grant

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

City of Lanett Cast Iron Replacement

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: AL-003 * b. Program/Project: AL-003

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 10/01/2022 * b. End Date: 09/30/2025

18. Estimated Funding ($):

* a. Federal	4,657,135.45
* b. Applicant	0.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	4,657,135.45

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Mr. * First Name: Jamie

Middle Name:

* Last Name: Heard

Suffix:

* Title: Mayor

* Telephone Number: 334-644-2141 Fax Number:

* Email: dgilbert@cityoflanett.com

* Signature of Authorized Representative: Deborah Gilbert * Date Signed: 07/21/2022

OMB Number: 4040-0008
Expiration Date: 02/28/2025

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	$ 30,000.00	$	$ 30,000.00
2. Land, structures, rights-of-way, appraisals, etc.	$ 0.00	$	$ 0.00
3. Relocation expenses and payments	$ 0.00	$	$ 0.00
4. Architectural and engineering fees	$ 270,100.00	$	$ 270,100.00
5. Other architectural and engineering fees	$ 256,000.00	$	$ 256,000.00
6. Project inspection fees	$ 0.00	$	$ 0.00
7. Site work	$ 0.00	$	$ 0.00
8. Demolition and removal	$ 0.00	$	$ 0.00
9. Construction	$ 3,331,908.50	$	$ 3,331,908.50
10. Equipment	$ 11,436.50	$	$ 11,436.50
11. Miscellaneous	$ 0.00	$	$ 0.00
12. SUBTOTAL *(sum of lines 1-11)*	$ 3,899,445.00	$	$ 3,899,445.00
13. Contingencies	$ 334,314.50	$	$ 334,314.50
14. SUBTOTAL	$ 4,233,759.50	$	$ 4,233,759.50
15. Project (program) income	$ 0.00	$	$ 0.00
16. TOTAL PROJECT COSTS *(subtract #15 from #14)*	$ 4,233,759.50	$	$ 4,233,759.50

FEDERAL FUNDING

17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X 10 %	$ 423,375.95

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
Expiration Date: 02/28/2025

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant:, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29) U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statue(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statue(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.

14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).

18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Deborah Gilbert	Mayor
APPLICANT ORGANIZATION	DATE SUBMITTED
City of Lanett	07/21/2022

SF-424D (Rev. 7-97) Back

July 11, 2022

Tristan Brown, Deputy Administrator
PHMSA, U.S. DOT
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: City of Lanett, Alabama
Natural Gas Distribution Infrastructure Safety and Modernization Grant Program

Dear Deputy Administrator Brown,

I am writing to transmit the City of Lanett, Alabama's 2022 application to PHMSA's NGDISM grant program. Lanett is a small city of 5,887 people located in Chambers County, on the Alabama border with Georgia. A small budget and decreasing population of about 1.5% per year has made it difficult for Lanett to have the funding to replace aged cast-iron gas pipe, and about ¼ of our system is currently made of this obsolete material. Lanett recently contracted with Subscribed Regulatory Compliance Service (SRCS) to assist with natural gas system compliance, and we are committed to improving the operations and safety of our system, but we need your assistance to replace our cast iron and make system safety updates.

Lanett is committed to continually improving and expanding our ability to provide citizens and visitors with services and information to have successful interaction with our local government. Lanett has received grants from USDA and HUD and has successfully administered them with assistance from a consultant. Lanett has contracted with Byard Consulting LLC, a firm whose CEO has 18 years of experience administering more than $1 billion in federal grant funding. We are ready to receive the NGDISM grant and be an example of a safety success story for PHMSA.

Our designated project director is Ms. Deborah Gilbert, City Clerk/Treasurer, who can be reached at 334-644-5208 or dgilbert@cityoflanett.com and will submit the required financial and progress reports. I am the Authorized Representative who will accept the awarded grant. Please let Deborah or I know if you have any questions or need additional information.

Sincerely,

Jamie Heard
Mayor

Project Narrative

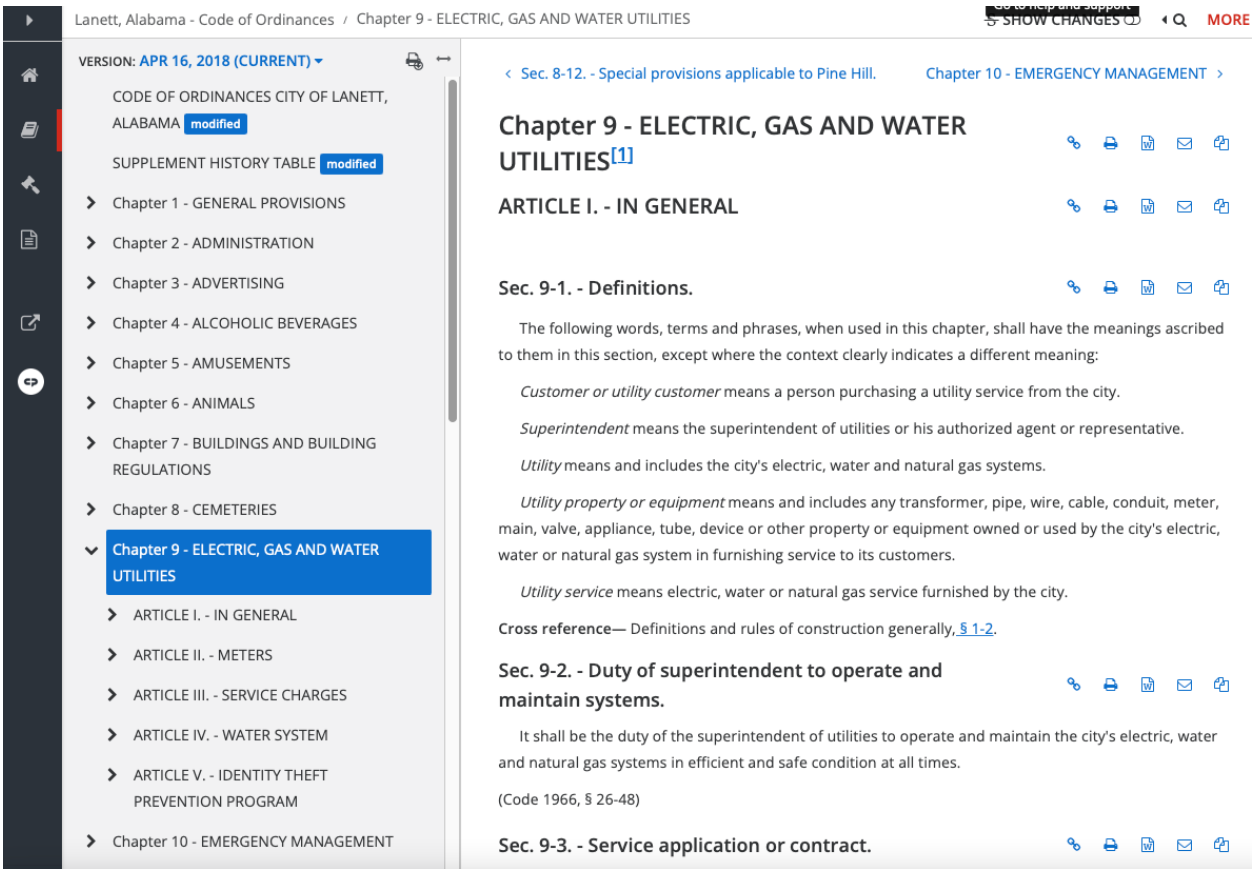
1. Cover Letter

See attached.

2. Applicant Eligibility

The City of Lanett owns the natural gas distribution system. In accordance with the current approved and filed Code of Ordinances of the City of Lanett, Chapter 9, the city's duties to operate the system are codified in accordance with Alabama Code 1966, Sections 26-48[1]. An image of the ordinance is shown below. The full document can be found at the website reference in the footnotes.

Figure 1: Ordinance reflecting City of Lanett owning and operating a natural gas system



[1] Code 1966, Sections 26-48: https://library.municode.com/al/lanett/codes/code_of_ordinances?nodeId=COOR_CH9ELGAWAUT

3. Project Summary

The City of Lanett's natural gas system has 76 miles of total mains and 2,477 total services. The breakdown of materials that currently comprise the mains and services are listed in the tables below.

Table 1: City of Lanett Natural Gas System- Mains

	Miles	Percent
Polyethylene	19.5	26%
Cast Iron	7.5	10%
Steel	49	64%
Total	**76**	**100%**

Source: PHMSA Annual 7100 reports

Table 2: City of Lanett Natural Gas System- Services

	Miles	Percent
Polyethylene	2,124	86%
Cast Iron	0	0%
Steel	353	14%
Total	**2,477**	**100%**

Source: PHMSA Annual 7100 reports

While Lanett has changed out all gas services to assure that none are cast iron and has changed out some of its mains to PVC and steel, 10% of the mains in the system are still cast iron. The replacement of cast iron facilities has been mandated by PHMSA and the Alabama Public Service Commission due to the material nature and joints of these lines being significant sources of leaking gas.

To protect health, life, safety, the environment and economic loss, Lanett needs to replace the remaining 10% of system mains that are cast iron. Lanett also needs to replace their existing Metering, Regulating and Odorizer station where the city receives its natural gas supply from Kinder Morgan. These facilities are the original facilities that were installed when the system was built in the early 1960's. The equipment is obsolete as the equipment is no longer

manufactured and replacement parts are no longer available. The existing system also contains an old propane air peak shaving facility which is currently connected on the downstream low-pressure side. This facility needs to be disconnected and removed from the site. To add an extra level of safety, the city also needs to purchase a laser gas trac leak detector to detect dangerous leaks using existing staff and identify dangerous leaks that may arise in between the regular leak inspections that a contractor conducts for the city.

a. Project Location

The project location is within the city limits of Lanett, Alabama, and the geospatial data for the center of the project is 32.853773, -85.190691. A suite of maps is provided in the project attachments including aerial maps, project location maps, topo maps, and wetlands/flood maps. A portion of the project is also located within a disadvantaged census tract. For illustrative purposes and ease of review, images of the project maps as well as the project location on the provided disadvantaged communities tool appear below:

Figure 2: Aerial 1- Project Location

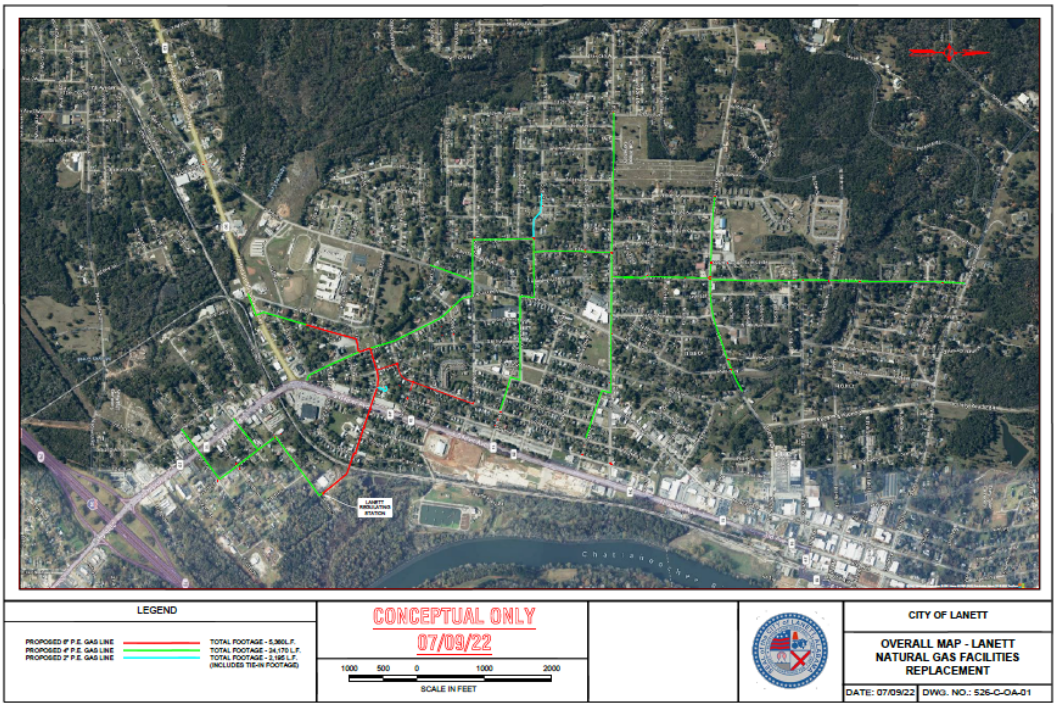
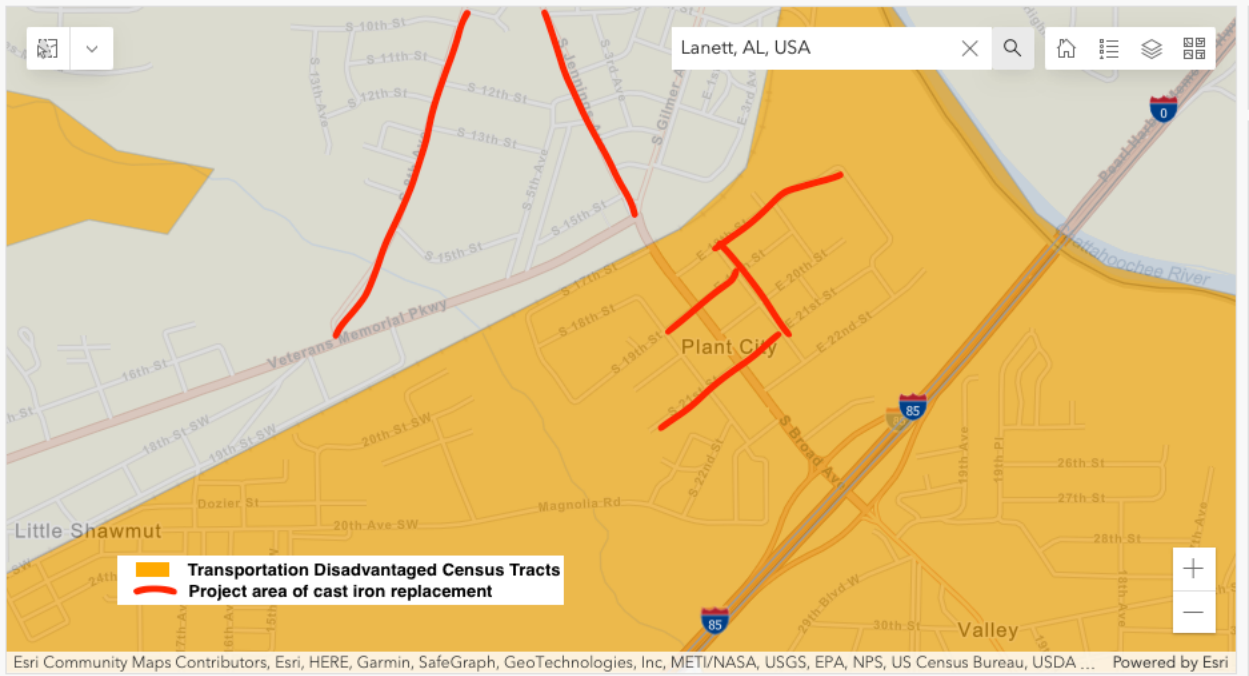


Figure 3: Aerial 2- Project Location

Figure 4: Project Location within Disadvantaged Census Tracts:



b. Project Schedule

Project Schedule:

1. Preparation of Plans and Specifications 15 months
2. Bidding and Award of Contract / Material Procurement / Highway & Railroad Permits 3 months
3. Construction (CI Replacement) 15 months
4. Construction (M&R Station) 3 months

c. Project Eligibility

This project is eligible for funding under this NOFO because it requests expenses that are eligible for funding including:

- Construction costs related to replacing natural gas pipeline distribution systems
- Equipment cost related to rehabilitating natural gas pipeline distribution systems
- Equipment costs related to reducing incidents and fatalities and avoiding economic losses on natural gas distribution systems
- Professional engineering, design and construction inspection, and grant administration costs that are eligible under and comply with 2 CFR 200.

d. Project Funding

Table 3 below indicates the amount of Federal funding requested, total project cost, and partial funding scenarios. Tables 4 and 5 below provide budget summaries of the federal funding requested and minimum acceptable funding scenarios. Lanett requests that PHMSA provide the $4,657,135.45 of federal funding requested, if possible, because that is the only funding scenario that can bring Lanett into compliance with the directive to remove all cast iron gas mains.

The scope of work presented here was not in process prior to the announcement of this award. Lanett's shrinking population and tax base, along with an already small municipal budget has not been enough to make the repairs. In February of 2022, Lanett contracted with Subscribed Regulatory Compliance Service (SRCS) to assure compliance with CFR 49 Part 192 and provide

support in the management of the system (see attached letter from SRCS). Lanett is developing a plan and budget for system maintenance but given the current economic conditions and obsolete system components, Lanett cannot bring the system into compliance without federal funding assistance. Approximately 25 percent of the proposed replacements are in a disadvantaged census tract, however the rest of the project is located in between eligible census tracts, and Lanett is requesting special consideration for funding due to this fact.

Figure 5: Project Location in and Surrounded by Disadvantaged Census Tracts

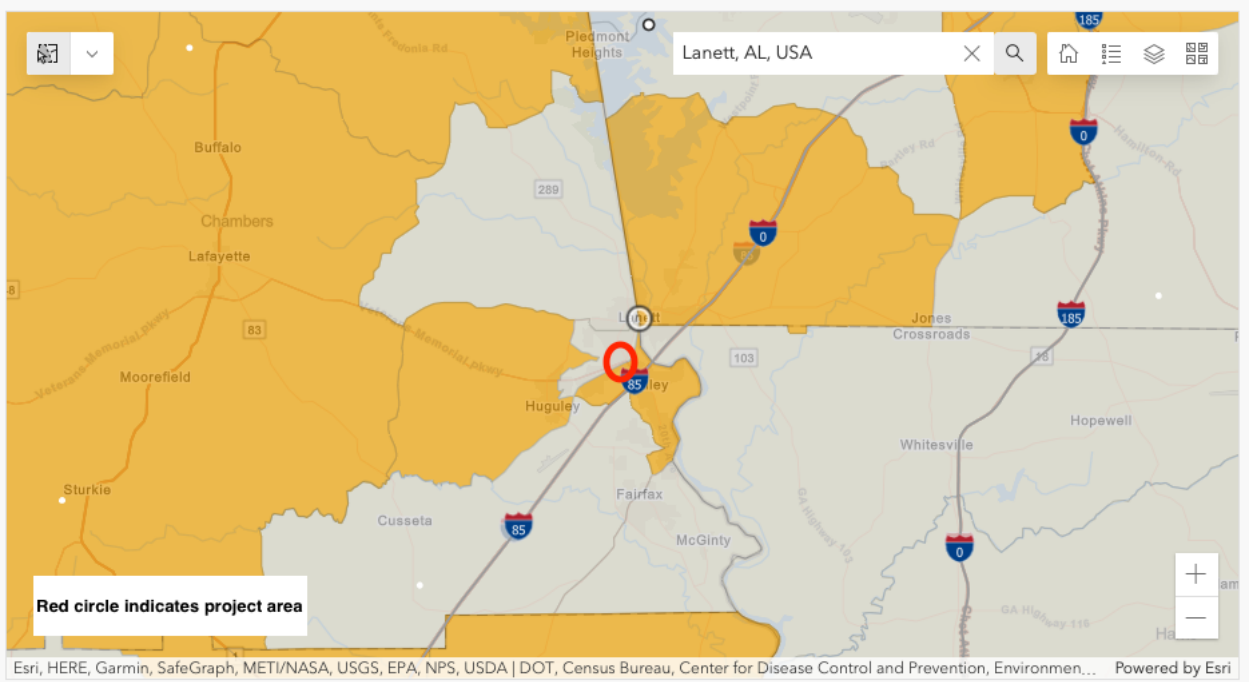


Table 3: Federal Funding Requested & Minimum Acceptable Funding Summary

	Total Project Costs	Federal Funding Requested
This proposed project	$4,657,135.45	**$4,657,135.45**
Partial funding of this project/ minimum funding*	$2,582,976	

* Minimum funding will not bring Lanett into compliance because it will only reduce 50% of their cast-iron mains. Additional grant funding would need to be sought to bring Lanett into compliance. Please fund the entire request.

Table 4: Budget Summary- Federal Funding Requested

City of Lanett, AL NGDISM Grant Budget

Budget Summary

Cast Iron Facilities Replacement	$ 3,868,423
Gate Station Replacement	$ 353,900
Leak Detection Equipment	$ 11,437
Total Direct Costs	**$ 4,233,760**
Indirect Costs- 10% de minimis rate	$ 423,375
Grand Total Project Cost	**$ 4,657,135**

Table 5: Budget Summary- Minimum Federal Funding Requested*

City of Lanett, AL NGDISM Grant Budget	Minimum Acceptable Budget	
Cast Iron Facilities Replacement	$	1,857,763
Gate Station Replacement	$	326,400
Total Direct Costs	**$**	**2,184,163**
Indirect Costs- 10% de minimis rate	$	218,416
Cast Iron Facilities Replacement Contingency	$	152,897
Gate Station Replacement Contingency	$	27,500
Grand Total Project Cost	**$**	**2,582,976**

* Minimum funding will not bring Lanett into compliance because it will only reduce 50% of their cast-iron mains. Additional grant funding would need to be sought to bring Lanett into compliance.

4. Detailed Project Description

Scope of Work

The scope of this work is to replace the existing cast iron gas lines remaining in the City of Lanett natural gas system. The replacement of these facilities has been mandated by PHMSA due to the material nature and joints of these lines being significant sources of leaking gas.

The proposed replacement will be with Medium Density Polyethylene (MDPE) gas piping and service lines which is the current industry standard. All mains and services will be buried.

The approximate replacement footage of these lines is as follows: 6" MDPE – 5,360 L.F.

4" MDPE – 32, 310 L.F.

2" MDPE – 2,195 L.F.

Total Estimated Footage – 39,865 L.F. (7.55 miles)

The installation will be by open trench and horizontal directional drill (hdd). All of the project will be located on or within previously disturbed road rights-of-way with the exception of approximately 800 feet south of the railroad crossing and the Lanett Regulating Station. This exception will be adjacent to the existing 6" C.I. gas line. Valves and service lines within these replacement sections will also be installed. The project engineer has been in contact with the railroad regarding this project and has calculated time in the schedule and money in the budget for the required permits.

The scope of this work is to replace the existing Metering, Regulating and Odorizer station where the City receives it's natural gas supply from Kinder Morgan. These facilities are the original facilities that were installed when the system was built in the early 1960's. This equipment is obsolete as the equipment is no longer manufactured and replacement parts are no longer available.

The existing system also contains an old propane air peak shaving facility which is currently

connected on the downstream low-pressure side. This facility needs to be disconnected and removed from the site. The City has inquired and received a price of $10,215 for a Laser Gas Trac LZ-30 leak detector.

Project Schedule

1. Preparation of Plans and Specifications 15 months
2. Bidding and Award of Contract / Material Procurement / Highway & Railroad Permits 3 months
3. Construction (CI Replacement) 15 months
4. Construction (M&R Station) 3 months

Maps & Budget

Please see attached

Safety Risk Profile

Lanett's most recent Distribution Integrity Management Plan became effective on March 22, 2022. The plan is attached for your reference. The Plan's Consolidated Risk Ranking for the entire cast iron system is as follows:

City of Lanett Gas Department Section Risk Ranking (Consolidated)

Risk Ranking

Section: Entire Cast Iron System

Threat: Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)

Description: All Cast Iron Main

Rank	User Rank	Shrimp Rank	Relative Risk Score	Probability Score	Leak Cause Factor Score	Incident Probability Factor
1	0	1	7.95	6.63	1.2	1

- Responses indicating an actual threat:
    - Exposed pipe inspections indicate a corrosion problem.
    - Confirmed corrosion leaks have occurred on this section.
    - Fractures have occurred on the cast/ductile iron pipes other than those related to excavation activities.
    - Exposed pipe inspections indicate that graphitization is occurring.

Additional Actions

For **Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)** on the **Entire Cast Iron System** the system will:

- Perform Annual Cast Iron Survey- The System will implement as follows: The City of Lanett will perform an annual leakage survey of the entire cast iron system during the Critical Area/Public Buildings Survey

Performance Measures

For **Corrosion > Cast, Ductile, Wrought Iron (8 or smaller)** on the **Entire Cast Iron System** the system will:

- Track the number of leaks caused by external corrosion per mile of main and per 1000 service lines on this section.

  The System will implement as follows: The City of Lanett will track the number of corrosion leaks per mile of cast iron main on DIMP Baseline Spreadsheet. The City of Lanett does not have cast iron services to track.

Incident Probability Factor

Reported Cause of Incidents and Failures 2005-2007	# of Incidents	# of Failures	Incidents/1000 Failures	Normalized to Corrosion
Corrosion	6	293,933	0.02	1
Excavation Damage	73	338,666	0.22	11
Incorrect Operations	8	30,145	0.27	13
Material, Weld or Joint Failure	8	147,384	0.05	3
Equipment Failure	6	140,442	0.04	2
Natural Force Damage	22	77,229	0.28	14
Other Outside Force Damage	39	37,426	1.04	51
All Other Causes *	NA	NA	NA	

* Excluding Fire First Incidents

The results of this analysis find that failures due to three threats (corrosion, material failure and equipment failure) are least likely to result in reportable incidents, that failures due to excavation damage, incorrect operations and natural force damage are moderately likely to result in reportable incidents and that other outside force damage failures are most likely to result in reportable incidents.

The advisors agreed to assign an Incident Probability Factor of 1.0 (no increase in relative risk score) for Corrosion, Materials/Welds, Equipment, and Other Outside Force Threats where it is relatively unlikely a failure will result in a reportable incident. For Excavation, Incorrect Operations, and Natural Force Threats where it is relatively more likely that a failure will result in a reportable incident the advisors agreed on an Incident Probability Factor of 1.25 (e.g. a 25% increase in relative risk score for these threats).

Further investigation of the "other outside force" category revealed that virtually all the incidents involved vehicles striking above ground facilities, usually meter sets. The SHRIMP

advisors agreed with the PHMSA Phase 1 report conclusions that there was not enough information to conclude that vehicular damage could have been anticipated at the location of these incidents or whether meter protection existed, therefore no additional weighting is provided for this threat. SHRIMP does, however, include assessment of vehicle damage in the threat assessment and offer additional/accelerated actions if vehicular damage is found to be a significant threat.

Environmental Review

A completed Tier 2 Environmental Questionnaire is provided (see attached and #12 below)

Civil Rights

This project addresses and will address requirements under Title VI of the Civil Rights Act, Section 504 of the Rehabilitation Ace, and their implementing regulations, including 28 CFP. The applicant has reviewed these authorities and will again prior to project implementation should the project be funded.

5. Statement of Authority and Pipeline Infrastructure Safety and Modernization Capabilities

The City of Lanett owns the natural gas distribution system. In accordance with the current approved and filed Code of Ordinances of the City of Lanett, Chapter 9, the city's duties to operate the system are codified in accordance with Alabama Code 1966, Sections 26-48[2]. An image of the ordinance is shown in number 2 above, *Applicant Eligibility*. The utility department has the ability to purchase equipment and regularly does so.

Lanett's Gas Department meets the minimum federal safety standards identified in 49 CFR Part 192. The department has five employees including a Utility Department Superintendent, a Gas Foreman, Assistant Foreman, and two field operators. To replace the existing 7.55 miles of cast iron, Lanett needs to hire a contractor because the employees that they have are busy

[2] Code 1966, Sections 26-48:
https://library.municode.com/al/lanett/codes/code_of_ordinances?nodeId=COOR_CH9ELGAWAUT

completing their daily activities and the construction work would prohibit them from completing their required duties to uphold the minimum safety standards.

6. Projected Outputs and Objectives

Projected Outputs for the project include:

1) Improving equity for 6,220 citizens of Lanett, 64.1% of which are black (US Census)
2) Quantity of Pipeline affected: Replace 39,865 LF (7.55 miles) of cast iron gas main
3) Cost of equipment to be purchased:
    a. Replacement of the metering, regulating and odorizer station- $326,400
    b. Purchase Laser Gas Trac leak detector- $10,415
4) Estimate of the number of jobs that the project will create based on a total project cost of $4,633,098:

Short-Term Construction Economic Impact on Total Output

Impact	Employment	Labor Income	Value Added	Output
1 - Direct	26	$ 1,066,036	$ 1,233,701	$ 3,100,000
2 - Indirect	5	$ 230,483	$ 426,212	$ 881,722
3 - Induced	4	$ 151,189	$ 298,483	$ 536,792
TOTAL	**35**	**$ 1,448,309**	**$ 1,958,396**	**$ 4,518,514**

$120 THOUSAND GENERATED IN STATE AND LOCAL TAXES
$43 THOUSAND LOCAL
$77 THOUSAND STATE

Source: IMPLAN Group, LLC. IMPLAN (2019). Huntersville, NC. IMPLAN.com

5) An estimate of the project's potential for benefiting disadvantaged rural and urban communities: According to the U.S. Census' 2021 population estimates, the City of Lanett's race and Hispanic Origin makeup includes 64.1% black or African American population, therefore Lanett is a majority-minority city and is disadvantaged.

U.S. Census Race Data for City of Lanett

Race	Percent
White alone	33.4%
Black or African American alone	64.1%
Asian alone	0.0%
Native Hawaiian and Other Pacific Islander	0.0%
Two or More Races	0.1%
Hispanic or Latino	1.8%
White alone not Hispanic or Latino	7.3%

Source: U.S. Census Bureau

6) An estimate of the economic impact or growth over the length of the project- According to the IMPLAN data provided in number 3 above, the economic output related to this project is $4.5 million over 3 years.
7) An estimate of the reduction in methane emissions attributable to the project- because the cast-iron mains represent 10% of Lanett's system, it stands to reason that at least 10% of methane emissions will be reduced, although the number is likely higher.

Safety- This project will improve safety by at least 10%, because the cast-iron mains represent 10% of Lanett's system.

Environment- The methane released into the environment will also be reduced by at least 10%, and future leaks will be detected faster with the inclusion of leak detection equipment that the project will purchase.

Job Creation- The project will contribute to high-quality job creation by creating welding jobs. Southern Union State Community College has committed to working with Lanett to include their welding graduates as priority hires for the project (letter attached). According to the IMPLAN report provided above, the project will create 35 jobs. Because Lanett is a majority racial minority (black or African American) city, it stands to reason that blacks/African Americans will disproportionately benefit from this project.

Equity- A disadvantaged racial community, as well as a high poverty community will benefit from this project. According to the U.S. Census, the 2019 poverty rate was 27.3%, higher than the Alabama rate of 16.9% and the United States' rate of 10.5%.

7. Project Implementation and Management

Lanett will ensure the applicable Federal pipeline safety regulations will be followed via continuing to implement their Distribution Integrity Management Program (DIMP) that was updated in March of 2022. Their compliance consultant, Subscribed Regulatory Compliance Service (SRCS), will assure compliance with CFR 49 Part 192 and provide support in the appropriate management of the system, safety and performance checks, inspections, and audits of the project (see attached letter from SRCS).

8. Explanation of Evaluation and Selection Criteria Equivalence

The proposed project meets all the evaluation criteria and selection criteria as outline in Section E of the grant NOFO.

9. Equity, as Defined in the Executive Order 13985

The City of Lanett will comply with EO 13985.

10. Buy America

The materials for this project will generally be manufactured or produced domestically per the "Buy America" provision. This is a requirement for Alabama Department of Transportation (ALDOT) reimbursed projects and Lanett has had no issues complying with the requirement in the past.

11. Critical Infrastructure Security and Resilience

Lanett has considered the physical and cyber security risks relevant to their natural gas distribution system. With the completion of this project, no physical risks need to be addressed.

The operations of the Lanett system also do not present a cyber security risk of any kind according to the project engineer, Don Cochrane.

12. Environmental Analysis

a) **Project Description and Location**-

The scope of this work is to replace the existing cast iron gas lines remaining in the City of Lanett natural gas system. The replacement of these facilities has been mandated by PHMSA due to the material nature and joints of these lines being significant sources of leaking gas.

The proposed replacement will be with Medium Density Polyethylene (MDPE) gas piping and service lines which is the current industry standard. All mains and services will be buried.

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b) **Maps**- The following maps are attached. Please note that two of each map is provided to show the full 7.55 mile spread of the project in a legible manner:
    a. Topo
    b. Wetlands/Floodplain
    c. Aerial
c) **Property changes**- no changes will occur as all work will be within existing right of way.
d) **Wetlands**- no wetlands will be impacted by this project

e) **Threatened and Endangered Species**- According to the U.S. Fish and Wildlife Service's IPaC planning tool, there is one endangered species that is potentially located near the project, the Monarch Butterfly, however no critical habitats are present as show below:

Figure 6: IPaC Endangered Species

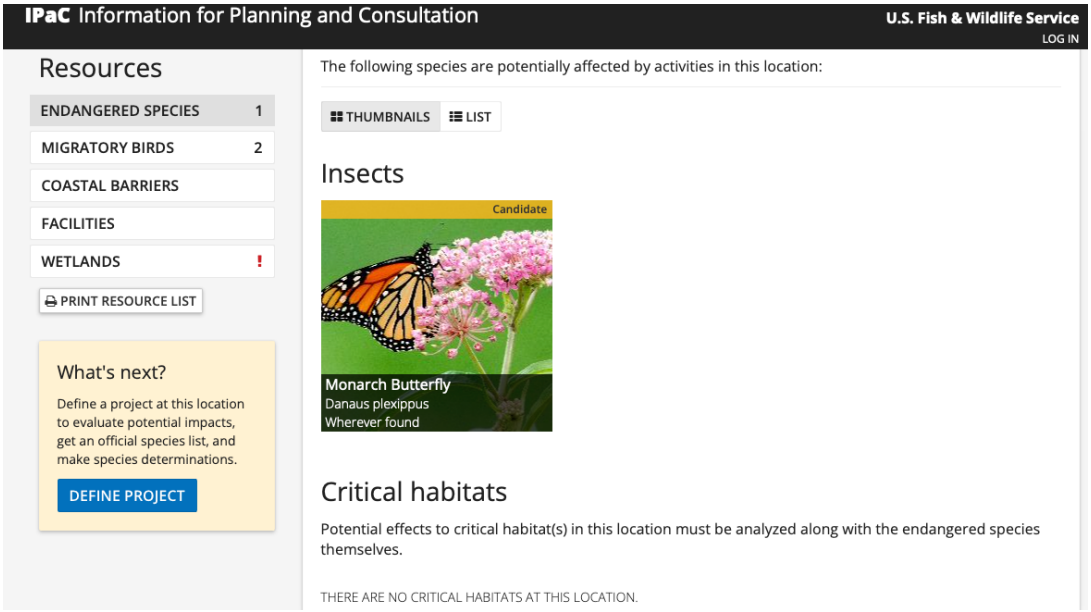
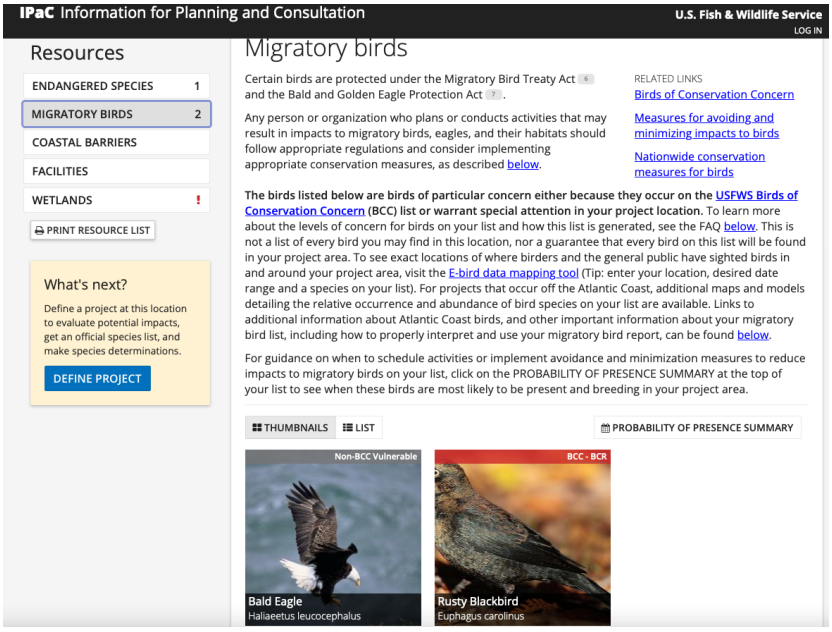


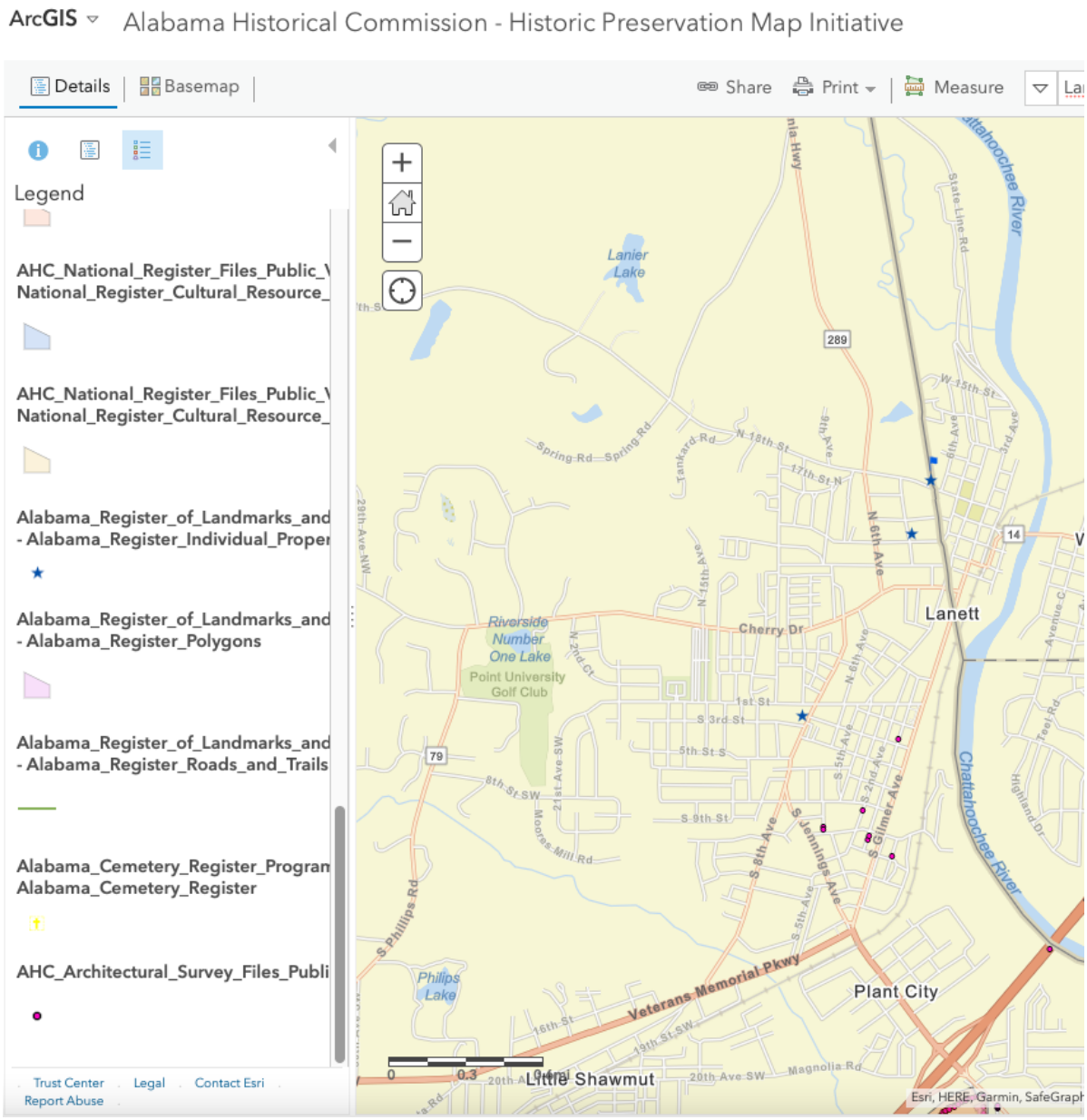
Figure 7: IPaC Migratory Birds- The Bald Eagle and Rusty Blackbird are on the BCC



f) **Floodplains**- This project is not located in a flood plain or wetland. See attached maps.

g) **Historic Properties**- No historic properties will be impacted because the project will be constructed in existing right of way, however here is the State Historic Preservation Office (SHPO) identified historic properties in the vicinity of the project:

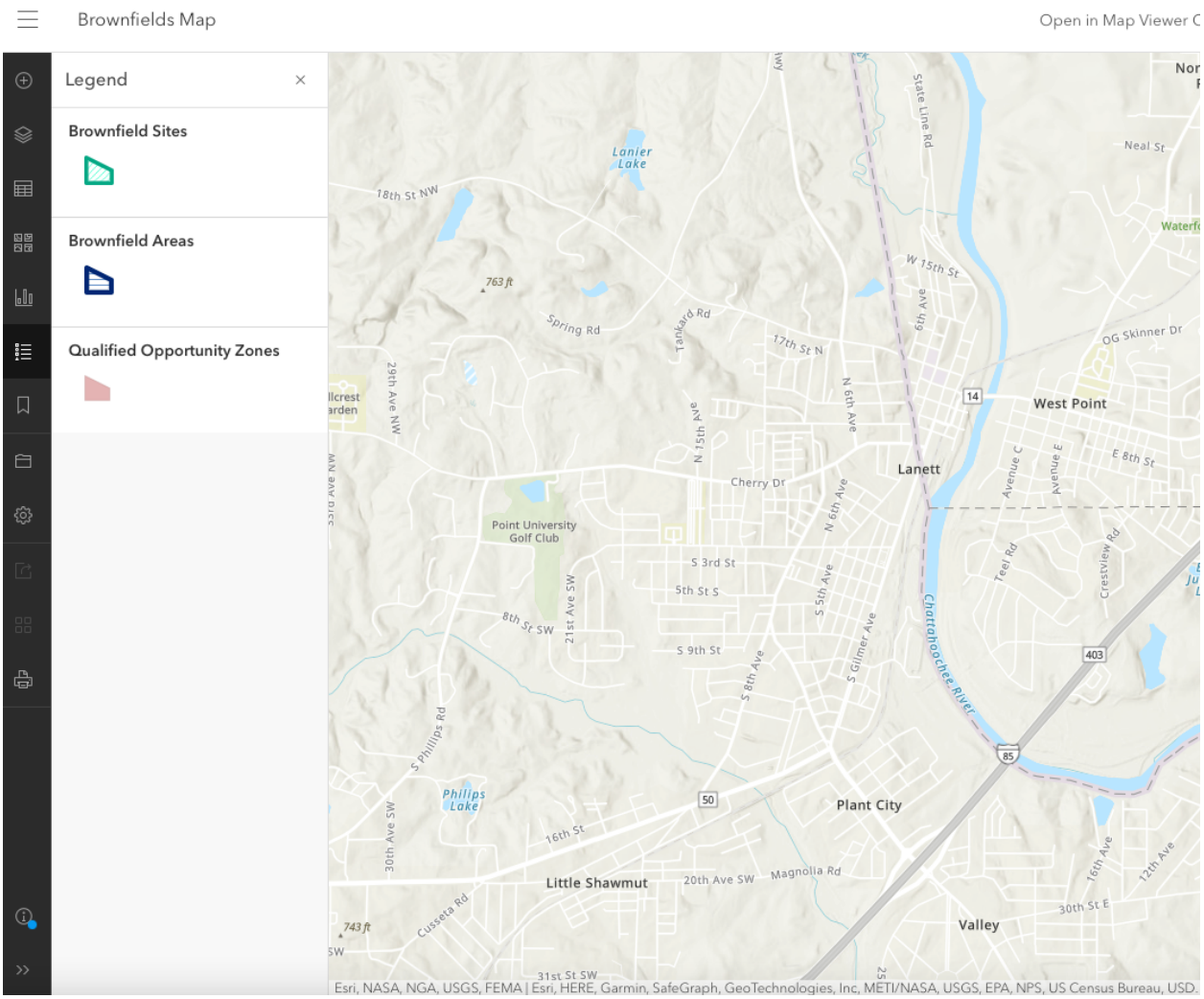
Figure 8: SHPO Map



h) **Coastal Areas**- This project is not located in a coastal area.

i) **Brownfields**- There are no Brownfields in the project vicinity as shown below:

Figure 9: Brownfields Map



Conclusion

The City of Lanett is pleased to have the opportunity to submit this request. For many years, we have been unable to have enough funding or personnel to run our daily operations AND replace all our cast iron main. Please fund this project so that Lanett can operate a safe system and PHMSA can fund a project that prioritizes equity.