

4.0 ENVIRONMENTAL CONSEQUENCES AND MITIGATION

Environmental consequences associated with implementing the No-Build Alternative and Preferred Alternatives, Bypass Alternatives 3 and 4, are discussed in this chapter, along with potential permits and mitigation measures. The No-Build Alternative is discussed in the terms of existing as a short term solution. Impacts associated with widening, signalization or other necessary modifications to accommodate the increase in traffic would be highly speculative and are not discussed in this EA. All agency correspondence noted in this chapter are included as **Appendix A** in chronological order, unless stated otherwise.

4.1 Land Use and Development

This section addresses impacts to the land use categories of commercial, cropland and pasture, industrial, residential, forest, and forested wetland. The No-Build Alternative would not change the present development pattern of land use categories in the project study area.

Construction of the Bypass Alternative 3 will result in the direct conversion of 52.03 acres of forested wetland, 34.78 acres of cropland and pasture, and 0.27 acres of forest land.

Bypass Alternative 4 will result in the direct conversion of 4.86 acres of forested wetland and 4.45 acres of industrial land. This information is according to the USGS land use data presented in **Figure 4** (see Chapter 3.2), and the potential wetland impacts are described in more detail in Chapter 4.18.

4.2 Community Facilities and Services

The No-Build Alternative would not impact any community facilities. However, in the event LA 70 is closed, a No-Build Alternative would affect a variety of community services including school bus routes, emergency services, travel time, postal service routes, and waste management.

There is only one community facility located inside the project study area, St. Martin's Cemetery. However, the cemetery is not in close proximity to either of the bypass build alternatives, and would not be expected to be impacted. In the event LA 70 is closed, either bypass alternative would allow community services to continue to function with an alternative route.

A letter from the Assumption Parish Policy Jury dated December 12, 2013 detailed a suggested alignment for the bypass, which was taken into consideration and is reflected in Bypass Alternative 3. Correspondence with the Assumption Parish School Superintendent dated December 2, 2013 indicates that the school system is in favor of a bypass for LA 70 for the safety of the students and employees.

4.3 Relocations

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act) provides important protections and assistance for people affected by federally funded projects. Relocation resources are available to all residential and business relocates without discrimination.

As no ROW acquisition would be required under the No-Build Alternative, there would be no relocation impacts.

Table 4-1 details the acreage by parcel of additional ROW that is anticipated to be acquired for both Bypass Alternatives 3 and 4. This cost is based on the current value as received by the DOTD District 61 office.

**TABLE 4-1
ROW PROPERTY ACQUISITION ACREAGE AND COST**

Alternative	Parcel ID Number	Acres to be Acquired	Approximate Cost ¹
3	0600003200	7.34	\$7,337.66
	0700010300	0.49	\$485.38
	0700021500	0.16	\$159.26
	0700026400	20.00	\$19,997.32
	0700029400	1.38	\$1,376.63
	0700048300	10.92	\$10,920.50
	0700062100	6.14	\$6,141.29
	0700064400	2.14	\$2,139.14
	0700078734	0.69	\$692.26
	0700085300	13.12	\$13,116.74
	0700090800	6.11	\$6,112.04
	0700091300	6.88	\$6,881.72
	0800041500	2.37	\$2,373.61
	0800041600	0.80	\$795.76
	0800057900	2.46	\$2,459.55
	0800078420	2.24	\$2,236.73
	0900092630	2.80	\$2,798.93
4	0700026330	0.10	\$104.73
	0700085716	0.03	\$28.51
	0700021505	1.34	\$1,340.67
	0700042083	7.55	\$7,546.63

NOTES:

1. Cost is based on data obtained from the DOTD District 61 office at \$1,000/acre.

Regarding residential or business relocations, only Bypass Alternative 3 results in displacements of any kind. Bypass Alternative 3 results in the displacement of one residence, 676 LA 70 South, Belle Rose. This residence is comprised of three structures (one house and two garages). Based on exterior visual observations, the residence appears to be well maintained, and it is believed that it meets decent, safe, and sanitary standards. The subject residence represents a noise receptor that was modeled during the noise study conducted for the EA. As a result, the homeowner was notified of the study effort and was on site when noise measurements were taken. The homeowner revealed that she owned the house for 50 years, but she was not the property owner.

Per the DOTD guidance, there should be no impact on the housing market where the relocation is likely to take place, as historically, the majority of displacees in rural or semi-rural areas choose to relocate on their remainder properties or in the general area of displacement. There should also be no divisive or disruptive effect on the community as a result of this project. Should the LA 70 Bypass be considered necessary, community disruption as a result of the Grand Bayou/Bayou Corne Sinkhole would have already affected residents and traffic patterns.

The ROW cost for Bypass Alternative 3 was adjusted to reflect this residential displacement and is detailed in **Table 4-2**. This cost does not include utility relocations or mitigation for impacts to wetland habitats. Those costs are included in the overall cost for Bypass Alternative 3 defined in Chapter 2.5.

**TABLE 4-2
ESTIMATED ROW COSTS FOR BYPASS ALTERNATIVE 3**

Item	Unit Price	Unit	Quantity	Total
Land - Raw and Farmland ⁽¹⁾	\$1,000.00	ACRE	87	\$87,000
Improvements - Residence ⁽²⁾	\$60.00	LUMP	1,860	\$111,600
Damages - Garages ⁽³⁾	\$22.85	SQ FT	1,100	\$25,135
Damages - Substation ⁽⁴⁾	\$50,000.00	LUMP	1	\$50,000
Total				\$273,735

NOTES:

1. Undeveloped land is estimated at \$1,000 per acre for the region based on data obtained from DOTD's Real Estate Section.
2. Residence estimated value is based on the average current asking prices in the area and a house size of 1,860 square feet (measured off GoogleEarth).
3. Garages are an estimated 1,100 square feet (in total) with a construction cost of \$22.85 per square feet, as defined using the Craftsmen National Building Cost Estimator.
4. Substation improvements impacted include overhead power lines and fencing. This value is based on DOTD's Real Estate Section averages.

No special or unusual conditions have been identified. The project will only be implemented if the LA 70 Detour Route is deemed necessary and is constructed. No discussions have been held with local officials or community groups regarding potential displacements, and none are anticipated at this time. Bypass Alternative

3 will only be constructed if the integrity of the existing LA 70 or the proposed detour route is threatened. Replacement housing is available in the area of displacement. Additionally, based on DOTD expertise, owner-occupants in rural areas without sufficient sized remainders (of their existing property) on which to relocate historically have been successful in securing replacement sites in the general area of displacement through sources seldom available to the general public. In conclusion, we do not anticipate any unusual problems in providing replacement housing under normal procedures. Additional details regarding this relocation can be found in the Conceptual Stage Relocation Plan, located in **Appendix G**. The other relocations will involve utilities, and these are further discussed in Chapter 4.6.

4.4 Employment Trends and Local Economy

The No-Build Alternative will involve no change in the existing businesses abutting LA 70. However, under the No-Build Alternative, traffic and non-traffic serving businesses may be affected by the gradual deterioration of the capacity of the existing roadway network. Also, in the event LA 70 is shut down, local businesses whose primary vehicular access is provided by LA 70 will be negatively impacted as residents, and customers will not be able to easily commute.

The two proposed bypass alternatives are designed to maintain traffic flow and residential access to LA 70 in the project area in the event the integrity of LA 70 is threatened. As such, neither bypass alternative should negatively impact the local economy or employment trends.

4.5 Environmental Justice

The No-Build Alternative, Bypass Alternative 3, and Bypass Alternative 4 will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations since census data did not reflect minority or low-income populations in the project study area.

4.6 Utilities

As no ROW acquisition would be required under the No-Build Alternative, there would be no utility impacts.

Both of the build alternatives will result in the need to cross or relocate multiple utilities including municipal water lines, electric lines, telecom lines, cable lines, and underground pipelines carrying natural gas, brine, and highly volatile liquids. A detailed utility survey and cost estimate was prepared as part of the Bypass Feasibility Study and can be found in Appendix J of the final Bypass Feasibility Study (**Attachment 1**). Since the bypass alternatives have changed during this EA process, the utility locations presented in the feasibility study did not capture the project study area for the revised alternatives. Therefore, the utility companies

were contacted directly to assist with the line locations. The costs and assumptions provided in the utility survey were used to estimate a revised utility relocation cost for the two proposed bypass alternatives. Relocation costs associated with Bypass Alternative 3 are estimated to be \$9.7 million, and Bypass Alternative 4 is estimated to cost \$481,884.40. These costs only reflect construction costs and do not account for items such as engineering design, environmental permitting, construction inspection, wetland mitigation, facility shut-in, etc. This report assumed relocation of utilities would be required for any utilities crossing the proposed route with an intersection angle of 15 degrees or less, or traveling parallel and within the proposed ROW. **Tables 4-3** and **4-4** define the utilities known to be present within or adjacent to the ROW of the proposed bypass alternatives.

TABLE 4-3
UTILITIES POTENTIALLY IMPACTED BY BYPASS ALTERNATIVE 3

Station	Owner/Operator	Contents	Mitigation Description	Pipe Diameter (inches)	Length (linear feet)	Unit Cost	Total
123+00	Assumption Parish	Water	Encasement	4	107.44	\$400.00	\$42,976.00
241+00	Assumption Parish	Water	Encasement	8	635.74	\$800.00	\$508,592.00
0+00 to 9+00 277+00 to 284+00	Assumption Parish	Water	Relocation	14	764.5	\$20.00	\$15,290.00
206+00	Boardwalk	Highly Volatile Liquid	Encasement	6	175.19	\$600.00	\$105,114.00
151+00	Boardwalk	Ethane	Encasement	12	162.02	\$1,050.00	\$170,121.00
255+50	Boardwalk	Natural Gas	Encasement	?	170.04	\$1,200.00	\$204,048.00
255+50	Boardwalk	Natural Gas	Encasement	?	170.28	\$1,200.00	\$204,336.00
208+00	Chevron/Bridgeline	Highly Volatile Liquid	Encasement	4	148.56	\$400.00	\$59,424.00
206+00	Chevron/Bridgeline	Highly Volatile Liquid	Encasement	6	174.98	\$600.00	\$104,988.00
168+00	Chevron/Bridgeline	Highly Volatile Liquid	Encasement	8	120.01	\$800.00	\$96,008.00
34+00	Chevron/Bridgeline	Natural Gas	Encasement	24	122.18	\$1,495.00	\$182,659.10
34+03	Chevron/Bridgeline	Natural Gas	Encasement	24	122.03	\$1,495.00	\$182,434.85
206+00	Chevron/Bridgeline	Natural Gas	Encasement	24	318.48	\$1,495.00	\$476,127.60
210+00	DOW	Butane	Encasement	8	150.21	\$800.00	\$120,164.71
210+00	DOW	LPG	Encasement	8	148.97	\$800.00	\$119,175.12
210+00	DOW	LPG	Encasement	8	149.42	\$800.00	\$119,537.65
210+50	DOW	Butane	Encasement	8	150.30	\$800.00	\$120,239.20
210+00	DOW	Propane	Encasement	12	149.79	\$1,050.00	\$157,274.37
210+00	DOW	Propylene	Encasement	12	150.61	\$1,050.00	\$158,143.39
210+00	DOW	Ethylene	Encasement	16	150.23	\$1,200.00	\$180,276.05
210+00	DOW	Butane	Encasement	20	149.50	\$1,350.00	\$201,828.85
210+00	DOW	Brine	Encasement	24	149.88	\$1,495.00	\$224,066.81
210+50	EnLink Midstream	Highly Volatile Liquid	Encasement	4	145.59	\$400.00	\$58,237.19
210+50	EnLink Midstream	Highly Volatile Liquid	Encasement	4	145.58	\$400.00	\$58,231.28

**TABLE 4-3
UTILITIES POTENTIALLY IMPACTED BY BYPASS ALTERNATIVE 3 (continued)**

Station	Owner/Operator	Contents	Mitigation Description	Pipe Diameter (inches)	Length (linear feet)	Unit Cost	Total
118+00	EnLink Midstream	Highly Volatile Liquid	Encasement	6	138.97	\$600.00	\$83,382.55
118+00	EnLink Midstream	Highly Volatile Liquid	Encasement	6	138.97	\$600.00	\$83,382.55
118+00	EnLink Midstream	Highly Volatile Liquid	Encasement	10	138.97	\$1,000.00	\$138,970.91
118+00	EnLink Midstream	Highly Volatile Liquid	Encasement	10	138.97	\$1,000.00	\$138,970.91
204+00	EnLink Midstream	Natural Gas	Encasement	36	318.04	\$1,850.00	\$588,370.08
207+00	EnLink Midstream	Natural Gas (Proposed Relocation)	Encasement	36	251.72	\$1,850.00	\$465,674.01
0+00 to 10+00 0+00 to 284+00	Entergy	Overhead Electric with Telecom and Cable	Relocation	-	628.95	\$70.00	\$44,026.49
122+00	Entergy	Overhead Electric with Cable	Relocation	-	56.80	\$70.00	\$3,976.24
241+00	Entergy	Overhead Electric Line	Relocation	-	748.89	\$70.00	\$52,422.05
3+00 to 3+50	Entergy	Overhead Electric with Telecom and Cable	Relocation	-	1598.93	\$70.00	\$111,925.42
3+00 to 3+50	Entergy	Overhead Electric with Telecom and Cable	Relocation	-	514.22	\$70.00	\$35,995.19
254+00	Enterprise Products/Acadian	Natural Gas	Encasement	4	174.30	\$400.00	\$69,719.99
254+00	Enterprise Products/Acadian	Natural Gas	Encasement	4	174.18	\$400.00	\$69,673.04
150+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	6	163.57	\$600.00	\$98,142.82
241+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	6	649.67	\$600.00	\$389,800.39
34+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	8	164.44	\$800.00	\$131,551.36
149+50	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	8	163.45	\$800.00	\$130,760.31
150+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	8	122.05	\$800.00	\$97,642.19
254+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	10	174.17	\$1,000.00	\$174,165.22
34+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	12	190.78	\$1,050.00	\$200,315.72
254+50	Enterprise Products/Acadian	Natural Gas	Encasement	12	171.33	\$1,050.00	\$179,900.38
256+50	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	12	167.74	\$1,050.00	\$176,129.72

**TABLE 4-3
UTILITIES POTENTIALLY IMPACTED BY BYPASS ALTERNATIVE 3 (continued)**

Station	Owner/Operator	Contents	Mitigation Description	Pipe Diameter (inches)	Length (linear feet)	Unit Cost	Total
256+50	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	12	122.06	\$1,050.00	\$128,159.23
117+00	Enterprise Products/Acadian	Natural Gas (Chico D)	Encasement	20	326.41	\$1,350.00	\$440,652.65
205+00	Enterprise Products/Acadian	Natural Gas	Encasement	20	148.18	\$1,350.00	\$200,048.76
211+00	Enterprise Products/Acadian	Natural Gas	Encasement	20	130.03	\$1,350.00	\$175,535.07
256+00	Enterprise Products/Acadian	Highly Volatile Liquid	Encasement	20	169.90	\$1,350.00	\$229,367.42
42+00	Enterprise Products/Acadian	Natural Gas	Encasement	36	104.88	\$1,850.00	\$194,028.04
150+00	Exxon	Highly Volatile Liquid	Encasement	8	166.03	\$800.00	\$132,824.08
41+00	Florida Gas	Natural Gas	Encasement	12	105.65	\$1,050.00	\$110,929.88
150+00	Shell	Highly Volatile Liquid	Encasement	10	164.96	\$1,000.00	\$164,962.88
150+00	Shell	Highly Volatile Liquid	Encasement	12	164.94	\$1,050.00	\$173,187.67
116+00	Texas Brine	Brine (Abandoned)	Encasement	10	129.61	\$1,000.00	\$129,613.02
117+00	Texas Brine	Brine	Encasement	12	130.00	\$1,050.00	\$136,501.85
118+00	Texas Brine	Brine	Encasement	12	129.96	\$1,050.00	\$136,457.60
Total Cost for Bypass 3 Utility Impacts							\$9,686,458.85

Notes:

1. Utility line locations were estimated based on available data from the Feasibility Study and through contact with the various utility companies. This data should not be used for construction purposes, and a detailed survey will need to be conducted during final design.
2. For costing purpose, split casing of active pipelines for the entire ROW width was the assumed mitigation option. Additional options such as rerouting and matting may be feasible and will be determined during the final design.
3. Unit costs are based on the assumptions made in the Bypass Feasibility Study (Attachment 1).

**TABLE 4-4
UTILITIES POTENTIALLY IMPACTED BY BYPASS ALTERNATIVE 4**

Station	Owner/ Operator	Contents	Mitigation Description	Pipe Diameter (inches)	Length (linear feet)	Unit Cost	Total
0+50	Assumption Parish	Water	Relocation	4	189.03	\$20.00	\$3,780.60
2+50 to 5+50	Chevron/Bridgeline	Natural Gas	Relocation	24	434	\$200.00	\$86,800.00
3+00 to 6+00	Chevron/Bridgeline	Natural Gas	Relocation	24	350.75	\$200.00	\$70,150.00
4+00 to 7+00	Chevron/Bridgeline	Water	Relocation	12	323.05	\$200.00	\$64,610.00
4+00 to 7+00	Chevron/Bridgeline	Water	Relocation	12	326.18	\$200.00	\$65,236.00
27+50 to 40+50	Entergy	Overhead Electric with Telecom and Cable	Relocation	-	984.93	\$70.00	\$68,945.10
25+00 to 40+50	Entergy	Overhead Electric with Telecom	Relocation	-	482.89	\$70.00	\$33,802.30
40+00	Enterprise Products/Acadian	Natural Gas (Proposed)	Encasement	8	53.63	\$800.00	\$42,904.00
40+00	Chevron/Bridgeline	Highly Volatile Liquid	Encasement	8	41.65	\$800.00	\$33,320.00
36+00 to 40+58	Assumption Parish	Water	Relocation	6	435.35	\$20.00	\$8,707.00
38+00 to 40+00	Assumption Parish	Water	Relocation	14	181.47	\$20.00	\$3,629.40
Total Cost for Bypass 4 Utility Impacts							\$481,884.40

Notes:

1. Utility line locations were estimated based on available data from the Feasibility Study and through contact with the various utility companies. This data should not be used for construction purposes, and a detailed survey will need to be conducted during final design.
2. For costing purpose, split casing of active pipelines for the entire ROW width was the assumed mitigation option. Additional options such as rerouting and matting may be feasible and will be determined during the final design.
3. Unit costs are based on the assumptions made in the Bypass Feasibility Study (Attachment 1).

4.7 Traffic Patterns

The No-Build Alternative, assuming either LA 70 or the LA 70 Detour Route remains open to traffic, will have no impacts on current traffic patterns. However, in the event either is closed, traffic patterns will be significantly disrupted. Detour routes result in an increased travel time of approximately one-hour in one direction and up to 70 miles each way.

Both Bypass Alternative 3 and Bypass Alternative 4 will continue to allow traffic to flow with minimal impact to traffic patterns in the event LA 70 or the Detour Route is closed without routing traffic on a 44 to 70 mile detour. A letter from the South Central Planning and Development Commission, the planning commission for Assumption Parish, received on December 9, 2013, confirmed this project will not burden the current transportation system.

4.8 Public Land and Recreation

As discussed in Chapter 3.7, there are no state or federal parks, wildlife refuges, or wildlife management areas in the project study area. Therefore, the No-Build and two bypass alternatives will not impact public land or recreation areas, as there are none in the project area.

4.9 Cultural Resources

The FHWA must consider the potential effects of a proposed action on historic properties per Section 106 of the National Historic Preservation Act of 1966, as amended. The No-Build Alternative will have no adverse effect because no ground disturbances or ROW acquisitions will occur as a result of this project.

TRC conducted a Phase I Cultural Resources Survey (CRS) of the Preferred Alternative from November 17 through 20, 2014. Archival research was employed as the first step, including consulting maps, site files, and project files through the use of the Louisiana Division of Archaeology's online Louisiana Cultural Resources Map GIS database, Louisiana Historic Standing Structures Survey, NRHP database, and the Louisiana State Library.

Federal regulations define the area of potential effects (APE) as "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist." For assessment of direct effects, the APE is defined as the areas of construction and clearing. TRC was provided the proposed ROW for Bypass Alternatives 3 and 4. The APE for archeological resources was limited to the approximately 6.99 miles of a 200-foot-wide corridor, totaling 100.34 acres in which ground-disturbing activities are possible. For indirect effects, such as visual effects, the APE was determined to extend no more than 1,000 feet on either side of the centerline of the project corridor, where vegetation will be cleared for construction, and construction would potentially affect viewsheds.

Standard archaeological survey methods were used during the field study and included a combination of surface inspection and shovel testing. The ground was inspected for the presence of archaeological material in areas with greater than 25 percent surface visibility. Places that were not inundated, comprised of hydric soil, or obviously disturbed with fill were shovel tested in 30-meter intervals along two transects using standard shovel testing methods. Shovel tests were a minimum of 30 centimeters (cm) in diameter and excavated to a maximum depth of 75 cm, and the soil was then screened through 0.64-cm mesh hardware cloth.

Six previously recorded archaeological sites occur within one mile of the current project area. None of these sites fall within the current survey areas. No newly recorded archaeological sites were located during the current survey, and nearly the entire project area contains poorly drained to very poorly drained soils.

Two newly-recorded historic architectural resources, and one previously-recorded historic architectural resource, were identified during the current survey. However, none of these were deemed eligible for the NRHP. No further work with respect to cultural resources is recommended in relation to the proposed project.

Based on the Phase I CRS, neither Bypass Alternative 3 nor Bypass Alternative 4 will have an adverse effect on cultural resources. Correspondence with the SHPO, dated May 22, 2015, stated the final Phase I CRS report was reviewed and has been accepted.

4.10 Section 4(f) and 6(f)

One property meeting the criteria for Section 4(f) or 6(f) lands was identified within the project study area, Belle River Recreation Complex of Pierre Part, as discussed in Chapter 3.9. As this property is not within or adjacent to the proposed ROWs of the two bypass build alternatives, no use to any Section 4(f) properties nor any conversion to any Section 6(f) properties will occur under the No-Build or either of the Build Alternatives.

4.11 Visual Environment

The No-Build Alternative would have no impact on existing views and aesthetic characteristics of the project study area.

Bypass Alternative 3 will affect the viewshed of residents along Crawfish Stew Street as a roadway corridor would be replacing an undeveloped area. This neighborhood is currently under a mandatory evacuation. In the event the bypass is deemed necessary, it is reasonable to assume this area would still be under evacuation.

Bypass Alternative 4 will affect the viewshed of one residence along Bayou Choupique, as the roadway corridor would be replacing an undeveloped area. This house is currently unoccupied.

4.12 Water Resources

The No-Build Alternative would not impact existing surface water, groundwater quality, recharge potential, or area water wells.

There are potential impacts to surface waters associated with the two bypass build alternatives during construction activities. These impacts are discussed in Chapter 4.25. The potential for sedimentation of erosion materials into the nearby drainage ditches and adjacent wetlands caused by storm water runoff could increase during construction activities. Exposed soils from construction activities are more susceptible to erosion. Appropriate Best Management Practices (BMPs) to be implemented as part of the Storm Water General Permit for Construction Activities will minimize and mitigate for construction-related impacts to area waterways.

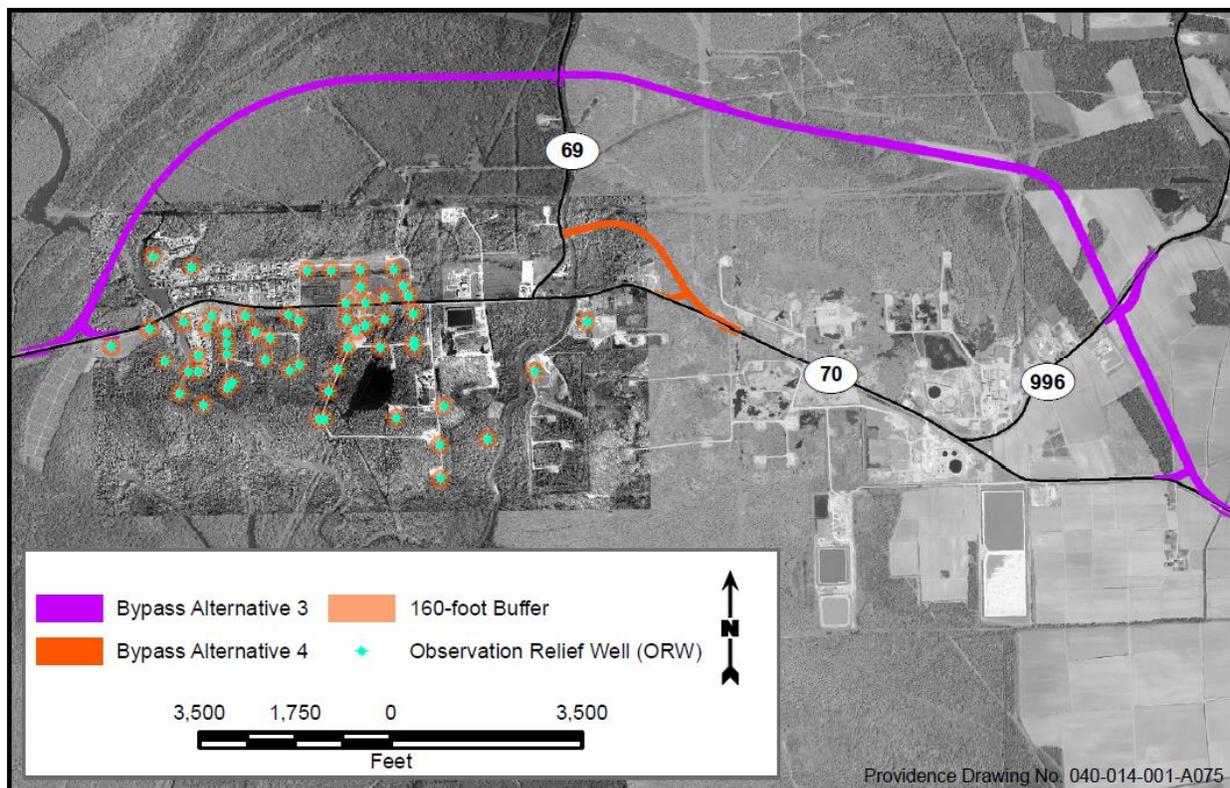
The potential for an adverse impact associated with the two build alternatives on groundwater is extremely low, due to the lack of usable aquifers in a majority of the project area. There are no SSAs in the project area, and the only Louisiana aquifer located within the MRAA, is not used for public water supply in most of this area. The alternatives would not result in impacts to any PWS wells. Build Alternative 3 would impact one active monitoring water well. Build Alternative 4 would not impact any water wells. Water resources impacted can be seen in **Figure 8** (see Chapter 3.12.1).

As part of the Detour Route Stage 0 Feasibility Study and Environmental Inventory, a risk study was prepared on proposed ORWs associated with the remediation of the Grand Bayou/Bayou Corne sinkhole in close proximity of the proposed alternatives. This study is included at the end of this document as **Attachment 2**. The study used the Computer-Aided Management of Emergency Operations (CAMEO) software to assist in identifying ORWs along the proposed roadway that should be plugged and abandoned. CAMEO was used to analyze several ORWS for methane gas and hydrogen sulfide (H₂S). The results of the study indicated there was no danger of either an explosive release or toxic gas plume. The threat zone analysis of H₂S for explosive gas cloud showed the level of concern was never exceeded. However, Red and Orange Threat Zones resulted from the potential toxic area of a H₂S vapor cloud release. According to the Stage 0 final report, the:

- Red Threat Zone represents an area where anyone would experience a minimum H₂S gas exposure of 50 parts per million (ppm) during a gas release. This area was determined to be approximately 51 feet from the well. An H₂S concentration of 100 ppm can cause loss of consciousness and possible death.
- Orange Threat Zone represents an area where anyone would experience an exposure between 27 ppm and 49 ppm of H₂S gas. This area was determined to be between 52 and 160 feet from the well. H₂S concentrations less than 50 ppm can potentially cause headaches; eye, ear, and throat irritations; poor attention span and motor function; and memory impairment.

The model results justify plugging all ORWs within 160 feet of the ROW. Only one ORW falls within 160 feet of either alternative. ORW-3 is near the western end of Build Alternative 3, and can be seen on **Figure 15**. This ORW falls within the Orange Threat Zone. The DOTD will coordinate with the well owner, the LDNR, to determine the feasibility of plugging and abandoning this well if the bypass is deemed necessary and Bypass Alternative 3 is selected for construction.

**FIGURE 15
ORW THREAT ZONES**



ORW data obtained from the LDNR SONRIS water well server as of 12/2/14. Base map provided by CB&I on 4/15/14.

4.13 Floodplains

The No-Build Alternative will have no impact on floodplains or future flooding in the area.

Figure 10 (see Chapter 3.13) shows the 100-year floodplain data for the project study area. Within the boundaries of Alternatives 3 and 4, approximately 65.83 acres and 9.30 acres, respectively, are located in the 100-year floodplain. In order to assure compliance with local, state, and federal agencies regarding floodplain requirements for the National Flood Insurance Program, correspondence was sent to the Assumption Parish Office of Emergency Preparedness, the DOTD Floodplain Management Program (FMP), and the FEMA Region VI Mitigation Division via the SOV process.

FEMA's Mitigation Division sent a response dated November 29, 2013 requesting contact with the Assumption Parish Floodplain Administrator (APFA) for permits and requirements. SOV letters were sent to the APFA and the Flood Insurance Program Coordinator with the DOTD FMP on November 22, 2013. An SOV response was received from the DOTD FMP dated January 6, 2014, which included FIRMs and a request to contact the APFA. An SOV response was not received from the APFA. However, direct contact was made with the APFA, Mr. John Boudreaux, during the floodplains evaluation discussed below.

4.13.1 Project Area Background

The project area for Bypass Alternative 3 and 4 is almost entirely contained within Zone "A" designated floodplain as detailed in the FEMA Flood Insurance Rate Map Panels 220017-0025B and 220017-0050B. The portion of Bypass Alternative 3 east of LA 996 is designated Zone "C," which is documented as an area of minimal flooding. Base Flood Elevation (100 year event) in this area is elevation 6.0 feet. At the request of Assumption Parish, the USACE conducted an independent evaluation of the 100 year flood level in this area. The results of that evaluation determined that the Base Flood Elevation should be revised to 6.5 feet. The majority of surrounding land is classified as wetland and has very little relief with an average elevation of 2.0 feet AMS. The portion of Bypass Alternative 3 east of LA 996 has an average elevation of 7.0 feet AMS.

4.13.2 Alternatives Impacts

No impacts to existing floodplains are anticipated under the No-Build Alternative.

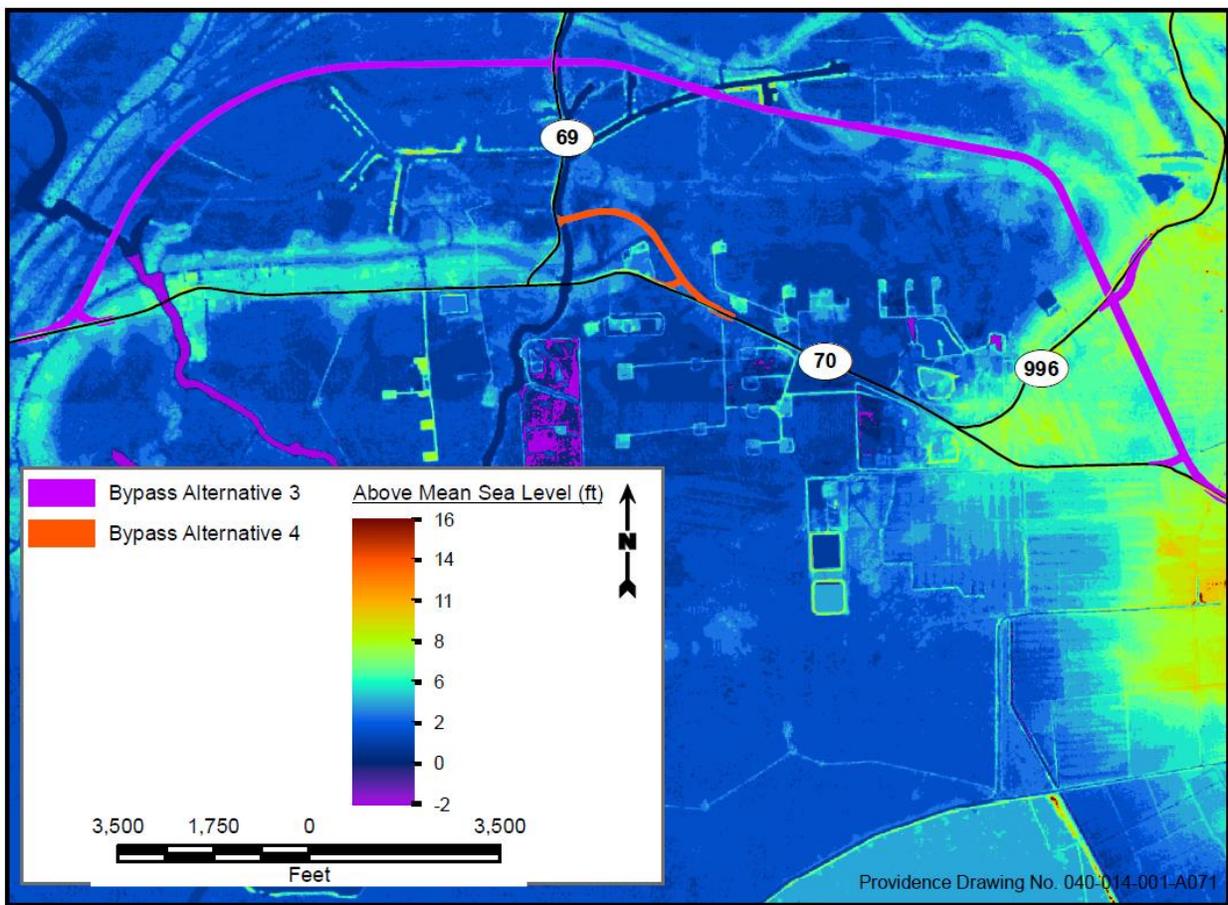
Due to the nature of the project area and purpose and need of this project, there is no feasible build alternative that does not impact the floodplain. Bypass Alternative 3 is designed to establish a true bypass corridor in the case of a failure of LA 70 or the proposed detour route and should therefore be a practical length that avoids the potential hazard area. Bypass Alternative 3 described in Chapter 2.4 is 28,228 feet in length and will involve the placement of approximately 51,782 cubic yards of fill in order to elevate the proposed at-grade portions of the roadway one foot above the 100-year base flood elevation. Construction also requires the removal of approximately 65,412 cubic yards of existing soil in order to establish proper drainage along the roadway. Of the total length of Alternative 3, 15,365 feet is elevated bridge of either slab girder, precast pre-stressed concrete girder, or steel girder section. Total floodplain impact is calculated at 68.83 acres.

Bypass Alternative 4 is designed so that, should the detour route be determined, it would tie back directly into LA 70. Bypass Alternative 4 described in Chapter 2.4 is 4,075 feet in length and will involve the placement of approximately 2,600 cubic yards of fill in order to tie into the existing roadways. Construction also requires the removal of approximately 860 cubic yards of existing soil. Of the total length of Alternative 4, 4,000

feet is elevated bridge of either slab girder or precast pre-stressed concrete girder section. Total floodplain impact is calculated at 9.30 acres.

Existing LIDAR (elevation) data along the two alternatives is shown in **Figure 16**. Culverts will be placed at appropriate locations to allow runoff to convey along its natural course. All cross drain culverts will be designed to convey the 50-year frequency storm. Construction of detention treatment facilities to provide additional storage in the floodplain are not feasible since the majority of the surrounding existing grade elevation is well below the 100-year flood elevation.

**FIGURE 16
LIDAR DATA**



LIDAR data obtained from Louisiana Oil Spill Coordinator's Office dataset 2014.

4.13.3 Floodplain Finding

The Bypass Alternative 3 project area is mainly contained within the Grand Bayou and Bayou Corne floodplains. The portion east of LA 996 is not considered within any floodplain. This alternative was designed to provide all practicable measures to minimize floodplain impacts.

The Bypass Alternative 4 project area is fully contained within the Grand Bayou and Bayou Corne floodplains. Therefore, there is no practicable alternative to the proposed construction of a detour route that does not affect the floodplain. This alternative was designed to provide all practicable measures to minimize floodplain impacts.

4.13.4 Floodplain Mitigation

Detailed hydrologic and hydraulic studies will be conducted during final design to determine the water surface elevation impacts of placing fill within the floodplain. These studies should show that no increase in flood level due to construction will occur. The majority of both Bypass Alternatives 3 and 4 are elevated throughout the length of the project. This will minimize placement of fill within the floodplain and should therefore have minimal influence on hydraulics in the area.

The DOTD will review these studies in order to ensure that the most feasible mitigation measures are being taken to provide adequate assurance to the adjacent properties that no increased risk of flooding will be a result of the detour construction.

4.14 Farmlands

The No-Build Alternative would involve no disturbance of existing soils, the topographic character of the project study area, or prime farmland.

According to the USDA guidance, federal agencies involved in projects that may convert farmland, as defined in the Farmland Protection Policy Act to nonagricultural uses, will need to submit Form AD-1006 or CPA-106 Farmland Conversion Impact Rating. A request was submitted to the NRCS, and a corridor project Form CPA-106 was completed by NRCS on December 18, 2014.

For Bypass Alternative 3, out of the 51.98 acres included in the proposed ROW, 37.1 acres are considered prime farmlands and are to be converted directly. A majority of the prime or unique farmland soils are classified as Cancienne silty clay loam, totaling to 20.16 acres.

For Build Alternative 4, out of 9.30 acres included in the proposed ROW, 0.11 acres are considered prime farmlands and are to be converted directly. This entire area is classified as Cancienne silty clay loam.

The remainder of the project areas are either not classified as prime farmland or exempt due to location within existing ROW. A copy of the completed Form CPA-106 is included in **Appendix A**.

4.15 Noise

As previously mentioned in Chapter 3.15, the TNM was used to determine traffic noise impacts for 113 noise-sensitive receptors near the proposed bypass alternatives. Noise impacts for the existing year, design year no-build, and design year build conditions were determined from a comparison of the NAC to the TNM results. Where a predicted noise level equaled or exceeded the DOTD NAC, or where the predicted noise level exceeded an existing noise level by 10 dBA, an impact will occur.

One hundred and thirteen receivers were modeled, with a majority of these representing single-family residences. For the existing conditions, nine of the modeled receptors experienced noise impacts. For the 2038 No-Build Alternative design year, 17 receivers experienced an impact.

Twelve receivers resulted in an impact for Bypass Alternative 3 during the 2038 design year. Eight of these receivers occur on the first row of houses south of LA 70 near Rue de Cajun. A noise barrier would not be beneficial for these eight receivers due to the reoccurring breaks that would be required to maintain property access. Therefore, a noise barrier would not be feasible for these eight receivers. The remainder of the impacted receivers (Receivers 58, 59, 68, and 80) are located off Crawfish Stew and Bayou Corne Streets, and experience a substantial increase impact. This means the predicted levels exceed the existing levels by at least 10 dB. Therefore, noise abatement measures were considered for these four receivers. Noise abatement such as traffic management measures, alteration of horizontal or vertical alignments, and acquisition of property rights to serve as a buffer zone were determined to not be feasible or reasonable. The construction of a 10-foot noise barrier with the length of 1,765 feet was modeled. Based on the base unit price of \$21 per square feet, the barrier cost is estimated to be \$370,650. The minimum requirements for feasibility and reasonableness were met, with the exception of community input. It is important to note that during Stage 1 Planning/Environmental, the noise analysis identifies noise abatement measures that are likely to be incorporated in the projects design. The final determination of any proposed noise abatement measure will be made during the design stage.

Sixteen receivers were impacted by the proposed Bypass Alternative 4 2038 design year. All sixteen receivers fall on the first row of houses along LA 70 and also experience an impact with the No-Build Alternative. A noise barrier would not

be feasible for these receivers due to the reoccurring breaks that would be required to maintain property access. Therefore, a noise barrier would not be feasible for these receivers.

Receiver impacts can be seen in **Table 4-5** and are illustrated for both Bypass Alternatives 3 and 4 on **Figures 17** and **18**, respectively. The proposed barrier location can also be seen on **Figure 17** for Bypass Alternative 3. A copy of the full traffic noise analysis is included as **Appendix C**.

TABLE 4-5
TNM PREDICTED NOISE LEVELS

Receiver	NAC Category	DOTD NAC (dBA)	Existing Year (2013)		Design Year (2038)								
			LAeq1h (dBA)	Impact Type ⁽¹⁾	No Build			Build - Alternative 3			Build - Alternative 4		
					LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾
1	B	66	65.3	-	67.1	1.8	SL	41.5	-23.8	-	67.1	1.8	SL
2	B	66	63.8	-	65.5	1.7	-	42.4	-21.4	-	65.5	1.7	-
3	B	66	67.4	SL	69.2	1.8	SL	69.2	1.8	SL	69.2	1.8	SL
4	B	66	64.0	-	65.7	1.7	-	37.5	-26.5	-	65.7	1.7	-
5	B	66	65.9	-	67.6	1.7	SL	37.7	-28.2	-	67.6	1.7	SL
6	B	66	66.7	SL	68.5	1.8	SL	68.5	1.8	SL	68.5	1.8	SL
7	B	66	66.9	SL	68.6	1.7	SL	54.6	-12.3	-	68.6	1.7	SL
8	B	66	66.7	SL	68.4	1.7	SL	68.4	1.7	SL	68.4	1.7	SL
9	B	66	64.0	-	65.8	1.8	-	38.9	-25.1	-	65.8	1.8	-
10	B	66	66.5	SL	68.3	1.8	SL	68.3	1.8	SL	68.3	1.8	SL
11	B	66	68.4	SL	70.2	1.8	SL	70.2	1.8	SL	70.2	1.8	SL
12	B	66	66.5	SL	68.2	1.7	SL	68.2	1.7	SL	68.2	1.7	SL
13	B	66	67.2	SL	69.0	1.8	SL	69.0	1.8	SL	69.0	1.8	SL
14	B	66	65.4	-	67.1	1.7	SL	38.2	-27.2	-	67.1	1.7	SL
15	B	66	64.2	-	66.0	1.8	SL	66.0	1.8	SL	66.0	1.8	SL
16	B	66	64.6	-	66.3	1.7	SL	38.0	-26.6	-	66.3	1.7	SL
17	B	66	50.4	-	52.2	1.8	-	39.5	-10.9	-	52.2	1.8	-
18	B	66	59.2	-	60.9	1.7	-	38.2	-21.0	-	60.9	1.7	-
19	B	66	56.9	-	58.7	1.8	-	39.3	-17.6	-	58.7	1.8	-
20	B	66	57.8	-	59.5	1.7	-	39.5	-18.3	-	59.5	1.7	-
21	B	66	57.9	-	59.6	1.7	-	39.9	-18.0	-	59.6	1.7	-
22	B	66	65.9	-	67.6	1.7	SL	43.6	-22.3	-	67.6	1.7	SL
23	B	66	65.8	-	67.6	1.8	SL	43.3	-22.5	-	67.6	1.8	SL
24	B	66	52.8	-	54.6	1.8	-	39.2	-13.6	-	54.6	1.8	-
25	B	66	52.7	-	54.5	1.8	-	39.9	-12.8	-	54.5	1.8	-
26	B	66	53.4	-	55.1	1.7	-	40.4	-13.0	-	55.1	1.7	-

TABLE 4-5 (continued)
TNM PREDICTED NOISE LEVELS

Receiver	NAC Category	DOTD NAC (dBA)	Existing Year (2013)		Design Year (2038)								
			LAeq1h (dBA)	Impact Type ⁽¹⁾	No Build			Build - Alternative 3			Build - Alternative 4		
					LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾
27	B	66	53.4	-	55.1	1.7	-	41.4	-12.0	-	55.1	1.7	-
28	B	66	53.8	-	55.6	1.8	-	41.5	-12.3	-	55.6	1.8	-
29	B	66	54.9	-	56.6	1.7	-	41.5	-13.4	-	56.6	1.7	-
30	B	66	53.2	-	54.9	1.7	-	41.3	-11.9	-	54.9	1.7	-
31	B	66	53.9	-	55.7	1.8	-	41.6	-12.3	-	55.7	1.8	-
32	B	66	54.9	-	56.7	1.8	-	42.0	-12.9	-	56.7	1.8	-
33	B	66	55.4	-	57.1	1.7	-	42.4	-13.0	-	57.1	1.7	-
34	B	66	57.0	-	58.8	1.8	-	42.7	-14.3	-	58.8	1.8	-
35	B	66	55.2	-	57.0	1.8	-	43.2	-12.0	-	57.0	1.8	-
36	B	66	61.8	-	63.5	1.7	-	43.8	-18.0	-	63.5	1.7	-
37	B	66	57.6	-	59.4	1.8	-	44.1	-13.5	-	59.4	1.8	-
38	B	66	57.1	-	58.9	1.8	-	43.5	-13.6	-	58.9	1.8	-
39	B	66	60.6	-	62.3	1.7	-	43.4	-17.2	-	62.3	1.7	-
40	B	66	63.0	-	64.8	1.8	-	44.9	-18.1	-	64.8	1.8	-
41	B	66	57.1	-	58.9	1.8	-	44.9	-12.2	-	58.8	1.7	-
42	B	66	60.9	-	62.6	1.7	-	45.3	-15.6	-	62.6	1.7	-
43	B	66	60.1	-	61.9	1.8	-	46.3	-13.8	-	61.9	1.8	-
44	B	66	59.7	-	61.4	1.7	-	46.8	-12.9	-	61.4	1.7	-
45	B	66	59.8	-	61.6	1.8	-	47.5	-12.3	-	61.6	1.8	-
46	B	66	56.0	-	57.7	1.7	-	48.5	-7.5	-	57.7	1.7	-
47	B	66	57.5	-	59.2	1.7	-	45.0	-12.5	-	59.2	1.7	-
48	B	66	55.1	-	56.8	1.7	-	44.1	-11.0	-	56.8	1.7	-
49	C	66	67.0	SL	68.7	1.7	SL	46.4	-20.6	-	68.7	1.7	SL
50	B	66	55.4	-	57.2	1.8	-	42.8	-12.6	-	57.2	1.8	-
51	B	66	57.6	-	59.4	1.8	-	41.2	-16.4	-	59.4	1.8	-
52	B	66	59.5	-	61.3	1.8	-	40.6	-18.9	-	61.3	1.8	-

TABLE 4-5 (continued)
TNM PREDICTED NOISE LEVELS

Receiver	NAC Category	DOTD NAC (dBA)	Existing Year (2013)		Design Year (2038)								
			LAeq1h (dBA)	Impact Type ⁽¹⁾	No Build			Build - Alternative 3			Build - Alternative 4		
					LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾
53	B	66	59.6	-	61.4	1.8	-	40.2	-19.4	-	61.4	1.8	-
54	B	66	59.7	-	61.4	1.7	-	40.0	-19.7	-	61.4	1.7	-
55	B	66	60.3	-	62.1	1.8	-	39.2	-21.1	-	62.1	1.8	-
56	B	66	60.8	-	62.5	1.7	-	37.9	-22.9	-	57.4	-3.4	-
57	C	66	64.5	-	66.2	1.7	SL	39.6	-24.9	-	50.4	-14.1	-
58	B	66	45.3	-	47.0	1.7	-	57.1	11.8	SI	46.9	1.6	-
59	B	66	42.9	-	44.7	1.8	-	58.3	15.4	SI	44.6	1.7	-
60	B	66	56.1	-	57.9	1.8	-	44.0	-12.1	-	57.9	1.8	-
61	B	66	45.2	-	47.0	1.8	-	55.0	9.8	-	46.9	1.7	-
62	B	66	46.5	-	48.2	1.7	-	56.0	9.5	-	48.2	1.7	-
63	B	66	47.0	-	48.8	1.8	-	55.4	8.4	-	48.7	1.7	-
64	B	66	47.5	-	49.2	1.7	-	54.3	6.8	-	49.2	1.7	-
65	B	66	48.9	-	50.6	1.7	-	53.2	4.3	-	50.6	1.7	-
66	B	66	50.3	-	52.1	1.8	-	52.4	2.1	-	52.1	1.8	-
67	B	66	52.2	-	54.0	1.8	-	51.7	-0.5	-	54.0	1.8	-
68	B	66	46.4	-	48.2	1.8	-	60.0	13.6	SI	48.1	1.7	-
69	B	66	48.7	-	50.4	1.7	-	55.8	7.1	-	50.4	1.7	-
70	B	66	63.7	-	65.5	1.8	-	48.4	-15.3	-	65.5	1.8	-
71	B	66	58.4	-	60.2	1.8	-	47.0	-11.4	-	60.2	1.8	-
72	E	71	58.7	-	60.4	1.7	-	44.7	-14.0	-	60.4	1.7	-
73	B	66	52.8	-	54.6	1.8	-	50.7	-2.1	-	54.5	1.7	-
74	B	66	52.8	-	54.6	1.8	-	50.2	-2.6	-	54.6	1.8	-
75	B	66	52.4	-	54.2	1.8	-	49.3	-3.1	-	54.2	1.8	-
76	B	66	57.1	-	58.8	1.7	-	38.1	-19.0	-	58.2	1.1	-
77	B	66	53.2	-	54.9	1.7	-	50.8	-2.4	-	54.9	1.7	-
78	B	66	53.2	-	54.9	1.7	-	42.4	-10.8	-	54.9	1.7	-

TABLE 4-5 (continued)
TNM PREDICTED NOISE LEVELS

Receiver	NAC Category	DOTD NAC (dBA)	Existing Year (2013)		Design Year (2038)								
			LAeq1h (dBA)	Impact Type ⁽¹⁾	No Build			Build - Alternative 3			Build - Alternative 4		
					LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾
79	B	66	43.6	-	45.4	1.8	-	51.2	7.6	-	45.3	1.7	-
80	B	66	43.5	-	45.3	1.8	-	54.4	10.9	SI	45.3	1.8	-
81	B	66	54.7	-	56.5	1.8	-	42.0	-12.7	-	56.5	1.8	-
82	B	66	42.6	-	44.3	1.7	-	49.5	6.9	-	44.0	1.4	-
83	B	66	48.1	-	49.9	1.8	-	52.0	3.9	-	49.9	1.8	-
84	B	66	45.9	-	47.6	1.7	-	52.5	6.6	-	47.6	1.7	-
85	B	66	50.5	-	52.2	1.7	-	37.6	-12.9	-	44.6	-5.9	-
86	B	66	57.9	-	59.7	1.8	-	38.1	-19.8	-	59.7	1.8	-
87	B	66	56.6	-	58.3	1.7	-	45.6	-11.0	-	58.3	1.7	-
88	B	66	54.9	-	56.7	1.8	-	43.7	-11.2	-	56.7	1.8	-
89	B	66	50.8	-	52.5	1.7	-	40.4	-10.4	-	52.5	1.7	-
90	B	66	52.0	-	53.8	1.8	-	40.5	-11.5	-	53.8	1.8	-
91	B	66	52.2	-	54.0	1.8	-	40.5	-11.7	-	54.0	1.8	-
92	B	66	53.5	-	55.2	1.7	-	41.5	-12.0	-	55.2	1.7	-
93	B	66	51.8	-	53.6	1.8	-	40.9	-10.9	-	53.5	1.7	-
94	B	66	46.3	-	48.1	1.8	-	55.0	8.7	-	48.0	1.7	-
95	B	66	46.4	-	48.2	1.8	-	54.0	7.6	-	48.2	1.8	-
96	B	66	46.7	-	48.4	1.7	-	52.5	5.8	-	48.4	1.7	-
97	B	66	47.2	-	49.0	1.8	-	51.3	4.1	-	48.9	1.7	-
98	B	66	45.0	-	46.8	1.8	-	51.8	6.8	-	46.8	1.8	-
99	B	66	44.9	-	46.7	1.8	-	50.9	6.0	-	46.7	1.8	-
100	B	66	44.7	-	46.4	1.7	-	50.2	5.5	-	46.4	1.7	-
101	B	66	44.6	-	46.4	1.8	-	49.8	5.2	-	46.4	1.8	-
102	B	66	44.8	-	46.6	1.8	-	48.9	4.1	-	46.5	1.7	-
103	B	66	43.7	-	45.4	1.7	-	51.7	8.0	-	45.4	1.7	-
104	B	66	44.0	-	45.8	1.8	-	52.0	8.0	-	45.7	1.7	-

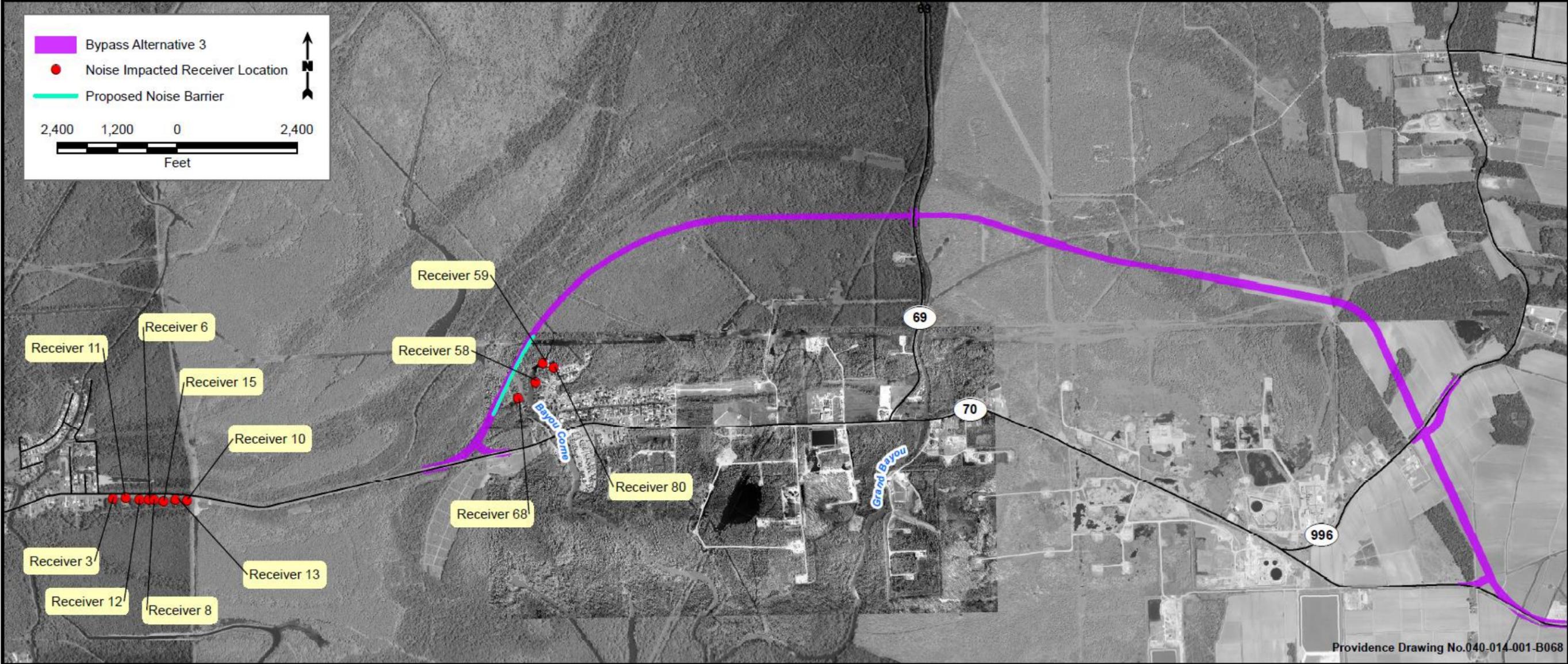
TABLE 4-5 (continued)
TNM PREDICTED NOISE LEVELS

Receiver	NAC Category	DOTD NAC (dBA)	Existing Year (2013)		Design Year (2038)								
			LAeq1h (dBA)	Impact Type ⁽¹⁾	No Build			Build - Alternative 3			Build - Alternative 4		
					LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾	LAeq1h (dBA)	Increase over Existing (dBA)	Impact Type ⁽¹⁾
105	B	66	44.0	-	45.8	1.8	-	52.8	8.8	-	45.7	1.7	-
106	B	66	50.4	-	52.2	1.8	-	40.4	-10.0	-	52.2	1.8	-
107	B	66	51.5	-	53.2	1.7	-	40.1	-11.4	-	53.2	1.7	-
108	B	66	51.7	-	53.4	1.7	-	40.1	-11.6	-	53.4	1.7	-
109	B	66	52.0	-	53.7	1.7	-	40.7	-11.3	-	53.7	1.7	-
110	B	66	57.5	-	59.2	1.7	-	38.6	-18.9	-	59.2	1.7	-
111	B	66	51.1	-	52.8	1.7	-	39.9	-11.2	-	52.8	1.7	-
112	B	66	49.9	-	51.7	1.8	-	40.0	-9.9	-	51.7	1.8	-
113	B	66	43.8	-	45.5	1.7	-	50.1	6.3	-	45.5	1.7	-

NOTE:

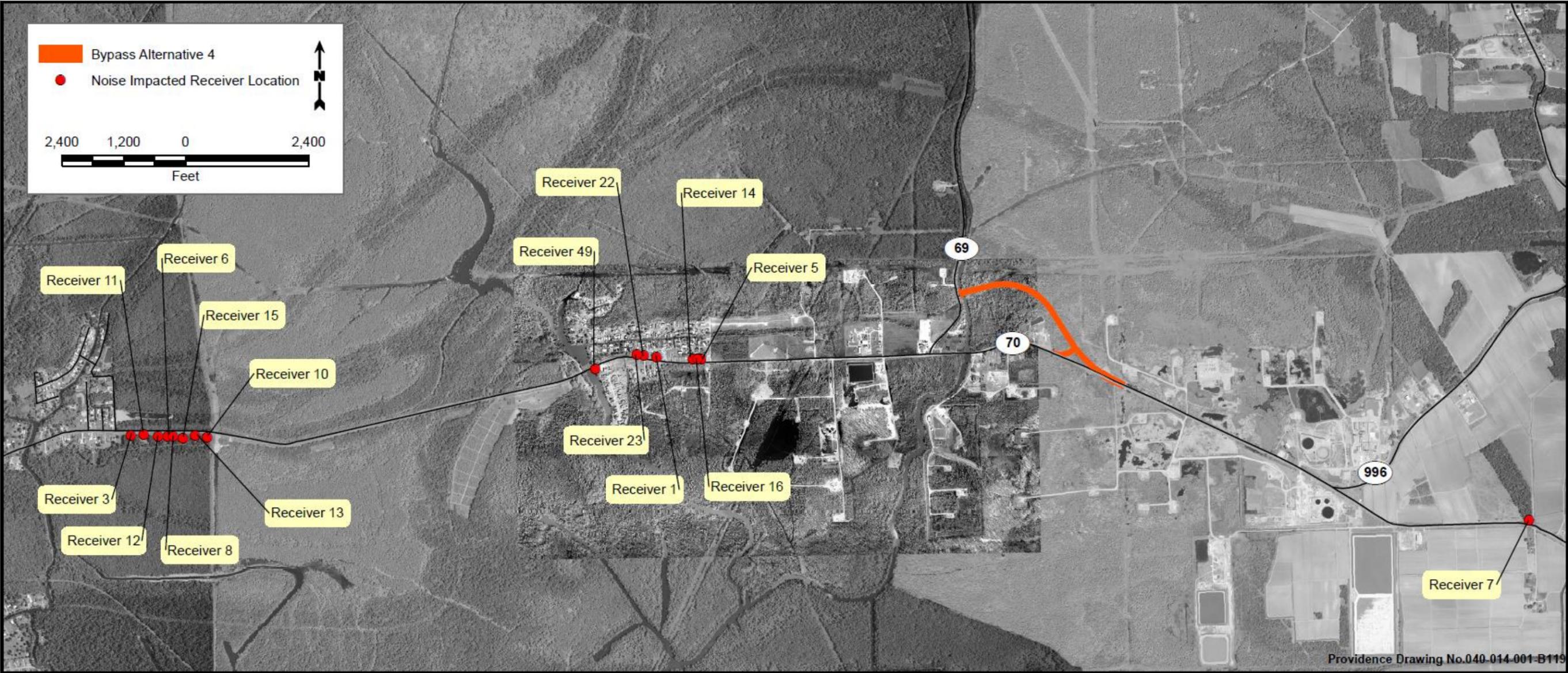
1. Types of impacts include sound level (SL), substantial increase (SI), or both (B).

FIGURE 17
IMPACTED RECEIVERS FOR BYPASS ALTERNATIVE 3



Base map comprised of aeriels provided by CB&I on 4/15/14.

FIGURE 18
IMPACTED RECEIVERS FOR BYPASS ALTERNATIVE 4



Base map comprised of aerials provided by CB&I on 4/15/14.

4.16 Air Quality

The No-Build Alternative will involve no impacts to existing air quality.

Neither Bypass Alternative 3 nor 4 are located in an area deemed nonattainment or maintenance for air quality by the USEPA, and is in compliance with all NAAQS. Therefore, conformity demonstration, the Congestion Management Process, and hot-spot analysis are not required for the proposed project. The proposed project is exempt from a CO Transportation Air Quality Analysis because it is intended to enhance traffic safety and improve traffic flow. Based on the LA 70 Bypass Stage 0 Traffic Study, the April 2013 traffic counts determined that the average daily traffic totaled 7,517 on LA 70 (immediately west of the intersection of LA 69 and LA 70). The project has low potential Mobile Source Air Toxics (MSATs) effects, since current and projected vehicle traffic does not exceed the FHWA threshold (140,000 vehicles per day). Also, emissions for the years 2018 and 2038 will likely be lower than existing levels as a result of the USEPA's national control programs, which are projected to reduce annual MSATs. Based on the results of the air quality analysis, the proposed project is not expected to cause or contribute to any violations of the NAAQS.

During the construction phase of this project, temporary increases in air pollutant emissions may occur from construction activities. PM (fugitive dust) from site preparation will be the primary construction-related emissions, which will only occur during the construction phase. The potential impacts of PM emissions will be minimized by using fugitive dust control measures, such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.

4.17 Hazardous Waste

The No-Build Alternative does not involve any ground disturbances or ROW acquisitions. Therefore, no impacts to hazardous waste sites and oil and gas wells would be expected.

The potential impacts of the two bypass build alternatives, in terms of hazardous waste sites and oil and gas wells, are based on the search of the LDNR's SONRIS database and the Phase I ESA (see **Appendix E**). Providence personnel conducted a site reconnaissance of the subject property and adjacent properties on November 17 and 19, 2014. The purpose of the investigation was to observe whether any visible areas of environmental concern were evident on the subject property.

The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on

the property or into the ground, groundwater, or surface water of the property. Historical recognized environmental conditions are conditions that in the past would have been considered recognized environmental conditions, but under present circumstances may or may no longer be considered recognized environmental conditions. Historical recognized environmental conditions usually involve properties that have experienced a past release and have been remediated to the satisfaction of the responsible regulatory authority. Neither recognized environmental conditions nor historical recognized environmental conditions are intended to include *de minimis* conditions that generally do not present a material risk or harm to public health or the environment, and that will not likely be the subject of an enforcement action if discovered by the appropriate regulatory authority. Below is a summary of the various conditions documented in the Phase I ESA. Additional findings that did not illicit an environmental liability concern are discussed in detail in Section 9.4 of the Phase I ESA (see **Appendix E**).

4.17.1 Recognized Environmental Conditions

The Phase I ESA was conducted in general conformance with ASTM Standard E1527-13, with some exceptions. All exceptions to, or deletions from, this practice are described in Sections 1.0 and 2.0 of the report, included in **Appendix E**. This assessment has revealed no evidence of recognized environmental conditions with the subject property for Bypass Alternative 4. Additionally, this assessment has revealed no evidence of recognized environmental conditions with the subject property for Bypass Alternative 3 except for the following:

- One oil and/or gas production well, serial number 32713, located on the subject property.
- A blowout that occurred on August 11, 2010 at the Mantle Oil & Gas' oil well, the Dugas & Leblanc Co. Ltd Well No. 1, which led to a release of hydrocarbons and chlorides to soil and groundwater on the adjoining property to the north of parcel number 0600003200.
- Sixty (60) oil or gas associated wells located on the adjoining properties, including the oil and/or gas well located on the adjoining property on parcel number 0700091300 (Photographs 26 through 28, and 31, see **Appendix E**). Due to the age of the Napoleonville Oil and Gas Field and the nature of the processes at oil and gas well pads in the 1900s that were not as efficient and environmentally responsible as they are currently, hydrocarbons and chlorides could potentially be present in the soil and groundwater on the adjoining properties that have or previously had an oil and/or gas well. The potential for the contaminants to migrate onto the subject property represents a recognized environmental condition.

- Debris and solid waste, including overturned, empty, and unmarked 55-gallon drums, located on the subject property and adjoining properties of parcel number 0800041500
- Solid waste including overturned, empty, and unmarked 55-gallon drums on the subject property and adjoining properties of parcel number 0700048300.

4.17.2 Historical Recognized Environmental Conditions

No Historical Recognized Environmental Conditions were identified on the subject property through our investigations into the subject property for Bypass Alternatives 3 and 4.

4.17.3 De Minimis Conditions

For Bypass Alternative 3, solid waste existed on the subject property and adjoining properties of parcel number 0900092630. The solid waste included wood, metal, and plastic materials. The solid waste does not elicit an environmental concern on the property, and is a *de minimis* condition.

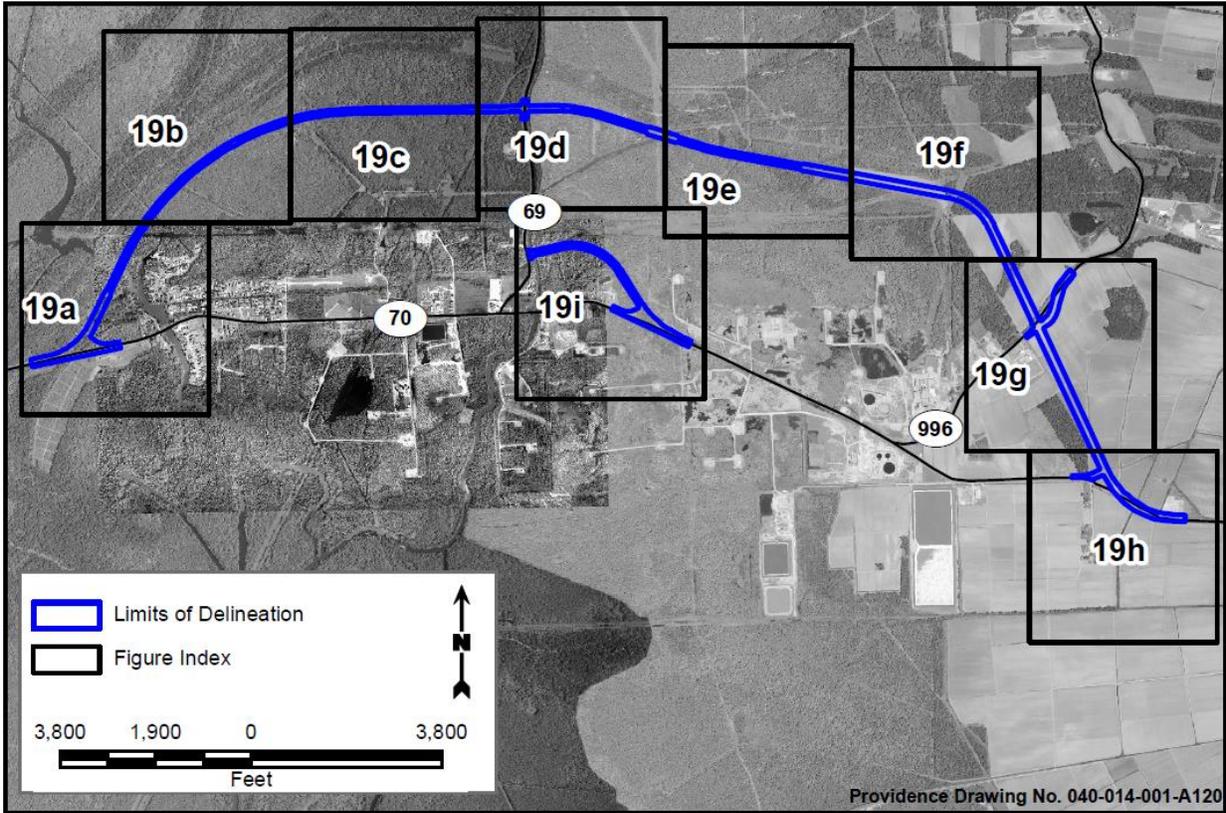
4.18 Wetlands

The No-Build Alternative does not involve any ground disturbances or ROW acquisitions. Therefore, the No-Build will not have any adverse impacts on jurisdictional wetlands or other waters of the United States.

On November 17 and 19, 2014, Providence biologists visited the Sites and collected field data on the three diagnostic wetland parameters: soils, vegetation, and hydrology. Based on the wetland analysis conducted, potential jurisdictional wetlands and habitat type within the ROW for the two build alternatives are shown on **Figures 19** through **19i** and detailed in Chapters 4.18.1 and 4.18.2 Based on site observations and data collected in the field, approximately 50.99 acres of Bypass Alternative 3 and 11.43 acres of Bypass Alternative 4 consist of potential jurisdictional wetlands.

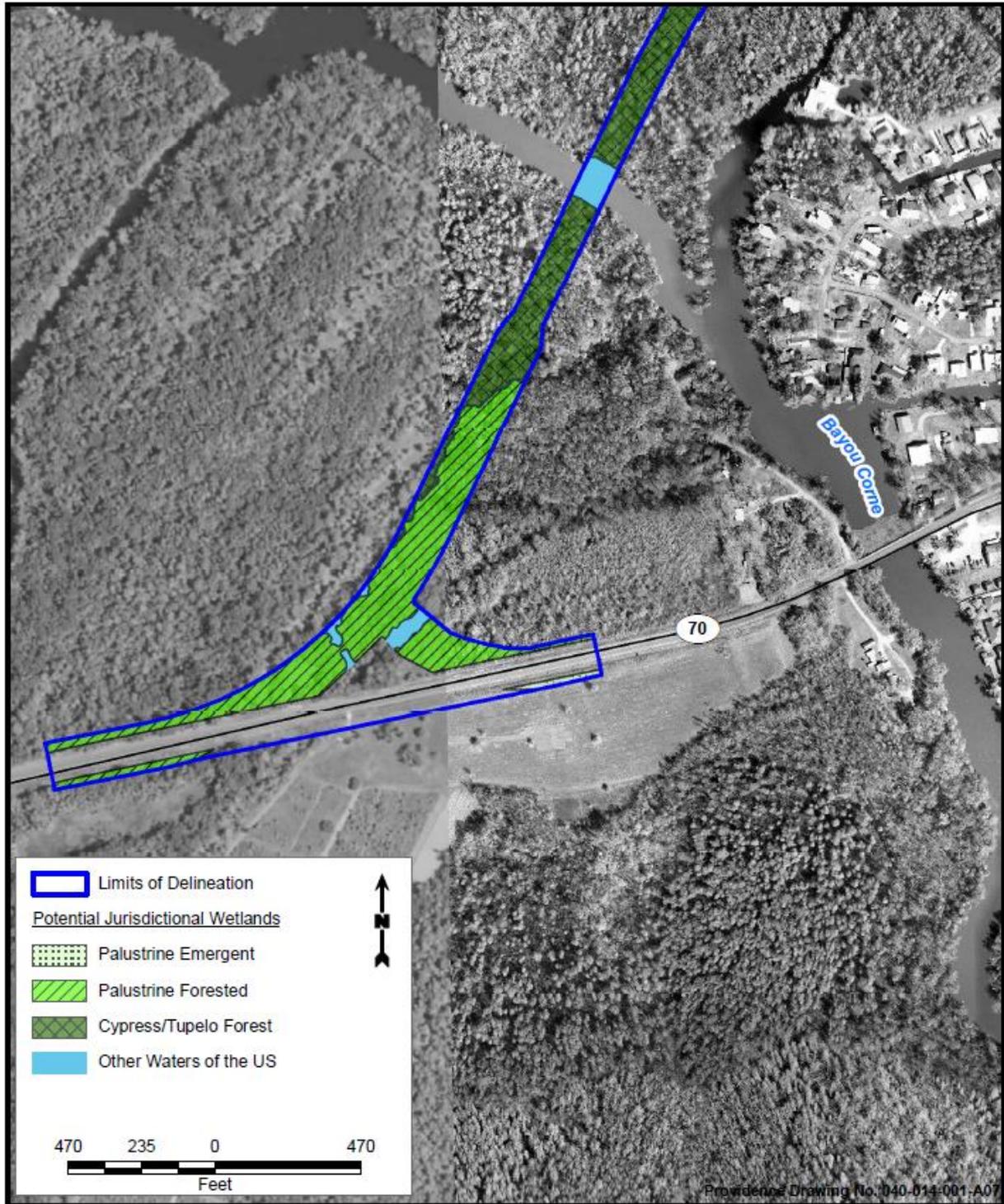
During the EA comment period, a response was received from LDWF dated June 29, 2015, stating “LDWF concurs with the proposed use of Bypass Alternative 4 and its approximately 11.43 acres of wetland impacts as opposed to Bypass Alternative 3 and its approximately 50.99 acres of impacts. However, should the LA 70 Detour Route be constructed, but deemed threatened and not a viable long-term facility, LDWF would concur with the construction of Bypass Alternative 3 provided that impacts to wetlands and other fish and wildlife resources be minimized to the greatest extent practicable and mitigated.”

**FIGURE 19
POTENTIAL JURISDICTIONAL WETLANDS**



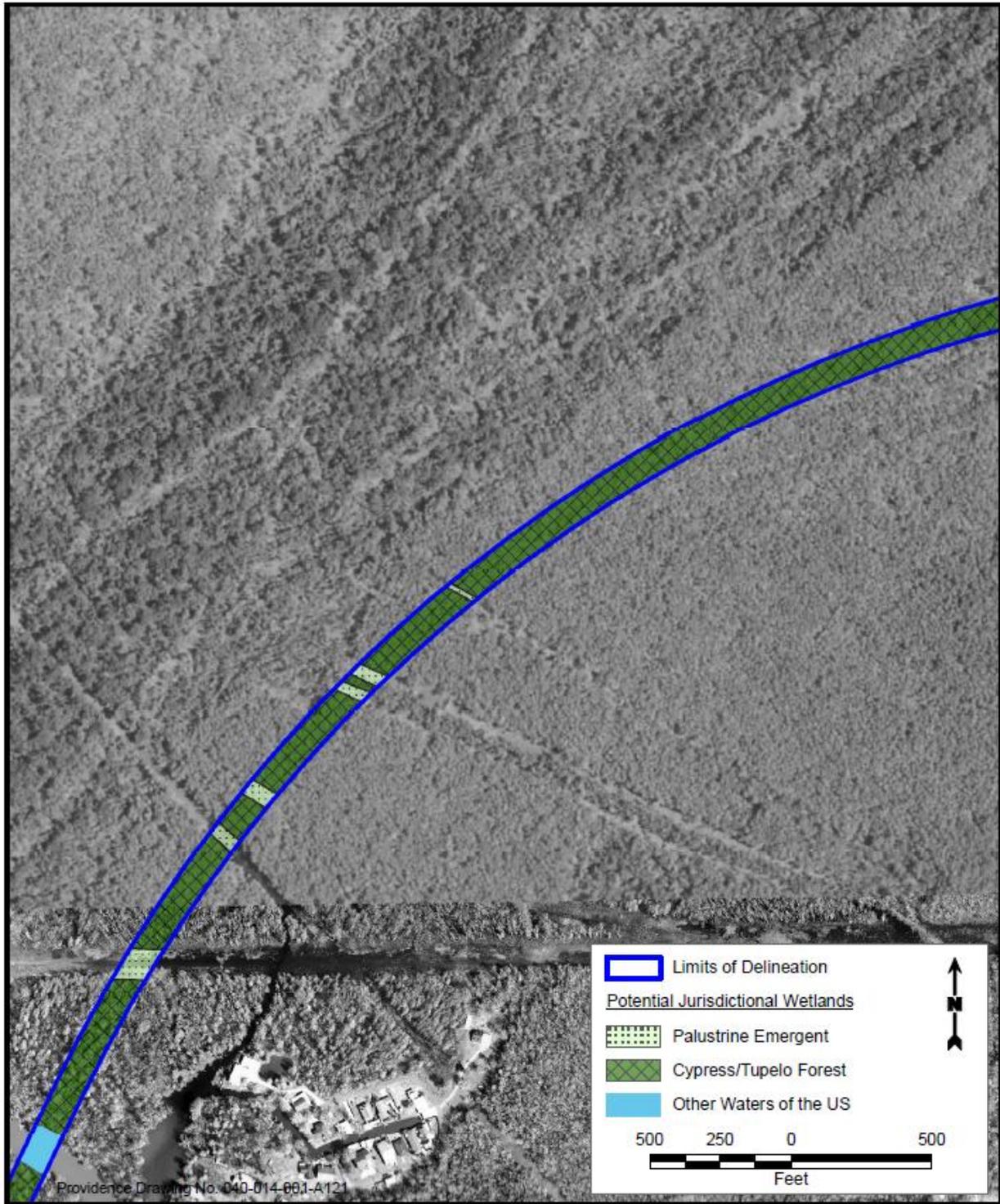
Base map provided by CB&I on 4/15/14.

FIGURE 19A
POTENTIAL JURISDICTIONAL WETLANDS



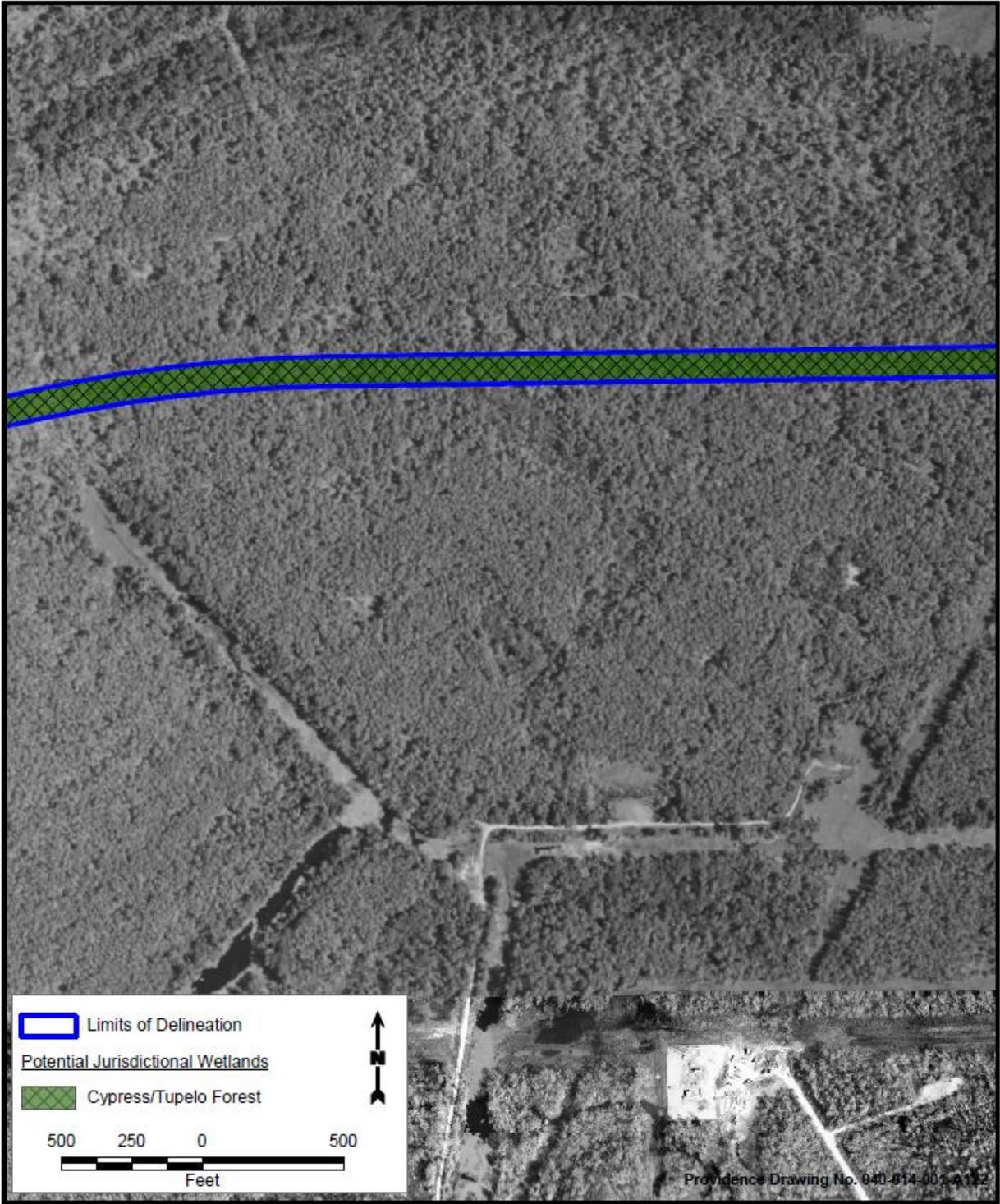
Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19B
POTENTIAL JURISDICTIONAL WETLANDS



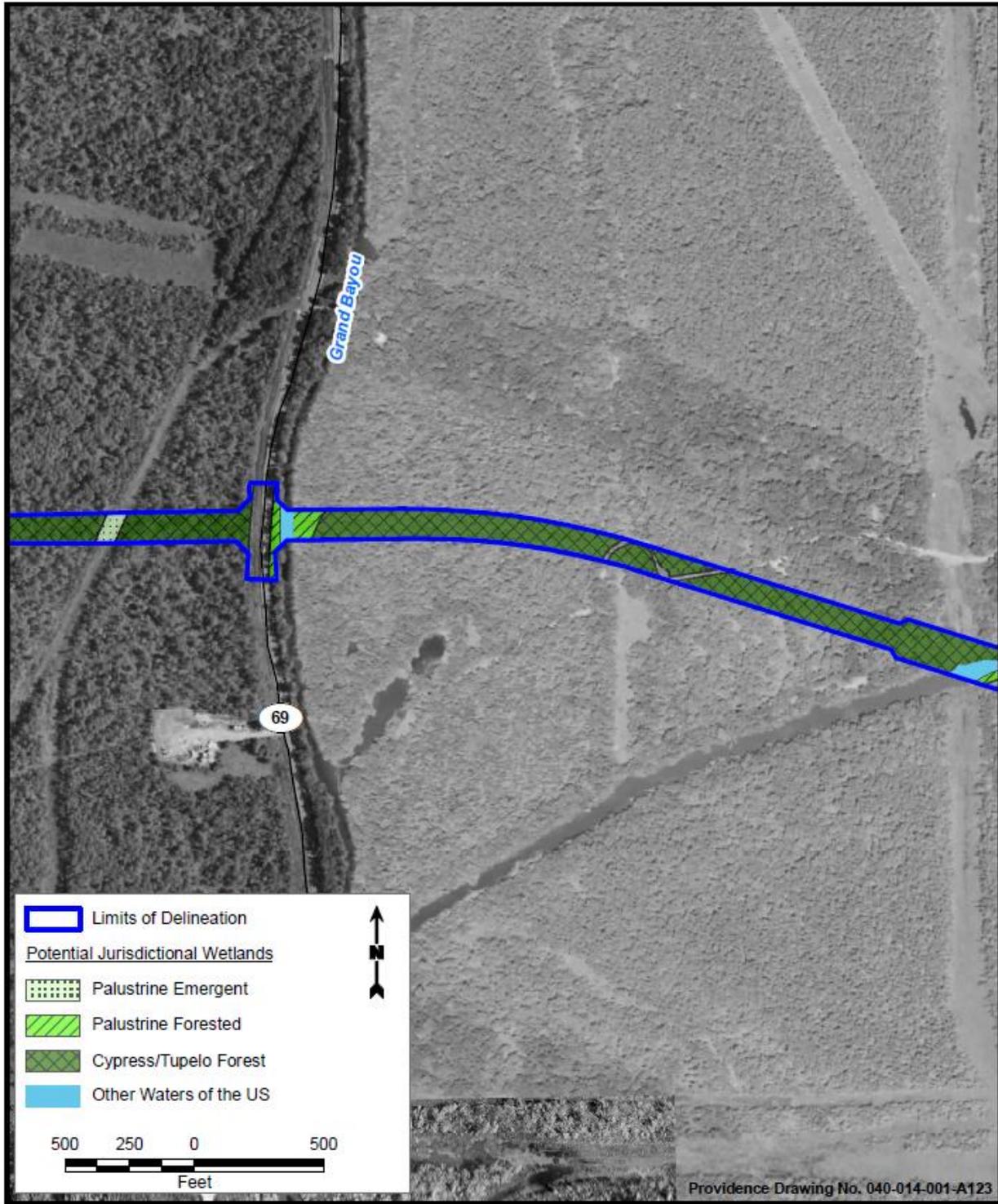
Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19C
POTENTIAL JURISDICTIONAL WETLANDS



Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19D
POTENTIAL JURISDICTIONAL WETLANDS



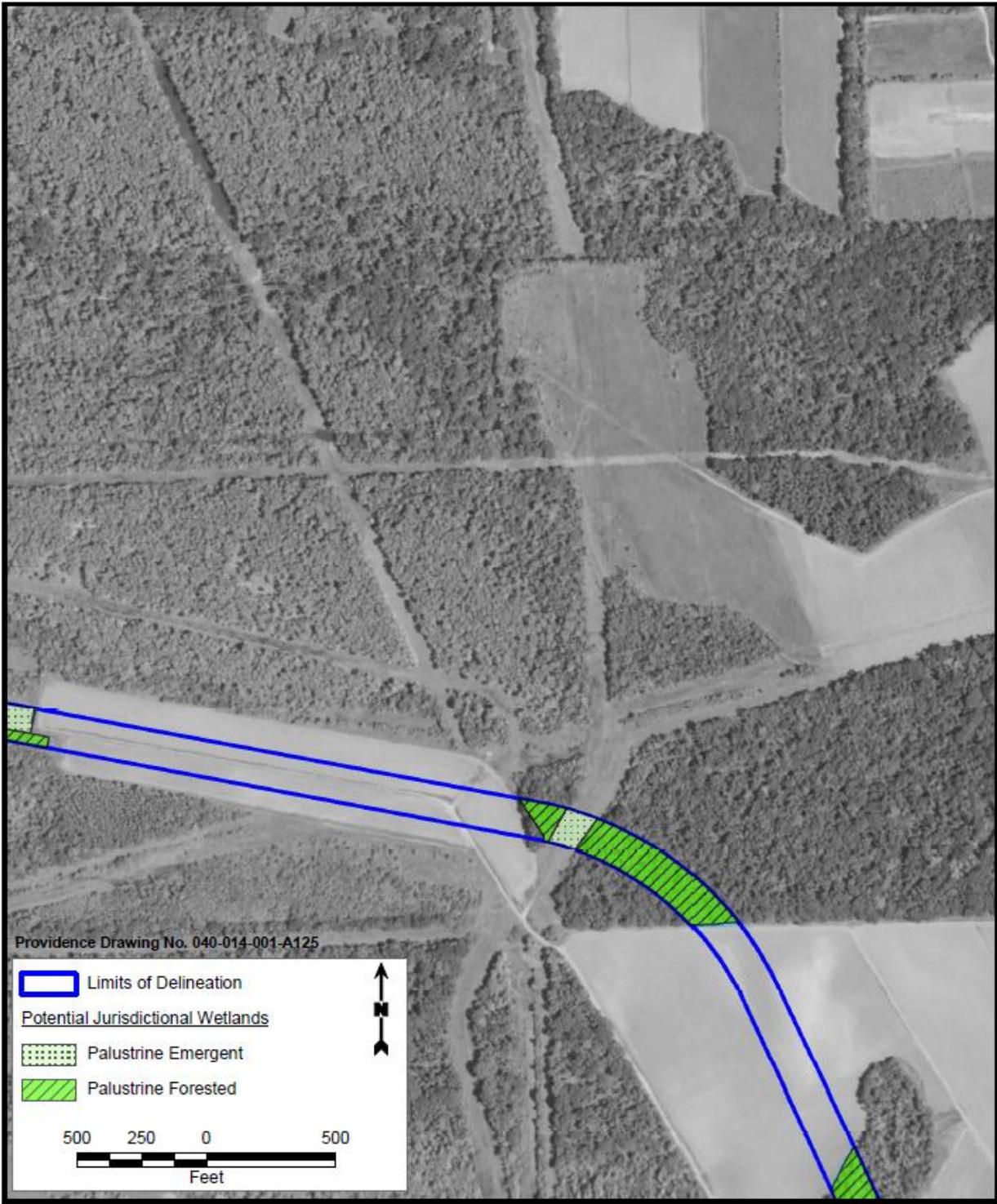
Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19E
POTENTIAL JURISDICTIONAL WETLANDS



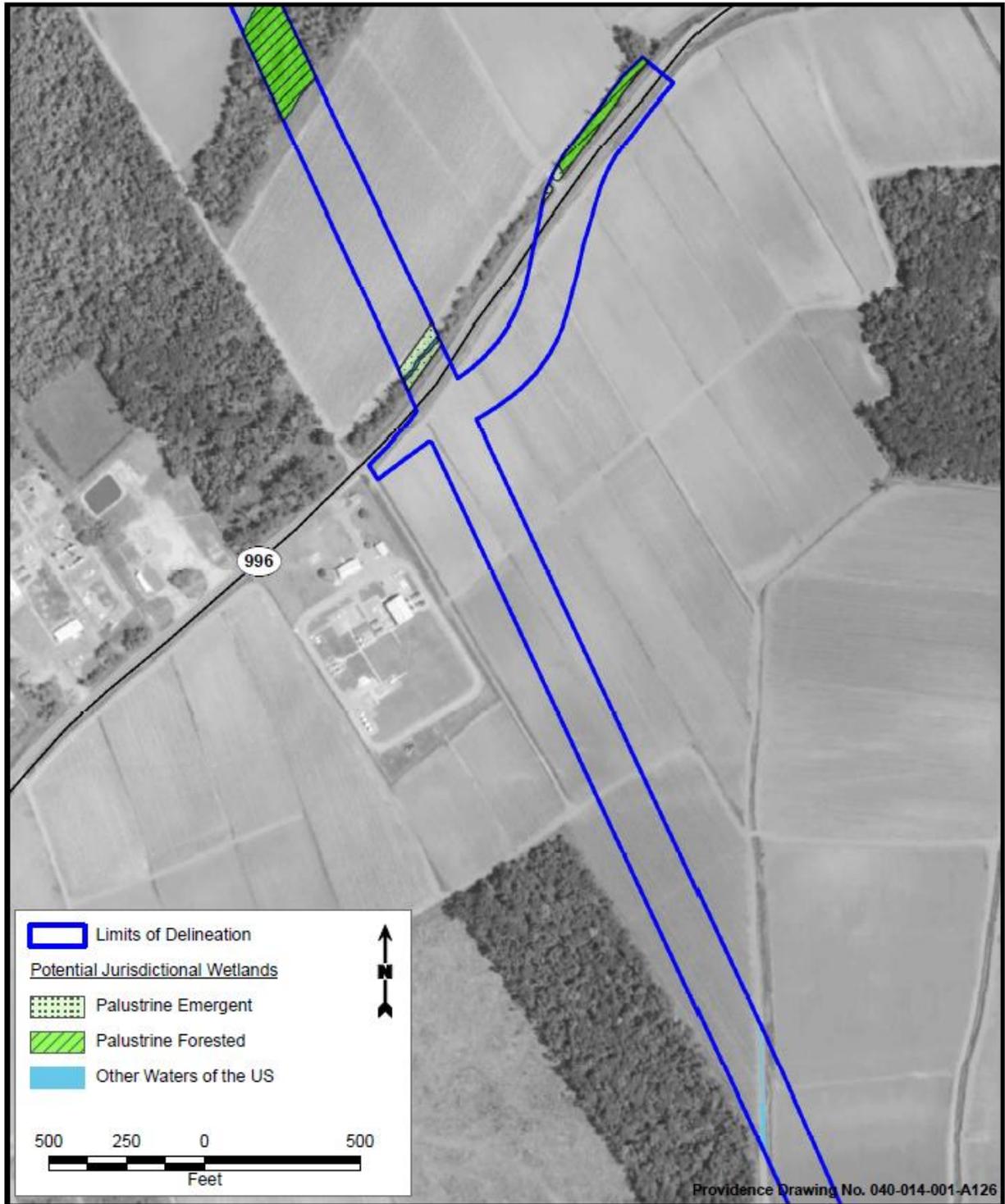
Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19F
POTENTIAL JURISDICTIONAL WETLANDS



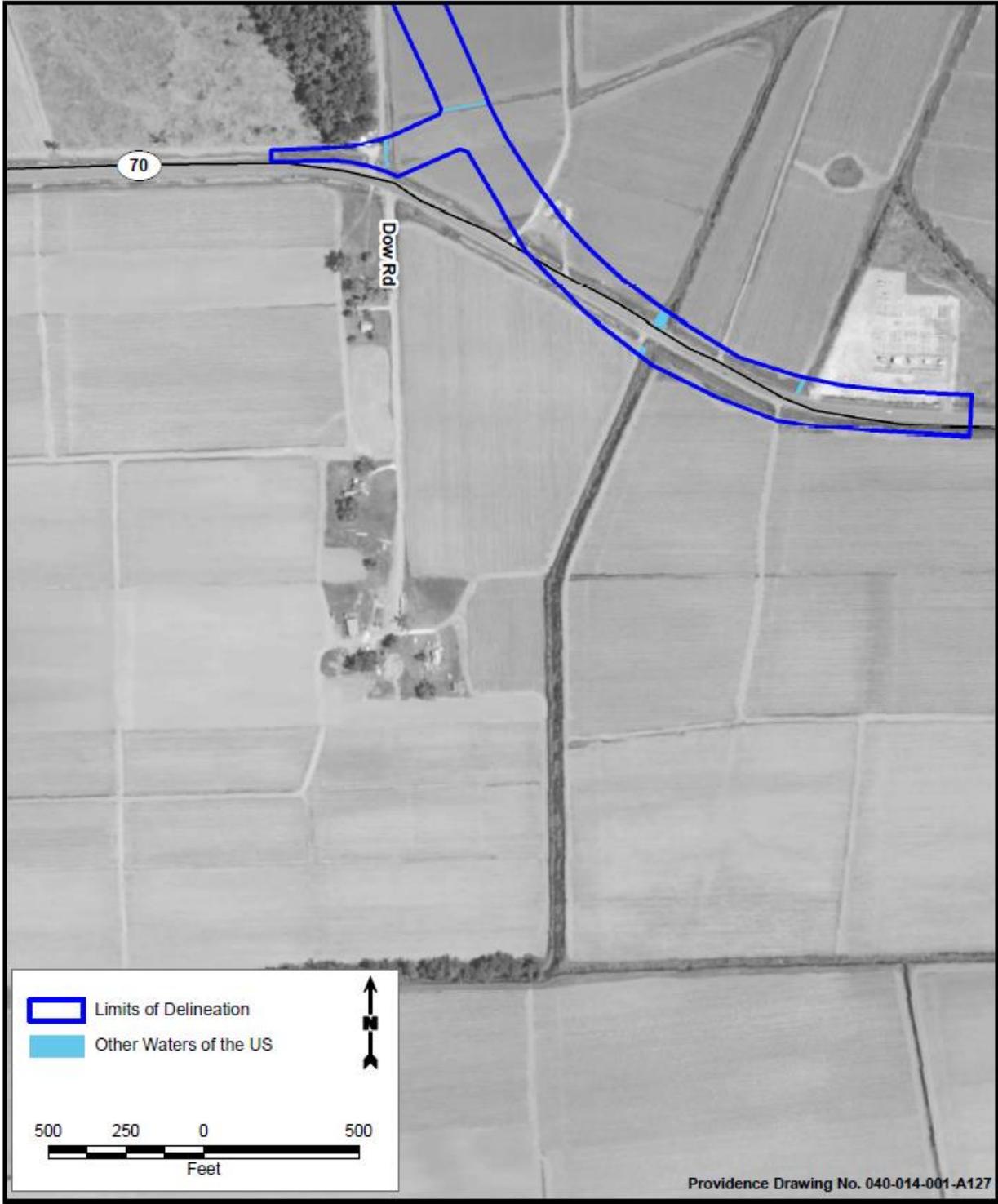
Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19G
POTENTIAL JURISDICTIONAL WETLANDS



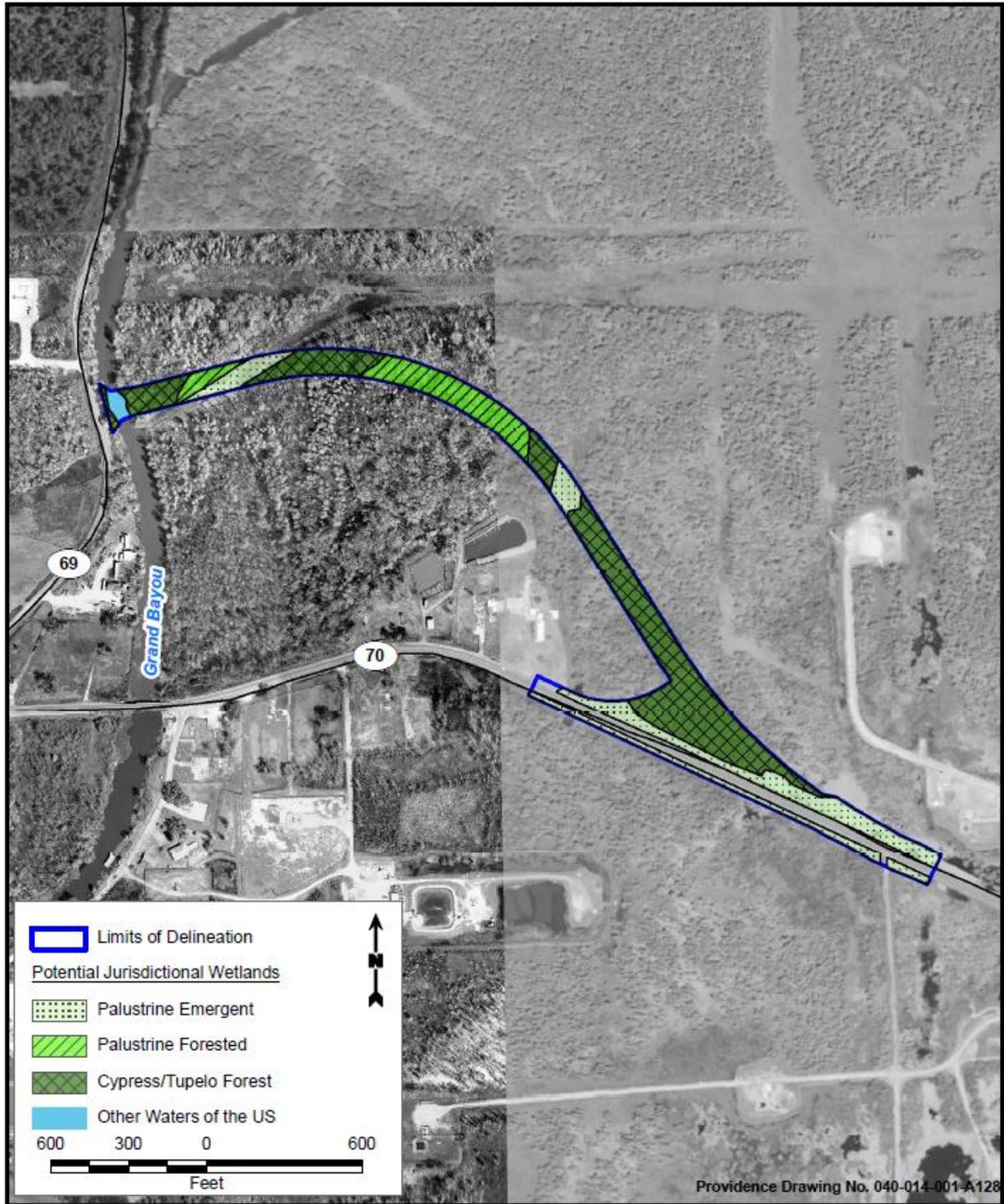
Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19H
POTENTIAL JURISDICTIONAL WETLANDS



Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

FIGURE 19I
POTENTIAL JURISDICTIONAL WETLANDS



Potential jurisdictional wetlands based on wetlands delineation conducted on 11/17/14 and 11/19/14 by Providence personnel. Base map provided by CB&I on 4/15/14.

4.18.1 Bypass Alternative 3

When determining wetlands impacts, the required ROW along with the existing ROW for the proposed project was surveyed. Bypass Alternative 3 consists of approximately 5.53 miles, encompassing 96.98 acres. Based on site observations and data collected in the field, Bypass Alternative 3 would result in the impact of 33.08 acres of bald cypress/tupelo swamp, 14.27 acres of palustrine forested (PFO) wetland habitat, 3.64 acres of palustrine emergent (PEM) wetland habitat, and 1.43 acres of other waters of the United States.

The bald cypress/tupelo swamp and PFO wetlands appear to exhibit high quality bottomland hardwood habitats providing essential chemical, physical, and biological wetland functions including: protecting water quality by trapping sediments and retaining excess nutrients, providing flood control and flood storage capacity, providing groundwater recharge/exchange, and providing essential wildlife habitat (nesting, denning, and foraging habitat for wading birds, and small and large mammals). These habitats exhibited very few undesirable species including: Chinese tallow tree (*Triadica sebifera*), black willow (*Salix nigra*), and eastern cottonwood (*Populous deltoides*).

The PEM wetlands exhibit moderate to low quality herbaceous habitat due to previous and/or ongoing disturbance. The majority of the PEM habitat is associated with existing oil and gas ROW's which are maintained by mowing. However, the PEM wetlands still provide flood control/flood storage capacity, provide groundwater recharge/exchange, and foraging habitat for wildlife.

Impacts to above referenced wetland habitats include mechanized clearing and grubbing of the 33.08 acres of bald cypress/tupelo swamp and 14.27 acres of PFO wetlands. Approximately 65 percent of the ROW will consist of elevated concrete slab span or steel plate girder bridge structure, limiting the permanent fill within the bald cypress/tupelo swamp, PFO, and PEM wetlands to bridge footing locations. Thus, the dominant impact associated with Bypass Alternative 3 will be the permanent conversion of 47.35 acres of forested wetland habitat to herbaceous wetland habitat and long-term shading effects associated with the constructed bridge. The conversion of the forested wetland habitat to herbaceous habitat would reduce the area's ability to trap sediments and excess nutrients, thus reducing water quality protection, and remove essential denning and nesting habitat for wading birds and small and large mammals.

To minimize permanent and temporary wetland impacts, the proposed method of construction will consist of end-on construction, which reduces the required width of the construction ROW to the maximum extent

practicable through the corridor. Additionally, approximately 65 percent of the corridor will consist of concrete slab span or steel plate girder bridge structure, limiting the permanent fill within wetlands to bridge footing locations. The combination of end-on and elevated construction will reduce the permanent impacts within the corridor to the reduction in the area's ability to provide water quality protection, and the loss of denning and nesting habitat for wading birds and small and large mammals. The wetland areas, post-construction, would still provide essential chemical, physical, and biological wetland functions, and provide water quality protection, flood control and flood storage areas, groundwater recharge/exchange potential, and wildlife foraging habitat for wading birds, and small and large mammals.

As discussed above, the dominant impact associated with Bypass Alternative 3 will consist of the conversion of 47.35 acres of forested wetland habitat to herbaceous wetland habitat. To minimize the impacts associated with the clearing and grubbing, specialized equipment (marsh buggies, marsh masters, *etc.*) equipped with cutters/excavators could be utilized to limit the amount of soil disturbance required to clear the area. Additionally, burning the woody debris in place could reduce the amount of tracking back and forth through the corridor to haul the trees/debris off site and would be preferable to chipping the trees/debris, which could, in the short-term, increase surface elevations within the wetland areas.

4.18.2 Bypass Alternative 4

Bypass Alternative 4 consists of approximately 0.77 mile, encompassing 13.29 acres. Based on site observations and data collected in the field, Bypass Alternative 4 would result in the impact of 6.04 acres of bald cypress/tupelo swamp, 3.51 acres of PEM wetland habitat, 1.88 acres of PFO wetland habitat, and 0.17 acres of other waters of the United States.

The bald cypress/tupelo swamp and PFO wetlands appear to exhibit high quality bottomland hardwood habitats providing essential chemical, physical, and biological wetland functions including: protecting water quality by trapping sediments and retaining excess nutrients, providing flood control and flood storage capacity, providing groundwater recharge/exchange, and providing essential wildlife habitat (nesting, denning, and foraging habitat for wading birds, and small and large mammals). These habitats exhibited very few undesirable species including: Chinese tallow tree (*Triadica sebifera*), black willow (*Salix nigra*), and eastern cottonwood (*Populus deltoides*).

The PEM wetlands exhibit low quality herbaceous habitat due to pervious and/or ongoing disturbance. The majority of the PEM habitat is associated with existing oil and gas and road ROWs that are maintained by mowing. However, the PEM wetlands still provide flood control/flood storage

capacity, provide groundwater recharge/exchange, and foraging habitat for wildlife.

Impacts to above referenced wetland habitats include mechanized clearing and grubbing of the 6.04 acres of bald cypress/tupelo swamp and 1.88 acres of PFO wetlands. Approximately 95 percent of the ROW will consist of elevated concrete slab span or steel plate girder bridge structure, limiting the permanent fill within the bald cypress/tupelo swamp, PFO, and PEM wetlands to bridge footing locations. Thus, the dominant impact associated with Alternative 4 will be the permanent conversion of 7.92 acres of forested wetland habitat to herbaceous wetland habitat and long-term shading effects associated with the constructed bridge. The conversion of the forested wetland habitat to herbaceous habitat would reduce the area's ability to trap sediments and excess nutrients, thus reducing water quality protection, and remove essential denning and nesting habitat for wading birds and small and large mammals.

To minimize permanent and temporary wetland impacts, the proposed method of construction will consist of end-on construction, which reduces the required width of the construction ROW to the maximum extent practicable through the corridor. Additionally, approximately 95 percent of the corridor will consist of concrete slab span or steel plate girder bridge structure, limiting the permanent fill within wetlands to bridge footing locations. The combination of end-on and elevated construction will reduce the permanent impacts within the corridor to the reduction in the area's ability to provide water quality protection, and the loss of denning and nesting habitat for wading birds and small and large mammals. The wetland areas, post-construction, would still provide essential chemical, physical, and biological wetland functions, water quality protection, flood control and flood storage areas, groundwater recharge/exchange potential, and wildlife foraging habitat for wading birds, and small and large mammals.

As discussed above, the dominant impact associated with Alternative 4 will consist of the conversion of 7.92 acres of forested wetland habitat to herbaceous wetland habitat. To minimize the impacts associated with the clearing and grubbing, specialized equipment (marsh buggies, marsh masters, *etc.*) equipped with cutters/excavators could be utilized to limit the amount of soil disturbance required to clear the area. Additionally, burning the woody debris in place could reduce the amount of tracking back and forth through the corridor to haul the trees/debris off site and would be preferable to chipping the trees/debris that could, in the short-term, increase surface elevations within the wetland areas.

4.19 Coastal Zone

The No-Build Alternative will involve no impacts to the coastal zone.

As discussed in Chapter 3.19, Assumption Parish in its entirety is in the Louisiana Coastal Zone Boundary. Therefore, both Build Alternatives 3 and 4 will have impacts to the coastal zone and will require permitting through the LDNR. An online SOV request was submitted to the LDNR on November 25, 2013 and is further discussed in Chapter 3.19.

4.20 Scenic Streams

There would be no impact with either of the two bypass build alternatives on natural or scenic rivers, as there are no federally listed natural and scenic rivers, Louisiana Scenic Streams, or Nationwide Rivers within or near the project study area. This information was confirmed with LDWF as mentioned in Chapter 3.20.

4.21 Wildlife

The No-Build Alternative should involve no disturbance of existing wildlife.

The proposed project area provides agricultural and wetland habitats for wildlife. A site visit to ascertain the presence of sensitive species in the project area was conducted on November 17 and 19, 2014 by Providence personnel. Portions of the survey corridors for both Bypass Alternatives 3 and 4 contain habitat suitable for nesting and wading birds, along with the bald eagle. However, no nests were observed. At the time of the visit, six great egrets (*Ardea alba*), one ibis (*Plegadis* and *Eudocimus* spp.), and one anhinga (*Anhinga anhinga*) were observed within the survey corridors. Additionally, one golden eagle (*Aquila chrysaetos*) was observed approximately 1,114 feet south of the Bypass Alternative 3 survey corridor. Suitable habitat was not observed for the golden eagle within the survey corridor.

4.22 Threatened and Endangered Species

The No-Build Alternative should not have any adverse impacts on threatened and endangered species or critical habitats for threatened or endangered species.

As mentioned in Chapter 3.22, correspondence with both USFWS and LDWF stated there will be no effects on threatened or endangered species or their critical habitats. Correspondence, dated May 18, 2015, from USFWS was also received during the EA comment period stating USFWS has no comment on the EA since there is no effect to federal trust resourced under their jurisdiction. A site visit was conducted by Providence personnel on November 17 and 19, 2014 to assess the presence of threatened or endangered species. The survey was conducted 500 feet north and south of the proposed construction corridor of each alternative. No

federally listed threatened and/or endangered species were observed within the survey area. Therefore, the proposed Bypass Alternatives 3 and 4 will have no effect on federally listed species and/or critical habitat in Assumption Parish.

Eight nesting and/or wading birds were observed within the survey area of the Preferred Alternatives. During the EA comment period, correspondence from LDWF dated June 29, 2015, was received stating their database indicates the presence of bird nesting colonies within one mile of the proposed project. Should construction occur during nesting season from February 15 through September 16, LDWF may require a nesting bird survey two weeks prior to commencement of construction and potentially pose constraints on construction timing.

Portions of the survey corridors that contain cypress/tupelo swamp habitat are suitable nesting habitat for the bald eagle (*Haliaeetus leucocephalus*). No nests were observed within the survey corridor of the proposed preferred alternative alignments. Therefore, the proposed Bypass Alternatives 3 and 4 are not likely to adversely affect bald eagles.

No impacts are anticipated to the golden eagle. The golden eagle is a rare, fall migrant in Louisiana. No golden eagles and/or nests were observed within the survey area of the proposed preferred alternatives.

4.23 Unique and Environmentally Sensitive Areas

The No-Build Alternative is not expected to impact unique or environmentally sensitive areas.

Both Bypass Alternatives 3 and 4 route through wetlands. Wetland habitats in and adjacent to the project area represent environmentally sensitive areas. Construction of either of the two bypass build alternatives cannot proceed without obtaining proper permits from the USACE and the LDNR to allow for construction in wetlands and the coastal zone. BMP's and restrictions contained within the Section 404/CUP, the Clean Water Act Section 401 Certification, and the Storm Water Pollution Prevention Plan (required for construction activities greater than five acres) will provide protection measures to prevent damage to adjacent wetland (and agricultural) habitats during construction.

Potential areas of significant trees were identified in the project areas. During the design stage, landscape architectural staff and District Roadside Development Coordinators will be consulted concerning ROW to identify the location of all significant trees. The design section will indicate the location of these trees on the final plans and implement a context sensitive design to accommodate these trees, if any, as practical.

4.24 Mineral Resources

The No-Build Alternative is not expected to impact Assumption Parish’s mineral resources.

While the Napoleonville Salt Dome, one mineral lease, two Seismic 3D permits, and one Oil/Gas Field are present within the bounds of the project areas, the proposed bypass alternatives will not prevent or encumber access to or use of these resources. Mineral resources within the ROW of Bypass Alternatives 3 and 4 can be seen on **Figure 14** (see Chapter 3.24).

4.25 Construction

4.25.1 Bridges

Due to the large amount of wetlands in the project area, it has been assumed that environmentally sensitive construction will be required for bridges. Conventional construction allows for ease and speed of construction but is typically performed mostly from the ground, which leads to disturbance of vegetation and potentially the destruction of sensitive wetlands.

A form of “End-On” construction using movable truss and crane system would most likely be used to construct the bridge sections. This method involves constructing a steel trestle on each side of the bridge, supported by steel piles, to act as the support platform for the gantry crane, crawler crane, and other construction equipment. As the spans are constructed, the trestle system is “walked” forward as construction progresses. This type of system allows for all operations to be performed off of the ground, and all material and equipment is transported to the construction zone using the completed portion of the bridge, eliminating the need for a temporary haul road and laydown areas.



Due to the long span lengths of the steel plate girder spans, it may not be possible to construct all bridges using “End-On” construction techniques. The plate girders may have one or more splices incorporated into the design, which would require certain segments of the girders to be supported by false work (steel towers) until all segments of the girders are spliced together. Crane mats would also have to be used to support crane(s) and

other construction equipment on the ground during the substructure and superstructure erection process. This construction method may be necessary for spanning pipeline ROW adjacent to canals. In areas such as these, construction contract documents would require a detailed erection scheme demonstrating every effort to minimize impacts to the surrounding wetlands.

A bridge summary with estimated costs and fact sheet is included in **Appendix B-3**.

4.25.2 Water Quality

A majority of the project area drains to an unnamed tributary and then to Bayou Corne. Portions of the project area where it intersects with LA 69 drain into an unnamed tributary and then to Grand Bayou. The potential for sedimentation of erosional materials into the nearby drainage ditches, adjacent wetlands, and bayous caused by storm water runoff could increase during construction activities because soils are exposed and are more susceptible to erosion.

BMPs to be implemented as part of the Storm Water General Permit for Construction Activities will minimize and mitigate for construction-related impacts to area waterways.

4.25.3 Air Quality

During the construction phase of this project, temporary increases in air pollutant emissions may occur from construction activities. PM or fugitive dust from site preparation will be the primary construction-related emissions. The potential impacts of PM emissions will be minimized by using fugitive dust control measures, such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.

4.25.4 Wildlife

Construction activities associated with the two bypass build alternatives may result in temporary relocation of commonly occurring species that inhabit the project area, as their shelter and food resources could be temporarily impacted. Upon completion of construction, wildlife would be expected to resume use of resources adjacent to and within the ROW of the LA 70 Bypass.

4.26 Other Considerations

4.26.1 *Secondary Effects*

Secondary or Indirect effects/impacts per 40 CFR 1508.8(b) are those “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” Effects that are considered reasonably foreseeable include changes in land use patterns, population density, traffic patterns, and increased area growth. For the LA 70 Bypass alternatives, traffic pattern changes would be a direct impact, as LA 70 would be closed, and traffic would have to be re-routed. It is reasonable to assume that agricultural land adjacent to the new roadway may experience development pressure. Secondary effects would only be expected in the event the roadway is built. In the event the roadway is built, it is reasonable to assume wetlands that the roadway will route through may experience development pressure.

4.26.2 *Cumulative Effects*

Cumulative effect or impact per 40 CFR 1508.7 is the “impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” When considered in concert with current land use and traffic patterns, the LA 70 Bypass would not be expected to cumulatively effect development in the area. Traffic patterns would change because LA 70 would be closed, and the bypass would become the new east/west travel pattern. This change would not unduly burden the existing network, as it will replace the closed portion LA 70. As discussed under secondary impacts, there could be increased development pressure on agricultural lands adjacent to the new alignment of LA 70, but there are no current land use plans or other plans that would indicate this project would participate in cumulatively impacting such property. Additionally, since a majority of the two proposed build alternatives are elevated, they will limit access for developments that would result in additional wetland impacts.