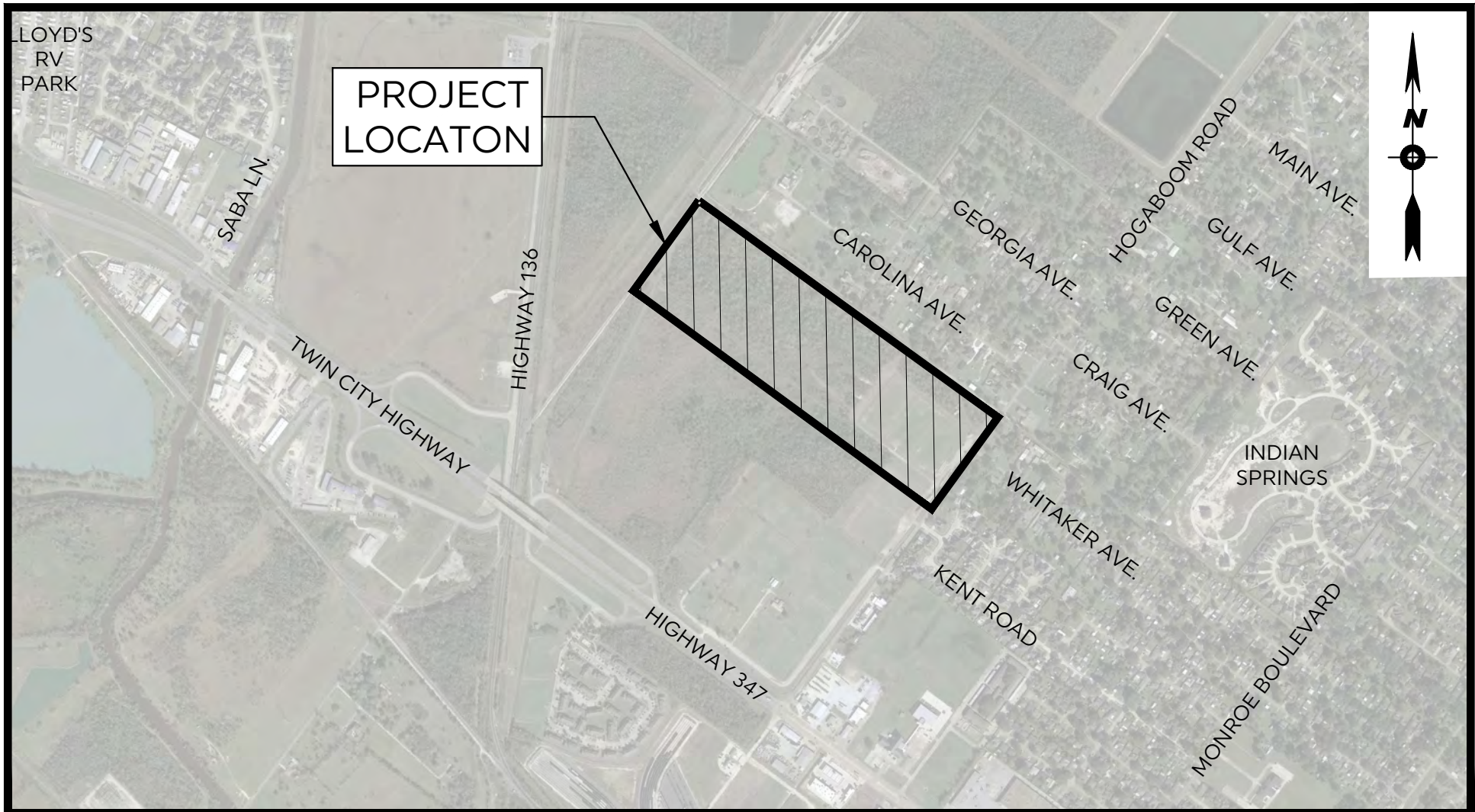


**ATTACHMENT 1**  
**PROJECT PLANS**

# CONSTRUCTION PLANS FOR DITCH A3A DETENTION FACILITIES TO SERVE JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7

PORT NECHES, JEFFERSON COUNTY, TEXAS



INDEX OF DRAWINGS

SHEET	DESCRIPTION
1	COVER SHEET
2	LEGEND AND CONSTRUCTION NOTES
3	TOPOGRAPHIC SURVEY
4	CLEARING PLAN
5	SITE PLAN
6	ELEVATION DIFFERENTIAL
7-8	SECTION VIEWS
9	DRIVEWAY IMPROVEMENT PLAN
10	STORM WATER POLLUTION PREVENTION PLAN
11	STORM WATER POLLUTION PREVENTION PLAN INDEX
12	SEEDING PLAN
13	CONSTRUCTION DETAILS
14	SPILLWAY DETAIL

AWC NO: DD7-010

VICINITY MAP  
N.T.S.

DATE: JULY 2023

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

*Marc A. Ochoa*  
MARC A. OCHOA, PE  
TEXAS P.E. 98426

07/26/2023  
DATE

Engineering  
F-16194

Surveying  
10194049

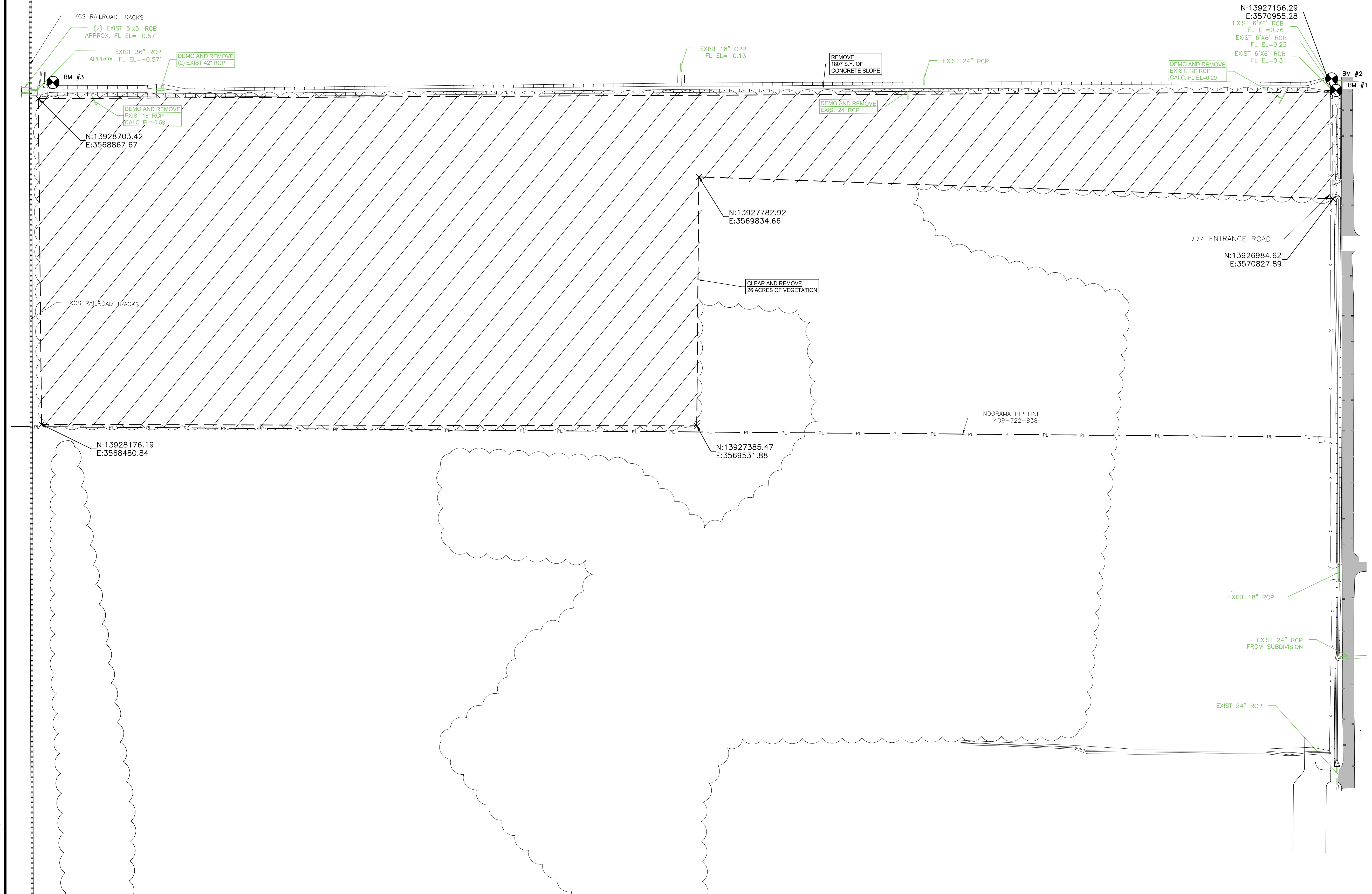
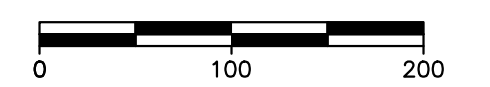
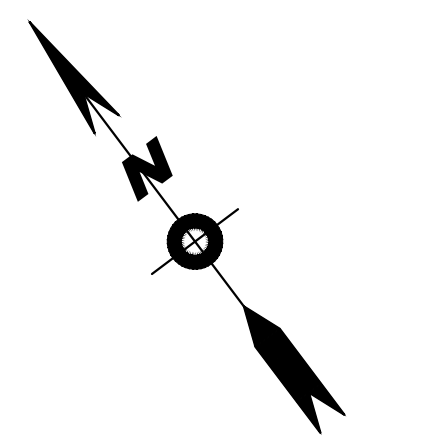



3120 Central Mall Drive  
Port Arthur, TX 77642

409 724 7888  
awceng.com

BENCHMARK POINT INFORMATION				
BM#	NORTHING	EASTING	DESCRIPTION	ELEVATION
1	13927155.08	3570962.44	DD7 MON 184	6.81'
2	13927178.86	3570969.28	MONUMENT TCC	7.91'
3	13928711.80	3568910.67	SET AWC CP	5.97'

ALL DIMENSIONS HEREIN ARE REFERENCED TO NAD83 TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) AND NAVD83, GEOID19. COORDINATE, DISTANCE AND ELEVATION DIMENSIONS ARE U.S. SURVEY FEET.





3120 Central Mall Drive  
Port Arthur, TX 77642  
409.724.7888

THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

*Marc A. Ochoa*  
MARC A. OCHOA, PE  
TEXAS P. E. 98426

07/26/2023  
DATE

www.awceng.com

**DEMOLITION PLAN**

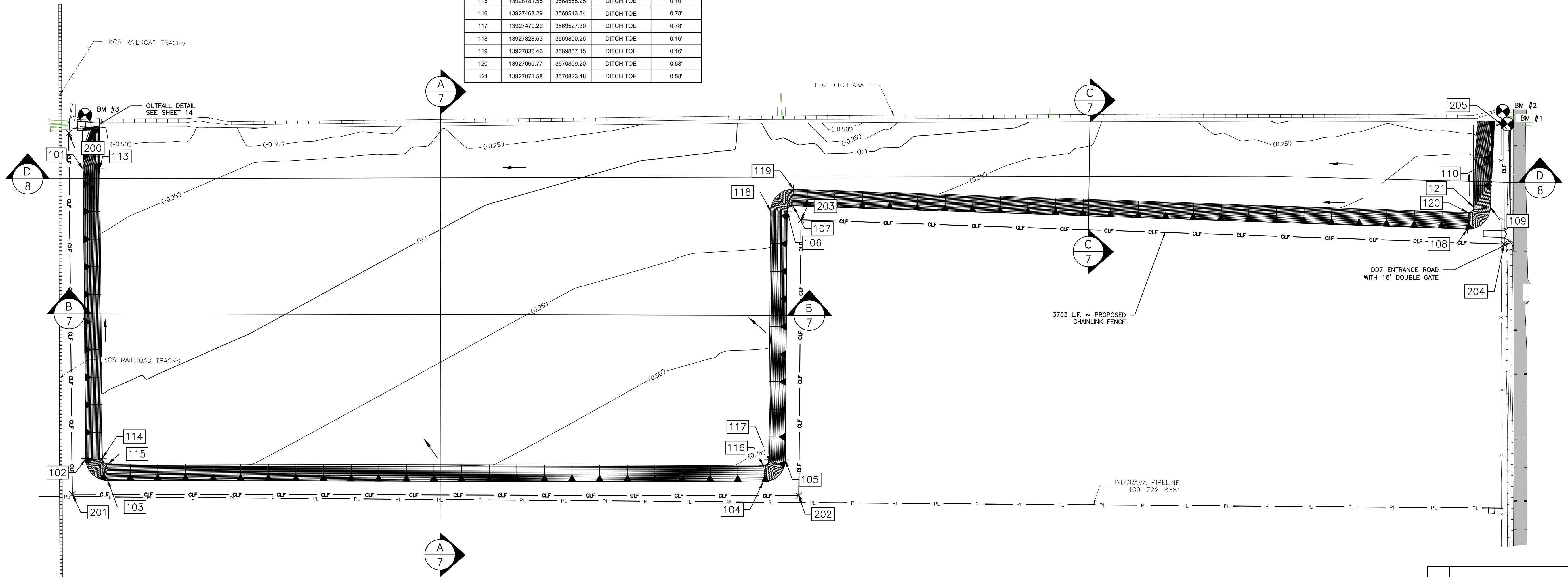
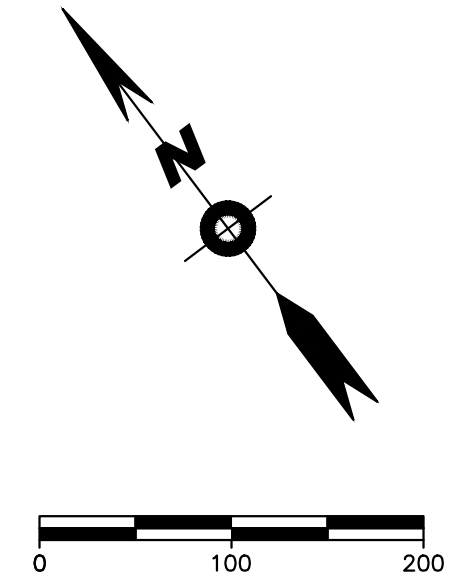
FROM: C:\ENGINEERING\PROJECTS\2023\07\16\2023\DEMOLITION PLAN.dwg  
LAST PRINTED: Wednesday, July 26, 2023 11:28 AM

GRADING POINT INFORMATION				
POINT #	NORTHING	EASTING	DESCRIPTION	ELEVATION
101	13928635.99	3568849.21	DITCH TOP	5.00'
102	13928213.21	3568539.01	DITCH TOP	5.00'
103	13928157.58	3568547.22	DITCH TOP	5.00'
104	13927444.32	3569495.30	DITCH TOP	5.00'
105	13927452.04	3569551.17	DITCH TOP	5.00'
106	13927810.35	3569824.13	DITCH TOP	5.00'
107	13927812.08	3569838.35	DITCH TOP	5.00'
108	13927046.39	3570790.40	DITCH TOP	5.00'
109	13927053.65	3570847.53	DITCH TOP	5.00'
110	13927119.00	3570896.27	DITCH TOP	5.00'
113	13928618.25	3568873.40	DITCH TOE	-0.35'
114	13928195.46	3568563.20	DITCH TOE	0.10'
115	13928181.55	3568565.25	DITCH TOE	0.10'
116	13927468.29	3569513.34	DITCH TOE	0.78'
117	13927470.22	3569527.30	DITCH TOE	0.78'
118	13927828.53	3569800.26	DITCH TOE	0.16'
119	13927835.46	3569857.15	DITCH TOE	0.16'
120	13927069.77	3570809.20	DITCH TOE	0.58'
121	13927071.58	3570823.48	DITCH TOE	0.58'

FENCE POINT INFORMATION			
POINT #	NORTHING	EASTING	DESCRIPTION
200	13928703.42	3568867.67	FENCE CORNER
201	13928176.19	3568480.84	FENCE CORNER
202	13927385.47	3569531.88	FENCE CORNER
203	13927782.92	3569834.66	FENCE CORNER
204	13926984.63	3570827.25	FENCE CORNER
205	13927156.29	3570955.28	FENCE CORNER

BENCHMARK POINT INFORMATION				
BM#	NORTHING	EASTING	DESCRIPTION	ELEVATION
1	13927155.08	3570962.44	DD7 MON 184	6.81'
2	13927178.86	3570969.28	MONUMENT TCC	7.91'
3	13928711.80	3568910.67	SET AWC CP	5.97'

ALL DIMENSIONS HEREIN ARE REFERENCED TO NAD83 TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204) AND NAVD83 GEOID18. COORDINATE DISTANCE AND ELEVATION DIMENSIONS ARE U.S. SURVEY FEET.



FROM: C:\ENGINEERING\PROJECTS\DD7\01\04\DD7\DWG\DWG-SHEETS-SITE PLAN.dwg  
LAST PRINTED: Wednesday, July 26, 2023 11:24:46 PM

<p>3120 Central Mall Drive Port Arthur, TX 77642 409.724.7888</p> <p>www.awceng.com</p>	<p>THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.</p> <p><i>Marc A. Ochoa</i> MARC A. OCHOA, PE TEXAS P. E. 98426</p> <p>07/26/2023 DATE</p>
<p><b>SITE PLAN</b></p>	

PROPOSED  
DETENTION POND

PROPOSED 16" GATE  
SEE DETAIL SHEET 13

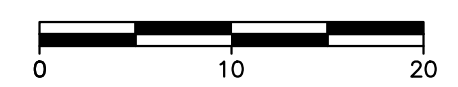
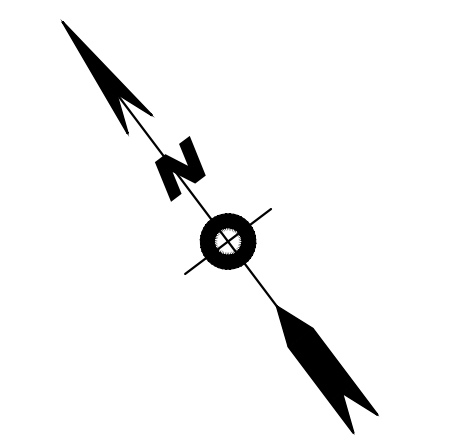
930 SQ. FT PROPOSED ROCK DRIVE  
SEE CROSS SECTION SHEET 13

HOGABOOM RD.


BENCHMARK POINT INFORMATION			
BM#	NORTHING	EASTING	DESCRIPTION
1	13927155.08	3570962.44	DD7 MON 184
2	13927178.86	3570969.28	MONUMENT TCC
3	13928711.80	3568910.67	SET AWC CP

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PAVING POINT INFORMATION			
POINT #	NORTHING	EASTING	
300	13927013.71	3570870.67	
301	13927008.61	3570835.63	
302	13927027.43	3570812.23	
303	13927017.91	3570804.94	
304	13926998.99	3570828.45	
305	13926964.02	3570833.50	



FROM: G:\ENGINEERING\PROJECTS\2023\07\04\DRIVEWAY IMPROVEMENT PLAN.dwg  
LAST PRINTED: Monday, July 24, 2023 1:08:55 PM

 <p><b>ARCENEUX WILSON &amp; COLE</b></p>	
<p>3120 Central Mall Drive Port Arthur, TX 77642 409.724.7888</p> <p>www.awceng.com</p>	<p>THIS DOCUMENT IS FOR INTERIM REVIEW AND NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.</p> <p><i>Marc A. Ochoa</i> MARC A. OCHOA, PE TEXAS P. E. 98426</p> <p>07/26/2023 DATE</p>
<p><b>DRIVEWAY IMPROVEMENT PLAN</b></p>	

**ATTACHMENT 2**

**NRCS PRIME FARMLAND DETERMINATION**



Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079

t 713.953.5200 LJAENVIRONMENTAL.com

Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

---

24 April 2024

Natural Resources Conservation Service  
US Department of Agriculture  
101 South Main  
Temple, Texas 76501-6624

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road north of SH 346, Port Neches, Jefferson County**

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland and Port Neches and was created primarily to provide drainage for flood-prone areas within the district.

Funding for the A3A Detention project is being requested from the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program (HMGP). FEMA's project number is HMGP-DR-4332-TX Project #167. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's response in conformance with NEPA procedures.

The approximately 26-acre A3A Detention project is located between the City of Groves and City of Nederland in the corporate limits of Port Neches, east of the SH 347 and SH 136 intersection in Jefferson County, Texas (Figure 1). Approximate GPS coordinates for the center of the project area are Latitude: 29.950852, Longitude: 93.942644. The land use surrounding the project area consists of residential and light industrial development.

The problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is Jefferson County Drainage District No. 7's A3A lateral drainage. The channel, and its associated crossings, are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the channel. The proposed detention pond project will be designed to lower the water surface in the District's Main A channel which will translate to reduced flood elevations for roads and residential and commercial structures within the watershed as well as reducing pumping requirements at the Alligator Bayou Pump Station.

The project includes the construction of a 26-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the A3A Watershed in the upper parts of the Main A drainage network of Port Arthur (Benefit Area) (Figure 2). The proposed detention pond project will be designed to lower the water surface in the District's A3 and A3A channels which will translate to reduced flood elevations for the residential and

commercial structures within the watershed. After the construction of this project has been completed, the citizens and properties in the watershed will observe an increase in the current level of protection. Because previous events have resulted in flooding of structures in the area, costs associated with recovery from potential future disasters will be reduced by the elimination/reduction of structures flooding.

Appendix 1 contains maps depicting the location of the proposed detention pond, including a topographic map and a soil map of the project area.

The project area is covered in thick vegetation and has remained a largely undeveloped coastal flat since at least the early-20th century. Lands adjacent to the project area are heavily developed except to the south. According to the Natural Resources Conservation Service (NRCS) Web Soil Survey of Jefferson County, the property is composed of three (3) soil map units including Labelle-Levac complex, 0 to 1 percent slopes (LalA), League clay, 0 to 1 percent slopes (LeaA), and Urban Land Complex (UriX). The Labelle-Levac complex and Labelle clay soils are listed as Prime Farmland soils. Approximately 15.9 acres of these Prime Farmland soils will be excavated for the project.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an a topographic map of the project area, and a soils map of the project area. Land use in surrounding area is characterized by dense residential, commercial, and industrial development. On-site photographs are provided in Appendix 2.

In accordance with NEPA and the Farmland Protection Policy Act (FPPA), your determination of impact significance to prime and other important farmlands is requested. Your prompt attention to this matter would be greatly appreciated, as your response is necessary to complete the application process for Jefferson County DD7's grant from FEMA.

Please call or email me should you have any questions concerning this project or if I can provide additional information.

Sincerely,  
For LJA Environmental Services LLC



C. Lee Sherrod

Senior Project Director

C: Toby Davis, JCDD7, Dorothy Cook, FEMA



May 1, 2024

LJA Environmental Services, LLC  
1507 South IH 35  
Austin, Texas 78741

Attention: C. Lee Sherrod, Senior Project Director

Subject: Proposed Jefferson County Drainage District No 7 A3A Detention Project  
Port Neches, Jefferson County, Texas  
NEPA/FPPA Evaluation

We have reviewed the information provided in your correspondence dated April 29, 2024 concerning the Proposed Jefferson County Drainage District No 7 A3A Detention Project in Port Neches, Texas. This review is part of the National Environmental Policy Act (NEPA) evaluation for the Federal Emergency Management Agency (FEMA). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

The proposed site may involve areas of Prime Farmland; however, we consider the location to be “land committed to urban development” due to its location within the city limits of Port Neches, Texas. Due to this reason, this project is exempt from provisions of FPPA and no further consideration from protection is necessary. We strongly encourage the use of acceptable erosion control methods during the construction of this project.

If you have further questions, please contact me at (254) 742-9951 or by email at [chris.holle@usda.gov](mailto:chris.holle@usda.gov).

Sincerely,

*Chris Holle*

Chris Holle  
USDA/NRCS

**ATTACHMENT 3**

**AGENCY CONSULTATION/LETTERS OF CONCURRENCE**



Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079  
t 713.953.5200 LJAENVIRONMENTAL.com  
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

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24 April 2024

Consistency Review Coordinator  
Texas General Land Office  
P. O. Box 12873  
Austin, Texas 78711-2873  
Federal Consistency <Federal.Consistency@GLO.TEXAS.GOV>

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 347, Port Neches  
Jefferson County, Texas**

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland and Port Neches and was created primarily to provide drainage for flood-prone areas within the district.

Funding for the A3A Detention project is being requested from the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program (HMGP). FEMA's project number is HMGP-DR-4332-TX Project #167. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The approximately 26-acre A3A Detention project is located between the City of Groves and City of Nederland in the corporate limits of Port Neches, east of the SH 347 and SH 136 intersection in Jefferson County, Texas (Figure 1). Approximate GPS coordinates for the center of the project area are Latitude: 29.950852, Longitude: 93.942644. The land use surrounding the project area consists of residential and light industrial development.

The problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is Jefferson County Drainage District No. 7's A3A lateral drainage. The channel, and its associated crossings, are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the channel. The proposed detention pond project will be designed to lower the water surface in the District's Main A channel which will translate to reduced flood elevations for roads and residential and commercial structures within the watershed as well as reducing pumping requirements at the Alligator Bayou Pump Station.

The project includes the construction of a 26-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the A3A Watershed

in the upper parts of the Main A drainage network of Port Arthur (Benefit Area) (Figure 2). The proposed detention pond project will be designed to lower the water surface in the District's A3 and A3A channels which will translate to reduced flood elevations for the residential and commercial structures within the watershed. After the construction of this project has been completed, the citizens and properties in the watershed will observe an increase in the current level of protection. Because previous events have resulted in flooding of structures in the area, costs associated with recovery from potential future disasters will be reduced by the elimination/reduction of structures flooding.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area, a topographic map of the project area, a FEMA map, a Coastal Zone Map, and a wetland map of the project area. The project site is located within the Coastal Zone of Texas.

Note that the project area is not located within the FEMA 100-year flood zone. Land use in surrounding area is characterized by residential, commercial, and industrial development. On-site photographs are provided in Appendix 2.

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.

Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,  
For LJA Environmental Services, Inc.



C. Lee Sherrod  
Senior Project Director

C: Toby Davis, JCDD7  
Dorothy Cook, FEMA



Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079  
t 713.953.5200 LJAENVIRONMENTAL.com  
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

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6 May 2024

Intergovernmental Relations Division  
Texas Commission on Environmental Quality  
12100 Park 35 Circle  
Austin, Texas 78753

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 347, Port Neches  
Jefferson County, Texas**

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland and Port Neches and was created primarily to provide drainage for flood-prone areas within the district.

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The problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is Jefferson County Drainage District No. 7's A3A lateral drainage. The channel, and its associated crossings, are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the channel. The proposed detention pond project will be designed to lower the water surface in the District's Main A channel which will translate to reduced flood elevations for roads and residential and commercial structures within the watershed as well as reducing pumping requirements at the Alligator Bayou Pump Station.

The project includes the construction of a 26-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the A3A Watershed in the upper parts of the Main A drainage network of Port Arthur (Benefit Area) (Figure 2). The



proposed detention pond project will be designed to lower the water surface in the District's A3 and A3A channels which will translate to reduced flood elevations for the residential and commercial structures within the watershed. After the construction of this project has been completed, the citizens and properties in the watershed will observe an increase in the current level of protection. Because previous events have resulted in flooding of structures in the area, costs associated with recovery from potential future disasters will be reduced by the elimination/reduction of structure flooding.

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Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,  
For LJA Environmental Services, Inc.

A handwritten signature in blue ink, appearing to read 'C. Lee Sherrod'.

C. Lee Sherrod  
Senior Project Director

C: Toby Davis, JCDD7  
Dorothy Cook, FEMA



6 May 2024

NFIP State Coordinator  
Texas Water Development Board  
P. O. Box 13231  
Austin, Texas 78711-3231

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 347, Port Neches  
Jefferson County, Texas**

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Sincerely,  
For LJA Environmental Services, Inc.

A handwritten signature in blue ink, appearing to read 'C. Lee Sherrod'.

C. Lee Sherrod  
Senior Project Director

C: Toby Davis, JCDD7  
Dorothy Cook, FEMA





Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079  
t 713.953.5200 LJAENVIRONMENTAL.com  
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

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6 May 2024

Texas Parks and Wildlife Department  
Wildlife Habitat Assessment Program  
4200 Smith School Road  
Austin, Texas 78744  
Rachel Lange <Rachel.Lange@tpwd.texas.gov>

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 347, Port Neches  
Jefferson County, Texas**

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The project includes the construction of a 26-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the A3A Watershed in the upper parts of the Main A drainage network of Port Arthur (Benefit Area) (Figure 2). The

proposed detention pond project will be designed to lower the water surface in the District's A3 and A3A channels which will translate to reduced flood elevations for the residential and commercial structures within the watershed. After the construction of this project has been completed, the citizens and properties in the watershed will observe an increase in the current level of protection. Because previous events have resulted in flooding of structures in the area, costs associated with recovery from potential future disasters will be reduced by the elimination/reduction of structure flooding.

The surrounding area is generally characterized as undeveloped land that has historically been used for agriculture. Common species on the subject site include Chinese tallow (*Triadica sebifera*), boxelder (*Acer negundo*), live oak (*Quercus virginiana*), water oak (*Quercus nigra*), Carolina laurel-cherry (*Prunus caroliniana*), groundsel (*Baccharis halimifolia*), privet (*Ligustrum lucidum*), yaupon (*Ilex vomitoria*), woodsorrel (*Oxalis corniculata*), dewberry (*Rubus trivialis*), St. Augustine grass (*Stenotaphrum secundatum*), spikerush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), deep-rooted sedge (*Cyperus entrerianus*), and lizard-tail (*Saururus cernuus*).

Limited and temporary aquatic habitat is provided by a few depressional wetland areas and a concrete-lined ditch present within the project area (see Section 3.2.2). The U.S. Army Corps of Engineers has determined the wetland areas to be isolated and non-jurisdictional.

Federally listed threatened or endangered (T/E) species known to occur in Jefferson County include the eastern black rail (*Laterallus jamaicensis*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), whooping crane (*Grus americana*), green sea turtle (*Chelonia mydas*), Atlantic hawksbill sea turtle (*Eretmochelys imbricata*), Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*) (USFWS, 2023b). The USFWS additionally lists the tricolored bat (*Perimyotis subflavus*) as proposed for listing as endangered and the monarch butterfly (*Danaus plexipus*) as a candidate species. Based on a review of the species, habitat requirements, and the scope of the proposed project, FEMA has determined that the proposed alternative will have no effect on listed species. Critical habitat is not present within the project area; therefore, the proposed alternative will not adversely modify any critical habitat.

Appendix 1 contains maps depicting the location of the proposed detention pond, including an aerial view of the project area and a topographic map of the project area. The project site is located within the Coastal Zone of Texas.

Note that the project area is not located within the FEMA 100-year flood zone. Land use in surrounding area is characterized by residential, commercial, and industrial development. On-site photographs are provided in Appendix 2.

Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.



Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,  
For LJA Environmental Services, Inc.

A handwritten signature in blue ink, appearing to read 'C. Lee Sherrod', is written over a light blue horizontal line.

C. Lee Sherrod  
Senior Project Director

C: Toby Davis, JCDD7  
Dorothy Cook, FEMA



Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079  
t 713.953.5200 LJAENVIRONMENTAL.com  
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

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6 May 2024

US Fish and Wildlife Service  
Ecological Services Field Office – Clear Lake  
17629 El Camino Real, Suite 211  
Houston, Texas 77058-3051  
Hoth, David [david\\_hoth@fws.gov](mailto:david_hoth@fws.gov)

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 347, Port Neches  
Jefferson County, Texas**

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland and Port Neches and was created primarily to provide drainage for flood-prone areas within the district.

Funding for the A3A Detention project is being requested from the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program (HMGP). FEMA's project number is HMGP-DR-4332-TX Project #167. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's' response in conformance with NEPA procedures.

The approximately 26-acre A3A Detention project is located between the City of Groves and City of Nederland in the corporate limits of Port Neches, east of the SH 347 and SH 136 intersection in Jefferson County, Texas (Figure 1). Approximate GPS coordinates for the center of the project area are Latitude: 29.950852, Longitude: 93.942644. The land use surrounding the project area consists of residential and light industrial development.

The problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is Jefferson County Drainage District No. 7's A3A lateral drainage. The channel, and its associated crossings, are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the channel. The proposed detention pond project will be designed to lower the water surface in the District's Main A channel which will translate to reduced flood elevations for roads and residential and commercial structures within the watershed as well as reducing pumping requirements at the Alligator Bayou Pump Station.

The project includes the construction of a 26-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the A3A Watershed in the upper parts of the Main A drainage network of Port Arthur (Benefit Area) (Figure 2). The

proposed detention pond project will be designed to lower the water surface in the District's A3 and A3A channels which will translate to reduced flood elevations for the residential and commercial structures within the watershed. After the construction of this project has been completed, the citizens and properties in the watershed will observe an increase in the current level of protection. Because previous events have resulted in flooding of structures in the area, costs associated with recovery from potential future disasters will be reduced by the elimination/reduction of structure flooding.

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Please review the attached figures and information concerning the proposed project to determine if the project is consistent with your agency's environmental regulations or policies. Please respond by letter at your earliest convenience. Your prompt attention to this matter would be greatly appreciated, as your signed concurrence letter is necessary to complete the application for grant funding from FEMA.



Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,  
For LJA Environmental Services, Inc.

A handwritten signature in blue ink, reading 'C. Lee Sherrod', is positioned above the printed name.

C. Lee Sherrod  
Senior Project Director

C: Toby Davis, JCDD7  
Dorothy Cook, FEMA



6 May 2024

County Floodplain Administrator  
Jefferson County  
1149 Pearl Street, 5<sup>th</sup> Floor  
Beaumont, Texas 77701

**RE: Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 347, Port Neches  
Jefferson County, Texas**

Dear Sirs:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland and Port Neches and was created primarily to provide drainage for flood-prone areas within the district.

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The problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is Jefferson County Drainage District No. 7's A3A lateral drainage. The channel, and its associated crossings, are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the channel. The proposed detention pond project will be designed to lower the water surface in the District's Main A channel which will translate to reduced flood elevations for roads and residential and commercial structures within the watershed as well as reducing pumping requirements at the Alligator Bayou Pump Station.

The project includes the construction of a 26-acre floodwater detention basin in the chosen project area that will provide detention capacity for the developed areas of the A3A Watershed in the upper parts of the Main A drainage network of Port Arthur (Benefit Area) (Figure 2). The proposed detention pond project will be designed to lower the water surface in the District's A3

and A3A channels which will translate to reduced flood elevations for the residential and commercial structures within the watershed. After the construction of this project has been completed, the citizens and properties in the watershed will observe an increase in the current level of protection. Because previous events have resulted in flooding of structures in the area, costs associated with recovery from potential future disasters will be reduced by the elimination/reduction of structure flooding.

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Please call or email me should you have any questions concerning this project or if I can be of any further assistance.

Sincerely,  
For LJA Environmental Services, Inc.



C. Lee Sherrod  
Senior Project Director

C: Toby Davis, JCDD7  
Dorothy Cook, FEMA





P.O. Box 13231, 1700 N. Congress Ave.  
Austin, TX 78711-3231, [www.twdb.texas.gov](http://www.twdb.texas.gov)  
Phone (512) 463-7847, Fax (512) 475-2053

May 14, 2024

C. Lee Sherrod  
Senior Project Director  
Horizon Environmental Services  
1507 S Interstate 35  
Austin, TX 78741-2502

Dear C. Lee Sherrod:

This is in response to your letter dated May 6, 2024, regarding the Proposed Jefferson County Drainage District No. 7 Project: A3A Detention Pond Project.

Thank you for coordinating with TWDB regarding floodplain management regulations. After review of the information provided for possible activity in a floodplain, our findings indicate that Jefferson County and the City of Port Neches, as participants in the National Flood Insurance Program (NFIP), have authority for projects within their jurisdictions. Please ensure all project activities are in accordance with the local flood damage prevention court order/ordinance for both the county and city, including the submittal of a local floodplain development permit application.

Please feel free to contact Belle Gonzalez, of our Community Assistance Program at 512-694-3623 or [belle.gonzalez@twdb.texas.gov](mailto:belle.gonzalez@twdb.texas.gov) if you have questions or need further information.

Sincerely,

A handwritten signature in black ink that reads "Richie Hernandez". The signature is written in a cursive, flowing style.

Richie Hernandez, CFM  
State Coordinator, National Flood Insurance Program

<b>Our Mission</b>	:	<b>Board Members</b>
Leading the state's efforts	:	Brooke T. Paup, Chairwoman   George B. Peyton V, Board Member   L'Oreal Stepney, P.E., Board Member
in ensuring a secure	:	
water future for Texas	:	Bryan McMath, Interim Executive Administrator

**From:** [Leslie Koza](#)  
**To:** [Lee Sherrod](#)  
**Subject:** RE: Jefferson County Drainage District #7 A3A Detention Project  
**Date:** Wednesday, December 11, 2024 11:27:28 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[image005.png](#)  
[image006.png](#)

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[EXTERNAL EMAIL]

Mr. Sherrod,

The GLO does not currently have any listed federal financial assistance activities so a federal consistency review is not required on our end. Please feel free to contact me if you have any questions.

Leslie Koza

Federal Consistency Coordinator

512-463-7497

[leslie.koza@glo.texas.gov](mailto:leslie.koza@glo.texas.gov)

[Federal.Consistency@glo.texas.gov](mailto:Federal.Consistency@glo.texas.gov)

Texas General Land Office

Commissioner Dawn Buckingham, M.D.

---

**From:** Lee Sherrod <[lsherrod@horizon-esi.com](mailto:lsherrod@horizon-esi.com)>  
**Sent:** Wednesday, December 11, 2024 10:28 AM  
**To:** Federal Consistency <[Federal.Consistency@GLO.TEXAS.GOV](mailto:Federal.Consistency@GLO.TEXAS.GOV)>  
**Subject:** [EXTERNAL] RE: Jefferson County Drainage District #7 A3A Detention Project

Hi Leslie. We are finalizing the NEPA Environmental Assessment and I don't find that we ever received a consistency letter from you. Could you please look into this?

Thanks,

Lee Sherrod

---

**From:** Lee Sherrod  
**Sent:** Thursday, May 30, 2024 12:21 PM  
**To:** Federal Consistency <[Federal.Consistency@GLO.TEXAS.GOV](mailto:Federal.Consistency@GLO.TEXAS.GOV)>  
**Subject:** RE: Jefferson County Drainage District #7 A3A Detention Project

All wetlands were determined non-jurisdictional, so no 404 permit required.

Thanks,

Lee Sherrod

---

**From:** Federal Consistency <[Federal.Consistency@GLO.TEXAS.GOV](mailto:Federal.Consistency@GLO.TEXAS.GOV)>  
**Sent:** Thursday, May 30, 2024 11:49 AM  
**To:** Lee Sherrod <[lsherrod@horizon-esi.com](mailto:lsherrod@horizon-esi.com)>  
**Subject:** RE: Jefferson County Drainage District #7 A3A Detention Project

**[EXTERNAL EMAIL]**

Mr. Sherrod,  
The approved jurisdictional determination lists SWG-2021-00825.  
Is the project being approved under a Corps Nationwide Permit?  
Leslie Koza  
Federal Consistency Coordinator  
512-463-7497  
[leslie.koza@glo.texas.gov](mailto:leslie.koza@glo.texas.gov)  
[Federal.Consistency@glo.texas.gov](mailto:Federal.Consistency@glo.texas.gov)  
Texas General Land Office  
Commissioner Dawn Buckingham, M.D.

---

**From:** Lee Sherrod <[lsherrod@horizon-esi.com](mailto:lsherrod@horizon-esi.com)>  
**Sent:** Monday, April 29, 2024 9:53 AM  
**To:** Federal Consistency <[Federal.Consistency@GLO.TEXAS.GOV](mailto:Federal.Consistency@GLO.TEXAS.GOV)>  
**Subject:** [EXTERNAL] Jefferson County Drainage District #7 A3A Detention Project

Attached please find a request for CZM review for a detention project in Jefferson County to be funded by FEMA.

Thank you

**C. LEE SHERROD** | SENIOR PROJECT DIRECTOR  
LJA Environmental Services, LLC  
Horizon Environmental Services  
O: 512-328-2430 | D: 512-439-4788 | C: 512-431-3562  
1507 South IH 35, Austin, TX 78741  
**EMPLOYEE-OWNED. CLIENT FOCUSED.**

[www.lja.com](http://www.lja.com)



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July 11, 2024

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Dallas

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Fort Worth

T. Dan Friedkin  
Chairman-Emeritus  
Houston

David Yoskowitz, Ph.D.  
Executive Director

Mr. Lee Sherrod  
LJA Environmental Services, LLC  
Horizon Environmental Services  
1507 South IH-35  
Austin, TX 78741

RE: Request for Review, Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond; Port Neches, Jefferson County, Texas

Dear Mr. Sherrod:

Texas Parks and Wildlife Department (TPWD) received the request for review of the proposed project referenced above for rare, threatened and endangered species.

**Project Description**

Jefferson County Drainage District No. 7 (DD7) proposes an approximately 26-acre detention basin project located between the City of Groves and City of Nederland in the corporate limits of Port Neches, east of the SH 347 and SH 136 intersection in Jefferson County, Texas. The proposed detention pond project will be designed to lower the water surface in the DD7 Main A channel which will reduce flood elevations for roads and residential and commercial structures within the watershed, as well as reduce pumping requirements at the Alligator Bayou Pump Station. The land use surrounding the project area consists of residential and light industrial development. Several non-jurisdictional wetlands are located within the project area.

TPWD, as the state agency with primary responsibility for protecting the state's fish and wildlife resources and in accordance with the authority granted by Parks and Wildlife Code (PWC) section 12.0011, hereby provides the following recommendations to minimize the adverse impacts to the state's fish and wildlife resources in the construction and operation of the proposed project. Please reference TPWD project number 52397 in any return correspondence on this project.

**Construction Recommendations**

*General Construction Recommendations*

**Recommendation:** TPWD recommends the judicious use and placement of sediment control fence to exclude wildlife from the construction area. In many cases, sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife

July 11, 2024

access to construction areas. For extensive linear or phased projects, the exclusion fence need only be installed around active work sites. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated. Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.

**Recommendation:** For soil stabilization and/or revegetation of disturbed areas within the proposed project area, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding rather than erosion control blankets or mats due to a reduced risk to wildlife. If erosion control blankets or mats will be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting and hydromulch containing microplastics should be avoided.

#### *Bank Stabilization*

Riprap is a commonly used means of bank stabilization but can be problematic for wildlife. The addition of riprap for erosion control in or along waterways limits movement of both terrestrial and aquatic wildlife along a waterway, especially if the riprap protrudes above the flowline elevation of the waterway or above grade. Riprap may remove or limit access to the water for numerous animal species. Many animals burrow into banks for nesting or roosting, while shallow-water areas provide refuge and foraging habitat for aquatic species. TPWD does not typically support the use of riprap in bank stabilization projects. Properly constructed banks planted with native riparian and wetland vegetation provide stability as well as numerous benefits to aquatic and terrestrial wildlife, and also help filter pollution from runoff.

**Recommendation:** As an alternative to riprap, TPWD recommends considering biotechnical stabilization methods using live native vegetation or a combination of vegetative and structural materials such as reticulated concrete mats. If solely vegetative stabilization cannot be used, TPWD recommends selecting a reticulated concrete mat with sufficient void space to allow for vegetative growth within the channel and to promote water infiltration, absorption, and transpiration during low-flow conditions. If rip rap must be used, TPWD recommends the riprap be back-filled with topsoil and planted with native vegetation.

#### *Federal Law: Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) prohibits actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The U.S. Fish and Wildlife Service (USFWS)

Mr. Lee Sherrod

Page 3

July 11, 2024

Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

**Recommendation:** TPWD recommends any clearing be scheduled outside of the general bird nesting season of March 15th to September 15th; however, if clearing must occur during nesting season, TPWD recommends surveying the area proposed for disturbance to ensure that no nests with eggs or young will be disturbed by construction. Nest surveys should be conducted not more than five days prior to clearing activities to maximize detection of active nests. TPWD generally recommends a 100-foot radius buffer of vegetation remain around active nests until the eggs have hatched and the young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional USFWS office.

Raptor nesting occurs late winter through early spring; TPWD recommends construction activities be excluded from a minimum zone of approximately 328 feet (100 meters) surrounding any raptor nest during the period of February 1 through July 15. The USFWS can be contacted at the number listed above for further information.

*State Law: Parks and Wildlife Code – Chapter 64, Birds*

PWC section 64.002, regarding protection of nongame birds, provides that, “no person may . . . catch, kill, injure, pursue, or possess . . . a bird that is not a game bird.” PWC section 64.003, regarding destroying nests or eggs, provides that, “[n]o person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl ....”

**Recommendation:** Please review the *Federal Law: Migratory Bird Treaty Act* section above for recommendations as they are also applicable for Chapter 64 of the PWC compliance.

*Species of Concern/Special Features*

In addition to state and federally protected species, TPWD tracks special features, natural communities, and rare species that are not listed as threatened or endangered but are also species of greatest conservation need (SGCN). TPWD actively promotes their conservation and considers it important to evaluate and, if necessary, minimize impacts to rare species and their habitat to reduce the likelihood of endangerment and preclude the need to list. These species and communities are tracked in the TXNDD.

**Recommendation:** Please review the TPWD county list of rare and protected species for Jefferson County because SGCN could be present within the project area depending upon habitat availability. The USFWS should be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally listed species.

Determining the actual presence of a species in an area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency, and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, accounting for all the variable factors contributing to the lack

Mr. Lee Sherrod

Page 4

July 11, 2024

of detectable presence. If encountered during construction, measures should be taken to avoid impacting all wildlife, regardless of listing status.

**Recommendation:** If during construction, the project area is found to contain SGCN, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them.

**Recommendation:** Implementation of the *General Construction Recommendations*, discussed above, would serve to minimize risk to many SGCN and other species of wildlife.

### **Data Reporting and the Texas Natural Diversity Database**

TPWD maintains records of occurrence for protected and rare species, or SGCN, within the Texas Natural Diversity Database (TXNDD) and these data are publicly available by request. The TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. The TXNDD is updated continuously, and relies partially on information submitted by private parties, such as developers or their consultants. Given the small proportion of public versus private land in Texas, the TXNDD does not include a comprehensive inventory of rare resources in the state.

**Recommendation:** To aid in the scientific knowledge of a species' status and current range, TPWD encourages reporting encounters of protected and rare species to the TXNDD according to the data submittal instructions found at the TPWD Texas Natural Diversity Database: Submit Data webpage.

Thank you for considering project impacts to Texas' fish, wildlife, and plant resources. If you have any questions, please contact me at Rachel.Lange@tpwd.texas.gov or (979)732-4213.

Sincerely,



Rachel Lange  
Environmental Review Biologist  
Wildlife Division

RAL/52397

**ATTACHMENT 4**  
**ON-SITE PHOTOGRAPHS**





View of eastern boundary of subject property and JCDD7's A3A drainage ditch, facing north.



View of northern boundary of subject property at northwest corner, facing east.



View of western boundary of subject property, facing north.



View of forested vegetation on subject property, facing east from western boundary.



View of pipeline just outside the property boundary in the northwest corner, facing north.



View of culvert additions being placed on property, perpendicular to A3A drainage ditch, facing east.



View of adjacent residential properties along the eastern boundary, facing east.



View of pipeline marker indicating pipeline running through the western boundary of property.

**ATTACHMENT 5**

**SECTION 404 DETERMINATION INFORMATION**

# **WETLAND ASSESSMENT DETERMINATION AND DELINEATION**

**24.7 ± ACRES  
EAST OF TEXAS 136 SPUR & TWIN CITY HIGHWAY  
JEFFERSON COUNTY, TEXAS**



**PREPARED FOR  
JEFFERSON COUNTY DRAININAGE DISTRICT NO. 7**

**LJA ENVIRONMENTAL SERVICES  
ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS  
HOUSTON, TEXAS**

**REPORT NO: LJAES 033-200008  
FEBRUARY 2021**

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2. Soil Indicators
3. Hydrology Indicators
4. Historical Characteristics

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2. Hydrology Evaluation
3. Topography Evaluation
4. Aerial Photography Evaluation
5. Transects
6. Site Reconnaissance

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2. Topography and Hydrology
3. Vegetation

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- A. Location Maps
- B. Geological Maps
- C. Aerial Photography
- D. Site Photography
- E. U.S. Army Corps of Engineers Routine Data Forms
- F. Antecedent Precipitation Tool (APT)
- G. Wetland Delineation Map

## SUMMARY

A Wetland Assessment Determination and Delineation was performed for Jefferson County Drainage District No. 7 on a 24.7 ± acre tract of land (A3A detention project), located east of Texas 136 Spur & Twin City Highway, in Jefferson County, Texas.

The subject property was evaluated for its content of jurisdictional wetlands, based on criteria set forth in the 1987 Corps of Engineers Wetland Delineation Manual and the 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (v.2) (Regional Supplement). Wetlands were identified and delineated using interpretation of historical aerial photography, topographic maps, hydrology indicators, and field evaluation of hydric soils, hydrology, and hydrophytic vegetation.

Topographical information published by the United States Geological Survey (USGS) indicates a gently sloping landscape with storm-water runoff flowing generally southwest off the subject property into Port Arthur Main A Canal. The FEMA floodplain maps indicates that the entire subject property lies outside of any mapped 100-year FEMA floodplain.

The United States Department of Agriculture (USDA), Web Soil Survey of Jefferson County was, for the most part, reasonably accurate in identifying the basic soil types on the property as Labelle-Levac complex (LaLa), League clay (LeaA), and Urban land (URLX).

Vegetation communities were evaluated and documented to delineate wetland and upland boundaries. In upland areas, the subject property was dominated by eastern red cedar (*Juniperus virginiana*), roughleaf dogwood (*Cornus drummondii*), yaupon (*Ilex vomitoria*), southern dewberry (*Rubus trivialis*), and St. Augustine (*Stenotaphrum secundatum*). In wetland areas, the subject property was dominated by boxelder maple (*Acer negundo*), sugarberry (*Celtis laevigata*), sand spike-rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), and woodrush flatsedge (*Cyperus entrerianus*).

Based on the wetland delineation presented in this report and the survey data collected using Global Positioning System (GPS) satellite equipment, it is the professional opinion of LJA Environmental Services, LLC (LJAES) that 14.8 acres of the subject property would meet the technical criteria to be considered a wetland, as set forth by the U.S. Army Corps of Engineers (USACE). The wetland area identified would likely be considered isolated, and thus, non-jurisdictional for the following reason(s): 1) the wetland is separated from a jurisdictional water by an artificial feature without a hydrologic surface connection between the wetland and jurisdictional water in a 'typical year'; 2) the wetland is not inundated by flooding from a jurisdictional water in a 'typical year'; 3) the wetland does not have a direct perennial or intermittent surface hydrologic connection to jurisdictional waterbody in a 'typical year'.

The USACE and the Environmental Protection Agency (EPA) are the final authority over the jurisdictional status of both wetlands and Waters of the U.S. per Section 404 of the Clean Water Act (CWA). The findings discussed in this report are solely the opinion of LJAES and have not been verified by the aforementioned regulatory governmental agencies.

On June 29, 2015, the EPA and the USACE published a final rule defining the scope of waters protected under the CWA known as the Clean Water Rule: Definition of "Waters of the United States" (2015 Rule) in the Congressional Federal Register (CFR § 80 FR 37053 (2015)). Beginning in July 2017, the EPA and the USACE initiated the formal notice to begin the two-step process intended to review and revise the Final WOTUS Rule as directed in Presidential Executive Order 13778. On September 12, 2019 the EPA formally announced the repeal of the 2015 Clean Water Rule and the re-codifying of the previous definition of Waters of the U.S. This formal rule was published in CFR § 84 FR 56626 (2019) on October 22, 2019 and took effect on December 23, 2019. Additionally, the EPA published the "Navigable Waters Protection Rule" (NWPR) in CFR § 85 FR 22250 (2020) on April 21, 2020 that redefines Waters of the U.S. The NWPR took effect on June 22, 2020. All aquatic resources were evaluated according to language in the NWPR guidance and regulations.





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## WETLAND ASSESSMENT DETERMINATION AND DELINEATION

### INTRODUCTION

The study reported herein is a Wetland Assessment Determination and Delineation Study for Jefferson County Drainage District No. 7 on a 24.7 ± acre tract of land (A3A detention project), located east of Texas 136 Spur and Twin City Highway, in Jefferson County, Texas.

### AUTHORIZATION

This study was performed as authorized by Mr. Phil Kelley of Jefferson County Drainage District No. 7.

### SITE LOCATION

The subject property is located east of Texas 136 Spur and Twin City Highway, in Jefferson County, Texas. The subject property is depicted more specifically in the site maps located in **Attachment A**.

### SCOPE OF WORK

The objective of this Wetland Assessment Determination and Delineation Study was to evaluate the subject property for jurisdictional wetlands in accordance with Section 404 of the Clean Water Act and current regulations and policies of the USACE. The following evaluations were performed for this project:

1. Vegetation Indicators: Evaluation for the presence or absence of hydrophytic vegetation (waterplants) that is typically adapted to wetlands and determination of the vegetative patterns that are prevalent within the site, or specific areas within the site.
2. Soil Indicators: Determination for the presence or absence of soils that would be classified as hydric.
3. Hydrology Indicators: Evaluation of the hydrological features of the site with respect to water accumulation and wetland development.
4. Historical Characteristics: Evaluation of historical information to determine the existence and development of wetland features over extended periods of time.

## **METHODOLOGY/INVESTIGATIVE WORK**

The Wetland Assessment Determination and Delineation work consisted of reviewing published historical information and detailed site reconnaissance, to evaluate the subject property for the presence or absence of jurisdictional wetlands according to criteria set forth in the Regional Supplement. The following activities were undertaken to perform the wetland delineation: 1) review county soil maps; 2) review FEMA floodplain maps; 3) review USGS topographic maps; 4) interpret current and historical aerial photography; and 5) perform site reconnaissance to evaluate and document soil, hydrology, and vegetation indicators.

### 1. Soil Survey Evaluation:

Prior to site reconnaissance activities, the USDA Web Soil Survey of Jefferson County, Texas was reviewed to determine the types of soils that would most likely be present on the subject property (**Attachment B**).

Given the criteria and techniques employed by the Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service, for the survey process, it was considered probable that the boundaries depicted on the survey could contain certain inaccuracies. The minimum mapping area for any given soil in the NRCS survey is ten (10) acres, with the probability of imprecise boundary delineation being relatively high. Therefore, as part of site reconnaissance activities, on site soil evaluations were performed to describe, classify, and document the hydric, or non-hydric, characteristics of the primary soils on the subject property.

### 2. Hydrology Evaluation:

To assess the hydrological characteristics of the site, current published FEMA maps were evaluated to determine if the property lies within, or adjacent to, the floodway, the 100, and/or 500-year floodplain (**Attachment B**). Due to the low topographic grades found on the Gulf Coast, periodic floods are common along rivers, creeks and bayous. These floods, along with rainfall and subsurface flow, are the primary sources of hydrology for wetlands located inland of immediate coastal areas. In addition to FEMA maps, probable flow patterns and evidence of inundation and/or periods of saturation in potential wetland areas were evaluated on site.

### 3. Topography Evaluation:

Investigative activities also included observations of the property's general topography and the location of landscape features such as depressions, ridges, and levees. These features could determine wetland patterns and their associated hydrological functions. Topography was evaluated by reviewing: 1) topographical information published by the USGS; 2) LiDAR; 3) aerial photography; and 4) on site observations.

### 4. Aerial Photography:

Wetlands generally occur as historical features on the landscape and usually maintain their basic configurations and appearances over a long period of time. However, vegetation communities naturally progress through several stages of predominance as wetlands age and mature. Additionally, topographical and hydrological characteristics may be changed by natural processes or by man-induced alterations in or near wetland areas. While field verification remains essential to wetland identification and delineation, historical aerial photography can play a vital role in the evaluation of wetland features and the variations, which may occur over extended periods of time. Aerial photography was used extensively in the evaluations made on the subject property. A variety of sources were used to provide photographic coverage of the area, including large-scale infrared photographs, color photographs, and black and white photographs (**Attachment C**).

1. **Infrared Photography:** High-altitude infrared photographs provide views of the subject property as a complete unit where areas and systems of high water content become more easily defined. Such areas are slightly cooler than the surrounding areas and will appear on the false color imagery as variations in shading.

2. **Color Photography:** Color photographs provide contrasts in shading from lower altitudes that can assist in the identification of vegetation patterns and development that should be verified in the field.
  3. **Methodology of Interpretation:** Color photographs from 2018 were analyzed for vegetation patterns that might distinguish wetland areas. These photographs were compared with infrared photography, including from 1995, and 2009. Areas which consistently appeared as possible wetlands were marked for field confirmation. The same process also identified areas that appeared as marginal or upland. From these photographic interpretations, a preliminary “rough” delineation pattern was established and incorporated into planned field reconnaissance.
5. Transects:

Based upon methodology described in the Regional Supplement, transects must be performed on properties greater than five (5) acres in size. With the use of aerial photography, topographic maps, and a boundary survey, a baseline was determined parallel to the nearest major watercourse, the Sabine Lake. The baseline was then divided into equal segments. Three (4) transects were established at random perpendicular to the established baseline, prior to the site visit on the subject property.

6. Site Reconnaissance:

The primary method of wetland identification and delineation was site reconnaissance activity that would identify and document the conditions that existed on the subject property as related to jurisdictional wetlands. The site visit was performed to target the following specific areas: 1) soil surveys and geology; 2) topography and hydrology; and 3) vegetation.

The site was visited in February 2021, by personnel from LJAES. Using the diagnostic criteria set forth in the Regional Supplement for sampling hydrology, soils and vegetation, the site was evaluated for the presence of wetlands that would be classified as Jurisdictional Waters of the United States. As part of a comprehensive assessment of the property, upland (non-wetland) areas were also identified and sampled according to the Regional Supplement.

The data collection of GPS/GIS information for the purpose of jurisdictional wetland delineation & determination followed the Standard Operating Procedures (SOP) set forth by the USACE. The data was recorded using a handheld Trimble Geo 7X, collected with a minimum of 4 satellites and a PDOP value of 6. Precision of six digits past the decimal point was maintained through all data processing.

Soil samples were documented and fully described according to NRCS staff (1991) criteria and were classified as either hydric or non-hydric. Numerous additional undocumented observations were made to define and establish trends or to verify aerial photo interpretation and/or NRCS mappings.

During site survey activities for soil identification, dominant plant life and vegetation communities were sampled, identified and documented for correlation with soil and hydrology data. As each soil description was made, dominant vegetation was recorded and photographed for the respective area (**Attachment D**). Representative samples were collected and identified as necessary for specific sites. Attempts were made to comprehensively observe and document plant communities and species for all areas of the property, with special focus on those plants that would be considered associated with wetlands.

Site reconnaissance activities also included observations of the general topography of the property and the landscape positions of depressions, ridges, levees, and other features that could determine wetland patterns and their associated hydrological features. A total of seven (7) upland and six (6) wetland samples were documented and fully described according to the Regional Supplement. Stream channel classification methodology included identifying an OHWM, defined bed and bank, groundwater and floodway connection, as well analyzing the site hydrologic conditions using the Antecedent Precipitation Tool (APT) to establish a baseline for typical year conditions.

## **FINDINGS**

### 1. Geology and Soils:

Geologically, the subject property is underlain by the Beaumont Formation. The Beaumont Formation is one of the youngest formations occurring in Jefferson County and crops out extensively throughout the county. This formation is characterized by a relict depositional pattern of slightly elevated meandering ridges separated by low-lying flats. The lows are old back swamps or floodplains. The Beaumont Formation originates from the fluvial deposits of Buffalo Bayou, Greens Bayou, Cedar Bayou, and the Brazos, San Jacinto and Trinity Rivers.

The USDA Web Soil Survey of Jefferson County was, for the most part, reasonably accurate in identifying the basic soil types on the property as Labelle-Levac complex (LalA), League clay (LeaA), and Urban land (URLX).

Labelle-Levac complex (LalA), 0 to 1 percent slopes consists of two soil components, Labelle and Levac. The Labelle component of the Labelle-Levac complex (LalA), 0 to 1 percent slopes is typically located on flats within flat coastal plains. The parent material consists of loamy fluviomarine deposits derived from igneous, metamorphic and sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded or ponded. A seasonal zone of water saturation is at 48 inches during January, February, and March. Organic matter content in the surface horizon is about 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface. The Labelle component of the Labelle-Levac complex (LalA), 0 to 1 percent slopes, is not classified as a hydric soil in Jefferson County and therefore may not be associated with 'wetland habitat.'

League clay (LeaA), 0 to 1 percent slopes is typically located on gilgai on flats within flat coastal plains. The parent material consists of clayey fluviomarine deposits derived from igneous, metamorphic and sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is very high. This soil is not flooded or ponded. A seasonal zone of water saturation is at 36 inches during January, February, and March. Organic matter content in the surface horizon is about 2 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface. League clay (LeaA), 0 to 1 percent slopes is not classified as a hydric soil in Jefferson County and therefore may not be associated with 'wetland habitat.'

The Urban land (URLX) component is a miscellaneous area without a soil description.

Documentation of soil descriptions and classifications from each of the sample areas are presented in the Data Forms (**Attachment E**).

### 2. Topography and Hydrology:

Topographical information published by USGS indicates a gently sloping landscape with storm-water runoff flowing generally southwest off the subject property into Port Arthur Main A Canal. The FEMA floodplain maps indicates that the entire subject property lies outside of any mapped 100-year FEMA floodplain.

To account for recent weather patterns and climactic abnormalities, historic precipitation data was reviewed to establish a reference for "typical year" conditions observed on site which could influence hydrology and plant communities. The USACE Antecedent Precipitation Tool (APT) was used, which compares the previous 3-months of precipitation rolling totals to a 30-year average of monthly precipitation to categorize the 3-month period prior to each site visit. This process eliminates 'normal high' and 'normal low' weather events to establish typical year conditions. Moisture levels were measured through the Palmer Drought Severity Index (PDSI).

MONTH	PDSI Value	PDSI Class	Season	WET Score	Antecedent Precipitation Condition
2/04/21	-0.95	Incipient drought	Wet Season	Drier (9)	Drier than Normal

Based on the APT calculations, the hydrology in the period leading up to the site assessment can be classified as drier than normal conditions. The hydrologic conditions for the site visit were taken into consideration and would not affect water feature classification.

Documentation of the produced APT graphs are provided in **Attachment F**.

3. Vegetation:

Vegetation communities were evaluated and documented to delineate wetland and upland boundaries. In upland areas, the subject property was dominated by eastern red cedar (*Juniperus virginiana*), roughleaf dogwood (*Cornus drummondii*), yaupon (*Ilex vomitoria*), southern dewberry (*Rubus trivialis*), and St. Augustine (*Stenotaphrum secundatum*). In wetland areas, the subject property was dominated by boxelder maple (*Acer negundo*), sugarberry (*Celtis laevigata*), sand spike-rush (*Eleocharis montevidensis*), curly dock (*Rumex crispus*), and woodrush flatsedge (*Cyperus entrerianus*).

As with the methods employed during soil survey activities, specific documentation was made in order to identify representative vegetation patterns within certain areas. Records of plant descriptions and classifications from each of the sample areas are presented in the Data Forms (**Attachment E**).

### CONCLUSIONS

It is the professional opinion of LJA Environmental Services (LJAES) that 14.8 acres of the subject property would meet the technical criteria to be considered a wetland, as set forth by the U.S. Army Corps of Engineers (USACE). The wetland area identified would likely be considered isolated, and thus, non-jurisdictional for the following reason(s): 1) the wetland is separated from a jurisdictional water by an artificial feature without a hydrologic surface connection between the wetland and jurisdictional water in a 'typical year'; 2) the wetland is not inundated by flooding from a jurisdictional water in a 'typical year'; 3) the wetland does not have a direct perennial or intermittent surface hydrologic connection to jurisdictional waterbody in a 'typical year'.

The professional opinion of LJAES within this report are based upon the interpretation of the current NWPR that took effect on June 22, 2020. The USACE and the EPA have released Fact Sheets related to certain terms contained in the NWPR. However, the agencies have not released any guidance on methodology to use when making jurisdictional determinations. Additionally, there are several pending lawsuits seeking to block the implementation of the NWPR and the current jurisdictional opinion of the features discussed in the report could change depending on the outcome of those court cases or other outside factors. Therefore, LJAES recommends further discussion prior to closing on or starting work on the site in order to determine what rules are in place at the time of closing and/or construction since the current regulatory climate is uncertain at this time.

The USACE and the EPA are the final authority over the jurisdictional status of both wetlands and Waters of the U.S. per Section 404 of the CWA. The findings discussed in this report are solely the opinion of LJAES and have not been verified by the aforementioned regulatory governmental agencies.

Respectfully,



Natalie Davis  
Project Manager  
LJA Environmental Services



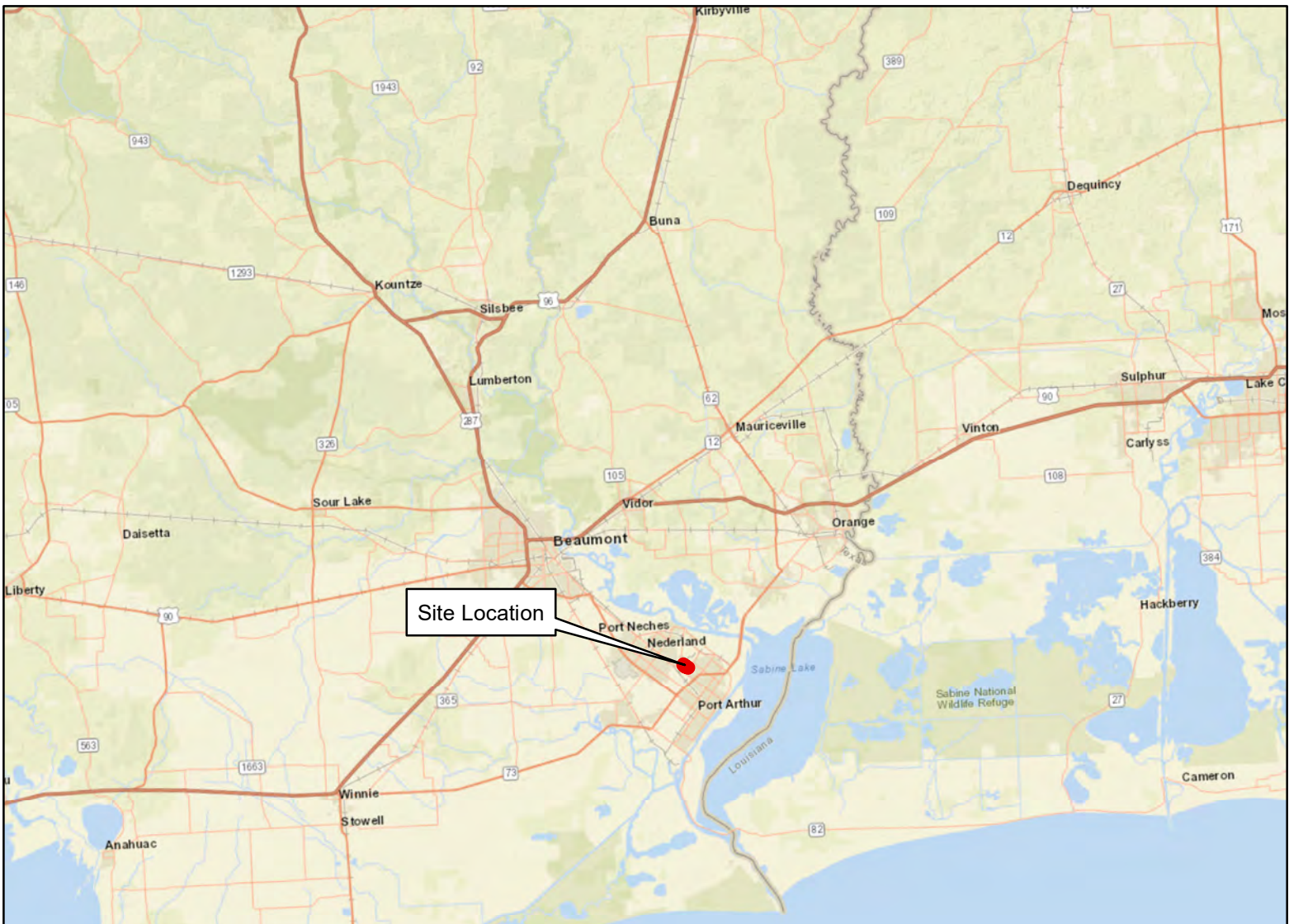
Keith Morgan  
Vice President  
LJA Environmental Services

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**ATTACHMENT A**  
**LOCATION MAPS**



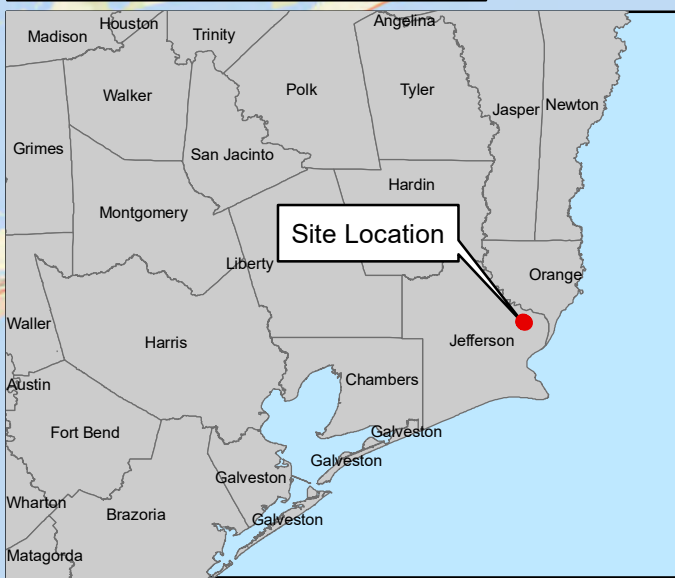


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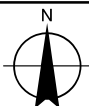
**ACRES**

Project Boundary 24.7



Site Location

**SITE VICINITY MAP**

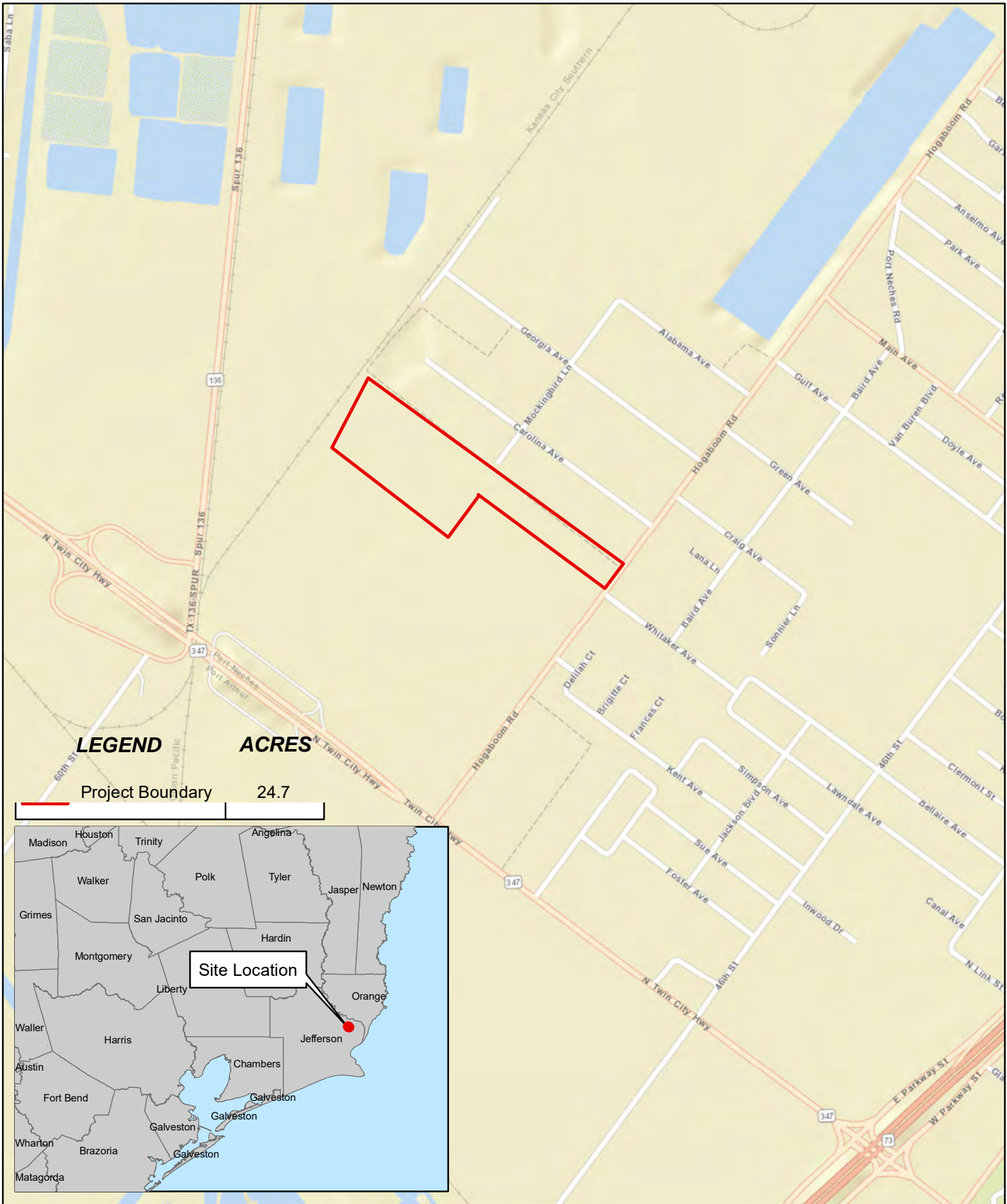


Project #: LJAES 033-200008  
 For: Jefferson County Drainage District No. 7  
 Location: E of Texas 136 Spur & Twin City Hwy  
 Jefferson County, Texas

REVISIONS


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**LEGEND**

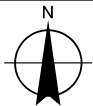
**ACRES**

Project Boundary

24.7



**SITE LOCATION MAP**



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 Location: E of Texas 136 Spur & Twin City Hwy  
 Jefferson County, Texas

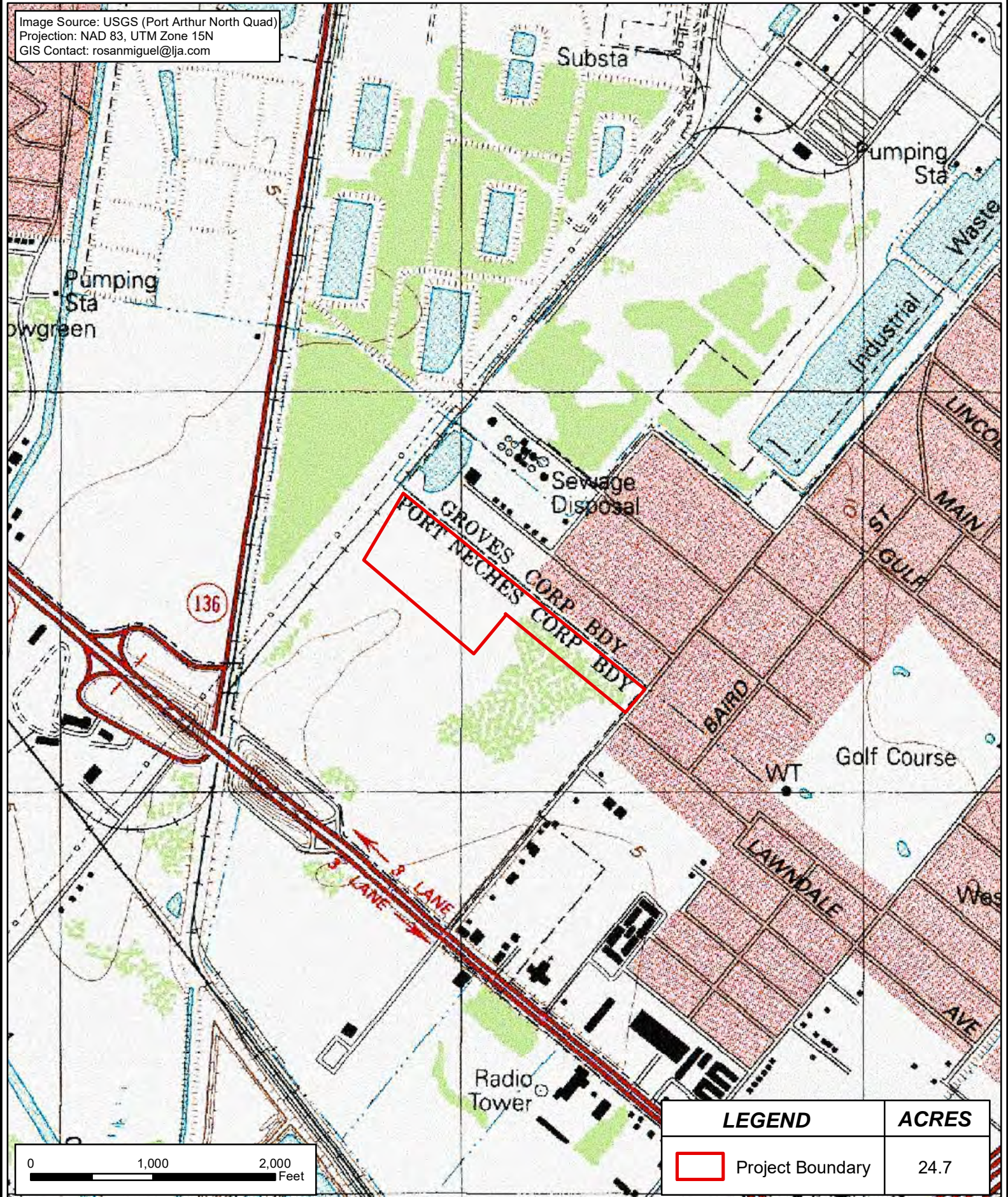
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**ATTACHMENT B**  
**GEOLOGICAL MAPS**

Image Source: USGS (Port Arthur North Quad)  
 Projection: NAD 83, UTM Zone 15N  
 GIS Contact: rosanmiguel@lja.com



LEGEND	ACRES
 Project Boundary	24.7

**USGS TOPOGRAPHIC MAP - PORT ARTHUR NORTH QUAD**

Project #: LJAES 033-200008  
 For: Jefferson County Drainage District No. 7  
 Location: E of Texas 136 Spur & Twin City Hwy  
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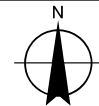
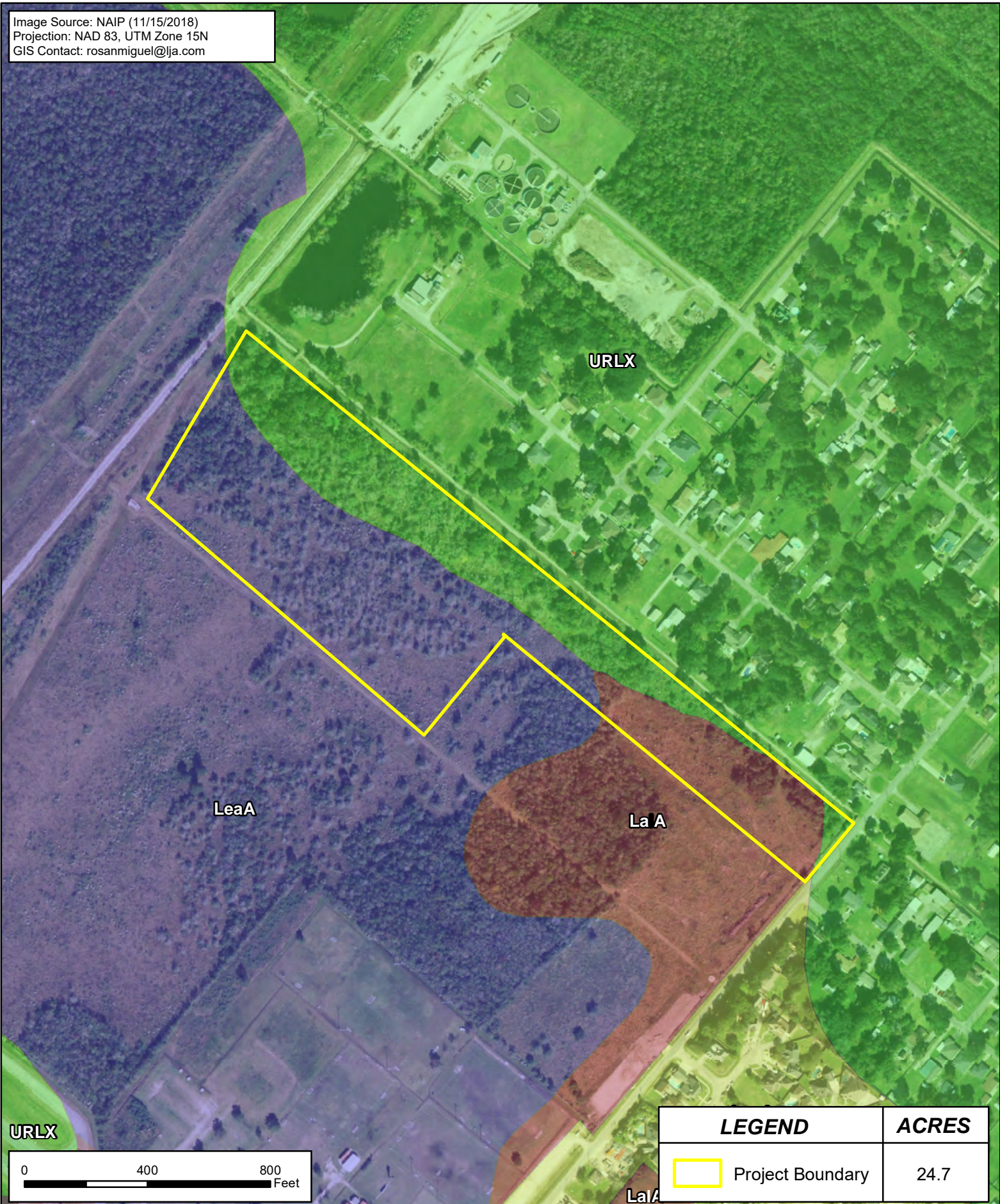





Image Source: NAIP (11/15/2018)  
 Projection: NAD 83, UTM Zone 15N  
 GIS Contact: rosanmiguel@lja.com



LEGEND	ACRES
 Project Boundary	24.7

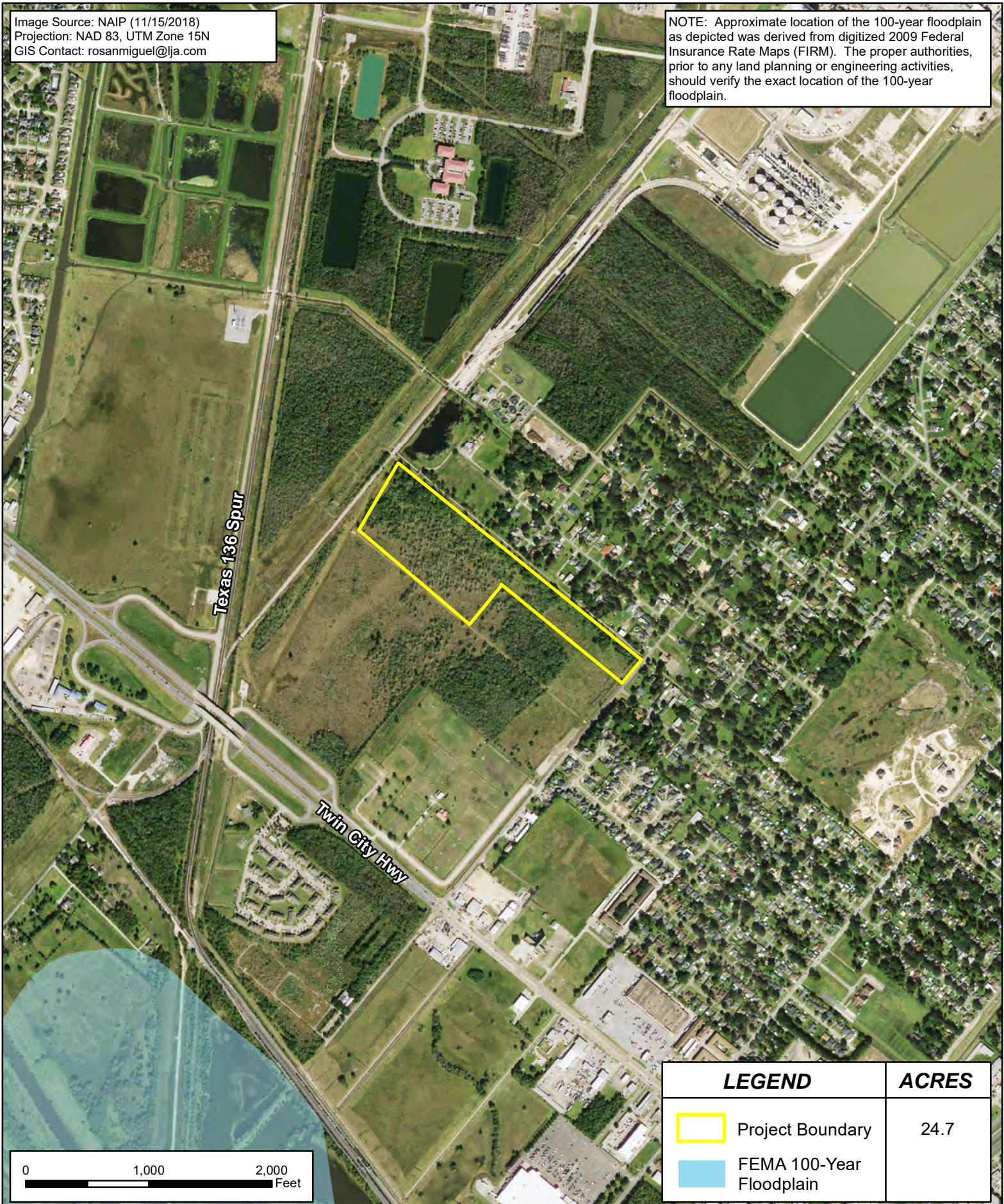
**NRCS COUNTY SOILS ON 2018 NAIP AERIAL**



	<b>Project #:</b> LJAES 033-200008 <b>For:</b> Jefferson County Drainage District No. 7 <b>Location:</b> E of Texas 136 Spur & Twin City Hwy Jefferson County, Texas	<b>REVISIONS</b> <table border="1"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>					<b>LJA ENVIRONMENTAL SERVICES</b> ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS 14701 ST. MARY'S LANE, SUITE 400 HOUSTON, TEXAS 77079 PHONE (281)589-0898 <a href="http://www.lja.com">http://www.lja.com</a>	

**ATTACHMENT C**  
**AERIAL PHOTOGRAPHY**

Image Source: NAIP (11/15/2018)  
 Projection: NAD 83, UTM Zone 15N  
 GIS Contact: rosanmiguel@lja.com

NOTE: Approximate location of the 100-year floodplain as depicted was derived from digitized 2009 Federal Insurance Rate Maps (FIRM). The proper authorities, prior to any land planning or engineering activities, should verify the exact location of the 100-year floodplain.



<b>LEGEND</b>		<b>ACRES</b>
	Project Boundary	24.7
	FEMA 100-Year Floodplain	

**FEMA 100-YEAR FLOODPLAIN ON 2018 NAIP AERIAL**

Project #: LJAES 033-200008  
 For: Jefferson County Drainage District No. 7  
 Location: E of Texas 136 Spur & Twin City Hwy  
 Jefferson County, Texas

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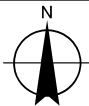
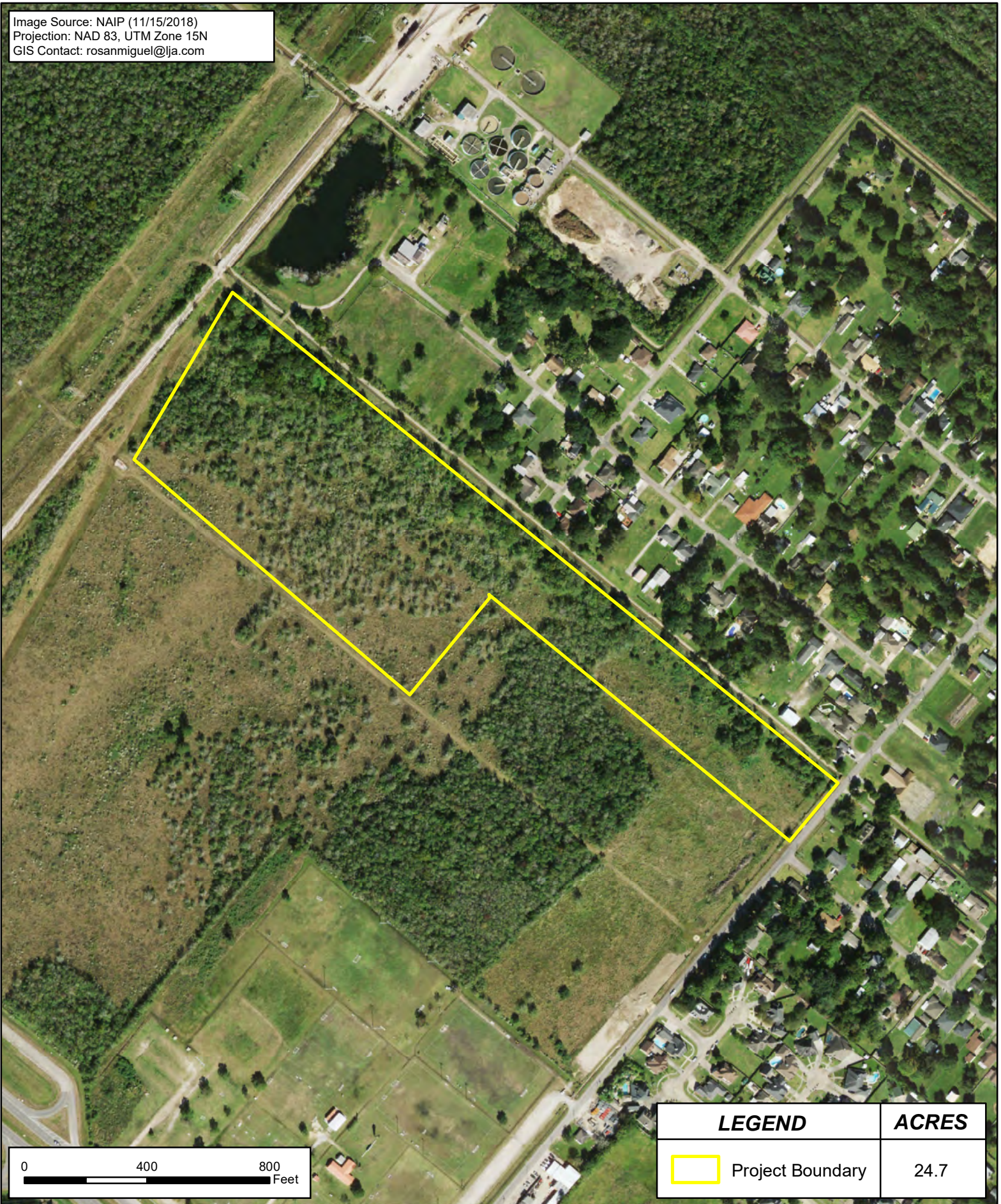



Image Source: NAIP (11/15/2018)  
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LEGEND	ACRES
 Project Boundary	24.7

**2018 NAIP AERIAL**



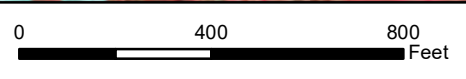
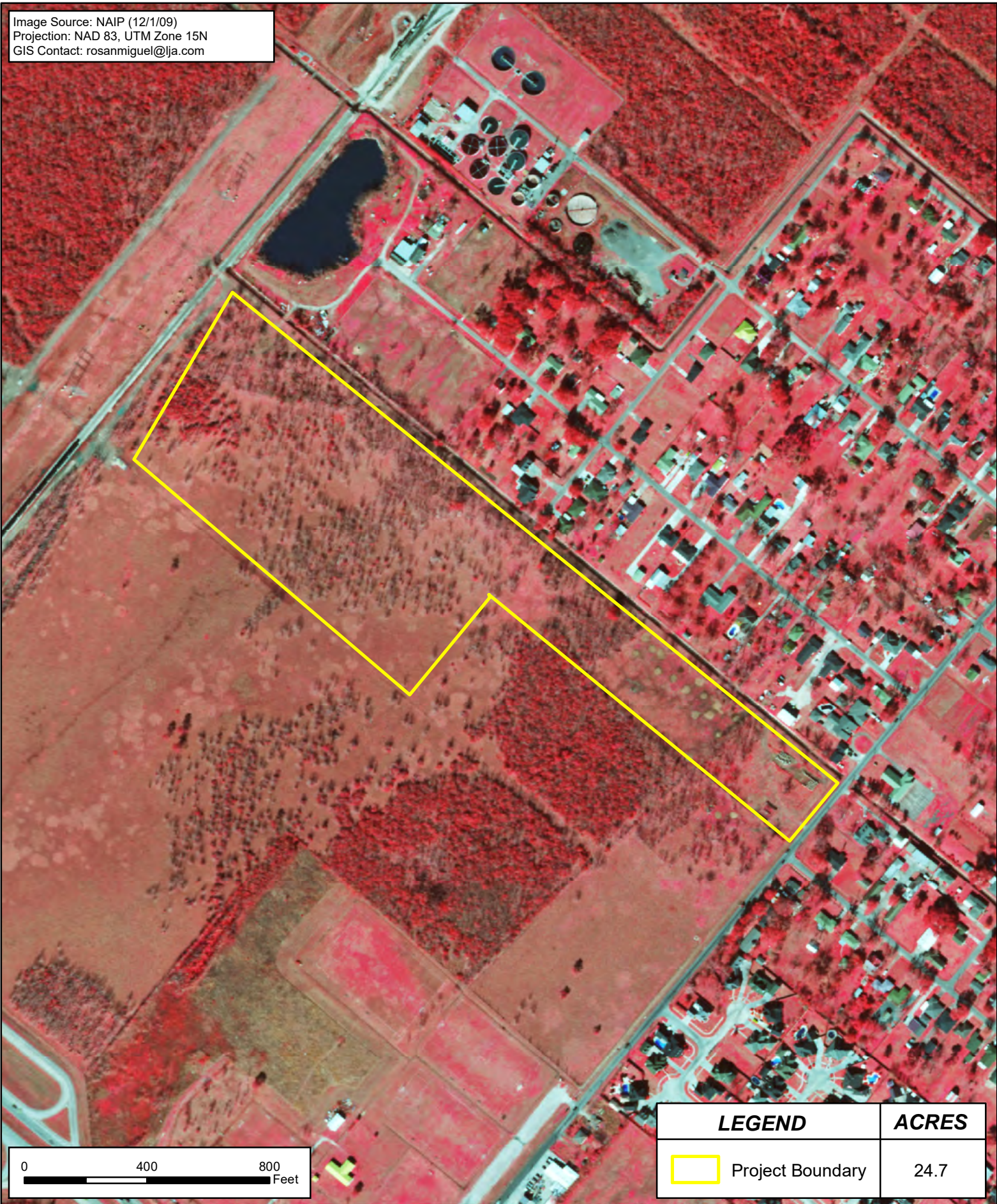

	<b>Project #:</b> LJAES 033-200008 <b>For:</b> Jefferson County Drainage District No. 7 <b>Location:</b> E of Texas 136 Spur & Twin City Hwy Jefferson County, Texas	REVISIONS <hr/> <hr/> <hr/> <hr/>	<b>LJA ENVIRONMENTAL SERVICES</b> ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS 14701 ST. MARY'S LANE, SUITE 400 HOUSTON, TEXAS 77079 PHONE (281)589-0898 <a href="http://www.lja.com">http://www.lja.com</a>	
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Image Source: NAIP (12/1/09)  
 Projection: NAD 83, UTM Zone 15N  
 GIS Contact: rosanmiguel@lja.com



LEGEND	ACRES
 Project Boundary	24.7

**2009 NAIP INFRARED AERIAL**



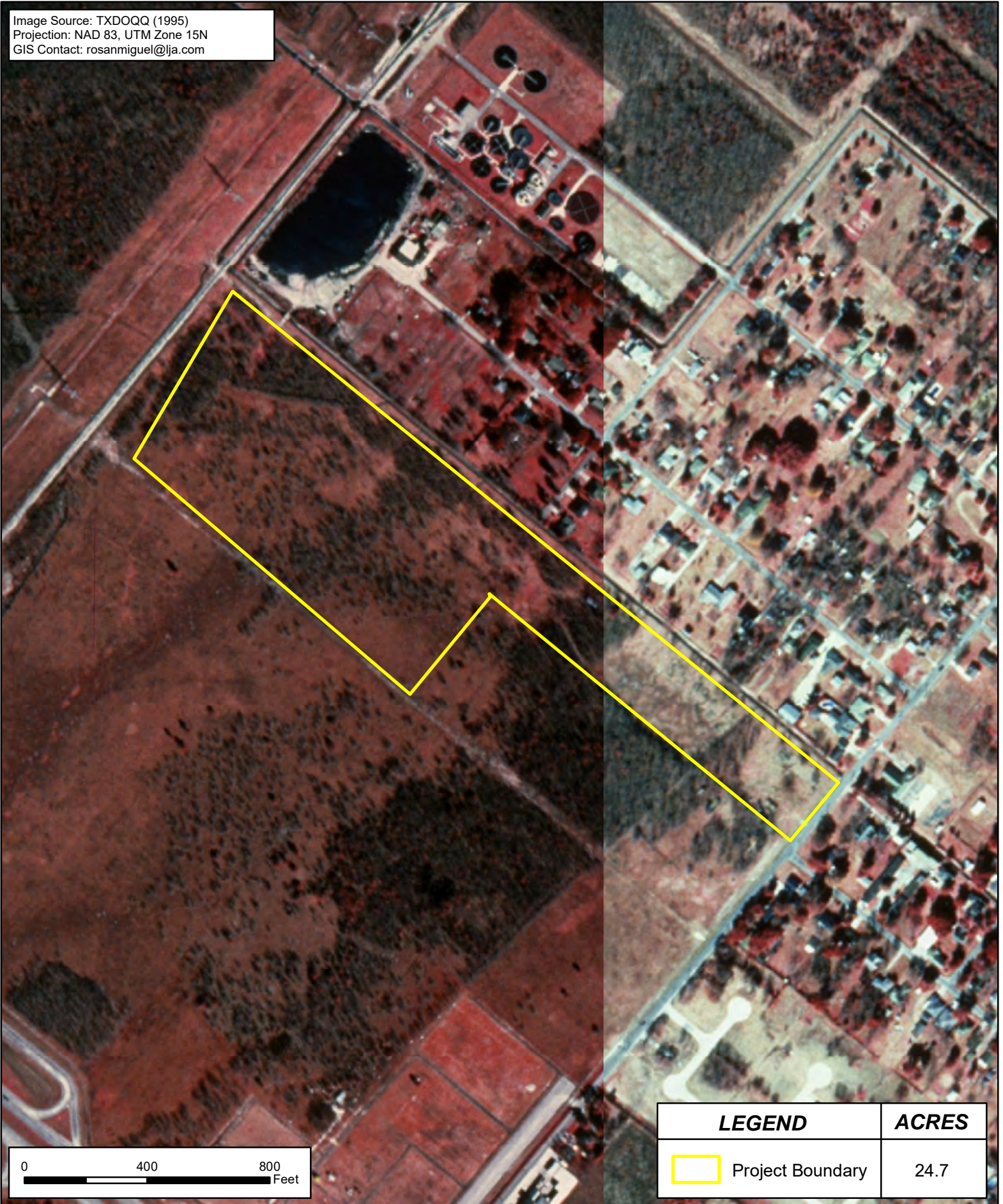



	<b>Project #:</b> LJAES 033-200008 <b>For:</b> Jefferson County Drainage District No. 7 <b>Location:</b> E of Texas 136 Spur & Twin City Hwy Jefferson County, Texas	REVISIONS <hr/> <hr/> <hr/> <hr/>	<b>LJA ENVIRONMENTAL SERVICES</b> ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS 14701 ST. MARY'S LANE, SUITE 400 HOUSTON, TEXAS 77079 PHONE (281)589-0898 <a href="http://www.lja.com">http://www.lja.com</a>	
--	---	--------------------------------------	---	---

Image Source: TXDOQQ (1995)  
 Projection: NAD 83, UTM Zone 15N  
 GIS Contact: rosanmiguel@lja.com



LEGEND	ACRES
 Project Boundary	24.7

**1995 TXDOQQ INFRARED AERIAL**

	<b>Project #:</b> LJAES 033-200008 <b>For:</b> Jefferson County Drainage District No. 7 <b>Location:</b> E of Texas 136 Spur & Twin City Hwy Jefferson County, Texas	<b>REVISIONS</b> _____ _____ _____ _____	<b>LJA ENVIRONMENTAL SERVICES</b> ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS 14701 ST. MARY'S LANE, SUITE 400 HOUSTON, TEXAS 77079 PHONE (281)589-0898 <a href="http://www.lja.com">http://www.lja.com</a>	

**ATTACHMENT D**  
**SITE PHOTOGRAPHY**



Typical view of Up 1, dominated by glossy privet (*Ligustrum lucidum*) and southern dewberry (*Rubus trivialis*).



Typical view of Up 4, dominated by glossy privet (*Ligustrum lucidum*), roughleaf dogwood (*Cornus drummondii*), and southern dewberry (*Rubus trivialis*).



Typical view of Up 7, dominated by boxelder maple (*Acer negundo*), roughleaf dogwood (*Cornus drummondii*), and southern dewberry (*Rubus trivialis*).



Typical view of Wet 1, dominated by box elder (*Acer negundo*), sand spikerush (*Eleocharis montevidensis*), and curly dock (*Rumex crispus*).



Typical view of Wet 3A, dominated by sand spikerush (*Eleocharis montevidensis*).



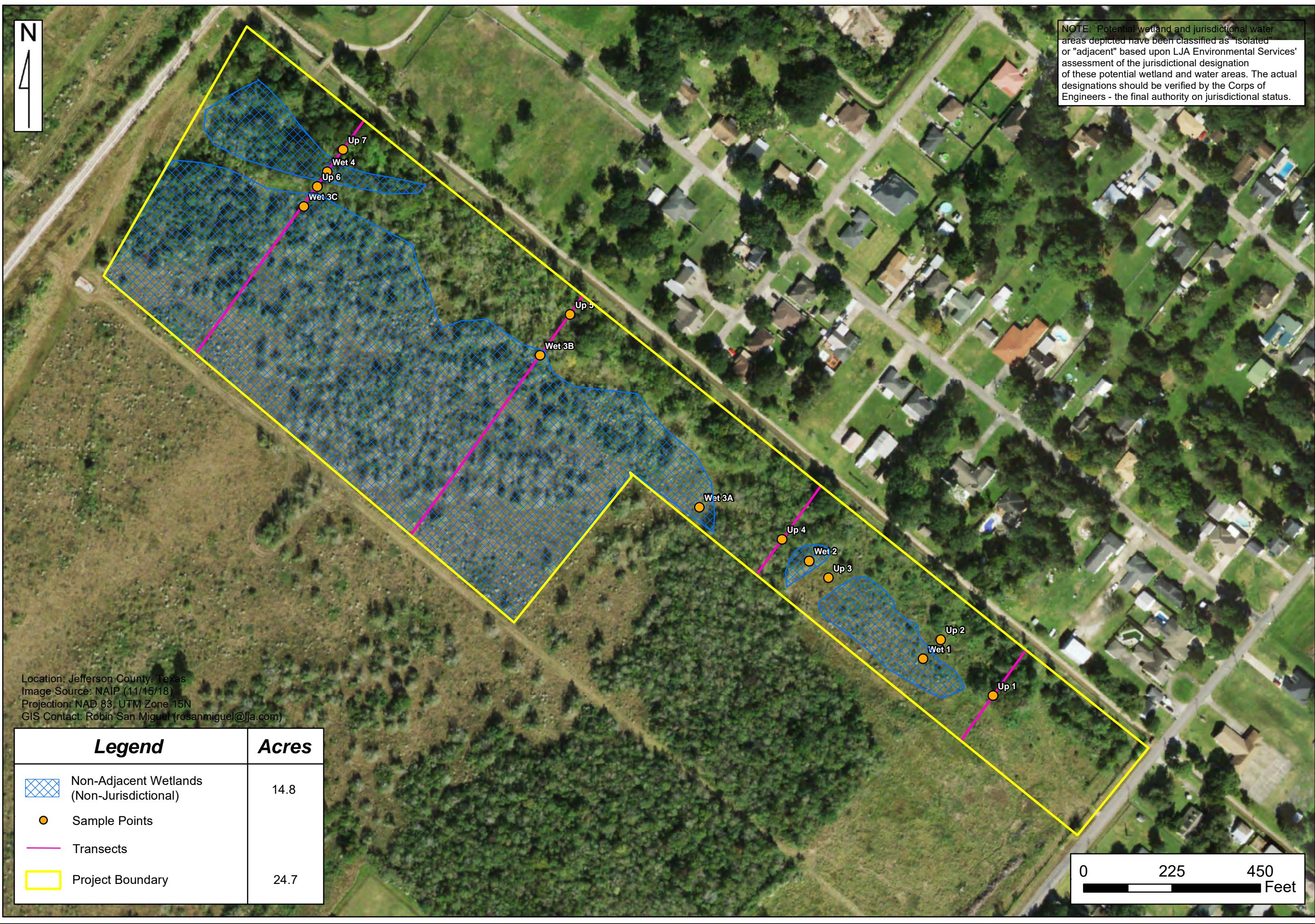


Typical view of Wet 4, dominated by woodrush flatsedge (*Cyperus entrerianus*) and marsh seedbox (*Ludwigia palustris*).

**ATTACHMENT G**  
**WETLAND DELINEATION MAP**

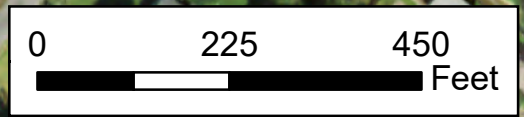


NOTE: Potential wetland and jurisdictional water areas depicted have been classified as "isolated" or "adjacent" based upon LJA Environmental Services' assessment of the jurisdictional designation of these potential wetland and water areas. The actual designations should be verified by the Corps of Engineers - the final authority on jurisdictional status.



Location: Jefferson County, Texas  
 Image Source: NAIP (11/15/18)  
 Projection: NAD 83, UTM Zone 15N  
 GIS Contact: Robin San Miguel (rosanmiguel@lja.com)

Legend	Acres
Non-Adjacent Wetlands (Non-Jurisdictional)	14.8
Sample Points	
Transects	
Project Boundary	24.7



**WETLAND DETERMINATION AND CLASSIFICATION  
 SITE LOCATION MAP**



**LJA ENVIRONMENTAL SERVICES**  
 ENVIRONMENTAL SCIENCE & LAND USE CONSULTANTS  
 14701 ST. MARY'S LANE, SUITE 400  
 HOUSTON, TEXAS 77079 PHONE (281)589-0898 <http://www.bergoliver.com>

REVISIONS

Project #: LJAES 033-200008  
 For: Jefferson County Drainage District No. 7  
 Location: E of Texas 136 Spur & Twin City Hwy  
 Jefferson County, Texas



**DEPARTMENT OF THE ARMY**  
U. S. ARMY CORPS OF ENGINEERS, GALVESTON DISTRICT  
2000 FORT POINT ROAD  
GALVESTON, TEXAS 77550

October 20, 2022

Compliance Branch

**SUBJECT: SWG-2021-00825;** Jefferson County Drainage District #7, Approved Jurisdictional Determination (AJD), Approximate 24.7-Acre Tract, Port Arthur, Jefferson County, Texas.

Mr. Lee Sherrod  
LJA Environmental Services, LLC  
1507 South IH 35  
Austin, Texas 78741

Dear Mr. Sherrod:

This letter is in response to your August 16, 2021, request for an approved jurisdictional determination, on behalf of the Jefferson County Drainage District #7, of waters of the United States (U.S) on an approximate 24.7-acre tract. The tract is located east of Texas Highway 136 and Twin City Highway in Port Arthur, Jefferson County, Texas (map enclosed).

Based on a review of the available information and current federal regulations, we determined that the 24.7-acre tract contains four wetlands totaling approximately 14.82 acres. We determined that the four wetlands are isolated and lack any known nexus to interstate commerce, and as such are not a water of the United States (U.S.) subject to Section 404 of the Clean Water Act (Section 404). As such, a Department of the Army (DA) permit will not be required for the discharge of dredged and/or fill material into the four wetlands totaling 14.82 acres. The wetlands in the project area were identified using the Regional Supplement to the 1987 Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0), which requires under normal circumstances, a predominance of hydrophytic vegetation, hydric soils, and sufficient hydrology at/or near the surface for adequate duration and frequency to support this aquatic ecosystem.

Areas of Federal Interests (federal projects, and/or work areas) may be located within this proposed project area. Any activities in these federal interest areas would also be subject to federal regulations under the authority of Section 14 of the Rivers and Harbors Act (aka Section 408). Section 408 makes it unlawful for anyone to alter in any manner, in whole or in part, any work (ship channel, flood control channels, seawalls, bulkhead, jetty, piers, etc.) built by the United States unless it is authorized by the Corps of Engineers (i.e., Navigation and Operations Division).

This delineation and/or jurisdictional determination included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for the purpose of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985 as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

This letter constitutes an approved jurisdictional determination (AJD) for this subject site and is valid for 5 years from the date of this letter unless new information warrants a revision prior to the expiration date. If you object to this AJD, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeals Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Southwestern Division Office at the following address:

Mr. Jamie Hyslop  
Administrative Appeals Review Officer (CESWD-PD-O)  
Southwest Division (CESWG-PD-O)  
U.S. Army Corps of Engineers  
1100 Commerce Street, Room 831  
Dallas, Texas 75242-1317  
Telephone: 469-216-8834  
Email: [Jamie.R.Hyslop@usace.army.mil](mailto:Jamie.R.Hyslop@usace.army.mil)

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete; that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within **60 days** of the date of the NAP, noting the letter date is considered day 1. It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

If you have any questions concerning this jurisdictional determination, please reference file number **SWG-2021-00825** and contact me at the letterhead address or by telephone at 409-766-6322. To assist us in improving our service to you, please complete the survey found at <https://regulatory.ops.usace.army.mil/customer-service-survey/> and/or, if you would prefer a hard copy of the survey form, please let us know, and one will be mailed to you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lynne Ray".

Lynne Ray  
Project Manager, Compliance Branch

Enclosure

**ATTACHMENT 6**  
**LISTED SPECIES INFORMATION**

A3A DETENTION BASIN PROJECT  
BAT SURVEYS

Groves, Jefferson County, TX

Prepared for:  
LJA Environmental Services

Prepared by:  
Ecosystem Planning and Restoration  
17575 N. Eldridge Parkway  
Tomball, TX 77377  
[www.eprusa.net](http://www.eprusa.net)

October 23, 2024





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APPENDIX A: FIGURES

APPENDIX B: RELEVANT RESUMES

APPENDIX C: HABITAT ASSESSMENT AND APPROVED STUDY PLAN

APPENDIX D: ACOUSTIC DETECTOR DATA SHEETS

APPENDIX E: STRUCTURE SURVEY DATA SHEETS AND PHOTO LOGS

This report contains the results of the federally proposed Endangered tricolored bat (*Perimyotis subflavus*; PERSUB) summer presence/absence survey performed by Ecosystem Planning and Restoration (EPR) for the A3A Detention Basin Project in Groves, Jefferson County, TX (Appendix A, Figure 1).

## PROJECT DESCRIPTION

The 54-acre Project Area consists of 28.57 acres of forest, and 25.43 acres of coastal prairie transitioning to scrub/thicket. No streams were observed on the site though there is a man-made concrete ditch that runs the northern boundary of the project and contained shallow flowing water during the site visit. No wetlands or ponds are present in the Project Area. The forested portion of the Project Area is dominated by invasive Chinese tallow (*Triadica sebifera*), however there were more native species along the northern boundary including American elm (*Ulmus americana*), live oak (*Quercus virginiana*), and green ash (*Fraxinus pennsylvanica*)

The A3A Detention Project consists of two potential floodwater detention basins with associated areas for placement of excavated materials and mulch located in Port Neches-Groves, Texas, totaling 54 acres. The project is sponsored by the Jefferson County Drainage District No. 7 and will be funded in part by a FEMA grant. Based on preliminary investigations, the site contains potential suitable forested habitat and tree clearing is planned as part of site preparation, though the clearing schedule has not been established. Existing culverts within or adjacent to the site have been identified and were assessed for evidence of roosting bats. However, the removal or extension of culverts is not part of the proposed project.

## METHODS

The presence/absence survey was conducted in accordance with the U.S. Fish and Wildlife Service's (USFWS) 2024 Range-wide Indiana Bat and Northern Long-eared Bat Survey Guidelines (Guidelines). This survey utilized a two-phased approach: Phase 1) desktop and field-based habitat assessments, and Phase 2) acoustic surveys. Full spectrum acoustic detectors were deployed during field assessments and resulting data were processed using Kaleidoscope Pro Version 5.6.8 software. Qualified EPR personnel carried out all phases of the survey and specific roles are summarized in Table 1; resumes for relevant staff are provided in Appendix B. Heather Wallace (Native Endangered & Threatened Species Recovery Permit ES81430B) led the survey and analysis efforts.

**Table 1. Personnel Involved in PERSUB Acoustic Presence/Absence Surveys and Analyses for A3A Detention Basin Project.**

Personnel	Desktop Analysis	Field Assessment	Detector Deployment	Acoustic Analysis	Report Preparation
Heather Wallace Senior Biologist	X			X	X
Dominique DiLandro Biologist		X	X		
John Williams Environmental Scientist	X	X	X		

## **HABITAT ASSESSMENT**

### **Desktop Analysis**

Prior to conducting field work, a desktop land cover analysis was performed to identify suitable PERSUB habitat within the Project Area. Specifically, aerial photography and Google Earth imagery were reviewed to determine areas that may be used by PERSUB for foraging and roosting. Determinations were based on forest patch size, proximity to closed-canopy forests, and landscape features that may be used by bats commuting between roosting and foraging habitats (e.g., forested tracts, wetlands, streams). Edges of larger forest openings, edges of riparian areas, and open water were noted as these features seem to be preferred by PERSUB. Dense, unbroken forests, narrow road cuts, and areas highly fragmented by residential or commercial developments were generally not considered suitable PERSUB habitat. The entirety of the Project Area (54 acres) was determined to be possible suitable habitat as it consists of forest habitat interspersed with clearings and associated edge habitat that could be utilized as roosting, foraging or commuting areas by PERSUB.

EPR also reviewed the land cover imagery for the presence of any areas that could potentially support natural hibernacula, including karst or similar geological formations. No natural hibernacula or abandoned mines were identified in the Project Area.

Maps and GPS coordinates were produced for use in the field that demarcated suitable habitat within the Project Area, as well as the number and proposed locations of acoustic detectors required to survey the area.

### **Field Assessment**

On September 17, 2024, EPR conducted a site visit to verify the presence of and describe the PERSUB habitat identified during the desktop analysis. Detector Sites were confirmed on September 17, 2024, at two locations (Appendix A, Figure 2). General habitat descriptions at each station are provided below in Table 2. The Phase 1 Summer Habitat Assessment and approved Phase 2 Study Plan are included in Appendix C.

**Table 2. Detector Station Descriptions and Survey Data.**

Site	Description	GPS Coordinates	Survey Dates	Survey Hours
1	The detector setup was placed in an opening in an upland forest approximately 12 feet away from vegetation. The microphone was oriented towards the least amount of clutter. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup matched the approved study plan.	29.95119, - 93.94483	Nights of September 17- 23, 2024	Roughly 30 minutes before sunset (~18:50) to 30 minutes after sunrise (~07:35)
2	The detector setup was placed along a mowed gas pipeline within the forest approximately 20 feet away from vegetation. The microphone was oriented towards the least amount of clutter. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup matched the approved study plan.	29.94912, -93.94267		

## ACOUSTIC PRESENCE/ABSENCE SURVEYS

### Detector Type

Wildlife Acoustics Song Meter Mini Bat 2 ultrasonic bat detector/recorders equipped with omnidirectional ultrasonic built-in microphones were used for the duration of the survey effort. Detectors were updated to the latest firmware version (4.5) prior to deployment set to record in full spectrum format from 30 minutes before sunset to 30 minutes after sunrise and files were saved on internal SD cards. The detectors are fully waterproof and were powered by four internal AA alkaline batteries. At the time of deployment, the functioning of each microphone was tested by pairing the detectors, opening the utilities menu and selecting “test microphone”, then rubbing fingers in front of the microphone and confirming the amplitude changed and the value was higher than -32 dB. Log files were reviewed when units were pulled to verify proper functioning for the duration of the survey.

### Detector Deployment

Two detectors were positioned in suitable habitat within the Project Area to ensure that potential habitats were sampled in accordance with the Guidelines (Appendix A, Figure 2). Two detectors were deployed on September 17, 2024, and remained in place for seven calendar nights in the following habitat types:

- Opening within a moderately open canopy forest
- Open grassy area with low growing mowed vegetation within a moderately open canopy forest

Omnidirectional microphones were mounted at the top of poles approximately 3.66 meters (12 feet) above the ground surface to avoid herbaceous vegetation and to elevate the microphones' cone of detection. Tripods were used to stabilize the poles. Detectors were placed along and in the center of flight paths to increase the number of call pulses and quality of recordings. Specific orientation was determined by microsite conditions. Appendix D contains acoustic detector data sheets, including station conditions and photographs showing detector placement, surrounding habitat, and airspace around each microphone, and Figure 2 (Appendix A) shows the detector locations and orientation of each microphone.

Following is a summary of the acoustic presence/absence survey effort:

- The total Project Area was approximately 54 acres.
- The area of Project with suitable PERSUB habitat was approximately 54 acres.
- Two detectors were deployed on September 17, 2024 for 7 calendar nights for a total of 14 detector nights.

## ANALYSIS

EPR analyzed the recorded data according to the Guidelines, per Phase 2, Step 6 (Automated Acoustic Analysis). The call files were then analyzed using Kaleidoscope Pro (KPro) software. The following parameters were used:

- KPro Version 5.6.8
- Bats of North America Version 5.4.0
- -1 More Sensitive (Liberal)
- Texas region
- All other setting were default

The following species were included in the Auto ID for Bats:

- *Eptesicus fuscus*
- *Corynorhinus townsendii* (= *Corynorhinus rafinesquii*)
- *Lasiurus borealis* (LASBOR)
- *Lasiurus cinereus*
- *Lasiurus intermedius* (LASINT)
- *Lasiurus seminolus* (LASSEM)
- *Lasionycteris noctivagans*
- *Myotis austroriparius*
- *Nycticeius humeralis*
- *Nyctinomops macrotis*
- *Perimyotis subflavus*
- *Tadarida brasiliensis* (TADBRA)

*Antrozous pallidus*, *Euderma maculatum*, *Eumops perotis*, *Lasiurus blossevillii*, *Lasiurus ega*, *Lasiurus xanthinus*, *Mormoops megalophylla*, *Myotis californicus*, *Myotis ciliolabrum*, *Myotis thysanodes*, *Myotis velifer*, *Myotis volans*, *Myotis yumanensis*, *Nyctinomops femorosaccus*,

*Parastrellus hesperus* were unselected from the Texas list because the project is situated outside the accepted ranges of these species. KPro does not currently include a selection for *C. rafinesquii*, so *C. townsendii* was used as a surrogate for this species. Zero crossing files were generated in the output folder to provide an additional resource for manual vetting, if needed. Results were summarized by detector site and by night.

## RESULTS

All weather requirements (including temperature, precipitation, and average wind speed) were met during all nights of the survey (Table 3). Historic weather data was obtained for the nearby NOAA weather station at Jack Brooks Regional Airport via Weather Underground ([www.weatherunderground.com](http://www.weatherunderground.com)).

**Table 3. Weather Conditions During First Five Hours of Sampling, September 17-23, 2024**

Night	High Temp (°F)	Low Temp (°F)	Max Sustained Wind Speeds (mph)	Notes
20240917	89	74	7	None
20240918	88	75	10	Approx. 4 minutes of 10 mph winds before decreasing to 9 mph
20240919	90	75	12	Approx. 5 minutes of 12 mph winds before decreasing to 8 mph
20240920	92	75	7	None
20240921	89	74	12	Approx. 12 minutes of 12 mph winds before decreasing to 8 mph
20240922	88	73	8	None
20240923	85	74	8	None

Between the nights of September 17-23, 2024, a total of 947 bat passes were recorded at the two sites (Table 4). Calls representing twelve bat species were identified by KPro. A total of five passes were classified as PERSUB by KPro, and bat passes classified as PERSUB were identified at each detector location. However, Maximum Likelihood Estimates (MLEs) signify a *p*-value greater than 0.05 for this species at both detector locations each night, indicating that PERSUB presence is considered unlikely from the Project Area (Table 5).

**Table 4. Summary of Bat Passes Recorded on the Nights of September 17-23, 2024.**

Site	Date	CORTOW	EPTFUS	LASBOR	LASCIN	LASINT	LASNOC	LASSEM	MYOAUS	NYCHUM	NYCMAC	PERSUB	TADBRA	NOID
1	20240917	0	0	0	0	6	1	0	0	0	0	0	6	0
	20240918	1	1	0	14	3	2	4	0	0	1	0	134	22
	20240919	0	4	5	0	8	4	2	1	0	0	1	9	10
	20240920	0	0	1	0	7	2	0	0	0	0	1	2	1
	20240921	0	1	0	1	3	5	0	0	0	1	0	9	1
	20240922	0	0	0	5	1	4	0	0	0	0	0	18	2
	20240923	0	1	1	1	0	1	0	0	0	0	1	11	1
2	20240917	0	0	0	0	6	2	0	0	0	0	0	30	1
	20240918	0	0	0	4	5	0	0	0	0	0	0	14	0
	20240919	0	2	0	3	10	2	0	1	0	0	0	31	1
	20240920	1	1	0	1	8	2	0	0	0	0	0	9	0
	20240921	0	1	3	0	32	21	81	0	0	0	0	37	7
	20240922	0	0	3	12	7	13	15	0	0	0	0	62	9
	20240923	0	3	7	6	55	5	36	0	0	0	2	50	25

Note 1: CORTOW= *Corynorhinus townsendii*; Townsend’s big-eared bat, EPTFUS=*Eptesicus fuscus*; big brown bat, LASBOR=*Lasiurus borealis*; eastern red bat, LASCIN=*Lasiurus cinereus*; hoary bat, LASINT=*Lasiurus intermedius*; Northern yellow bat, LASNOC=*Lasionycteris noctivagans*; silver-haired bat, LASSEM=*Lasiurus seminolus*; Seminole bat, MYOAUS=*Myotis austroriparius*; southeastern myotis, NYCHUM=*Nycticeius humeralis*; evening bat, NYCMAC=*Nyctinomops macrotis*; big free-tailed bat, PERSUB=*Perimyotis subflavus*; tricolored bat, TADBRA=*Tadarida brasiliensis*; Brazilian free-tailed bat, NOID=files the classifier chose not to classify

**Table 5. Summary of Maximum Likelihood Estimates (MLEs) for Species Presence by KPro on the Nights of September 17-23, 2024.**

Site	Date	CORTOW	EPTFUS	LASBOR	LASCIN	LASINT	LASNOC	LASSEM	MYOAUS	NYCHUM	NYCMAC	PERSUB	TADBRA
1	20240917	1	1	1	1	<b>0.03668</b>	1	1	1	1	1	1	<b>0.00304</b>
	20240918	0.9319198	1	1	0.851454	1	1	0.053866	1	1	<b>0.016144</b>	1	<b>0</b>
	20240919	1	0.484664	<b>0.00012</b>	1	<b>0.02692</b>	0.988902	1	<b>0.030858</b>	1	1	1	<b>0.00071</b>
	20240920	1	1	0.168807	1	<b>0.00046</b>	0.988063	1	1	1	1	0.491132	0.635425
	20240921	1	1	1	1	0.908342	0.462957	1	1	1	<b>0.004066</b>	1	<b>9.1E-05</b>
	20240922	1	1	1	0.143565	1	1	1	1	1	1	1	<b>0</b>
	20240923	1	1	0.168709	0.999233	1	1	1	1	1	1	0.491352	<b>2E-07</b>
2	20240917	1	1	1	1	1	1	1	1	1	1	1	<b>0</b>
	20240918	1	1	1	0.305986	0.720904	1	1	1	1	1	1	<b>3E-07</b>
	20240919	1	1	1	1	0.637662	1	1	<b>0.001363</b>	1	1	1	<b>0</b>
	20240920	0.170084	1	1	0.998565	<b>0.02785</b>	1	1	1	1	1	1	<b>0.00014</b>
	20240921	1	1	1	1	<b>6E-07</b>	<b>0.2958</b>	<b>0</b>	1	1	1	1	<b>0</b>
	20240922	1	1	0.489351	0.131747	1	1	<b>5.5E-05</b>	1	1	1	1	<b>0</b>
	20240923	1	1	0.137381	0.939427	<b>0</b>	1	<b>0</b>	1	1	1	1	<b>0</b>

Note 1: CORTOW= *Corynorhinus townsendii*; Townsend’s big-eared bat, EPTFUS=*Eptesicus fuscus*; big brown bat, LASBOR=*Lasiurus borealis*; eastern red bat, LASCIN=*Lasiurus cinereus*; hoary bat, LASINT=*Lasiurus intermedius*; Northern yellow bat, LASNOC=*Lasionycteris noctivagans*; silver-haired bat, LASSEM=*Lasiurus seminolus*; Seminole bat, MYOAUS=*Myotis austroriparius*; southeastern myotis, NYCHUM=*Nycticeius humeralis*; evening bat, NYCMAC=*Nyctinomops macrotis*; big free-tailed bat, PERSUB=*Perimyotis subflavus*; tricolored bat, TADBRA=*Tadarida brasiliensis*; Brazilian free-tailed bat, NOID=files the classifier chose not to classify.

Note 2: Maximum Likelihood Estimates (MLEs) interpretation – values <0.05 indicates there is 95% confidence that the species is present. Bold values indicate significance, and high confidence level in species presence.

**STRUCTURE SURVEYS**

All bridges and pipes or culverts that met minimum size criteria (3 feet in diameter by 23 feet in length or larger) within the Project Area (Appendix A, Figure 3) were evaluated for evidence of bat use. Bridge/Culvert Bat Assessment Forms (Appendix E) were completed for each structure during the site visit on September 17, 2024. No evidence of roosting bats was observed on any of the structures during the surveys.

**Table 6. Structures Investigated for this Report.**

<b>EPR ID</b>	<b>Structure Type (W x H x L)</b>	<b>Location</b>	<b>Survey Date</b>	<b>Evidence of Bat Use</b>
<b>C1</b>	2 Reinforced Concrete Box Culverts: 6 ft x 4 ft x 30 ft 1 Concrete Pipe: 4 ft x 4 ft x 30 ft	29.953195, -93.944774	20240917	No
<b>C2</b>	2 Concrete Pipes: 5 ft x 5 ft x 28 ft	29.952722, -93.944150	20240917	No
<b>C3</b>	2 Reinforced Concrete Box Culverts: 7 ft x 7 ft x 50 ft 1 Reinforced Concrete Box Culvert: 5 ft x 7 ft x 50 ft	29.948587, -93.938318	20240917	No

**CONCLUSION**

The Project Area provides suitable roosting and foraging habitat for PERSUB. No evidence of bat use was observed during the structure checks. Based on automated acoustic analysis for each night at each site, PERSUB presence is considered unlikely within the Project Area. The results of this survey will be reported to USFWS.



**APPENDIX C**

**PHASE 1 HABITAT ASSESSMENT  
PHASE 2 APPROVED STUDY PLAN**

**BAT HABITAT ASSESSMENT DATASHEET**

Project Name: A3A Detention Basin Project  
 Township/Range/Section: Groves, Texas  
 Lat Long/UTM/Zone: 29.951003°, -93.944853°

Date: 9/17/2024  
 Surveyor: D. DiLandro, J. Williams

**Brief Project Description**

The A3A Detention Project consists of 2 potential floodwater detention basins with associated areas for placement of excavated materials and mulch located in Port Neches-Groves, Texas, totaling 54 acres.

Project Area				
Project	Total Acres	Forested Acreage		Open Acres
		54	28.57	
Proposed Tree Removal Acreage	Completely Cleared	Partially Cleared	Preserve Acreage (no clearing)	
	28.57	0	0	

**Vegetation Cover Types**

Pre-Project	Post-Project
Forested areas dominated by invasive Chinese Tallow. Northern boundary contained more native species (Sugar Hackberry, Green Ash, Live Oak, American Elm), but composed largely of Chinese Tallow. Non-forested areas consist of coastal prairie transitioning into scrub/thicket, again dominated by Chinese Tallow, with Wax Myrtle comprising a significant portion of the shrub strata.	The proposed project consists of clearing and excavating the site as part of the construction of floodwater detention basins.

**Landscape within 5 mile Radius**

Forested areas are present within a 5 mile radius in nearly all directions from the site but are not connected. The proposed project location is within a largely urban area, and remaining undeveloped tracts are small and isolated. The nearest forest tract is directly north of the site but is fragmented and likely dominated by invasive tallow.

Immediately adjacent to the northern and eastern portions of the site is residential development. The western boundary is a continuation of the non-forested habitat, ending at a railroad and SH136. Well maintained athletic fields are present along the southern boundary of the site. Water sources in the area are heavily modified.

**Proximity to Public Land**

The Lower Neches WMA is approximately 3.0 miles to the northeast of the project site; JD Murphree WMA is approximately 6.75 miles to the southwest.

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area. A single sheet can be used for multiple sample sites if habitat is the same.

<b>Sample Site Description</b>
Sample Site No.(s): 1 and 2

Water Resources at Sample Site				
<b>Stream Type (# and length)</b>	Ephemeral N/A	Intermittent N/A	Perennial N/A	Describe existing condition of water sources: Surface water was not observed on site. A man-made, concrete ditch is present along the north boundary and contained shallow, isolated pools at the time of the site assessment.
<b>Pools/Ponds (# and size)</b>	N/A	Open and Accessible? N/A	N/A	
<b>Wetlands (approximate ac.)</b>	Permanent N/A	Seasonal N/A		

Forest Resources at Sample Site				
<b>Closure/Density</b>	Canopy (>50')	Midstory (20-50')	Understory (<20')	1=1-10%
	1	2	5	2=11-20%
<b>Dominant Species of Mature Trees</b>	Chinese Tallow (invasive), Sugar Hackberry, Green Ash			3=21-40%
<b>% Trees w/ Exfoliating Bark</b>	1	1	1	4=41-60%
<b>Size Composition of Live Trees (%)</b>	Small (3-8 in)	Midstory (9-15 in)	Large (>15 in)	5=61-80%
	4	2	1	6=81-100%
<b>No. of Suitable Snags</b>	1			

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

**IS THE HABITAT SUITABLE FOR TRICOLORED BATS?** Yes, see below.

Additional Comments: Habitat was suitable for tricolored bats given the presence of continuous forest, forested edges, old field, small to large diameter trees, culverts, and surface water. While only a minor component of the forest in the project area, mature live oaks (*Quercus virginiana*) were present. Maintained utility easement rights-of-way were present along the northern and central portions of the project area providing potential foraging corridors.

**Attach aerial photo of project site with all forested areas labeled and a general description of the habitat.**

**Photographic Documentation:** habitat shots at edge and interior from multiple locations; understory/midstory/canopy; example of potential suitable snags and live trees; water sources



Study Plan Form for Bat Surveys and Monitoring (v. 1.0)<sup>1</sup>

PROJECT & SURVEY INFORMATION

Project Name: A3A Detention Basin Project Proposed Survey Start Date: 9/5/2024
Project Proponent's Name (e.g., client/company/institution): Jefferson County Drainage District #7
Project Location: State(s): TX County(s): Jefferson
Latitude: 29.950846 Longitude: -93.943279

REQUIRED: Attach or provide links to Google Earth® KMZ files (preferred) and/or shapefiles
Files are attached: Yes [checked] No [ ]
File Links: A3A Detention Basin\_SP\_KMZ

Project Summary: In the space provided below, please provide a concise statement of what the project proponent is proposing to do including any activities that will permanently or temporarily alter the current environment and existing habitat features).

The A3A Detention Project consists of 2 potential floodwater detention basins with associated areas for placement of excavated materials and mulch located in Port Neches-Groves, Texas, totaling 54 acres. The project is sponsored by the Jefferson County Drainage District No. 7 and will be funded in part by a FEMA grant. Based on preliminary investigations, the site contains potential suitable forested habitat and tree clearing is planned as part of site preparation. The clearing schedule has not been established. Existing culverts within or adjacent to the site have been identified and will be assessed for evidence of roosting bats. However, the removal or extension of culverts is not part of the proposed project.

CONTACT INFORMATION

Project Manager/Primary Point of Contact (POC): John Williams Phone: 361-676-8138
Field Survey Crew Leader (if different from POC): Dominique DiLandro Cell Phone: 361-676-8138
Institution/Company Name: Ecosystem Planning and Restoration
Mailing Address: 17575 N. Eldridge Parkway, Tomball, TX 77377
POC Email Address: JWilliams@eprusa.net
USFWS Sec. 10 Permit No.(s) (if applicable): ES81430B
State Permit No.(s) (if applicable): NA

1 Unless otherwise directed by the Service, surveyors may complete this fillable form, in lieu of a traditional narrative format, and submit it (and supporting files) to the Ecological Services Field Office in the state(s) where the work is to be completed (https://www.fws.gov/our-facilities). Use of this form is not a requirement at this time. Our goal is to improve pre-survey coordination and to expedite the Field Office review and approval process. Please submit your study plan at least 15 working days in advance of your proposed survey start date. Suggestions for improving this document may be sent to Indiana bat@fws.gov.

Have project proponents been informed that abiding by protective time-of-year restrictions (where available) may be sufficient to avoid take of bats and (in some cases) may negate the need for a bat survey? Yes  No

Have project proponents been informed that the Service does not require presence/probable absence surveys for federally listed species and that presence can be assumed in a project area containing suitable habitat? Yes  No

Will this survey be conducted on private or public lands? (Check both if applicable): Private  Public

Has permission of all necessary landowners/managing agencies been obtained? Yes  No

If no, explain: \_\_\_\_\_

Does this project have a federal nexus? Yes  No  Unsure

If yes, explain: The project is sponsored by the Jefferson County Drainage District No. 7 and will be funded in part by a FEMA grant.

IPaC<sup>2</sup> Consultation Code (if applicable): 2024-0135952

Purpose of Survey: Official P/A Survey  Research  Monitoring   
Educational Outreach/Training  Other: \_\_\_\_\_

Survey Target Species: Indiana bat (IBAT)  Northern long-eared bat (NLEB)   
Tricolored bat (TCB)  Other: \_\_\_\_\_

Has a Phase-1 Habitat Assessment\* of the project area been conducted? Yes  No  Combo   
If yes, how was the habitat assessment conducted? On-the-ground:  Aerial imagery   
(\*if available, attach a written report)

Is suitable habitat present (or assumed present) for all "target" species? Yes  No

If no, explain: \_\_\_\_\_

Does this project fall within the outer-tier of any "target" species known home range? Yes  No  Unsure

If yes, which species: \_\_\_\_\_

### Project Configuration

Is this project linear (>1 km in total length)? Yes  No  Combo  Unsure

If yes, how many 1-km sections containing suitable IBAT/NLEB habitat in km (mi) will be impacted? \_\_\_\_\_

Is this project non-linear? Yes  No  Combo  Unsure

If yes, how many acres of suitable IBAT/NLEB habitat is in the overall project area? 54

If yes, how many acres of suitable IBAT/NLEB habitat will be directly impacted/cleared? 54

## **METHODOLOGY & SURVEY LEVEL OF EFFORT<sup>3</sup>**

### ACOUSTICS

Total number of detector sites proposed to be surveyed: 2 Number of detector nights/site: 7

Total number of detector nights for entire survey: 14

<sup>2</sup> <https://ipac.ecosphere.fws.gov/>

<sup>3</sup> Survey level of effort (acoustic or netting) must be spread over at least two calendar nights/survey site.

Total proposed number of calendar nights to complete the entire survey: 7

Detector(s) (Brand, Model): Wildlife Acoustics SM Mini Bat 2 Microphone(s): directional  omnidirectional

Recording Format: Full Spectrum  Zero-Crossing

FWS-Approved<sup>4</sup> Acoustic Bat ID Software: KPro vers. 5.6.8 KPro Classifier, NA vers. 5.4.0 BCID vers.       
Other Candidate Programs (e.g., Sonobat) vers.:     

**Species to be included for automatic software ID classification analysis:**

EPFU  CORA  COTO  LABO  LACI  LANO  LASE  TABR  MYCI  MYEV  MYGR  MYLU   
MYLE  MYSE  MYSO  MYTH  MYVO  NYHU  PESU  Others: DAIN, NYMA, MYAU

Will qualitative analysis (i.e., manual vetting) be used? Yes  No  Unsure

Name(s) of qualified biologist(s) who will be conducting qualitative/manual acoustic identifications (attach resume or link with qualifications):     

**MIST-NETTING**

Total number of net sites to be surveyed: 0 Total number of net nights/site:     

Total number of net nights for entire survey (No. of sites X No. of net nights/site):     

Total proposed number of calendar nights to complete the entire survey:     

- A) Maximum number of net set-ups that will be operated/checked (10-min interval) on a given calendar night at a given survey site:
- B) Minimum Number of personnel present to operate/check X (see A) net set-ups on a given site:
- C) Proposed Staffing Rate (A divided by B):

**Staffing Rate**

Number of Section 10-permitted biologists per net site (or state-permitted in USFWS R5):     

Will any bats be banded? Yes  No

If yes, describe your proposed bands (color and letter-numbers) and banding scheme:     

Will any biological samples be collected from captured bats (e.g., guano, hair, swab, wing punch)? Yes  No

If yes, explain:     

**RADIO-TRACKING**

Will any bats be radio-tagged and tracked? Yes  No

If yes, please answer following:

- Which species will be radio-tagged?
- Name of USFWS Section 10 permitted biologist(s) who will apply transmitter(s):
- Make/model and approximate weight of transmitter(s) to be used:
- Estimated life-span of transmitters to be used:
- Frequency range (MHz) of transmitters (e.g., 150.xxx or 172.xxx):
- If radio-tracking multiple targeted bats/species, what criteria will be used in selecting which bats will be tracked?
- Will all radio-tagged bats be tracked (min. of 4-hrs. search effort/day) to their diurnal roosts for the minimum recommended period of 7 days? Yes  No

<sup>4</sup> <https://www.fws.gov/media/automated-acoustic-bat-id-software-programs>

If no, explain: \_\_\_\_\_  
Will night-time foraging data/telemetry be collected? Yes  No

**EMERGENCE SURVEYS**

After diurnal roost sites of radio-tagged bats are identified, will emergence surveys be conducted at each identified roost (assuming landowner permission is obtained)? Yes  No

If yes, how many emergence surveys/roost? \_\_\_\_\_

Have you identified a small number (e.g., ≤10) of potentially suitable roost trees\* that you propose to conduct emergence surveys for? Yes  No

(\*If yes, provide photographs of each tree documenting that all of the tree can be observed by the surveyor along with coordinates (lat/long and/or KML/shapefile) of all trees to be surveyed.)

**POTENTIAL HIBERNACULA SURVEYS**

Are you aware of any known hibernacula used by the target species within the project area itself or nearby?

Yes  No  Unknown

If yes or unknown, list sites or explain: \_\_\_\_\_

Has your desktop analysis identified any natural or man-made features that could be used as a hibernaculum by any of the target bat species? Yes  No  Unknown

If yes, underground features (e.g., caves, mines, tunnels, bunkers, cisterns) present: Yes  No

If yes, above-ground features\* (e.g., crawl spaces) present: Yes  No

If unknown, explain: \_\_\_\_\_

Are you requesting approval of a field survey for potential hibernacula at this time? Yes\*  No

(\*If yes, attach a separate narrative explaining how the project area(s) will be surveyed for potential hibernacula.)

Are you submitting the results of a Phase 1 Habitat Assessment of potentially suitable hibernacula identified from field surveys? Yes\*  No

(\*If yes, provide a Phase 1 Habitat Assessment Data Sheet for each potential hibernaculum/portal(s)<sup>5</sup> identified to be surveyed.)

**ADDITIONAL SURVEY INFORMATION<sup>6</sup>**

Will the proposed bat survey deviate from the current version of the USFWS summer survey guidelines?<sup>7</sup> Yes  No

If yes, provide justification for any departures or modifications to the guidelines (if applicable) below:

I hereby acknowledge that the information being provided to the Service is accurate and complete as of today's date.

Signature:  Digitally signed by MARY LEE  
Date: 2024.09.09 10:30:49 -05'00'  
Date: \_\_\_\_\_

<sup>5</sup> If multiple cave entrances/portals, please list all locations.

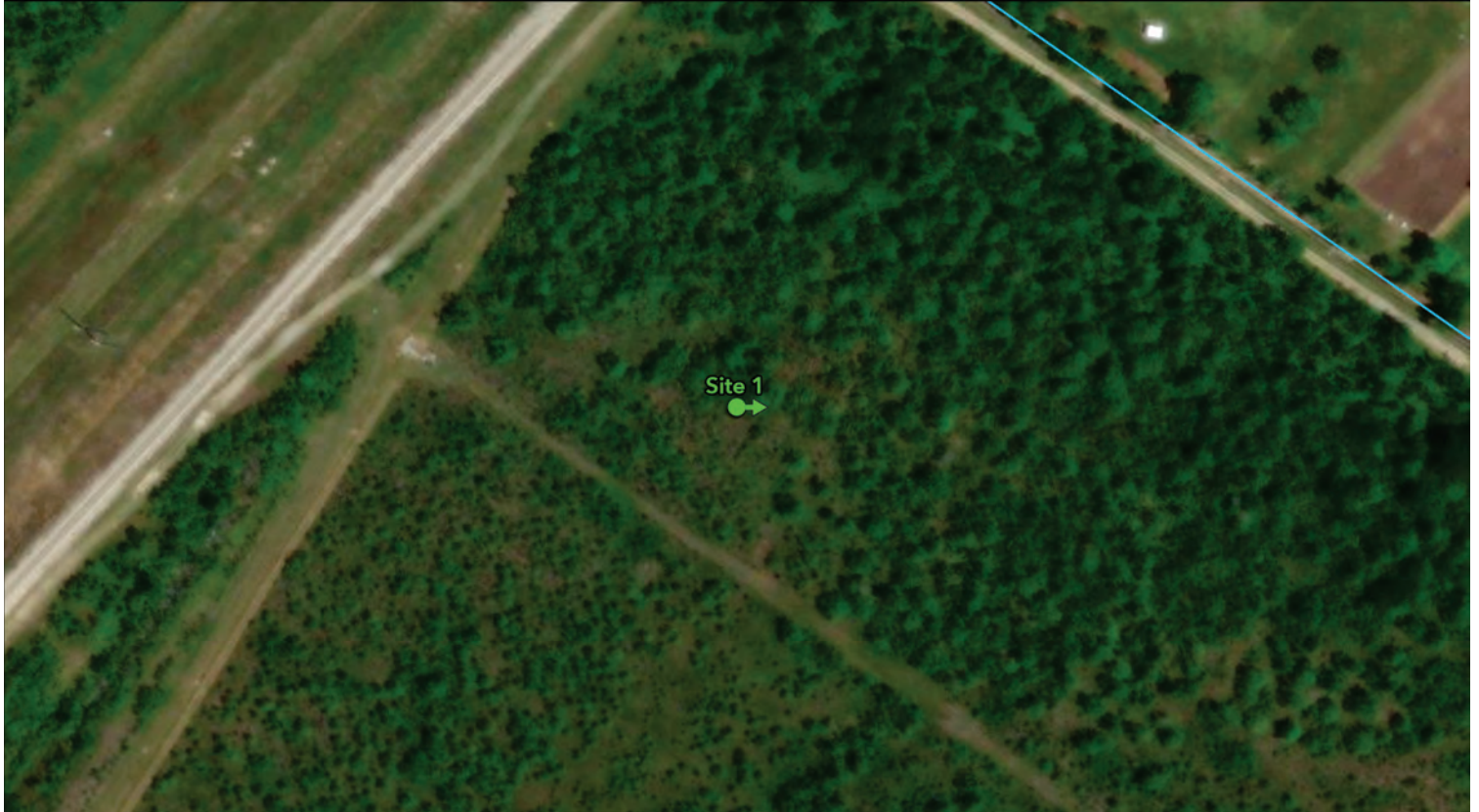
<sup>6</sup> Attach additional pages to this form, if needed.

<sup>7</sup> Proposed surveys deviating from the current IBAT & NLEB Summer Survey Guidelines will only be accepted with a thoroughly described justification. Coordinate with your local USFWS Field Office (<https://www.fws.gov/our-facilities>) for acceptable modifications.

**APPENDIX D**

**ACOUSTIC SURVEY DATA SHEETS**



**Project Name:** A3A Detention Basin Project**Project #:** EPR0079**State:** Texas**County:** Jefferson**Nearest Town:** Groves**Site Number:** Site 1**Site Name:** Site 1**Latitude:** 29.95119**Longitude:** -93.94483**Elevation (m):** 0.91**Map:****Biologist Selecting Site:** Dominique DiLandro**Biologist Deploying Detector:** John Williams**Habitat Type:** Upland forest**Habitat/Site Description:**

The detector setup was placed in an opening in an upland forest approximately 12 feet away from vegetation. The microphone was oriented towards the least amount of clutter. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup matched the approved study plan.

**Comments:**

None.

## Acoustic Survey Data Sheet

**Schedule:** 30 minutes before sunset to  
30 minutes after sunrise

**Detector Brand:** Wildlife Acoustics

**Detector Model:** Song Meter Mini Bat 2

**Detector Serial Number:** 2MU04206

**Firmware:** 4.5

**Detector Settings:**

Used recommended manufacturer detector settings.

**FS or ZC:** Full Spectrum

**Mic Brand/Model:** Wildlife Acoustics: SM2 Integrated

**Mic Type:** Omnidirectional

**Weatherproofing:** None

**Horizontal Orientation (deg):** 90

**Vertical Orientation (deg):** 0 (parallel with ground)

**Test Func Method:** Generate ultrasonic noise while viewing the status screen

**Mic Height (m):** 3.66

**Mic Distance from Veg (m):** 3.66

**Site Photos:**



Detector setup facing east



Detector setup facing south



Detector setup facing north



General habitat

**Project Name:** A3A Detention Basin Project**Project #:** EPR0079**State:** Texas**County:** Jefferson**Nearest Town:** Groves**Site Number:** Site 2**Site Name:** Site 2**Latitude:** 29.94912**Longitude:** -93.94267**Elevation (m):** 1.22**Map:****Biologist Selecting Site:** Dominique DiLandro**Biologist Deploying Detector:** John Williams**Habitat Type:** Upland forest**Habitat/Site Description:**

The detector setup was placed along a mowed gas pipeline within the forest approximately 20 feet away from vegetation. The microphone was oriented towards the least amount of clutter. The microphone was elevated approximately 12 feet above the ground. Placement of the detector setup matched the approved study plan.

**Comments:**

None.

## Acoustic Survey Data Sheet

**Schedule:** 30 minutes before sunset to  
30 minutes after sunrise

**Detector Brand:** Wildlife Acoustics

**Detector Model:** Song Meter Mini Bat 2

**Detector Serial Number:** 2MU04265

**Firmware:** 4.5

**Detector Settings:**

Used recommended manufacturer detector settings.

**FS or ZC:** Full Spectrum

**Mic Brand/Model:** Wildlife Acoustics: SM2 Integrated

**Mic Type:** Omnidirectional

**Weatherproofing:** None

**Horizontal Orientation (deg):** 65

**Vertical Orientation (deg):** 0 (parallel with ground)

**Test Func Method:** Generate ultrasonic noise while viewing the status screen

**Mic Height (m):** 3.66

**Mic Distance from Veg (m):** 6.10

**Site Photos:**



Detector setup facing southeast



Detector setup facing northwest



Detector setup facing northeast






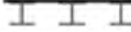




General habitat

**APPENDIX E**

**STRUCTURE SURVEY DATA SHEETS**

**PHOTO LOGS**

## Bridge/Structure Bat Assessment Form




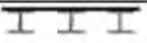



Date & Time of Assessment: 09/17/24 12:57 pm	DOT Project Number: N/A	Route/Facility Carried: N/A	County: Jefferson County, TX
Federal Structure ID: N/A	Structure Coordinates (latitude and longitude): 29.953195 -93.944774	Structure Height (approximate): 4 ft. (2 Box Culverts & 1 Round Culvert)	Structure Length: 30 ft. (2 Box Culverts & 1 Round Culvert)
<b>Structure Type (check one)</b>		<b>Structure Material (check all that apply)</b>	
<b>Bridge Construction Style</b>		<b>Deck Material</b>	<b>Beam Material</b>
<input type="radio"/> Cast-in-place  <input type="radio"/> Pre-stressed Girder 		<input type="checkbox"/> Metal <input type="checkbox"/> Concrete <input type="checkbox"/> Timber <input type="checkbox"/> Open grid <input type="checkbox"/> Other:	<input type="checkbox"/> None <input type="checkbox"/> Concrete <input type="checkbox"/> Steel <input type="checkbox"/> Timber <input type="checkbox"/> Other:
<input type="radio"/> Flat Slab/Box  <input type="radio"/> Steel I-beam 		<b>End/Back Wall Material</b> <input type="checkbox"/> Concrete <input type="checkbox"/> Timber <input type="checkbox"/> Stone/Masonry <input type="checkbox"/> Other:	
<input type="radio"/> Truss  <input type="radio"/> Covered 			
<input type="radio"/> Parallel Box Beam  <input type="radio"/> Other:		<b>Culvert Material</b> <input type="checkbox"/> Metal <input type="checkbox"/> Concrete <input type="checkbox"/> Plastic <input type="checkbox"/> Stone/Masonry <input type="checkbox"/> Other:	
<b>Culvert Type</b>		<b>Creosote Evidence</b>	
<input type="radio"/> Box <input type="radio"/> Pipe/Round <input checked="" type="radio"/> Other: Combination of 2 Box Culverts & 1 Round Culvert		<input type="radio"/> Yes <input checked="" type="radio"/> No Unknown	
<b>Other Structure</b>		<b>Notes:</b>	
		2 Box Culverts: 6 ft. x 4 ft. x 30 ft. (W x H x L) 1 Round Culvert: 4 ft. x 4 ft. x 30 ft. (W x H x L) Feature over Culvert: Railroad Feature through Culvert: Unnamed Canal Depth of Water: 3 in. of standing water	
<b>Crossings Traversed (check all that apply)</b>		<b>Surrounding Habitat (check all that apply)</b>	
<input type="checkbox"/> Bare ground <input type="checkbox"/> Rip-rap <input type="checkbox"/> Flowing water <input type="checkbox"/> Standing water <input type="checkbox"/> Seasonal water		<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input type="checkbox"/> Residential-urban <input type="checkbox"/> Residential-rural <input type="checkbox"/> Woodland/forested	
<input type="checkbox"/> Open vegetation <input type="checkbox"/> Closed vegetation <input type="checkbox"/> Railroad <input type="checkbox"/> Road/trail - Type: <input type="checkbox"/> Other:		<input type="checkbox"/> Grassland <input type="checkbox"/> Ranching <input type="checkbox"/> Riparian/wetland <input type="checkbox"/> Mixed use <input type="checkbox"/> Other:	
<b>Areas Assessed (check all that apply)</b>			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
<b>Area (check if assessed)</b>	<b>Assessment Notes</b>	<b>Evidence of Bats (include photos if present)</b>	
All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Concrete surfaces (open roosting on concrete)	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Spaces between concrete end walls and the bridge deck	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Crack between concrete railings on top of the bridge deck 	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Vertical surfaces on concrete I-beams	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Spaces between walls, ceiling joists	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Weep holes, scupper drains, and inlets/pipes	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
All guiderails	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
All expansion joints	Not present	Visual - live #      dead # Guano Staining	Audible <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Species
Name: Dominique DiLandro		Signature: <i>Dominique DiLandro</i>	



## Bridge/Structure Bat Assessment Form

Date & Time of Assessment: 09/17/24 1:20 pm	DOT Project Number: N/A	Route/Facility Carried: N/A	County: Jefferson County, TX
Federal Structure ID: N/A	Structure Coordinates (latitude and longitude): 29.952722 -93.944150	Structure Height (approximate): 5 ft.	Structure Length: 28 ft. (2 Round Culverts)
<b>Structure Type (check one)</b>		<b>Structure Material (check all that apply)</b>	
<b>Bridge Construction Style</b>		<b>Deck Material</b>	<b>Beam Material</b> <b>End/Back Wall Material</b>
<input type="radio"/> Cast-in-place	<input type="radio"/> Pre-stressed Girder	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box	<input type="radio"/> Steel I-beam	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss	<input type="radio"/> Covered	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam	<input type="radio"/> Other: _____	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
<b>Culvert Type</b>		<b>Culvert Material</b>	
<input type="radio"/> Box	<input type="radio"/> Other Structure: _____	<input type="checkbox"/> Metal	<input type="checkbox"/> Concrete
<input type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Plastic
<input type="radio"/> Other: _____		<input type="checkbox"/> Stone/Masonry	<input type="checkbox"/> Other: _____
<b>Crossings Traversed (check all that apply)</b>		<b>Surrounding Habitat (check all that apply)</b>	
<input type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type: _____	<input checked="" type="checkbox"/> Residential-rural	<input checked="" type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other: _____
<b>Areas Assessed (check all that apply)</b>			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
<b>Area (check if assessed)</b>	<b>Assessment Notes</b>	<b>Evidence of Bats (include photos if present)</b>	
<input checked="" type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck 	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input checked="" type="checkbox"/> Spaces between walls, ceiling joists	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #    dead #	<input type="checkbox"/> Audible    Species <input type="checkbox"/> Odor <input type="checkbox"/> Photos <input type="checkbox"/> Staining
Name: Dominique DiLandro		Signature: <i>Dominique DiLandro</i>	

### Bridge/Structure Bat Assessment Form

Date & Time of Assessment 09/17/24 1:20 pm	DOT Project Number N/A	Route/Facility Carried N/A	County Jefferson County, TX
Federal Structure ID N/A	Structure Coordinates (latitude and longitude) 29.952722 -93.944150	Structure Height (approximate) 5 ft.	Structure Length 28 ft. (2 Round Culverts)
<b>Structure Type (check one)</b>		<b>Structure Material (check all that apply)</b>	
<b>Bridge Construction Style</b>		<b>Deck Material</b>	<b>Beam Material</b>
<input type="radio"/> Cast-in-place 	<input type="radio"/> Pre-stressed Girder 	<input type="checkbox"/> Metal	<input type="checkbox"/> None
<input type="radio"/> Flat Slab/Box 	<input type="radio"/> Steel I-beam 	<input type="checkbox"/> Concrete	<input type="checkbox"/> Concrete
<input type="radio"/> Truss 	<input type="radio"/> Covered 	<input type="checkbox"/> Timber	<input type="checkbox"/> Steel
<input type="radio"/> Parallel Box Beam 	<input type="radio"/> Other:	<input type="checkbox"/> Open grid	<input type="checkbox"/> Timber
<b>Culvert Type</b>	<b>Other Structure</b>	<input type="checkbox"/> Other:	<b>End/Back Wall Material</b>
<input type="radio"/> Box		<b>Culvert Material</b>	<input type="checkbox"/> Concrete
<input type="radio"/> Pipe/Round		<input checked="" type="checkbox"/> Concrete	<input type="checkbox"/> Timber
<input type="radio"/> Other:		<input type="checkbox"/> Plastic	<input type="checkbox"/> Stone/Masonry
		<input type="checkbox"/> Stone/Masonry	<input type="checkbox"/> Other:
		<input type="checkbox"/> Other:	<b>Creosote Evidence</b>
			<input type="radio"/> Yes <input checked="" type="radio"/> No
			<input type="radio"/> Unknown
			<b>Notes:</b>
			2 Round Culverts: 5 ft. x 5 ft. x 28 ft. (W x H x L) Feature over Culvert: Gravel vehicle path Feature through Culvert: Unnamed canal Depth of Water: 1 ft. of standing water
<b>Crossings Traversed (check all that apply)</b>		<b>Surrounding Habitat (check all that apply)</b>	
<input type="checkbox"/> Bare ground	<input type="checkbox"/> Open vegetation	<input type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Grassland
<input type="checkbox"/> Rip-rap	<input type="checkbox"/> Closed vegetation	<input type="checkbox"/> Commercial	<input type="checkbox"/> Ranching
<input type="checkbox"/> Flowing water	<input type="checkbox"/> Railroad	<input type="checkbox"/> Residential-urban	<input type="checkbox"/> Riparian/wetland
<input type="checkbox"/> Standing water	<input type="checkbox"/> Road/trail - Type:	<input checked="" type="checkbox"/> Residential-rural	<input checked="" type="checkbox"/> Mixed use
<input type="checkbox"/> Seasonal water	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Woodland/forested	<input type="checkbox"/> Other:
<b>Areas Assessed (check all that apply)</b>			
Check all areas that apply. If an area is not present in the structure, check the "not present" box.			
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.			
<b>Area (check if assessed)</b>	<b>Assessment Notes</b>	<b>Evidence of Bats (include photos if present)</b>	
<input checked="" type="checkbox"/> All crevices and cracks: Bridges/culverts: rough surfaces or imperfections in concrete Other structures: soffits, rafters, attic areas	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Concrete surfaces (open roosting on concrete)	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Spaces between concrete end walls and the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Crack between concrete railings on top of the bridge deck	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Vertical surfaces on concrete I-beams	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input checked="" type="checkbox"/> Spaces between walls, ceiling joists	<input type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> Weep holes, scupper drains, and inlets/pipes	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All guiderails	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
<input type="checkbox"/> All expansion joints	<input checked="" type="checkbox"/> Not present	<input type="checkbox"/> Visual - live #	<input type="checkbox"/> dead #
		<input type="checkbox"/> Audible	<input type="checkbox"/> Species
		<input type="checkbox"/> Guano	<input type="checkbox"/> Odor
		<input type="checkbox"/> Staining	<input type="checkbox"/> Photos
Name: Dominique DiLandro		Signature:	

C1



Upstream view



Culvert entrance



Culvert exit



Downstream view

C2



Upstream view



Culvert entrance



Culvert exit



Downstream view

C3



Upstream view



Culvert entrance



Culvert exit



Downstream view

**ATTACHMENT 7**

**CULTURAL RESOURCES CONSULTATION LETTERS**



Headquarters: 14701 St. Mary's Lane, Suite 400, Houston, Texas 77079  
t 713.953.5200 LJAENVIRONMENTAL.com  
Regional Field Offices: Arlington • Austin • Corpus Christi • McKinney

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25 April 2024

Mr. Brad Patterson  
Texas Historical Commission  
P.O. Box 12276  
Austin, Texas 78711-2276

**RE: Initial SHPO Consultation  
Proposed Jefferson County Drainage District No. 7 Project:  
A3A Detention Pond Project  
Located on Hogaboom Road North of SH 346, Port Neches, Jefferson County**

Mr. Patterson:

Jefferson County Drainage District No. 7 (JCDD7) (the Sponsor) is a political subdivision of the State of Texas that serves drainage needs in southern Jefferson County. JCDD7 covers the needs for drainage and hurricane protection for approximately 107.5 square miles within Jefferson County, which includes the cities of Port Arthur, Groves, Nederland, and Port Neches and was created primarily to provide drainage for flood-prone areas within the district.

Funding for the A3A Detention Project is being requested from the Federal Emergency Management Agency (FEMA) under the Hazard Mitigation Grant Program (HMGP). FEMA's project number is HMGP-DR-4332-TX Project #167. Environmental reviews are required under the National Environmental Policy Act (NEPA) and the Council on Environmental Quality Guidelines, 40 CFR Parts 1500 to 1508. This coordination letter is being provided for your agency's response in conformance with NEPA procedures.

The approximately 26.0-acre A3A Detention Basin project is located between the City of Groves and City of Nederland within the corporate limits of Port Neches, east of the State Highway (SH) 347 and SH 136 intersection in Jefferson County, Texas (Figure 1). Approximate GPS coordinates for the center of the project area are Latitude: 29.950852, Longitude: 93.942644. The land use surrounding the project area consists of residential and light industrial development.

The problem to be mitigated is repetitive structure flooding and frequent roadway flooding. The source of the flooding is Jefferson County Drainage District No. 7's A3A lateral drainage. The channel, and its associated crossings, are inadequate to convey flood flows without floodwater surface elevations reaching a point of entering structures along the channel. The proposed detention pond project will be designed to lower the water surface in the District's Main A channel, which will translate to reduced flood elevations for roads and residential and commercial structures within the watershed as well as reducing pumping requirements at the Alligator Bayou Pump Station.

Horizon Environmental Services (Horizon), a subsidiary company of LJA Environmental Services, LLC (LJAES), has completed a desktop archival review for known cultural resources for the proposed A3A Detention Basin Project in Port Arthur, Jefferson County, Texas. No documented cultural resources are located within or immediately adjacent to the boundaries of the Property. Based on the physiographic setting of the Property on an undeveloped coastal flat surrounded by residential developments and industrial facilities that is set well away from natural water bodies, it is Horizon's opinion that there exists a low potential for undocumented prehistoric archeological resources within the boundaries of the Property. Based on the absence of historic-age structures within the Property boundaries and on historical aerial photographs and topographic maps, it is Horizon's opinion that there exists a low potential for historic-age architectural and/or archeological resources within the boundaries of the Property.

## **CULTURAL RESOURCES ARCHIVAL REVIEW RESULTS**

### **Database Review**

Archival research conducted on the Texas Historical Commission's (THC) online *Texas Archeological Sites Atlas* (TASA) restricted-access database indicates the presence of two previously recorded cemeteries within an approximately 1.0-mile radius of the Property. These documented cultural resources and their distances from the Property are summarized in Table 1 below. No documented cultural resources, including any archeological sites, cemeteries, or historic properties listed on the National Register of Historic Places (NRHP) and/or designated as State Antiquities Landmarks (SAL), are located within or immediately adjacent to the boundaries of the Property.

Examination of historical US Geological Survey (USGS) topographic maps dating from 1956 to the present and aerial photographs dating from 1953 to the present indicate that no standing structures of potentially historic age (i.e., 50 years of age or older) are located within the boundaries of the Property. The Property has remained a largely undeveloped coastal flat since at least the mid-20th century. Development of the Groves Acres residential subdivision to the northeast of the Property began in the 1950s and may contain historic-age structures, though none of these structures are present within the Property boundaries.

Based on the TASA database, no prior cultural resources surveys have been conducted within the limits of the Property.

### **Probability Assessment**

Prehistoric archeological sites are commonly found in upland areas and on alluvial terraces near stream/river channels or drainages. Based on the physiographic setting of the Property on an undeveloped coastal flat surrounded by residential developments and industrial facilities that is set well away from natural water bodies, it is Horizon's opinion that there exists a low potential for undocumented prehistoric archeological resources within the boundaries of the Property.



Based on the absence of historic-age structures within the Property boundaries and on historical aerial photographs and topographic maps, it is Horizon's opinion that there exists a low potential for historic-age architectural and/or archeological resources within the boundaries of the Property.

### **Recommendations**

Based on the assessed low potential for undocumented prehistoric and historic-age archeological resources and for historic-age architectural resources on the Property, it is Horizon's opinion that a formal cultural resources survey of the portions of the Property within any federal agency's jurisdiction would not be warranted to comply with Section 106 of the NHPA if the development of the Property would require the usage of any federal permits or funding. Similarly, if any portion of the Property is located on publicly owned land, it is Horizon's further opinion that a formal cultural resources survey of the portions of the Property located on public property would not be warranted in compliance with the ACT.

Please feel free to contact me at (512) 328-2430 or at [jowens@horizon-esi.com](mailto:jowens@horizon-esi.com) if you have any questions or require additional information.

Sincerely,



Jesse Owens  
Cultural Resources Director  
Horizon Environmental Services  
LJA Environmental Services, LLC

### **References**

National Environmental Title Research (NETR)

2021 Historic Aerials by NETR Online. <<http://www.historicaerials.com>>. Accessed January 21, 2021.

Texas Historical Commission

2021 *Texas Archeological Sites Atlas*. Access-restricted online database. Texas Historical Commission. <<https://atlas.thc.state.tx.us/>>. Accessed January 21, 2021.

**Table 1. Previously Documented Cultural Resources within 1.0 Mile of Property**

Site No./Name	Site Type	NRHP/SAL Eligibility Status <sup>1</sup>	Distance/Direction from Property	Potential to be Impacted by Project?
<b><i>Cemeteries</i></b>				
Greenlawn Memorial Park Cemetery (JF-C005)	Cemetery	N/A	1.0 mile southeast	No
Johnson Cemetery (JF-C004)	Cemetery	N/A	1.0 mile southeast	No

<sup>1</sup> *Determined eligible/ineligible* = Site determined eligible/ineligible by SHPO  
*Recommended eligible/ineligible* = Site recommended as eligible/ineligible by site recorder and/or sponsoring agency but eligibility has not been determined by SHPO  
*Undetermined* = Eligibility not assessed or no information available

NRHP National Register of Historic Places

SAL State Antiquities Landmark

SHPO State Historic Preservation Office

## Jesse Owens

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**From:** noreply@thc.state.tx.us  
**Sent:** Tuesday, April 30, 2024 5:10 PM  
**To:** Jesse Owens; reviews@thc.state.tx.us  
**Subject:** A3A Detention Basin Project

[EXTERNAL EMAIL]



**TEXAS HISTORICAL COMMISSION**  
*real places telling real stories*

**Re:** Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas  
**THC Tracking #202409740**

**Date:** 04/30/2024

A3A Detention Basin Project  
Hogaboom Road @ Whitaker Avenue  
Groves, TX 77619

**Description:** Consultation request under Antiquities Code & Section 106 for proposed construction of an approx. 26.0-acre storm water detention basin in Groves, Jefferson County, Texas

Dear Jeffrey D. Owens:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Justin Kockritz and Emily McCuiston, has completed its review and has made the following determinations based on the information submitted for review:

### **Above-Ground Resources**

- No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

### **Archeology Comments**

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: [justin.kockritz@thc.texas.gov](mailto:justin.kockritz@thc.texas.gov), [Emily.McCuistion@thc.texas.gov](mailto:Emily.McCuistion@thc.texas.gov) .

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit <http://thc.texas.gov/etrac-system>.

Sincerely,

A handwritten signature in black ink, appearing to be 'BP' followed by a stylized flourish.

for Bradford Patterson  
Chief Deputy State Historic Preservation Officer

**Please do not respond to this email.**

**[EXTERNAL EMAIL]** Exercise caution. Do not open attachments or click links from unknown senders or unexpected email

## Jesse Owens

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**From:** noreply@thc.state.tx.us  
**Sent:** Tuesday, January 14, 2025 1:21 PM  
**To:** Jesse Owens; reviews@thc.state.tx.us  
**Subject:** JCDD7 A3A Detention Pond Project (Revised)

[EXTERNAL EMAIL]



**TEXAS HISTORICAL COMMISSION**  
*real places telling real stories*

**Re:** Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas  
**THC Tracking #202504484**

**Date:** 01/14/2025

JCDD7 A3A Detention Pond Project (Revised)  
Near Intersection SH 347 & SH 136  
Groves, TX 77619

**Description:** Proposed construction of storm water detention pond (26.0 ac) and use of Spoil Disposal Area (31.0 ac) and Wood Chip Disposal Area (9.6 ac) in Groves, Jefferson Co., TX (revised project design)

Dear Jeffrey D. Owens:

Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Justin Kockritz and Marie Archambeault, has completed its review and has made the following determinations based on the information submitted for review:

### **Above-Ground Resources**

- No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

### **Archeology Comments**

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: [justin.kockritz@thc.texas.gov](mailto:justin.kockritz@thc.texas.gov), [marie.archambeault@thc.texas.gov](mailto:marie.archambeault@thc.texas.gov).

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit <http://thc.texas.gov/etrac-system>.

Sincerely,

A handwritten signature in black ink, appearing to be 'JB' with a stylized flourish.

for Joseph Bell, State Historic Preservation Officer  
Executive Director, Texas Historical Commission

**Please do not respond to this email.**

**[EXTERNAL EMAIL]** Exercise caution. Do not open attachments or click links from unknown senders or unexpected email



U.S. Department of Homeland Security  
FEMA Region 6  
800 N. Loop 288  
Denton, TX 76209

**FEMA**

July 31, 2024

RE: Section 106 Review Consultation, HMGP-4332-0167-TX (1)  
Jefferson County Drainage District No. 7 A3A Detention Project  
Port Neches, Jefferson County, Texas  
(Lat.: 29.95056, Long.: -93.94167)

To: Representatives of Federally recognized Tribes with Interest in this Project Area

The Federal Emergency Management Agency (FEMA) will be providing funds authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288, as amended, in response to the major Disaster Declaration for FEMA-4332-DR-TX, Hurricane Harvey, dated August 25, 2017. FEMA is initiating Section 106 review for the above referenced project based on your Tribe's ancestral interest in the project area.

Through FEMA's Hazard Mitigation Grant Program, FEMA proposes to fund Jefferson County Drainage District No. 7's (Applicant) construction of a new detention pond (Undertaking). Detention Pond A3A will be constructed in Port Neches and will have a storage capacity of 300 acre-feet. Construction activities include clearing and grubbing, excavation of the pond, and hauling and disposal of fill material off-site.

Small portions of the mitigation work will take place in undisturbed ground.

FEMA has determined that the Area of Potential Effect (APE) for the proposed Undertaking shall include the footprint of the project based on the scale and nature of the undertaking, as well as the area reasonably required to stage materials. The APE encompasses an area of approximately 30 acres.

We are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed Undertaking. Any comments you may have on FEMA's findings and recommendations should also be provided.

On July 29, 2024, a FEMA Historic Preservation Specialist performed a cultural records search using the Texas Historical Commission Archaeological Sites Atlas database and associated site files, photographs, and maps to identify historic properties within the APE. The records search revealed no historic properties or previously recorded archaeological sites within the APE.

In a response letter for this project dated April 30, 2024, the Texas Historical Commission (THC) found that there would be no historic properties affected by subject Undertaking.

Based on the available information gathered to date through this review process, there are no previously recorded archeological sites within the project area, and it is unlikely that the Undertaking would impact any intact archeological deposits, if present. FEMA has determined that there will be **No Historic Properties Affected** as a result of the Undertaking.

Please provide your comments within 30 days of receipt of this letter. If you notify us that your review identifies cultural properties within the APE, or project work discloses the presence of archeological deposits, FEMA will contact your Tribe to continue consultation.

An aerial view, a topographic map, and photos showing the project location and APE are attached. Your prompt review of this project is greatly appreciated. Should you need additional information please contact Robert Scoggin, EHP Tribal Liaison, at [Robert.w.scoggin@fema.dhs.gov](mailto:Robert.w.scoggin@fema.dhs.gov) (202) 716-4139.

Sincerely,

La Toya Leger-Taylor  
Regional Environmental Officer  
FEMA Region 6





January 6, 2025

RE: Section 106 Review Consultation,  
HMGP-4332-0167-TX (1)  
Jefferson County Drainage District No. 7 A3A Detention Project Scope Modification,  
Port Neches, Jefferson County, Texas  
(Lat.: 29.94827, Long.: -93.94289)

To: Representatives of Federally recognized Tribes with Interest in this Project Area

The Federal Emergency Management Agency (FEMA) will be providing funds authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288, as amended, in response to the major Disaster Declaration for FEMA-DR-4332-TX Hurricane Harvey, dated August 25, 2017. FEMA initiated Section 106 review on July 31, 2024, for the above referenced project based on your Tribe's ancestral interest in the project area and is continuing consultation because the proposed scope of work has expanded.

Through FEMA's Hazard Mitigation Grant Program, FEMA proposes to fund Jefferson County Drainage District No. 7's (Applicant) construction of a new detention pond (Undertaking). Detention Pond A3A will be constructed in Port Neches and will have a storage capacity of 300 acre-feet. Construction activities include clearing, grubbing, and excavation of the pond. The scope of the project has been expanded to include clearing, grubbing, and placement of excavated soils and chipped woody debris on parcels adjacent to the proposed detention pond.

The mitigation work will take place in undisturbed ground.

FEMA has determined that the Area of Potential Effect (APE) for the proposed Undertaking shall include the footprint of the project based on the scale and nature of the Undertaking, as well as the area reasonably required to stage materials. The initial APE encompassed only the footprint of the detention pond. The expanded APE includes the detention pond as well as areas of vegetative removal and sediment and debris disposal. The expanded APE encompasses an area of approximately 68 acres.

We are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed Undertaking. Any comments you may have on FEMA's findings and recommendations should also be provided.

On December 17, 2024, a FEMA Historic Preservation Specialist performed a cultural records search using the Texas Historical Commission Archaeological Sites Atlas database and associated site files, photographs, and maps to identify historic properties within the APE. The records search revealed no historic properties or previously recorded archaeological sites within the APE.

In a response letter for this project dated April 30, 2024, the Texas Historical Commission (THC) found that there would be no historic properties affected by subject Undertaking. Continuing consultation on the expanded scope of work and APE is ongoing.

Based on the available information gathered to date through this review process, there are no previously recorded archeological sites within the project area, and it is unlikely that the Undertaking would impact any intact archeological deposits, if present. FEMA has determined that there will be **No Historic Properties Affected** as a result of the Undertaking.

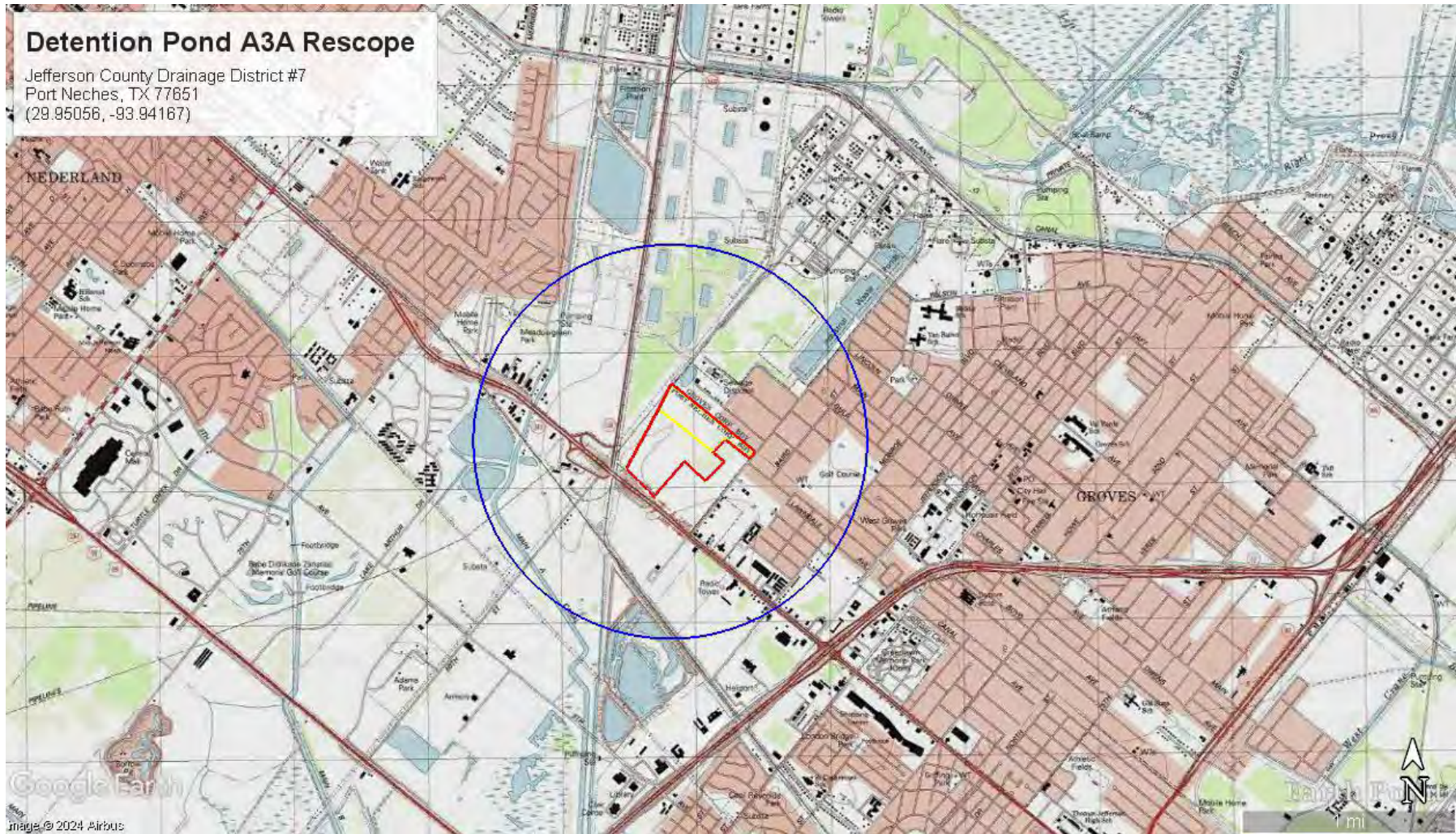
Please provide your comments within 30 days of receipt of this letter. If you notify us that your review identifies cultural properties within the APE, or project work discloses the presence of archeological deposits, FEMA will contact your Tribe to continue consultation.

An aerial view, a topographic map, and photos showing the project location and APE are attached. Your prompt review of this project is greatly appreciated. Should you need additional information please contact Robert Scoggin, EHP Tribal Liaison at [Robert.w.scoggin@fema.dhs.gov](mailto:Robert.w.scoggin@fema.dhs.gov) (202) 716-4139.

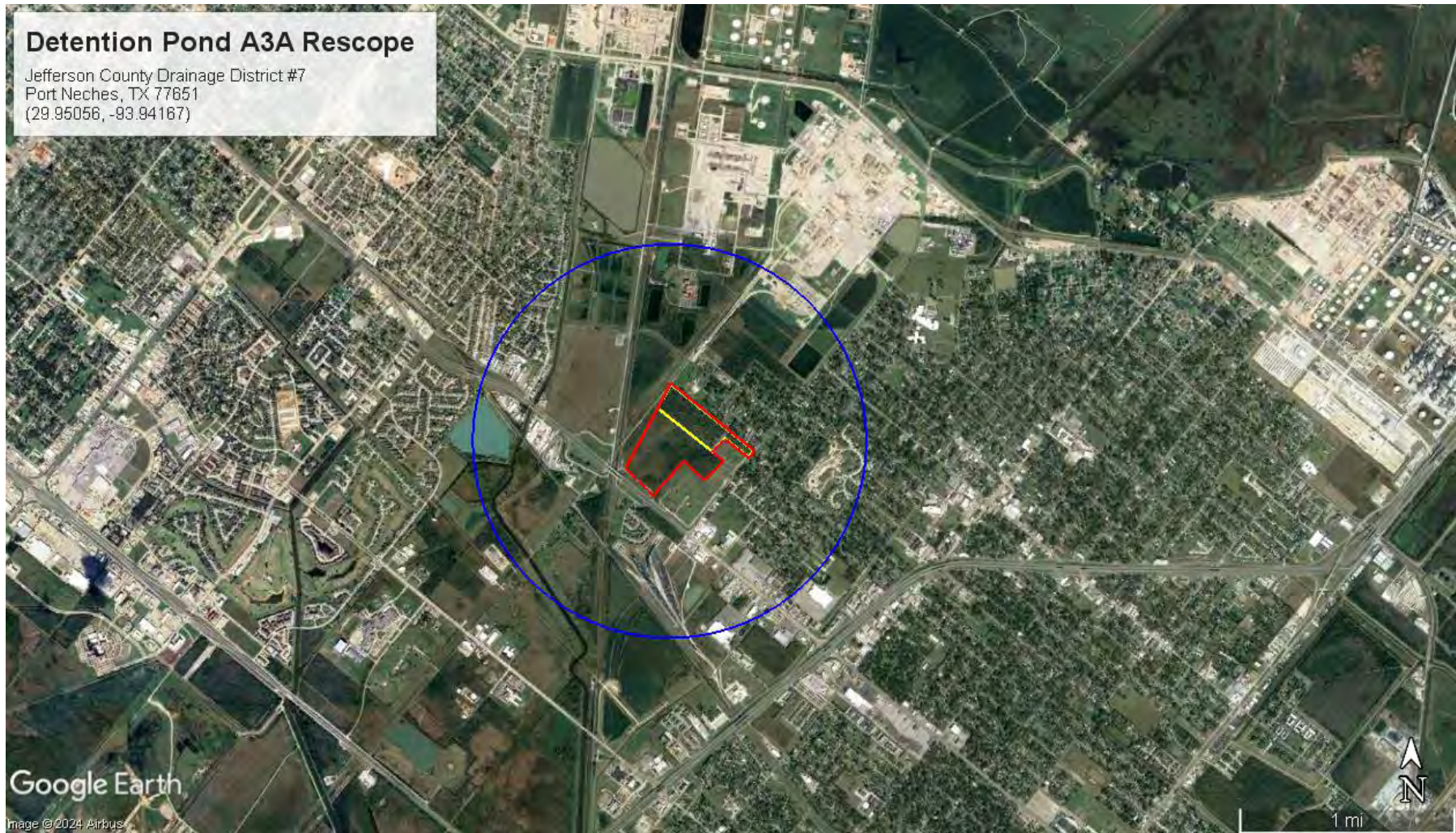
Sincerely,

*DWC for*

La Toya Leger-Taylor  
Regional Environmental Officer  
FEMA Region 6

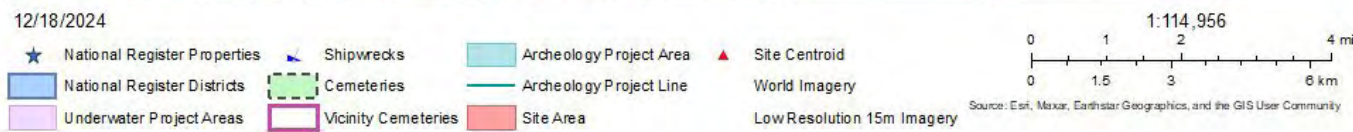
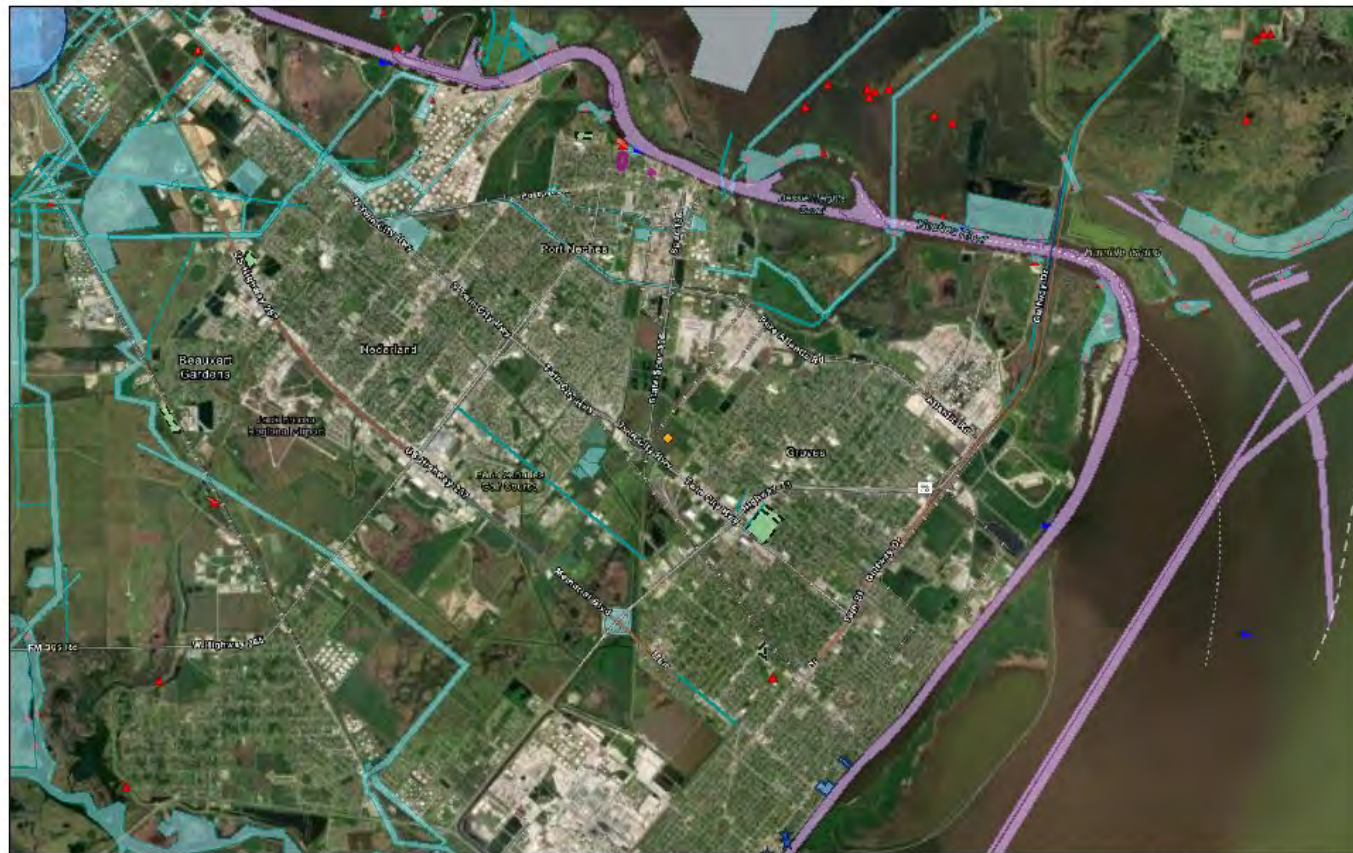


**Figure 1:** Topographic map showing expanded APE (red box), compared to original APE (yellow box), and 0.5-mile buffer. Image via Google Earth, 2024.



**Figure 2:** Aerial image showing expanded APE (red box), original APE (yellow box), and 0.5-mile buffer. Image via Google Earth, 2024.

### JCDD7 Detention Pond A3A Rescope



**Figure 3:** Aerial image showing approximate work location (orange dot) and surrounding historic resources. Image via TASA, 2024.

**ATTACHMENT 8**

**DRAFT NOTICE OF AVAILABILITY**

Federal Emergency Management Agency (FEMA)  
PUBLIC NOTICE  
Notice of Availability of the Draft Environmental Assessment for the  
A3A Detention Basin Project  
HMGP-4332-0167-TX (1)  
Port Neches-Groves, Jefferson County, Texas

Jefferson County Drainage District No. 7 has applied to the Federal Emergency Management Agency FEMA for Hazard Mitigation Grant Program (HMGP) funding through the Texas Division of Emergency Management (TDEM) for assistance with the construction of improvements to drainage for the A3A watershed area of Groves, Port Neches, and Nederland, Jefferson County, Texas. The total ground disturbance in the entire project area will be approximately 67.67 acres. The improvements aim to reduce future flood risk to numerous existing structures and roads in the A3A Watershed Benefit Area.

A draft Environmental Assessment (EA) has been prepared to assess the potential impacts of the proposed action and alternatives on the human and natural environment in accordance with the National Environmental Policy Act of 1969 (NEPA), the Council for Environmental Quality (CEQ) regulations implementing NEPA (40 CFR Parts 1500 – 1508), FEMA's Instruction 108-1-1 for implementing NEPA, the National Historic Preservation Act, Executive Order 11988, Executive Order 11990, and 44 CFR Part 9. This project is not located within the 100-year flood plain.

The draft EA evaluates alternatives that provide for compliance with applicable environmental laws. The alternatives evaluated include: (1) No action; (2) Drainage Network Capacity Expansion; and (3) the proposed action.

The draft EA is available for review and comment between \_\_\_\_\_, 2025 and \_\_\_\_\_, 2025, at the Beaumont Public Library located at 801 Pearl Street; at the Jefferson County Drainage District No. 7 Offices located at 4749 Twin City Highway, Suite 300, Port Arthur, TX; and at the offices of LJA Environmental Services LLC, located at 1507 South IH 35, Austin, Texas. Electronic copies can be accessed on the JCDD7 website at <http://dd7.org/special-notices.asp> or by request from Dorothy Cook, Senior Environmental Specialist, FEMA Region 6 at [Dorothy.cook@fema.dhs.gov](mailto:Dorothy.cook@fema.dhs.gov).

Written comments regarding this proposed project can be mailed to Dorothy Cook, Environmental Specialist, FEMA Region 6, 800 N. Loop 288, Denton, TX 76209. Electronic comments can also be submitted to [Dorothy.cook@fema.dhs.gov](mailto:Dorothy.cook@fema.dhs.gov). Comments should be received no later than 5 p.m. on \_\_\_\_\_, 2025. If no substantive comments are received, the draft EA will become final and a **Finding of No Significant Impact (FONSI)** will be issued for the project. Substantive comments will be addressed as appropriate in the final documents.

All other questions regarding disaster assistance should be directed to FEMA's Helpline at 1-800-621-3362 or visit [www.DisasterAssistance.gov](http://www.DisasterAssistance.gov).

**ATTACHMENT 9**  
**FINDING OF NO SIGNIFICANT IMPACT**





**FEMA**

**FINDING OF NO SIGNIFICANT IMPACT  
JEFFERSON COUNTY DRAINAGE DISTRICT NO. 7  
A3A DETENTION BASIN PROJECT  
HMGP-DR-4332-0167-TX (1)  
PORT NECHES-GROVES, JEFFERSON COUNTY, TEXAS**

**BACKGROUND**

In accordance with the Federal Emergency Management Agency's (FEMA) Instruction 108-1-1, an Environmental Assessment (EA) has been prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500-1508). The purpose of the proposed project is to provide improved drainage for the District's Main A and Pear Ridge watersheds, thus significantly reducing repetitive structure damage due to flooding in this area. This EA informed FEMA's decision on whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Jefferson County Drainage District No. 7 (JCDD7) has applied for Hazard Mitigation Grant Program (HMGP) funding, through the Texas Division of Emergency Management (TDEM), under HMGP-DR-4332-167-TX (1). Through HMGP, FEMA provides grants to states and local governments to implement long-term hazard mitigation measures, including flood mitigation. The purpose of HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

Three project alternatives were considered in this EA: 1) No Action Alternative; 2) Drainage Network Capacity Expansion Alternative; and 3) Proposed Action Alternative-Detention. Under the No Action Alternative, JCDD7 would take no action for flood mitigation and frequent and severe flooding would continue to occur. Alternative 2, expansion of the drainage network, would require expansion of existing drainage ditches throughout the area, potentially requiring property acquisitions via eminent domain. This alternative was determined to be cost-prohibitive, with costs-benefits far exceeding those of the Proposed Action Alternative. Alternative 3, Proposed Action Alternative, would alleviate repetitive flood damages in the benefit area by providing detention.

Under the Proposed Action Alternative, JCDD7 proposes to construct a 26-acre detention basin on an area of open space. An additional 42-acre area adjacent to the basin will be used for permanent placement of excavated materials and wood chips from the clearing of the project area. Establishment of the disposal areas would include the removal of some, but not all,

vegetation; placement of 2 to 3 feet of loose fill; and some grading to prevent ponding. No jurisdictional wetlands, floodplains, listed species, or cultural resources will be affected by the proposed project. Disturbed areas will be seeded with a native grass mix.

A public notice was posted in the local newspaper of record and on JCDD7's website. The draft EA was made available for public comment for 30 days on JCDD7's website, at multiple publicly accessible buildings in the project area, and upon request in hard or electronic copy from FEMA. No comments were received from the public during the comment period.

### FINDING OF NO SIGNIFICANT IMPACT

The Proposed Action as described in the EA will not significantly impact geology, seismicity, groundwater, floodplains, migratory birds, threatened and endangered species or critical habitat, coastal zone resources, hazardous materials, zoning and land use, visual resources, public services, safety and security, and cultural resources. During construction, short-term, minor impacts to surface water quality, air quality, migratory birds, noise, utilities, traffic, are anticipated. The project will result in conversion of prime farmland soils and the filling of non-jurisdictional wetlands that cannot be avoided. All adverse impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas.

### CONDITIONS

The following conditions must be met as part of this project. Failure to comply with these conditions may jeopardize the receipt of federal funding.

1. This review does not address all federal, state, and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.
2. Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
3. All abandoned water wells must be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation, 16 Texas Administrative Code (TAC), Chapter 76, effective 3 January 1999. A plugging report must be submitted by a licensed water well driller to the Texas Department of Licensing and Regulation, Water Well Drillers Program, Austin, Texas. If a well is intended for use, it must comply with rules stipulated in 16 TAC §76.

4. JCDD7 must prepare a Storm Water Pollution Prevention Plan (SWPPP) and file a Notice of Intent (NOI) with the Texas Commission on Environmental Quality (TCEQ) at least 48 hours prior to the start of construction. Monitoring and maintenance of emplaced Best Management Practices (BMPs) for stormwater management will be conducted on a regular basis as prescribed by the Texas Pollutant Discharge Elimination System (TPDES) General Permit.
5. Contractors are required to water down construction areas as needed in order to mitigate excess dust. To reduce emissions, vehicle running times on site will be kept to a minimum and engines will be properly maintained.
6. JCDD7 will ensure that best management practices are implemented to prevent erosion and sedimentation of wetlands within and adjacent to the right of way. This includes equipment storage and staging of construction materials to prevent erosion and sedimentation to ensure that impacts to wetlands are avoided and minimized to the greatest extent practicable per Executive Order 11990.
7. To minimize impacts to migratory bird species, JCDD7 will limit tree removal work during the peak migratory bird-nesting period of March through August as much as possible to avoid destruction of individuals, nests, or eggs. If tree removal activities must occur during the nesting season, JCDD7 will deploy a qualified biological monitor with experience conducting breeding bird surveys to survey the vegetation management area for nests prior to conducting work. The biologist will determine the appropriate timing of surveys in advance of work activities. If an occupied migratory bird nest is found, work within a buffer zone around the nest will be postponed until the nest is vacated and juveniles have fledged. The biological monitor will determine an appropriate buffering radius based on species present, real-time site conditions, and proposed vegetation management methodology and equipment. For work near an occupied nest, the biological monitor would prepare a report documenting the migratory species present and the rationale for the buffer radius determination and submit that report to FEMA for inclusion in project files.
8. Unusable equipment, debris and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, applicant shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.
9. To reduce noise levels during construction, construction activities will take place during normal business hours.
10. Appropriate construction barricades and signage will be utilized during construction.

11. In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted, and the applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by JCDD7, and access to the sensitive area will be restricted by JCDD7. JCDD7 will inform FEMA immediately, and FEMA will consult with the SHPO. Work in sensitive areas shall not resume until consultation is completed and until FEMA determines that the appropriate measures have been taken to ensure complete project compliance with the National Historic Preservation Act (NHPA) and its implementing regulations.

## CONCLUSION

Based on the findings of the EA, coordination with the appropriate agencies, comments from the public, and adherence to the project conditions set forth in this FONSI, FEMA has determined that the proposed project qualifies as a major federal action that will not significantly affect the quality of the natural and human environment, nor does it have the potential for significant cumulative effects. As a result of this FONSI, an EIS will not be prepared (FEMA Instruction 108-1-1) and the proposed project as described in the attached EA may proceed.

## APPROVAL AND ENDORSEMENT

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La Toya Leger-Taylor  
Regional Environmental Officer  
FEMA Region 6

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Marty Chester  
Hazard Mitigation Assistance Non-Disaster Branch Chief  
FEMA Region 6