# *St. James Parish Government*

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**Peter A. Dufresne**
Parish President

To: Coastal Zone Advisory Board

Date: January 24, 2025

Re: Meeting Notice

The St. James Parish Coastal Zone Advisory Board will host a regular scheduled meeting on **Monday, January 27, 2025 at 5:00 p.m.**, inside the **Convent Courthouse Council Chambers (**5800 LA Highway 44, Convent, LA 70723. Enclosed for your review are the minutes of the previous regular meeting, and a copy of the tentative agenda.

If you have any questions, please feel free to contact me at (225)562-2426 or (225)264-3709.

Sincerely,

*Marrill McKarry*

**Marrill McKarry**
Coastal Zone/Floodplain Manager
St. James Parish Operation's Department

**ST. JAMES PARISH COASTAL ZONE MANAGEMENT**
**CONVENT COURTHOUSE COUNCIL CHAMBERS**
**5800 HIGHWAY 44, CONVENT, LA 70723**
**REGULAR MEETING AGENDA**
**MONDAY, JANUARY 27, 2025 - 5:00 p.m.**

## I. CALL TO ORDER

## II. ROLL CALL

## III. MINUTES OF PREVIOUS MEETINGS

1. Monday, November 25, 2024 Regular Meeting Minutes
2. Monday, December 30, 2024 Regular Meeting Minutes

## IV. CORRESPONDENSE

1. None

## V. PRESENTATION AND PUBLIC COMMENTS

1. Presentation – None
2. Board Appointments
    1. Chairman
    2. Vice Chairman
    3. Secretary
3. Public Comments - (on agenda items)

## VI. OLD BUSINESS

1. **None**

## VII. NEW BUSINESS

1. **Union Pacific Railroad P20240997**- Union Pacific Railroad (UPRR) proposes to replace a culvert at mile post (MP) 58.22 on the Livonia subdivision within UPRR right-of-way. The current structure was installed in 1970 and is a 4-foot diameter, 45-foot long concrete pipe culvert inlet and corrugated metal pipe (CMP) culvert outlet. In order to meet current design criteria for the 50-year and 100-year water surface elevations, UPRR proposes to replace the existing culvert with a 4-foot diameter, 75-foot long smooth steel pipe (SSP). Minor channel regrading will be needed in the vicinity of the culvert inlet and outlet. Refer to Attachment A for details regarding existing conditions, construction, access, and hydrology and hydraulics.

## VIII. STATE CONCERNS

All state applications can be viewed through OCM PermitTRAK Database link below:
https://sonlite.dnr.state.la.us/ords/apex/r/coast_man/office-of-coastal-management-permittrak-system/home?session=116959262740985

| Applicant | Project | Coastal Use Permit # |
|---|---|---|
| **ExxonMobil Pipeline Company, LLC** | **Project:** DOE Cathodic Protection Groundbed<br>**Project Description:** ExxonMobil Pipeline Comapany, LLC (EMPCo) is proposing an in-kind replacement of an existing anode ground bed to provide continued cathodic protection to Department of Energy's (DOE) Dock 1 above-ground pipelines. The replacement will consist of boring eighty-five (85), 10-inch-diameter, 15-foot-deep holes to facilitate the installation of 8-inch diameter, 8-foot-long cast iron ground bed anodes (Figure 3). Forty-five (45) of the anodes will be installed north of Dock 1 and forty (40) will be installed south of Dock 1 (27.25 cubic yards). Once the anodes are installed, header cables, buried in a 12-inch-wide, 24-inch-deep trench (137.21 cubic yards), will be installed between each anode ultimately tying back into bond boxes at Dock 1. The existing bond boxes shown on Figure 3, currently are affixed to a 15-foot-long, 4-inch by 4-inch treated timber, at the north and south alignment of Dock 1. The project will include the replacement of the existing bond boxes and 15-foot-long, 4-inch by 4-inch treated timbers, driven 3.5-feet-deep (0.776 cubic yards). All boring/anode installations will occur in currently mowed and maintained areas. Additionally, none of the borings nor header cable installations will be conducted below the design section of the Mississippi River Levee (Figure 4). Each anode will be carbon backfilled with Loresco DW-1 coke breeze (Attachment A), and the header cables will be backfilled with excavated material.<br>**Preliminary Determination:** Exempt<br>**Application Modification:** USACE preliminary JD and habitat analysis uploaded to step 13. Plats revised to show the Gramercy wastewater treatment pond on every figure where it is present. Cross sections updated to revise the location and elevation of wetlands as well as revising the MHW. | **P20240913** |
| **Exxon Mobil** | **Project**: St. James Boat Ramp<br>**Project Description:** The proposed project involves the installation of a boat ramp on the MS River near the ExxonMobil St. James facility. ExxonMobil is required by the U.S. Coast Guard to launch a response vessel to deploy spill remediation assets within 1 hour of a release. This boat | **P20240912** |

| | | |
|---|---|---|
| | launch will facilitate the launching of a boat within the 1 hour time requirement during times of low water levels. A system of articulating concrete mattresses (ACMs) will be placed to create a pathway and ramp. Pre-cast concrete panels will be places waterward of the ACM system to allow for an extension of the launch capabilities during times of low water levels. Rock will be placed on the upstream and downstream edges of the ACM and concrete panel system to secure the system and reduce scour potential. The system will be installed as low as possible given the water level at the time of construction without the need for dewatering<br>**Preliminary Determination**: Exempt, NDSI<br>**Application Modification**: Added NDSI notes and agency conditions on Sheet C-002. Project footprint and sensitive features remain the same since last distribution on 11/15/2024. (sr 11/26/24) | |
| **Air Liquide Large Industries, U.S. L. P.** | **Project**: Moonshine Mainline Pipeline Project<br>**Project Description:** Air Liquide is proposing to construct and operate the Moonshine Mainline Pipeline Project (Project) in St. James, St. John the Baptist, and St. Charles Parishes, Louisiana. The proposed route begins near St. James, LA and generally follows LA-3127 within existing utility corridors and terminates in Taft, LA. The Project involves the construction of two pipelines (one 20-inch oxygen pipeline and one 20-inch nitrogen pipeline) in the same right-of-way (ROW) for approximately 30 miles in length. Construction ROW will be up to 100 feet in width with existing utility corridors. Construction will occur using mechanical trenching, Push/Pull technique, and horizontal directional drill (HDD). During mechanical trenching, the trench width will be a minimum of 64 inches to a maximum or 88 inches. Push/Pull techniques will be utilized in saturated/inundated wetland areas within previously cleared locations with no additional clearing. HDD's are expected to be used at large forested wetland locations to avoid clearing activities.<br>**Preliminary Determination**: Coastal Use Permit<br>**Application Modification** plats updated to include a habitat impact map/breakdown. No change to the project footprint of spec. features. | **P20240344** |
| **St. James Parish Government** | **Project:** West Shore Lake Pontchartrain Connector Levees<br>**Project Description:** Proposed installation of a levee system that includes the installation of earthen levees, three environmental water control (EWC) structures, and two pump stations. The EWC structures will be in the form of sluice gates as flood control measures to allow the levee to remain an open system until circumstances require closure according to the operation plan. One of the pump stations will be installed on the M-2 Canal and one on the L-4 Canal. Rip rap (6072 cy) will be used to assist with bank stabilization where necessary. Canals will be improved as necessary to work with new structures. Levee will be tied in to high ground on either side of the project area. Approx. 137,688 cy of excavation required. Approx. 223,406 cy of dirt fill required.<br>P**reliminary Determination:** Coastal Use Permit<br>**Application Modification**: Habitat map with acreage totals uploaded to electronic comments.<br>Fully loaded vessel drafts added to pages 2 and 3 of the plats; note about chipped material on page 18 updated to state that material will be spread to a maximum height of 4 inches instead of 6 inches. | **P20240772** |
| **Williams Transcontinenetal Gas Pipeline Co** | **Project:** SE Louisiana Lateral A Pipeline Emergency Repairs (Dig 23740 and Dig 3900)<br>**Project Description:** Two emergency repairs (Dig 23740 and Dig 3900) on the 24-Inch SE Louisiana Lateral A Pipeline. A total of approximately 656 cubic yards of material was excavated from the worksites and used as backfill upon completion of the project. Timber boardmats were utilized to access each worksite.<br>P**reliminary Determination:** Coastal Use Permit<br>**Application Modification**: N/A | **P20240955** |
| **Entergy Louisiana, LLC** | **Project:** Proposed Commodore-Waterford 230 kV and Commodore-Churchill 500 kV Transmission Line Project<br>**Project Description:** Entergy Louisiana, LLC (Entergy) proposes to construct a new 84 mile 500 kilovolt (kV) Transmission Line from the Commodore 500kV Substation located in Iberville Parish to the proposed Churchill 500kV Substation located in Jefferson Parish, Louisiana, as part of Entergy's Amite South Reliability Project Phase 1 (ASRP Ph1). In addition, Entergy proposes to install a new 56 mile 230 kilovolt (kV) transmission line from the Commodore 500 kV Substation in Iberville Parish to the proposed expanded Waterford 230/500 kV Substation in St. Charles Parish, Louisiana.<br>P**reliminary Determination:** Coastal Use Permit<br>**Application Modification**: N/A | **P20240832** |
| **Plains All American** | **Project:** St. James Rail and Rack Expansion Project<br>**Project Description:** Proposal to expand and extend an existing rail yard within their current facility. The proposed work includes 512 ft (8 x60') Rack Extension; 49 x 60ft Track Extension; an 887 ft (14x60') rack extension; and the removal and relocation of an ephemeral ag-ditch..<br>**Final Determination:** Exempt<br>**Application Modification**: N/A | **P20240570** |
| **Enterprise Products Operating LLC** | **Project:** Wilprise Pipeline Anomaly Repair No. 2<br>**Project Description:** Proposed anomaly repair on the existing Wilprise Pipeline. Approximately 252 cubic yards of material will be excavated stockpiled as a temporary levee and used as backfill upon successful completion of the project. An 18' x 130' boardmat road will be utilized for access, all equipment will be limited to matted access route. No prop washing or dredging will be required to access the work site.<br>**Preliminary Determination:** CMD GP - 6<br>**Application Modification**: N/A | **P20240911** |

| | | |
|---|---|---|
| **Randy Anny** | **Project:** Randy's Dirt Pit<br>**Project Description:** Proposed installation of 5 monopiles at an existing barge fleeting facility. Approx. 545,185 cy will be dredged from the river and placed in existing sand/stockpile pits.<br>**Preliminary Determination:** Exempt, NDSI<br>**Application Modification**: N/A | **P20250024** |
| **Deep South Crane and Rigging** | **Project:** Americas Styrenics - Inland Marine Transport<br>**Project Description:** Proposal to offload three (3) replacement vessels at Americas Styrenics dock structure. The vessels will arrive by barge and be offloaded using multi-axle transporters. To ensure safe transport, the existing batture and levee crossing will be temporarily paved with timber mats.<br>**Preliminary Determination:** Exempt, NDSI<br>**Application Modification**: N/A | **P20250034** |
| **Enterprise Products Operating LLC** | **Project:** 6-Inch Sorrento to Garyville Butane Pipeline (LID 40714) Anomaly Repair<br>**Project Description:** Proposed anomaly repair on the existing 6-inch Sorrento to Garyville Butane Pipeline (LID 40714). Approximately 252 cubic yards of material will be excavated, stockpiled, and used as backfill upon successful completion of the project. No propwashing or dredging will be required to access the work site.<br>**Preliminary Determination:** CMD GP-6<br>**Application Modification**: N/A | **P20240948** |

## IX. ADMINISTRATION REPORT:

1. 2025 Ethics Reminder
2. LCP Board Members Training Dates

## X. BOARD MEMBERS REPORT

District 1 - Mr. Calcagno:
District 2 - Mr. Vicknair:
District 3 - Mr. Lambert:
District 4 - Mr. Boudreaux:
District 5 - Mr. Octave:
District 6 - Mr. Joseph:
District 7 - Mr. Becnel:
President Appointee - Mr. Chenier:

## XI. ADJOURNMENT

**PROCEEDING OF THE COASTAL ZONE MANAGEMENT ADVISORY COMMISSION, PARISH OF ST. JAMES, STATE OF LOUSIANA, TAKEN AT A REGULAR MEETING AT THE ST. JAMES PARISH CONVENT COURTHOUSE COUNCIL CHAMBERS ON MONDAY, NOVEMBER 25, 2024.**

The Coastal Zone Management Advisory Commission (CZMAC) of the Parish of St. James, State of Louisiana, met in a regular session on Monday, November 25, 2024 at 5:00 p.m.

**PRESENT:** Craig Calcagno Jr., Isaac Lambert, Kalon Octave Wayne Becnel, and Levar Joseph

**ABSEENT:** Carl Vicknair, Anthony Boudreaux, and Elton Chenier

**ALSO, IN ATTENDANCE:** Marrill McKarry, Rick Webre(via phone)

**MINUTES**: Motioned by Craig Calcagno and seconded by Kalon Octave to approve the regular meeting minutes of Monday, October 30, 2024 as presented. Roll Call: Craig Calcagno- yes, Carl Vicknair- absent, Isaac Lambert- yes, Anthony Boudreaux- absent, Kalon Octave- yes, Wayne Becnel- yes, Elton Chenier-absent, Levar Joseph- yes All in favor. Motion Carried. 5-yes, 0-No, 3-Absent)

**CORRESPONDENCE:** None

**PRESENTATION AND PUBLIC COMMENTS:**

1. Presentation – None
2. Public Comments (on agenda items) – None

**OLD BUSINESS:**

1. **St. James Construction Materials P20240839-** Represented by Brad Stoufflet**.** Proposing to Continue development of a clay source borrow pit to support ongoing hurricane flood control projects. The existing site is a 484 acre tract of land previously used as a sugar cane farm. Beginning in 2012 clay mining began on the site under prior authorization. this is an effort to update our documents for COE use. Motion by Wayne Becnel to accept application for approval pending all proper necessary documentation and was seconded by Isaac Lambert. Roll Call: Craig Calcagno- yes, Carl Vicknair- absent, Isaac Lambert- yes, Anthony Boudreaux- absent, Kalon Octave- yes, Wayne Becnel- yes, Elton Chenier-absent, Levar Joseph- yes All in favor. Motion Carried. 5-yes, 0-No, 3-Absent)

**NEW BUSINESS: None**

**STATE CONCERNS:** All state applications can be viewed through OCM PermitTRAK Database link below:
https://sonlite.dnr.state.la.us/ords/apex/r/coast_man/office-of-coastal-management-permittrak-system/home?session=116959262740985

| Applicant | Project | Coastal Use Permit # |
|---|---|---|
| **Shell Pipeline Company LP** | **Project**: 2 Anomaly Repairs on 20" Ship Shoal Thibodaux-St. James in Assumption & St. James Parishes<br>**Project Description**: Shell proposes 2 anomaly repair digs on the 20" Ship Shoal Thibodaux-St. James pipeline. Previously permitted by the Corps under EK-19-970-0778.<br>**Preliminary Determination:** Coastal Use Permit<br>**Application Modification:** workspace reduced. plats and application revised to reflect reduction. No change in spec. features | **P20240861** |
| **No Comments were made.** | | |
| **Gulf South Pipeline Company, LLC** | **Project:**<br>Index 2517-307 Removal Project PN 13974 (Formally PN 12212)<br>**Project Description:** Proposal to relocate the existing Index 2517 6-inch-diameter pipeline to resolve conflicts with the U.S. Army Corps of Engineers' (USACE), in partnership with the Louisiana Department of Transportation and Development's (LaDOTD), Mississippi River Ship Channel (MRSC) Deepening Project. Approx. 1,250 ft of the pipeline will be removed in the Mississippi River where it interferes with the proposed USACE dredging. The existing pipeline to be removed will be replaced with a new, 6-inch-diameter pipeline installed via horizontal directional drill (HDD; 4,955 ft) under the Mississippi River. The new HDD pipeline will be connected to the existing pipeline via a new tie-in pipeline (409 ft east side of river, 249 ft west side of river) installed via trenching. An additional 2,011 ft of the existing pipeline will be removed on land, and approx. 1,761 ft between the land and river removals will be abandoned in place. Approx. 17,167 cy of excavation will be required.<br>P**reliminary Determination:** Coastal Use Permit<br>**Application Modification**: Amendment to this application will serve as the ATF application for EUA 24-030. Project changes described in Step 5b: "11-SEP-24 Partial ATF for EUA 24-030: Depth of excavation in the river lowered to -80 feet and quantity of native material excavation increased to 142,000. Figures updated with new dredge workspace." Revised Step 5c to include EUA and COE permit numbers. Revised depths referenced in Step 8f: "deepen the existing MRSC from its current depth of -70 feet to a new depth of -80 feet." Revised Step 9a project completion date. Revised Step 9c to state that majority of work is complete. Revised Step 10a-c with updated volume of dredged material. Revised Step 11a impact acreage. Plats revised: Revised project area acreages in Legend on all Figures. Figure 3, 3d, 3g- depicted updated dredge workspace. Figure 5- revised cross-section "Dredge Profile/Pipeline Removal in River" with updated details. Sensitive features remain the same since last distribution on 04/11/2024. (sr 9/3 0/24 | **P20220341** |
| **No comments were made.** | | |

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|---|---|---|
| **St. James Parish Government** | **Project:** West Shore Lake Pontchartrain Connector Levees<br>**Project Description:** Proposed installation of a levee system that includes the installation of earthen levees, three environmental water control (EWC) structures, and two pump stations. The EWC structures will be in the form of sluice gates as flood control measures to allow the levee to remain an open system until circumstances require closure according to the operation plan. One of the pump stations will be installed on the M-2 Canal and one on the L-4 Canal. Rip rap (6072 cy) will be used to assist with bank stabilization where necessary. Canals will be improved as necessary to work with new structures. Levee will be tied in to high ground on either side of the project area. Approx. 137,688 cy of excavation required. Approx. 223,406 cy of dirt fill required.<br>P**reliminary Determination:** Coastal Use Permit<br>**Application Modification**: N/A | **P20240772** |
| **No comments were made.** | | |
| **Exxon Mobil** | **Project**: St. James Boat Ramp<br>**Project Description:** The proposed project involves the installation of a boat ramp on the MS River near the ExxonMobil St. James facility. ExxonMobil is required by the U.S. Coast Guard to launch a response vessel to deploy spill remediation assets within 1 hour of a release. This boat launch will facilitate the launching of a boat within the 1 hour time requirement during times of low water levels. A system of articulating concrete mattresses (ACMs) will be placed to create a pathway and ramp. Pre-cast concrete panels will be places waterward of the ACM system to allow for an extension of the launch capabilities during times of low water levels. Rock will be placed on the upstream and downstream edges of the ACM and concrete panel system to secure the system and reduce scour potential. The system will be installed as low as possible given the water level at the time of construction without the need for dewatering<br>**Preliminary Determination**: Exempt, NDSI<br>**Application Modification**: NA | **P20240912** |
| **No comments were made.** | | |
| **ExxonMobil Pipeline Company, LLC** | **Project:** DOE Cathodic Protection Groundbed<br>**Project Description:** ExxonMobil Pipeline Comapany, LLC (EMPCo) is proposing an in-kind replacement of an existing anode ground bed to provide continued cathodic protection to Department of Energy's (DOE) Dock 1 above-ground pipelines. The replacement will consist of boring eighty-five (85), 10-inch-diameter, 15-foot-deep holes to facilitate the installation of 8-inch diameter, 8-foot-long cast iron ground bed anodes (Figure 3). Forty-five (45) of the anodes will be installed north of Dock 1 and forty (40) will be installed south of Dock 1 (27.25 cubic yards). Once the anodes are installed, header cables, buried in a 12-inch-wide, 24-inch-deep trench (137.21 cubic yards), will be installed between each anode ultimately tying back into bond boxes at Dock 1. The existing bond boxes shown on Figure 3, currently are affixed to a 15-foot-long, 4-inch by 4-inch treated timber, at the north and south alignment of Dock 1. The project will include the replacement of the existing bond boxes and 15-foot-long, 4-inch by 4-inch treated timbers, driven 3.5-feet-deep (0.776 cubic yards). All boring/anode installations will occur in currently mowed and maintained areas. Additionally, none of the borings nor header cable installations will be conducted below the design section of the Mississippi River Levee (Figure 4). Each anode will be carbon backfilled with Loresco DW-1 coke breeze (Attachment A), and the header cables will be backfilled with excavated material.<br>**Preliminary Determination:** Exempt<br>**Application Modification:** N/A | **P20240913** |
| **No comments were made.** | | |

**ADMINISTRATION REPORT:** Advised all members of completion of 2024 Ethics Training, Reminder of upcoming board election for January, LCP Board Members Training Dates, and copies of maps showing pipelines in the wetlands as requested.

**BOARD MEMBERS' REPORT:**

District 1 - Mr. Calcagno: No Comment
District 2 - Mr. Vicknair: Absent
District 3 - Mr. Lambert: No Comment
District 4 - Mr. Boudreaux: Absent
District 5 - Mr. Octave: No Comments
District 6 - Mr. Joseph: No Comment
District 7 - Mr. Becnel: No Comment
President Appointee - Mr. Chenier: Absent

**ADJOURNMENT:** Motioned by Kalon Octave and was seconded by Issac Lambert to adjourn. All in favor. Motion carried. The meeting was adjourned at 5:24 p.m.

s/_____

LeVar Joseph, Chairman

**PROCEEDING OF THE COASTAL ZONE MANAGEMENT ADVISORY COMMISSION, PARISH OF ST. JAMES, STATE OF LOUSIANA, TAKEN AT A REGULAR MEETING AT THE ST. JAMES PARISH VACHERIE COURTHOUSE ANNEX COUNCIL CHAMBERS ON MONDAY, DECEMBER 30, 2024.**

The Coastal Zone Management Advisory Commission (CZMAC) of the Parish of St. James, State of Louisiana, met in a regular session on Monday, December 30, 2024 at 5:00 p.m.

**PRESENT:** Carl Vicknair, Anthony Boudreaux, Kalon Octave and Wayne Becnel

**ABSEENT:** Craig Calcagno Jr., Isaac Lambert, Elton Chenier, and Levar Joseph

**ALSO, IN ATTENDANCE:** Marrill McKarry

No actions were taken on any items on the agenda. A quorum was not present.

s/_____

LeVar Joseph, Chairman

**DEPARTMENT OF ENERGY AND NATURAL RESOURCES**

## State/Local Concern Determinations

**Application #:** P20240997 **Parish:** SAINT JAMES **Date Completed:** 12/17/2024

Louisiana Revised Statute 49:214 Types of Uses

A. No Local Program exists for the parish selected.

☐ **No Local Program**

B. Uses of the Coastal Zone subject to the Coastal Use Permitting program shall be of two types:

☐ **( 1 ) Uses of State Concern**

- ☐ a. Any dredge or fill activities which intersects with more than one water body
- ☐ b. Projects involving use of state owned lands or water bottoms
- ☐ c. State publicly funded projects
- ☐ d. National interest projects
- ☐ e. Projects occuring in more than one parish
- ☐ f. All mineral activities
- ☐ g. All pipelines involved in mineral activities
- ☐ h. Energy facilities siting and development
- ☐ i. Uses of local concern which may significantly affect interests of regional, state, or national development

☒ **( 2 ) Uses of Local Concern**

- ☒ a. Privately funded projects which are not uses of state concern
- ☐ b. Publicly funded projects which are not uses of state concern
- ☐ c. Maintenance of uses of local concern
- ☐ d. Jetties or breakwaters
- ☐ e. Dredge or fill project not intersecting more than one water body
- ☐ f. Bulkheads
- ☐ g. Piers
- ☐ h. Camps and cattlewalks
- ☐ i. Maintenance dredging
- ☐ j. Private water control structures of less than $15,000 in cost
- ☐ k. Uses of Cheniers, salt domes, or similar land forms

Comments:

Based on the above considerations, this Coastal Use Permit application has been determined to be a **Local Concern**

Kyle F. Balkum, Administrator

Louisiana Department of Energy
and Natural Resources
Office of Coastal Management

# Joint Permit Application For Work Within the Louisiana Coastal Zone

U.S. Army Corps of Engineers
(COE)
New Orleans District

**Application Number:** 33723 **Permit Number:** P20240997 **Date Received:** 12/16/2024

## Step 1 of 15 - Applicant Information

**Applicant Name:** Union Pacific Railroad **Applicant Type:** INDUSTRY/OTHER

**Mailing Addr :** 1400 Douglas Street
Omaha, NE 68179

Kevin Rice

**Contact Info:** (402) 544-2213 **Fax:** (402) 501-0478 **Email:** kprice@up.com

**Phone:**

## Step 2 of 15 - Agent Information

**Agent Name:** HDR Engineering, Inc.

**Mailing Addr:** 5750 JOHNSTON ST.
STE. 105
LAFAYETTE, LA 70503--553

**Contact Info:** Amber Robinson

**Phone:** (337) 962-5600 **Fax:** (337) 347-5601 **Email:** E2A3BF43.HDRINC.ONMICROSOFT.COM@AMER.TEAMS.MS

## Step 3 of 15 - Permit Type

☒ Coastal Use Permit (CUP) ☐ Solicitation of Views (SOV) ☐ Request for Determination (RFD)

## Step 4 of 15 - Pre-Application Activity

**a. Have you participated in a Pre-Application or Geological Review Meeting for the proposed project?**

☒ No ☐ Yes Date meeting was held:

Attendees:

(Individual or Company Rep) (OCM Representative ) (COE Representative)

**b. Have you obtained an official wetland determination from the COE for the project site?**

☒ No ☐ Yes **If Yes, Please upload a copy with your application.**

**JD Number:**

**c. Is this application a mitigation plan for another CUP?**

☒ No ☐ Yes OCM Permit Number:

## Step 5 of 15 - Project Information

**a. Describe the project.**

Union Pacific Railroad (UPRR) proposes to replace a culvert at mile post (MP) 58.22 on the Livonia subdivision within UPRR right-of-way. The current structure was installed in 1970 and is a 4-foot diameter, 45-foot long concrete pipe culvert inlet and corrugated metal pipe (CMP) culvert outlet. In order to meet current design criteria for the 50-year and 100-year water surface elevations, UPRR proposes to replace the existing culvert with a 4-foot diameter, 75-foot long smooth steel pipe (SSP). Minor channel regrading will be needed in the vicinity of the culvert inlet and outlet. Refer to Attachment A for details regarding existing conditions, construction, access, and hydrology and hydraulics.

**b. Is this application a change to an existing permit?**

☒ No ☐ Yes OCM Permit Number:

**c. Have you previously applied for a permit or emergency authoriation for all or any part of the proposed project?**

☒ No ☐ Yes

| Agency | Contact | Permit Number | Decision Status | Decision Date |
|---|---|---|---|---|
| OCM | | | | |
| COE | | | | |
| Other | | | | |

**Step 6 of 15 - Project Location**

**a. Physical Location**

Street: N/A

City: Donaldsonville Parish: Saint James Zip: 70346

Water Body: Unnamed tributary to St. James Parish Canal

**b. Latitude and Longitude**

Latitude: 30 2 24.29 Longitude: 90 54 34.09

**c. Section, Township, and Range**

Section #: Township #: Range #:
Section #: Township #: Range #:

**d. Lot, Tract, Parcel, or Subdivision Name**

Lot #: Parcel #:

Tract #: Subdivision Name:

**e. Site Direction**

START - 1-10 towards Baron Rouge. Exit #153 toward Plaquemine. LA-1 South ramp. Continue 33 miles to LA-3089. Continue to LA-70 E. Turn right onto LA-70 Frontage Street. Turn right onto LA-18 E. Turn right onto Minnie Street and continue for 1.5 miles. -END

**Step 7 of 15 - Adjacent Landowners -** See attached list

**Step 8 of 15 - Project Specifics**

**a. Project Name and/or Title:** Livonia 58.22 Culvert replacement

**b. Project Type:** Non-Residential

**c. Jurisdiction:** State Concern

**d. Source of Funding:** **PRIVATE**

**e. What will be done for the proposed project?**

| | | | |
|---|---|---|---|
| ☐ Bridge/Road | ☐ Home Site/Driveway | ☐ Pipeline/Flow Line | ☐ Rip Rap/Erosion Control |
| ☐ Bulkhead/Fill | ☐ Levee Construction | ☐ Plug/Abandon | ☐ Site Clearance |
| ☐ DrainageImprovements | ☐ Dredging | ☐ Production Barge/Structure | ☐ Subdivision |
| ☐ Drill Barge/ Structure | ☐ Prop Washing | ☐ Vegetative Plantings | ☐ Wharf/Pier/Boathouse |
| ☐ Drill Site | ☐ Pilings | ☐ Remove Structures | |
| ☐ Fill | ☐ Marina | ☐ Major Industrial/Commercial | |
| ☒ Other: Railroad Culvert Replacement | | | |

**f. Why is the proposed project needed?**

The purpose of the proposed project is to replace a dated culvert structure for safe and reliable railroad transportation

on the existing UPRR Livonia Subdivision.

**Step 9 of 15 - Project Status**

**a. Proposed start date:** 01/01/2026 **Proposed completion date:** 12/31/2026

**b. Is any of the project work in progress?**

☒ No ☐ Yes

**c. Is any of the project work completed?**

☒ No ☐ Yes

**Step 10 of 15 - Structures, Materials, and Methods for the Pr**

**a. Excavations**

39.15 Cubic Yards 0.01 Acres

**b. Fill Areas**

268.25 Cubic Yards .20 Acres

**c. Fill Materials**

| | | | | | |
|---|---|---|---|---|---|
| ☒ | Concrete: | 20.94 Cubic Yards | ☒ | Rock: | 64.00 Cubic Yards |
| ☒ | Crushed Stone or Gravel: | 129.84 Cubic Yards | ☐ | Sand: | Cubic Yards |
| ☒ | Excavated and Placed onsite : | 39.15 Cubic Yards | ☐ | Hauled in Topsoil/Dirt: | Cubic Yards |
| ☐ | Excavated and hauled offsite: | Cubic Yards | | | |
| ☒ | Other: Smooth Steel Pipe | | | 14.32 Cubic Yards | |

**d. What equipment will be used for the proposed project?**

| | | | | | |
|---|---|---|---|---|---|
| ☐ | Airboat | ☐ | Bulldozer/Grader | ☐ | Marsh Buggy |
| ☐ | Backhoe | ☒ | Dragline/Excavator | ☒ | Other Tracked or Wheeled Vehicles |
| ☐ | Barge Mounted Bucket Dredge | ☐ | Handjet | ☐ | Self Propelled Pipe Laying Barge |
| ☐ | Barge Mounted Drilling Rig | ☐ | Land Based Drilling Rig | ☐ | Tugboat |
| ☒ | Other: Jack and Bore machine | | | | |

**Step 11 of 15 - Project Alternatives**

**a. Total acres of wetlands and/or waterbottoms filled and/or excavated.**

**0.01** acres

**b. What alternative locations, methods, and access routes were considered to avoid impact to wetlands and/or waterbottoms?**

Construction activities will occur off-track at the location of the existing culvert within the UPRR right-of-way in uplands. Access activities will occur off-track within an existing temporary access corridor on private property and the UPRR right-of-way (see Figure 2 and 4 - Plan View and Proposed Temporary Access Route). Impacts to wetlands and water bottoms will be minimized by the temporary access route that was chosen in uplands and the construction work plan to be implemented. Improvements will only be made to the temporary access road south of the track by adding gravel. See minimization efforts in Step 11c below for details on minimization measures and Attachment A, Step 5a for a detailed description of the proposed construction workplan.

**c. What efforts were made to minimize impact to wetlands and/or waterbottoms?**

Permanent and temporary impacts to wetlands and waterbottoms to construct the proposed project were minimized to the extent practicable by the design of the project and by equipment working from and along the northern or southern railroad embankment in the proposed project limits and the existing temporary access route, in uplands when feasible. Construction timing will be adjusted to the dry part of the year. Approximately 0.010 acre of ephemeral stream will be permanently impacted as a result of construction activities. Approximately 0.0003 acre of emergent wetland will be temporarily impacted as a result of access, equipment, and material staging within the proposed project limits and proposed temporary access route. No improvements will be required for the use of Minnie Street as a temporary access route; however, the temporary access route parallel to the track will need improvements with the addition of 6 inches of gravel, but this is all in uplands.

**d. How are unavoidable impacts to vegetated wetlands to be mitigated?**

There will be no permanent impacts to vegetated wetlands, therefore no mitigation is proposed for this project. The 0.0003 acre of emergent wetlands that will be temporarily affected for use of the access road will be restored following construction.

**Step 12 of 15 - Permit Type and Owners**

**a. Are you applying for a Coastal Use Permit?**

☐ No ☒ Yes

**b. Are you the sole landowner / oyster lease holder?**

☒ No ☐ Yes

☒ The applicant is an owner of the property on which the proposed described activity is to occur.

☒ The applicant has made reasonable effort to determine the identity and current address of the owner(s) of the land on which the proposed described activity is to occur, which included, a search of the public records of the parish in which the proposed activity is to occur.

☒ The applicant hereby attests that a copy of the application has been distributed to the following landowners / oyster lease holders. See attached list.

**c. Does the project involve drilling, production, and/or storage of oil and gas?**

☒ No ☐ Yes **If yes, you must attach a list of all state and federal laws and rules and regulations dealing with spill prevention and containment.**

**Step 13 of 15 - Maps and Drawing Instructions**

Note: OCM Compiled Plats consist of a complete and current set of plats that have been pieced together by OCM using only the most current portions of the plat files provided by the applicant/agent. All out-of-date plats have been excluded.

| | |
|---|---|
| AttachmentA_AdditionalProjectInformation.pdf | 12/16/2024 09:48:37 AM |
| AttachmentC_RepresentitivePhotos.pdf | 12/16/2024 09:48:55 AM |
| AttachmentB_PermitPlats.pdf | 12/16/2024 09:48:44 AM |
| AttachmentD_DataForms.pdf | 12/16/2024 09:49:11 AM |

**Step 14 of 15 - Payment**

**The fee for this permit is:** $ 100.00

**Step 15 of 15 - Payment Processed**

**Applicant Information**

**Applicant Name:** Union Pacific Railroad
**Address:** 1400 Douglas Street

Omaha, NE 68179

To the best of my knowledge the proposed activity described in this permit application complies with, and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. If applicable, I also certify that the declarations in Step 12c, oil spill response, are complete and accurate.

## Landowners List

| |
|---|
| **Landowner**<br>**FG LA, LLC**<br>**445 Louisiana Ave.**<br>**Baton Rouge, LA 70802** |
| **Adjacent Landowner**<br>**FG LA, LLC**<br>**445 Louisiana Ave.**<br>**Baton Rouge, LA 70802** |
| **Adjacent Landowner**<br>**Gavilon Agriculture, LLC**<br>**1331 Capitol Ave.**<br>**Omaha, NE 68102** |

**Additional Project Information – UPRR Culvert 58.22 Livonia Subdivision Replacement Project**

**5a. Describe the Project.**

**Proposed Project Workspace Description**

Culvert 58.22 on the Livonia Subdivision is located within the Louisiana Coastal Zone and crosses an unnamed ephemeral stream. Fallen ballast and soil run-off from the adjacent agricultural fields prevent regular flow exchange between the ephemeral stream segment located south of the existing culvert structure and the ephemeral stream segment located north of the existing culvert structure. Ponding was observed directly north and south of the culvert. The ordinary high water mark (OHWM) of the ephemeral stream south of the existing culvert within the boundary of the study area is approximately 6-feet wide. About 0.0003 acre (ac) of emergent wetland occurs within the proposed project workspace and would be temporarily impacted, but no other aquatic features occur in the temporary access route. According to the LDNR SONRIS database, the project workspace is located above the 5-foot contours (see **Figure 1, Vicinity Map**).

**Proposed Culvert Replacement**

Before setting the pipe, approximately 39.15 cubic yards (cy) of soil will be permanently excavated and placed on-site and approximately 20.94 cy of flowable concrete fill will be used to fill the existing culvert as depicted in **Figure 2, Detail View**, and **Figure 3, Cross Section**. Following minor excavation via jack and bore, grading will be required within the fill limits notated in **Figure 2** before placement of the pipe. The pipe will be placed through the jack and bore opening perpendicular to the track and surrounded by a total of 64.00 cy of rock riprap. The culvert would be installed at a sufficient depth to maintain low flows and to sustain the movement of aquatic species. Proposed permanent impacts to the ephemeral stream within the project workspace from these fill activities include approximately 18.15 cy of rock riprap (0.008 ac.), 2.16 cy of soil fill (0.001 ac), and 2.29 cy from the steel pipe (0.001 ac). Permanent fill in uplands include approximately 45.85 cy (0.019 ac.) of rock riprap, 12.03 cy (0.006 ac) for the placement of the proposed pipes and 20.94 cy (0.004 ac) of flowable concrete fill for the abandoned pipe fill. Approximately 129.84 cy (0.161 ac.) of gravel to a depth of a maximum of 6 inches will be added to the off-track access road south of the track for improvements. Refer to **Figures 2 and 3** for details.

**Hydrology and Hydraulics**

A hydrologic and hydraulic analysis was completed by Olsson to evaluate the performance of the existing structure and assess any impacts of the proposed replacement structure. The hydrologic analysis utilized the Rational Method. The drainage area contributing to the existing location was determined to be approximately 2 acres and is comprised of sugarcane agricultural fields. The design discharges utilized for the hydraulic modeling were computed using the Rational Formula. The 50- and 100- year discharges for the entire drainage area are estimated to be approximately 4 cubic feet per second (cfs) and 5 cfs, respectively.

The results of the hydraulic analysis of the existing culvert show that the drainage carrying capacity of the opening (12.6 $ft^2$), assuming unobstructed by debris or other material, is sufficient to convey the 50- and 100-year discharges. The hydraulic analysis of the proposed replacement, one 48” diameter smooth steel pipes (SSPs) 75-ft long, was performed to evaluate the drainage carrying capacity. The open area of the proposed culvert (12.6 $ft^2$) is the same as

the existing structure, which is sufficient to convey both 50- and 100-year flood discharges.

**Proposed Temporary Off-Track Access and Construction Work Plan**

Construction and material staging will occur at the location of the existing culvert replacement within the existing UPRR Right-of-Way (see **Figure 2, Detail View, Project Limits**). To decrease mainline track operation shut-downs during pipe construction, construction activities would be performed off-track, but within the proposed project limits and railroad right-of-way for staging equipment and materials. No additional construction workspace is required and no additional right-of-way is anticipated for acquisition (see **Figure 2, Plan View and Figure 3, Cross Section** for details). Some vegetation clearing may be required within the project limits as defined in **Figure 2**, but clearing is anticipated to be minimal and cleared vegetation would be disposed of at a state- approved facility or in uplands outside of the coastal zone.

Access to the proposed workspace will occur off-track, south of the rail ROW, via Minnie Street, then onto an unnamed agricultural road parallel to the rail. The existing access roads are owned by FG LA, LLC and are used for access to their agricultural fields. Minnie Road south of the track would not require any improvements, but the unnamed agricultural road would require approximately 129.84 cy (0.161 ac) of gravel. Construction will be scheduled during a dry time of the year to minimize impacts to agricultural fields along the gravel levee roads where temporary access leading to the project is proposed (See **Attachment A, Figure 4** for access details).

**Cultural Resources**

The proposed project occurs in the railroad right-of-way. UPRR's MP 58.22 Culvert on the Livonia Subdivision is a 45-foot-long by 4-foot-diameter corrugated metal pipe culvert, constructed in 1970 with three concrete extensions added in 1999. The culvert is of common design with no unique or regionally specific characteristics and no known historic or engineering significance. This culvert falls within the scope of the Program Comment for Common Post-1945 Concrete and Steel Bridges—under Type D, Culverts and reinforced concrete boxes, (iv) Steel pipe culverts—and, as such, requires no further Section 106 review. A review of the Louisiana Cultural Resources Map indicates that there are two cultural resources within a one-mile search radius of the Area of Potential Effect (APE), defined as the boundaries of the proposed project site. Five cultural resources surveys, including three Phase I surveys and two reconnaissance level surveys, have been conducted within the one-mile search radius (survey ID numbers 22-0231, 22-2180, 22-2983, 22-5780, 22-6435). None of the surveys overlap with the project site; however, one survey, 22-5780, was completed in 2017 immediately adjacent to the southwest of the project site. One site (16SJ28) overlaps the APE, and most likely represents the Winchester Plantation, which spans from the Antebellum (1803-1860), through the War and Aftermath (1860-1890), into the Industrial and Modern (1890-present) periods. It subsumes several smaller sites, now identified as loci, including former sites 16SJ65 (now Locus 5) and 16SJ74 (now Locus 6), both which are scatters of post-contact artifact concentrations within the one-mile search radius. While portions of 16SJ28, including Loci 5 and 6, were determined to be not eligible for the NRHP, the portion of the site that overlaps the project site has not been evaluated. The second site (16SJ109) within the one mile-radius also represents a plantation, though it is more than 0.98 mi (1.57 km) from the APE and is therefore unlikely to be affected by the project. Given that the APE is within a known site that has not been evaluated for inclusion in the NRHP, the Louisiana SHPO may require an archaeological survey of the APE. Should Federal funds, property, and/or permits be required to complete the proposed project, the Louisiana SHPO may require a cultural resources field investigation within the APE per Section

106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 United States Code § 470).

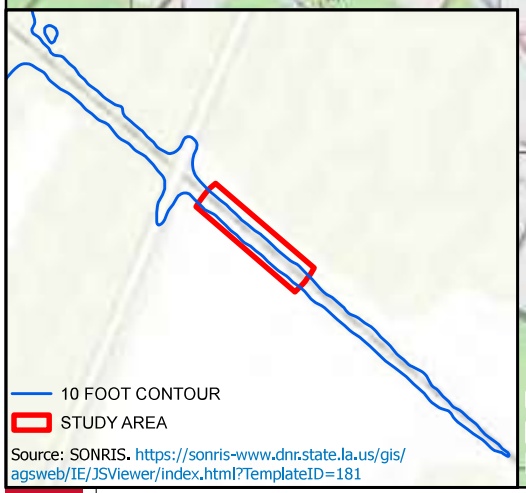
**14 Property Access Contact.**

Note that for security and safety considerations, entry onto UPRR property (to the project site for inspection purposes) will require personal protective measures (hard hat, safety-toed boots, safety glasses, and safety vest) as well as prior arrangements with a UPRR representative, by contacting either the authorized agent or the UPRR Manager Bridge Maintenance, Brennan Fowler, at (402) 669-4594.

PRELIMINARY - FOR PERMIT PURPOSES ONLY

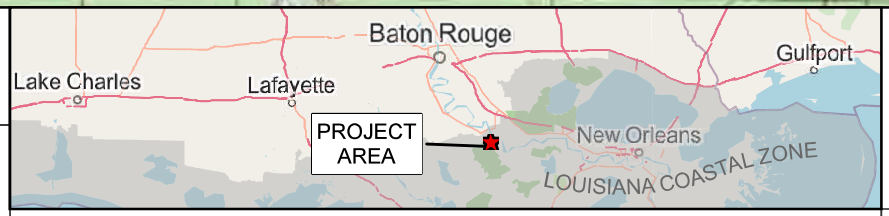
LIVONIA 58.22

LIVONIA SUBDIVISION, MILE POST 58.22
30° 2'24.29"N, 90°54'34.09"W




USGS QUADRANGLE MAP
DONALDSONVILLE, LOUISIANA
LOUISIANA SOUTH NAD 83

0 2,000
Feet




# VICINITY MAP

MP 58.22
UNION PACIFIC RAILROAD
LIVONIA SUB
ST. JAMES PARISH, LOUISIANA

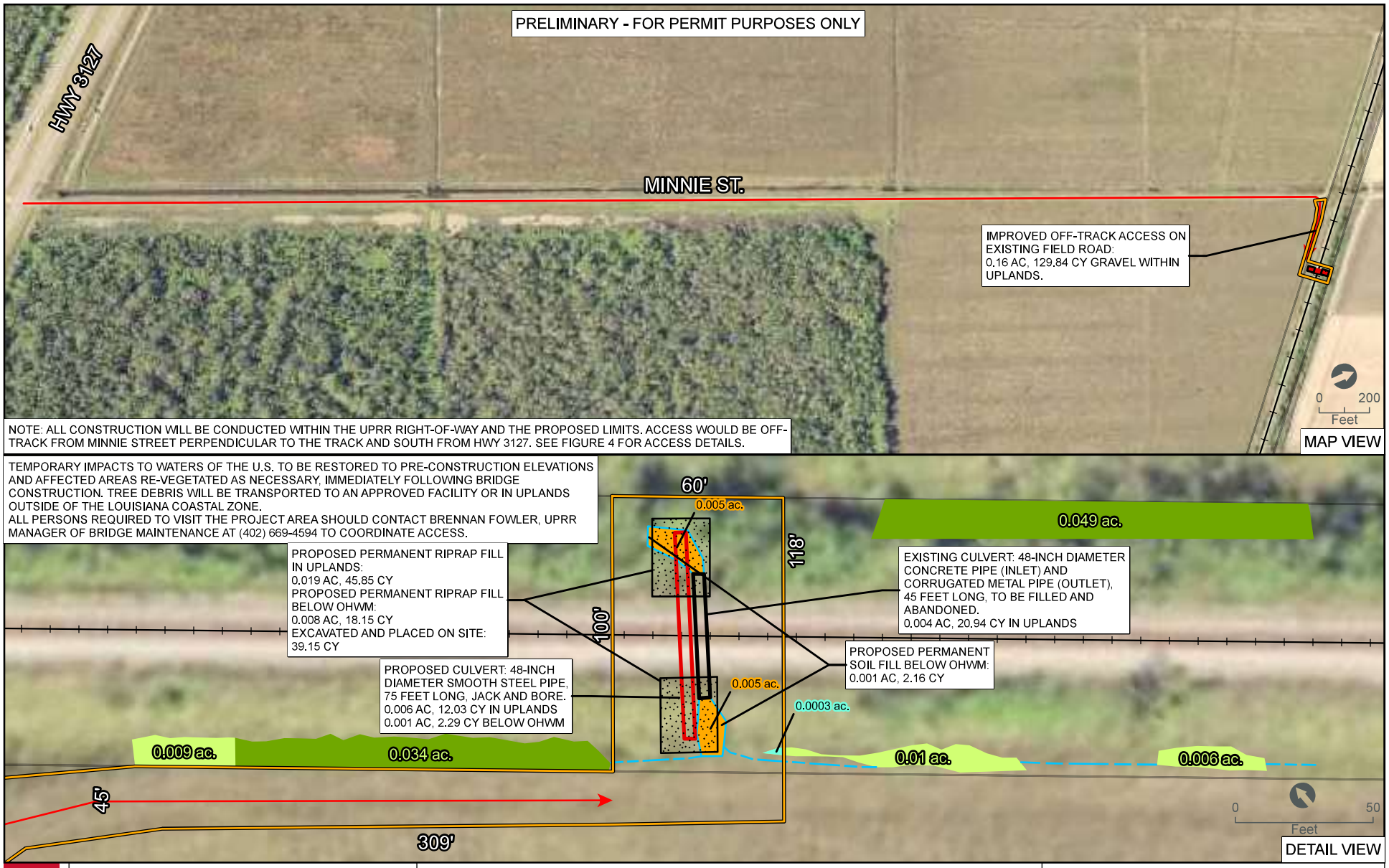
HDR Engineering, Inc.

SCALE: 1" = 2,000' AT 8.5 x 11 PAGE SIZE

NOVEMBER 2024

FIGURE 1

PATH: \\LAF-SRV01\PROJECTS_02 PROJECTS_OTHER DEPTS\02.01 OPEN PROJECTS\UPRR\UPRR_BRIDGE_REPLACEMENT\UPRR_BRIDGE_REPLACEMENT_2026\7.2_WIP\APRX\JPA\LIV58.22_FIGURE1_VICINITY.APRX - USER: JOSTOLL - DATE: 11/25/2024




MAP VIEW:
SCALE: 1" = 550' AT 8.5 x 11 PAGE SIZE
DETAIL VIEW:
SCALE: 1" = 50' AT 8.5 x 11 PAGE SIZE

HDR Engineering, Inc.

**AQUATIC AND DRAINAGE FEATURES**

- PROPOSED PERMANENT IMPACTS BELOW OHWM
- PROPOSED TEMPORARY IMPACTS TO EMERGENT WETLAND
- EPHEMERAL STREAM
- EMERGENT WETLAND TO BE AVOIDED
- SCRUB-SHRUB WETLAND TO BE AVOIDED
- EPHEMERAL DRAINAGE

**NOT AQUATIC AND DRAINAGE FEATURES**

- TEMPORARY OFF-TRACK ACCCESS
- EXISTING CULVERT
- PROPOSED CULVERT
- PROPOSED RIPRAP
- PROPOSED PROJECT LIMITS
- UP RAILROAD
- UPRR RIGHT-OF-WAY

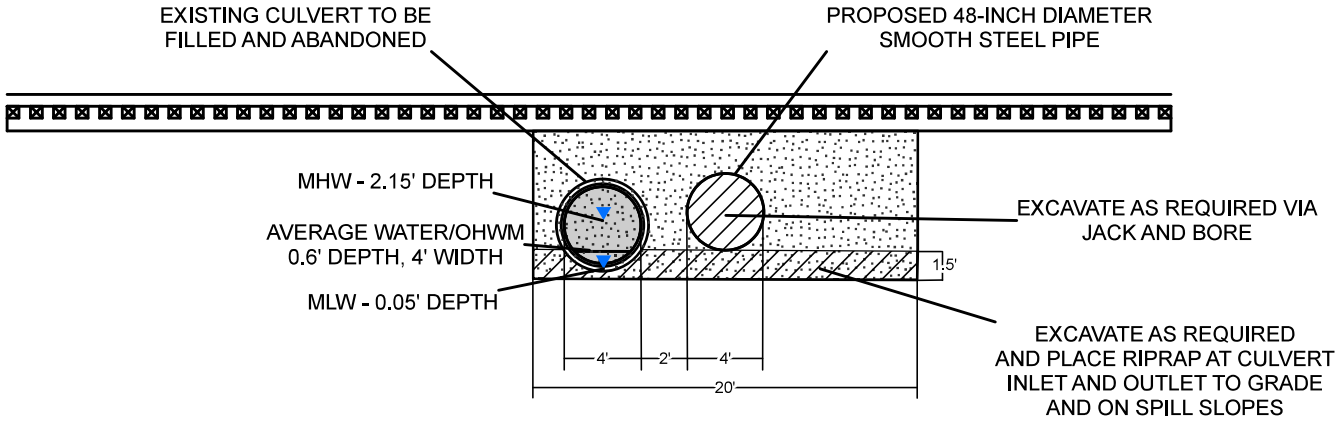
# PLAN VIEW

MP 58.22
UNION PACIFIC RAILROAD
LIVONIA SUB
ST. JAMES PARISH, LOUISIANA

NOVEMBER 2024 | FIGURE 2

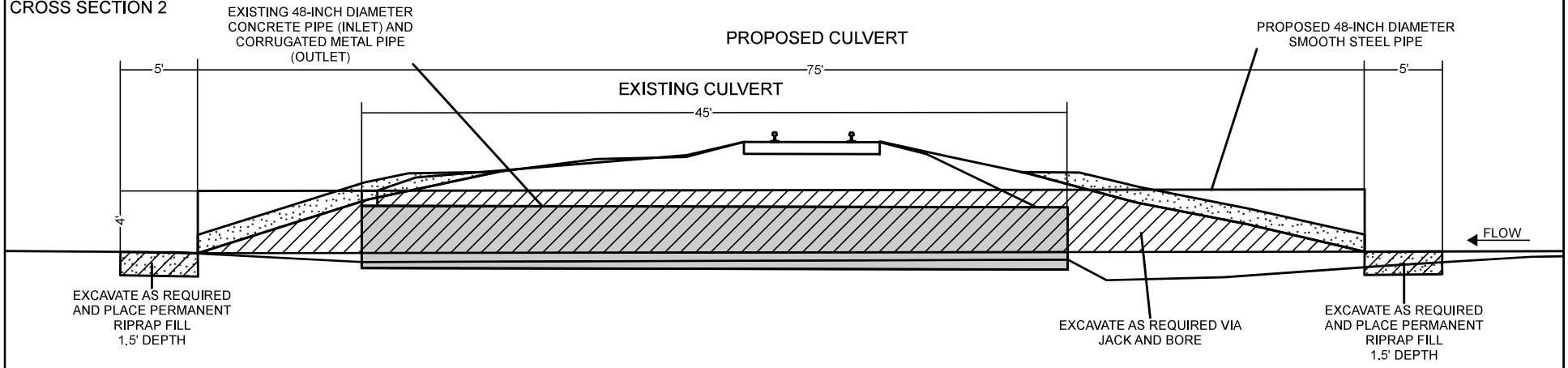
PATH: \\LAF-SRV01\PROJECTS_02 PROJECTS_OTHER DEPTS\02.01 OPEN PROJECTS\UPRR\UPRR_BRIDGE_REPLACEMENT\UPRR_BRIDGE_REPLACEMENT_2026\7.2_WIP\APRX\JPA\LIV58.22_FIGURE2_PLANVIEW.APRX - USER: JOSTOLL - DATE: 11/25/2024

PRELIMINARY - FOR PERMIT PURPOSES ONLY




CROSS SECTION 1

CROSS SECTION 2




NOTES:
*CROSS SECTION 1 FACING PIPE INLETS- REFER TO DETAIL VIEW ON FIGURE 2 FOR EXACT LOCATION OF PROPOSED EXCAVATION AND FILL.
*EXCAVATED MATERIAL WILL BE USED AS FILL MATERIAL WITHIN THE PROPOSED PROJECT LIMITS AND/OR DISPOSED OF WITH CLEARED VEGETATION AT A STATE-APPROVED FACILITY OR IN UPLANDS.
*TEMPORARY IMPACTS TO BE RESTORED TO PRE-CONSTRUCTION ELEVATIONS AND RE-VEGETATED AS NEEDED.
*ALL PERSONS REQUIRED TO VISIT THE PROJECT AREA SHOULD CONTACT BRENNAN FOWLER, UPRR MANAGER OF BRIDGE MAINTENANCE AT (402) 669-4594 TO COORDINATE ACCESS.

0 10
Feet

SCALE: 1" = 10' AT 8.5 x 11 PAGE SIZE

UNION PACIFIC

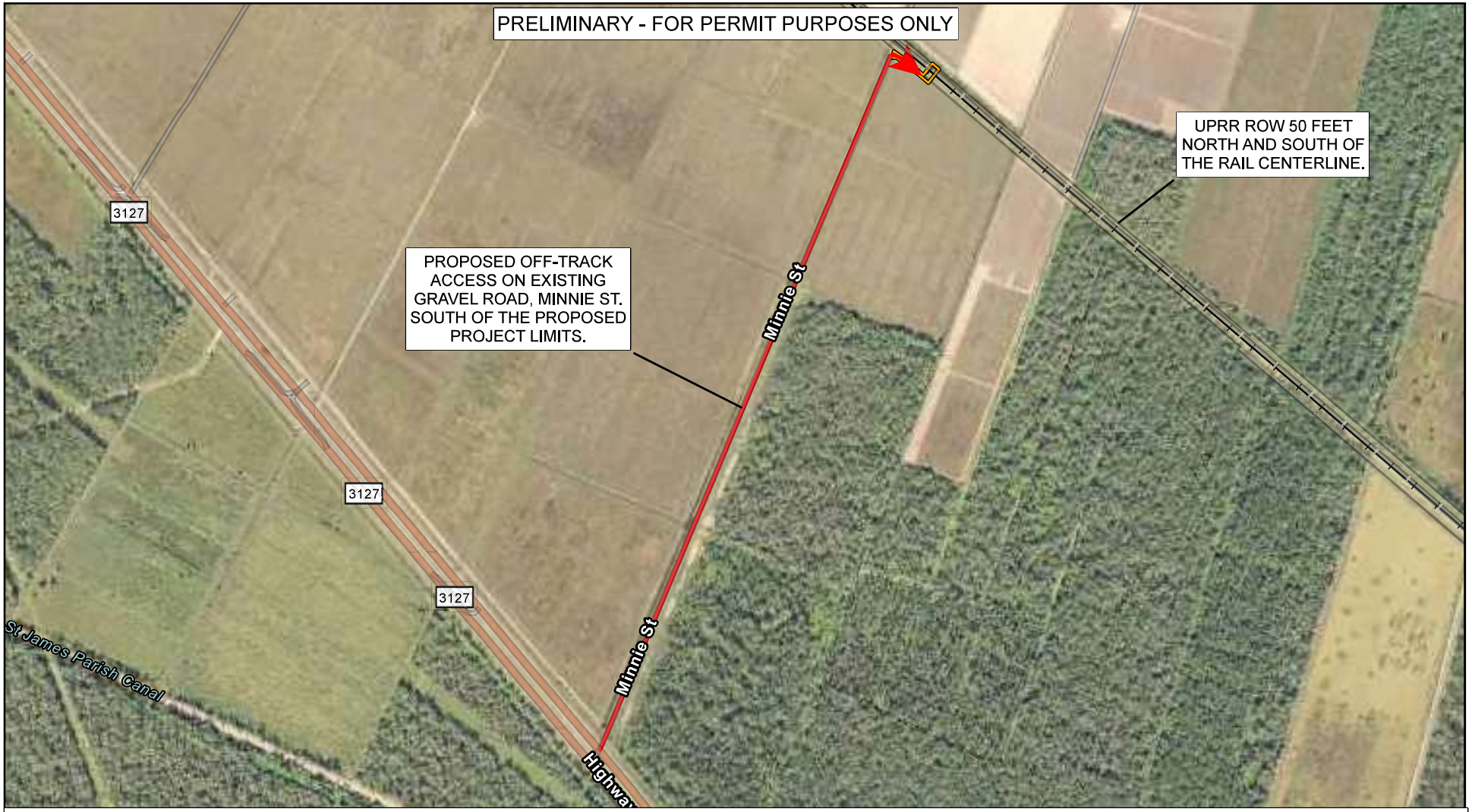
HDR Engineering, Inc.

- EXISTING GROUND LINE
- PROPOSED EXCAVATION - 39.15 CY
- PROPOSED PERMANENT RIPRAP FILL - 64.00 CY
- PROPOSED PERMANENT PIPE FILL - 20.94 CY

# CROSS SECTION

MP 58.22
UNION PACIFIC RAILROAD
LIVONIA SUB
ST. JAMES PARISH, LOUISIANA

NOVEMBER 2024 | FIGURE 3




NOTES:
ACCESS ROUTE IS SOUTH FROM MINNIE STREET PERPENDICULAR TO THE TRACK FROM HIGHWAY 3127 ON EXISTING MAINTAINED AGRICULTURAL FIELD ROAD.
ALL PERSONS REQUIRED TO VISIT THE PROJECT AREA SHOULD CONTACT BRENNAN FOWLER, UPRR MANAGER OF BRIDGE MAINTENANCE AT (402) 669-4594 TO COORDINATE ACCESS.

0 1,000
Feet

PROPOSED TEMPORARY OFF-TRACK ACCCESS
PROPOSED PROJECT LIMITS
UP RAILROAD
UPRR RIGHT-OF-WAY

HDR Engineering, Inc.

# PROPOSED TEMPORARY ACCESS ROUTE

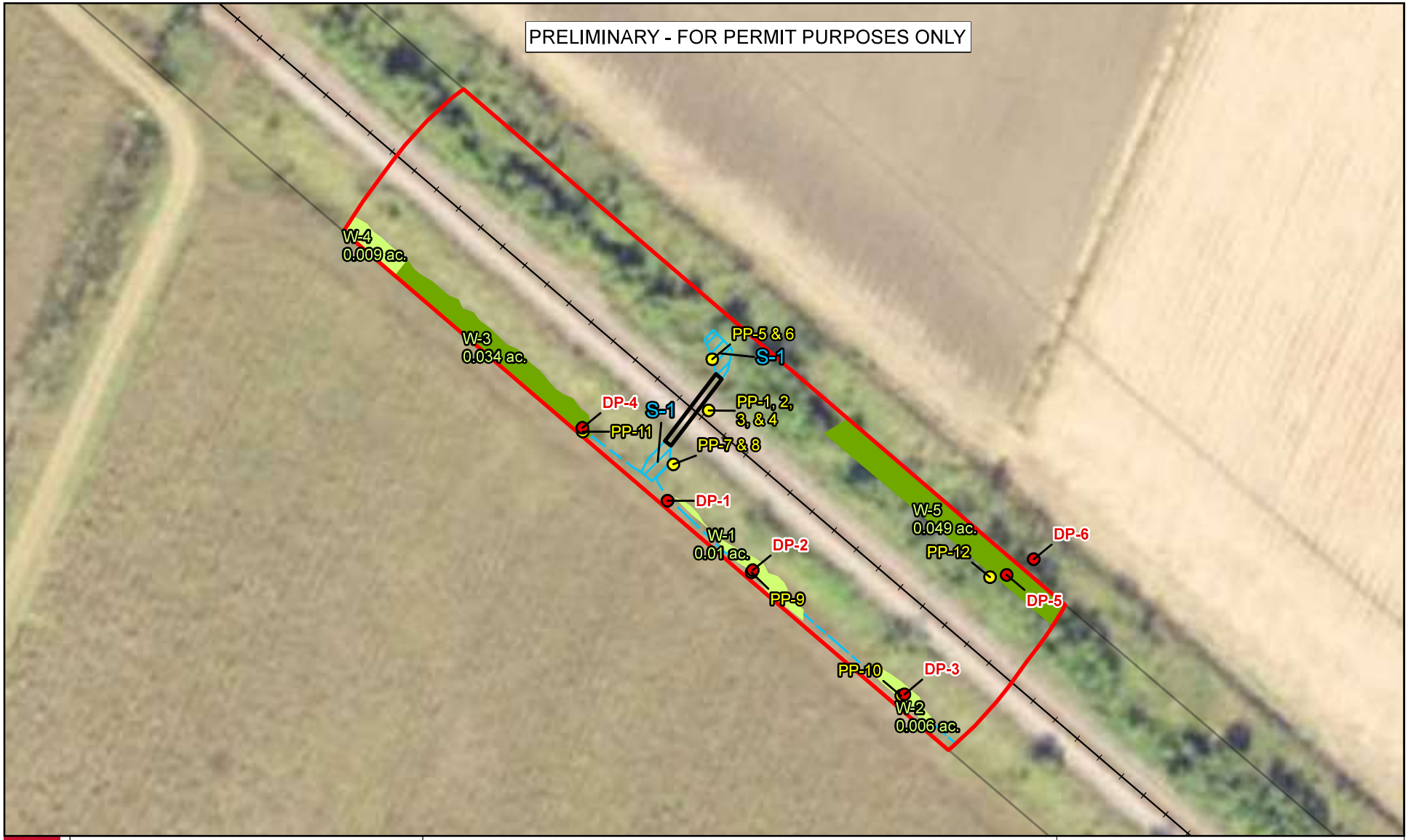
MP 58.22
UNION PACIFIC RAILROAD
LIVONIA SUB
ST. JAMES PARISH, LOUISIANA

SCALE: 1" = 1,000' AT 8.5 x 11 PAGE SIZE

NOVEMBER 2024

FIGURE 4

PATH: \\LAF-SRV01\PROJECTS_02 PROJECTS_OTHER DEPTS\02.01 OPEN PROJECTS\UPRR\UPRR_BRIDGE_REPLACEMENT\UPRR_BRIDGE_REPLACEMENT_2026\7.2_WIP\APRX\JPA\LIV58.22_FIGURE4_ACCESS.APRX - USER: JOSTOLL - DATE: 11/25/2024




0 100
Feet

UNION PACIFIC

HDR Engineering, Inc.

**AQUATIC AND DRAINAGE FEATURES**

- EPHEMERAL DRAINAGE
- EPHEMERAL STREAM
- EMERGENT WETLAND
- SCRUB-SHRUB WETLAND

**NOT AQUATIC AND DRAINAGE FEATURES**

- DATA POINT
- FIELD GENERAL PHOTO POINT
- EXISTING CULVERT
- STUDY AREA
- UP RAILROAD
- UPRR RIGHT-OF-WAY

SCALE: 1" = 75' AT 8.5 x 11 PAGE SIZE

# DELINEATION MAP

MP 58.22
UNION PACIFIC RAILROAD
LIVONIA SUB
ST. JAMES PARISH, LOUISIANA

NOVEMBER 2024 | FIGURE 5

PATH: \\LAF-SRV01\PROJECTS_02 PROJECTS_OTHER DEPTS\02.01 OPEN PROJECTS\UPRR\UPRR_BRIDGE_REPLACEMENT\UPRR_BRIDGE_REPLACEMENT_2026\7.2_WIP\APRX\JPA\LIV58.22_FIGURE5_WOTUS.APRX - USER: JOSTOLL - DATE: 11/25/2024

1. Standing Top of Rail (TOR), facing northwest.

2. Standing TOR, facing southeast.

3. Standing TOR, facing northeast at S-1 (upstream view).

4. Standing TOR, facing south at S-1 (downstream view).

5. Facing south at upstream culvert inlet on north side of rail.

6. View of S-1 upstream segment north of the track.

7. Facing northeast at downstream outlet of culvert on south side of rail.

8. Standing on rail, facing south, at downstream segment of S-1 south of track.

9. Standing at DP-2, facing southeast, at wetland W-1.

10. Standing at DP-3, facing southeast, at wetland W-2.

11. Standing at DP-4, facing northwest, at wetland W-3.

12. Standing at DP-5, facing north, at wetland W-4.

**U.S. Army Corps of Engineers**
**WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region**
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

*OMB Control #: 0710-0024, Exp: 11/30/2024*
*Requirement Control Symbol EXEMPT:*
*(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: UPRR 2026 Bridge Program - Livonia 58.22 City/County: Donaldsonville, St. James Sampling Date: 2-20-2024

Applicant/Owner: Union Pacific Railroad State: LA Sampling Point: DP-1

Investigator(s): Faran Miller; Jordan Stoll Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): LRR O, MLRA 131A Lat: 30.039936 Long: -90.909503 Datum: NAD 83

Soil Map Unit Name: Cancienne silt loam, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ____ | No X | **Is the Sampled Area within a Wetland?** **Yes** ____ **No** X |
| Hydric Soil Present? | Yes ____ | No X | |
| Wetland Hydrology Present? | Yes ____ | No X | |

Remarks:
Upland area south of the rail in a fallow agricultural field. APT indicates climatic conditions were wetter than normal.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ____ | No X | Depth (inches): ____ |
| Water Table Present? | Yes ____ | No X | Depth (inches): ____ |
| Saturation Present? (includes capillary fringe) | Yes ____ | No X | Depth (inches): ____ |

**Wetland Hydrology Present?** **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial imagery (Google Earth), NWI, USGS topo maps, USDA NRCS web soil survey, FEMA flood map, USACE Antecedent Precipitation Tool

Remarks:
No hydrology was observed, therefore wetland hydrology parameters are not met.

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: DP-1

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| **Sapling/Shrub Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| **Herb Stratum** (Plot size: 30' ) | | | |
| 1. *Cardmine hirsuta* | 60 | Yes | FACU |
| 2. *Geranium carolinianum* | 5 | No | UPL |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 65 =Total Cover | | |
| 50% of total cover: 33 | 20% of total cover: 13 | | |
| **Woody Vine Stratum** (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 0 | x 2 = | 0 |
| FAC species | 0 | x 3 = | 0 |
| FACU species | 60 | x 4 = | 240 |
| UPL species | 5 | x 5 = | 25 |
| Column Totals: | 65 (A) | | 265 (B) |

Prevalence Index = B/A = 4.08

**Hydrophytic Vegetation Indicators:**

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** **Yes** ___ **No** X

Remarks: (If observed, list morphological adaptations below.)
Only upland plants were observed, therefore hydrophytic vegetation parameters were not met.

**SOIL**

Sampling Point: DP-1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-16 | 10YR 3/1 | 100 | | | | | Loamy/Clayey | Lots of roots |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (**MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: N/A

Depth (inches): ___

**Hydric Soil Present?** **Yes** ___ **No** X

Remarks:

Hydric soils were not observed.

**U.S. Army Corps of Engineers**
**WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region**
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

*OMB Control #: 0710-0024, Exp: 11/30/2024*
*Requirement Control Symbol EXEMPT:*
*(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: UPRR 2026 Bridge Program - Livonia 58.22 City/County: Donaldsonville, St. James Sampling Date: 2-20-2024

Applicant/Owner: Union Pacific Railroad State: LA Sampling Point: DP-2

Investigator(s): Faran Miller; Jordan Stoll Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR O, MLRA 131A Lat: 30.039833 Long: -90.909359 Datum: NAD 83

Soil Map Unit Name: Cancienne silty clay loam, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes X | No ____ | **Is the Sampled Area within a Wetland?** **Yes** X **No** ____ |
| Hydric Soil Present? | Yes X | No ____ | |
| Wetland Hydrology Present? | Yes X | No ____ | |

Remarks:
Emergent linear wetland south of rail, between fallow agricultural field and rail. APT indicates climatic conditions were wetter than normal.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ____ | No X | Depth (inches): ____ |
| Water Table Present? | Yes X | No ____ | Depth (inches): 2 |
| Saturation Present? (includes capillary fringe) | Yes X | No ____ | Depth (inches): 0 |

**Wetland Hydrology Present?** **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial imagery (Google Earth), NWI, USGS topo maps, USDA NRCS web soil survey, FEMA flood map, USACE Antecedent Precipitation Tool

Remarks:
High water table and saturation were observed, therefore hydrology parameters were met.

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: DP-2

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Sapling/Shrub Stratum (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Herb Stratum (Plot size: 30' ) | | | |
| 1. *Cyperus virens* | 90 | Yes | FACW |
| 2. *Rubus trivialis* | 5 | No | FACU |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 95 =Total Cover | | |
| 50% of total cover: 48 | 20% of total cover: 19 | | |
| Woody Vine Stratum (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species | x 1 = |
| FACW species | x 2 = |
| FAC species | x 3 = |
| FACU species | x 4 = |
| UPL species | x 5 = |
| Column Totals: (A) | (B) |
| Prevalence Index = B/A = | |

**Hydrophytic Vegetation Indicators:**

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
Dominance test passed, therefore hydrophytic vegetation parameter was met.

**SOIL**

Sampling Point: DP-2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-6 | 10YR 4/1 | 100 | | | | | Loamy/Clayey | |
| 6-16 | 10YR 4/1 | 95 | 7.5YR 4/6 | 5 | C | M | Loamy/Clayey | Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (**MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: N/A

Depth (inches): ___

**Hydric Soil Present?** **Yes** X **No** ___

Remarks:
Hydric soils were observed.

**U.S. Army Corps of Engineers**
**WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region**
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

*OMB Control #: 0710-0024, Exp: 11/30/2024*
*Requirement Control Symbol EXEMPT:*
*(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: UPRR 2026 Bridge Program - Livonia 58.22 City/County: Donaldsonville, St. James Sampling Date: 2-20-2024

Applicant/Owner: Union Pacific Railroad State: LA Sampling Point: DP-3

Investigator(s): Faran Miller; Jordan Stoll Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR O, MLRA 131A Lat: 30.039649 Long: -90.909103 Datum: NAD 83

Soil Map Unit Name: Cancienne silty clay loam, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes X | No ___ | **Is the Sampled Area within a Wetland?** **Yes** X **No** ___ |
| Hydric Soil Present? | Yes X | No ___ | |
| Wetland Hydrology Present? | Yes X | No ___ | |

Remarks:
Linear emergent wetland south of rail, between agricultural field and rail. APT indicates climatic conditions were wetter than normal.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ___ | No X | Depth (inches): ___ |
| Water Table Present? | Yes X | No ___ | Depth (inches): 2 |
| Saturation Present? (includes capillary fringe) | Yes X | No ___ | Depth (inches): 0 |

**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial imagery (Google Earth), NWI, USGS topo maps, USDA NRCS web soil survey, FEMA flood map, USACE Antecedent Precipitation Tool

Remarks:
High water table and saturation were observed, therefore wetland hydrology parameters were met.

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: DP-3

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Sapling/Shrub Stratum (Plot size: 30' ) | | | |
| 1. *Sabal minor* | | | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Herb Stratum (Plot size: 30' ) | | | |
| 1. *Cyperus virens* | 90 | Yes | FACW |
| 2. *Sabal minor* | 10 | No | FACW |
| 3. *Rububs trivialis* | 5 | No | FACU |
| 4. *Persicaria hydropiperoides* | 5 | No | OBL |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 110 =Total Cover | | |
| 50% of total cover: 55 | 20% of total cover: 22 | | |
| Woody Vine Stratum (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: | |
|---|---|---|
| OBL species | x 1 = | |
| FACW species | x 2 = | |
| FAC species | x 3 = | |
| FACU species | x 4 = | |
| UPL species | x 5 = | |
| Column Totals: (A) | | (B) |

Prevalence Index = B/A =

**Hydrophytic Vegetation Indicators:**

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
Dominance test passed, therefore hydrophytic vegetation parameters were met.

**SOIL**

Sampling Point: DP-3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-6 | 10YR 3/1 | 100 | | | | | Loamy/Clayey | |
| 6-16 | 10YR 3/1 | 95 | 7.5YR 4/6 | 5 | C | M | Loamy/Clayey | Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (**MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: N/A

Depth (inches): ___

**Hydric Soil Present?** **Yes** X **No** ___

Remarks:

Hydric soils were observed.

**U.S. Army Corps of Engineers**
**WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region**
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

*OMB Control #: 0710-0024, Exp: 11/30/2024*
*Requirement Control Symbol EXEMPT:*
*(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: UPRR 2026 Bridge Program - Livonia 58.22 City/County: Donaldsonville, St. James Sampling Date: 2-20-2024

Applicant/Owner: Union Pacific Railroad State: LA Sampling Point: DP-4

Investigator(s): Faran Miller; Jordan Stoll Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 2

Subregion (LRR or MLRA): LRR O, MLRA 131A Lat: 30.040044 Long: -90.909647 Datum: NAD 83

Soil Map Unit Name: Cancienne silt loam, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes X | No ____ | **Is the Sampled Area within a Wetland?** **Yes** X **No** ____ |
| Hydric Soil Present? | Yes X | No ____ | |
| Wetland Hydrology Present? | Yes X | No ____ | |

Remarks:
Shallow agricultural swale with dense vegetation. Linear wetland located south of the rail between agricultural field and rail. APT indicates climatic conditions were wetter than normal.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes X | No ____ | Depth (inches): 3 |
| Water Table Present? | Yes X | No ____ | Depth (inches): 0 |
| Saturation Present? (includes capillary fringe) | Yes X | No ____ | Depth (inches): 0 |

**Wetland Hydrology Present?** **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial imagery (Google Earth), NWI, USGS topo maps, USDA NRCS web soil survey, FEMA flood map, USACE Antecedent Precipitation Tool

Remarks:
Surface water was present, therefore hydrology parameters were met.

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: DP-4

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Sapling/Shrub Stratum (Plot size: 30' ) | | | |
| 1. *Salix nigra* | 30 | Yes | OBL |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 30 =Total Cover | | |
| 50% of total cover: 15 | 20% of total cover: 6 | | |
| Herb Stratum (Plot size: 30' ) | | | |
| 1. *Cyperus virens* | 20 | Yes | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 20 =Total Cover | | |
| 50% of total cover: 10 | 20% of total cover: 4 | | |
| Woody Vine Stratum (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species | x 1 = |
| FACW species | x 2 = |
| FAC species | x 3 = |
| FACU species | x 4 = |
| UPL species | x 5 = |
| Column Totals: (A) | (B) |

Prevalence Index = B/A =

**Hydrophytic Vegetation Indicators:**

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
Dominance test passed, therefore hydrophytic vegetation parameters were met.

**SOIL**

Sampling Point: DP-4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-6 | 10YR 3/1 | 100 | | | | | Loamy/Clayey | |
| 6-16 | 10YR 3/1 | 95 | 7.5YR 4/6 | 5 | C | M | Loamy/Clayey | Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (**MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: N/A

Depth (inches): ___

**Hydric Soil Present?** **Yes** X **No** ___

Remarks:

Hydric soils were observed.

**U.S. Army Corps of Engineers**
**WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region**
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

*OMB Control #: 0710-0024, Exp: 11/30/2024*
*Requirement Control Symbol EXEMPT:*
*(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: UPRR 2026 Bridge Program - Livonia 58.22 City/County: Donaldsonville, St. James Sampling Date: 2-20-2024

Applicant/Owner: Union Pacific Railroad State: LA Sampling Point: DP-5

Investigator(s): Faran Miller; Jordan Stoll Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR or MLRA): LRR O, MLRA 131A Lat: 30.039825 Long: -90.908929 Datum: NAD 83

Soil Map Unit Name: Cancienne silty clay loam, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ___ No X (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes X | No ___ | **Is the Sampled Area within a Wetland?** **Yes** X **No** ___ |
| Hydric Soil Present? | Yes X | No ___ | |
| Wetland Hydrology Present? | Yes X | No ___ | |

Remarks:
Scrub-shrub wetland in a linear depression, north of the rail. APT indicates climatic conditions were wetter than normal.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ___ | No X | Depth (inches): ___ |
| Water Table Present? | Yes X | No ___ | Depth (inches): 4 |
| Saturation Present? (includes capillary fringe) | Yes X | No ___ | Depth (inches): 6 |

**Wetland Hydrology Present?** **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial imagery (Google Earth), NWI, USGS topo maps, USDA NRCS web soil survey, FEMA flood map, USACE Antecedent Precipitation Tool

Remarks:
High water table was observed, therefore hydrology paramters were met.

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: DP-5

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Sapling/Shrub Stratum (Plot size: 30' ) | | | |
| 1. *Celtis laevigata* | 80 | Yes | FACW |
| 2. *Sabal minor* | 25 | Yes | FACW |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 105 =Total Cover | | |
| 50% of total cover: 53 | 20% of total cover: 21 | | |
| Herb Stratum (Plot size: 30' ) | | | |
| 1. *Rubus trivialis* | 5 | Yes | FACU |
| 2. *Cyperus virens* | 5 | Yes | FACW |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 10 =Total Cover | | |
| 50% of total cover: 5 | 20% of total cover: 2 | | |
| Woody Vine Stratum (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | Multiply by: |
|---|---|
| OBL species | x 1 = |
| FACW species | x 2 = |
| FAC species | x 3 = |
| FACU species | x 4 = |
| UPL species | x 5 = |
| Column Totals: (A) | (B) |
| Prevalence Index = B/A = | |

**Hydrophytic Vegetation Indicators:**

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** **Yes** X **No** ___

Remarks: (If observed, list morphological adaptations below.)
Dominance test passed, therefore hydrophytic vegetation parameters were met.

**SOIL**

Sampling Point: DP-5

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-6 | 10YR 3/1 | 85 | 7.5YR 4/4 | 15 | C | M | Loamy/Clayey | Prominent redox concentrations |
| 6-16 | 10YR 4/1 | 80 | 7.5YR 4/4 | 20 | C | M | Loamy/Clayey | Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (**MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: N/A

Depth (inches): ___

**Hydric Soil Present?** **Yes** X **No** ___

Remarks:

Hydric soils were observed.

**U.S. Army Corps of Engineers**
**WETLAND DETERMINATION DATA SHEET – Atlantic and Gulf Coastal Plain Region**
See ERDC/EL TR-10-20; the proponent agency is CECW-CO-R

*OMB Control #: 0710-0024, Exp: 11/30/2024*
*Requirement Control Symbol EXEMPT:*
*(Authority: AR 335-15, paragraph 5-2a)*

Project/Site: UPRR 2026 Bridge Program - Livonia 58.22 City/County: Donaldsonville, St. James Sampling Date: 2-20-2024

Applicant/Owner: Union Pacific Railroad State: LA Sampling Point: DP-6

Investigator(s): Faran Miller; Jordan Stoll Section, Township, Range: N/A

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR or MLRA): LRR O, MLRA 131A Lat: 30.039848 Long: -90.908882 Datum: NAD 83

Soil Map Unit Name: Cancienne silty clay loam, 0 to 1 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

| | | | |
|---|---|---|---|
| Hydrophytic Vegetation Present? | Yes ____ | No X | **Is the Sampled Area within a Wetland?** **Yes** ____ **No** X |
| Hydric Soil Present? | Yes X | No ____ | |
| Wetland Hydrology Present? | Yes ____ | No X | |

Remarks:
Upland area between sugar cane field and wetland represented in DP-5. APT indicates climatic conditions were wetter than normal.

## HYDROLOGY

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15) **(LRR U)**
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Sphagnum Moss (D8) **(LRR T, U)**

**Field Observations:**

| | | | |
|---|---|---|---|
| Surface Water Present? | Yes ____ | No X | Depth (inches): ____ |
| Water Table Present? | Yes ____ | No X | Depth (inches): ____ |
| Saturation Present? (includes capillary fringe) | Yes ____ | No X | Depth (inches): ____ |

**Wetland Hydrology Present?** **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Aerial imagery (Google Earth), NWI, USGS topo maps, USDA NRCS web soil survey, FEMA flood map, USACE Antecedent Precipitation Tool

Remarks:
No hydrology was observed, therefore hydrology parameters were not met.

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: DP-6

| Tree Stratum (Plot size: 30' ) | Absolute % Cover | Dominant Species? | Indicator Status |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |
| Sapling/Shrub Stratum (Plot size: 30' ) | | | |
| 1. *Celtis laevigata* | 15 | Yes | FACW |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| | 15 =Total Cover | | |
| 50% of total cover: 8 | 20% of total cover: 3 | | |
| Herb Stratum (Plot size: 30' ) | | | |
| 1. *Veronica persica* | 60 | Yes | UPL |
| 2. *Geranium carolinianum* | 15 | No | UPL |
| 3. *Rubus trivialis* | 10 | No | FACU |
| 4. *Galium aparine* | 5 | No | FACU |
| 5. *Rumex crispus* | 5 | No | FAC |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |
| 11. | | | |
| 12. | | | |
| | 95 =Total Cover | | |
| 50% of total cover: 48 | 20% of total cover: 19 | | |
| Woody Vine Stratum (Plot size: 30' ) | | | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| | =Total Cover | | |
| 50% of total cover: | 20% of total cover: | | |

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

**Prevalence Index worksheet:**

| Total % Cover of: | | Multiply by: | |
|---|---|---|---|
| OBL species | 0 | x 1 = | 0 |
| FACW species | 15 | x 2 = | 30 |
| FAC species | 5 | x 3 = | 15 |
| FACU species | 15 | x 4 = | 60 |
| UPL species | 75 | x 5 = | 375 |
| Column Totals: | 110 (A) | | 480 (B) |
| Prevalence Index = B/A = | | | 4.36 |

**Hydrophytic Vegetation Indicators:**

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody Vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** **Yes** ___ **No** X

Remarks: (If observed, list morphological adaptations below.)
Hydrophytic vegetation tests did not pass, therefore hydrophytic vegetation parameters were not met.

**SOIL**

Sampling Point: DP-6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix Color (moist) | Matrix % | Redox Features Color (moist) | Redox Features % | Type[1] | Loc[2] | Texture | Remarks |
|---|---|---|---|---|---|---|---|---|
| 0-5 | 10YR 3/1 | 100 | | | | | Loamy/Clayey | |
| 5-8 | 10YR 3/1 | 90 | 7.5YR 4/4 | 10 | C | PL/M | Loamy/Clayey | Prominent redox concentrations |
| 8-16 | 10YR 3/1 | 80 | 7.5YR 4/6 | 20 | C | PL/M | Loamy/Clayey | Prominent redox concentrations |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Organic Bodies (A6) **(LRR P, T, U)**
- ___ 5 cm Mucky Mineral (A7) **(LRR P, T, U)**
- ___ Muck Presence (A8) **(LRR U)**
- ___ 1 cm Muck (A9) **(LRR P, T)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Coast Prairie Redox (A16) (**MLRA 150A)**
- ___ Sandy Mucky Mineral (S1) **(LRR O, S)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR P, S, T, U)**
- ___ Polyvalue Below Surface (S8) **(LRR S, T, U)**
- ___ Thin Dark Surface (S9) **(LRR S, T, U)**
- ___ Barrier Islands 1 cm Muck (S12) **(MLRA 153B, 153D)**
- ___ Loamy Mucky Mineral (F1) **(LRR O)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) **(LRR U)**
- ___ Depleted Ochric (F11) **(MLRA 151)**
- ___ Iron-Manganese Masses (F12) **(LRR O, P, T)**
- ___ Umbric Surface (F13) **(LRR P, T, U)**
- ___ Delta Ochric (F17) **(MLRA 151)**
- ___ Reduced Vertic (F18) **(MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 149A, 153C, 153D)**
- ___ Very Shallow Dark Surface (F22) **(MLRA 138, 152A in FL, 154)**

**Indicators for Problematic Hydric Soils[3]:**

- ___ 1 cm Muck (A9) **(LRR O)**
- ___ 2 cm Muck (A10) **(LRR S)**
- ___ Coast Prairie Redox (A16) **(outside MLRA 150A)**
- ___ Reduced Vertic (F18) **(outside MLRA 150A, 150B)**
- ___ Piedmont Floodplain Soils (F19) **(LRR P, T)**
- ___ Anomalous Bright Floodplain Soils (F20) **(MLRA 153B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22) **(outside MLRA 138, 152A in FL, 154)**
- ___ Barrier Islands Low Chroma Matrix (TS7) **(MLRA 153B, 153D)**
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

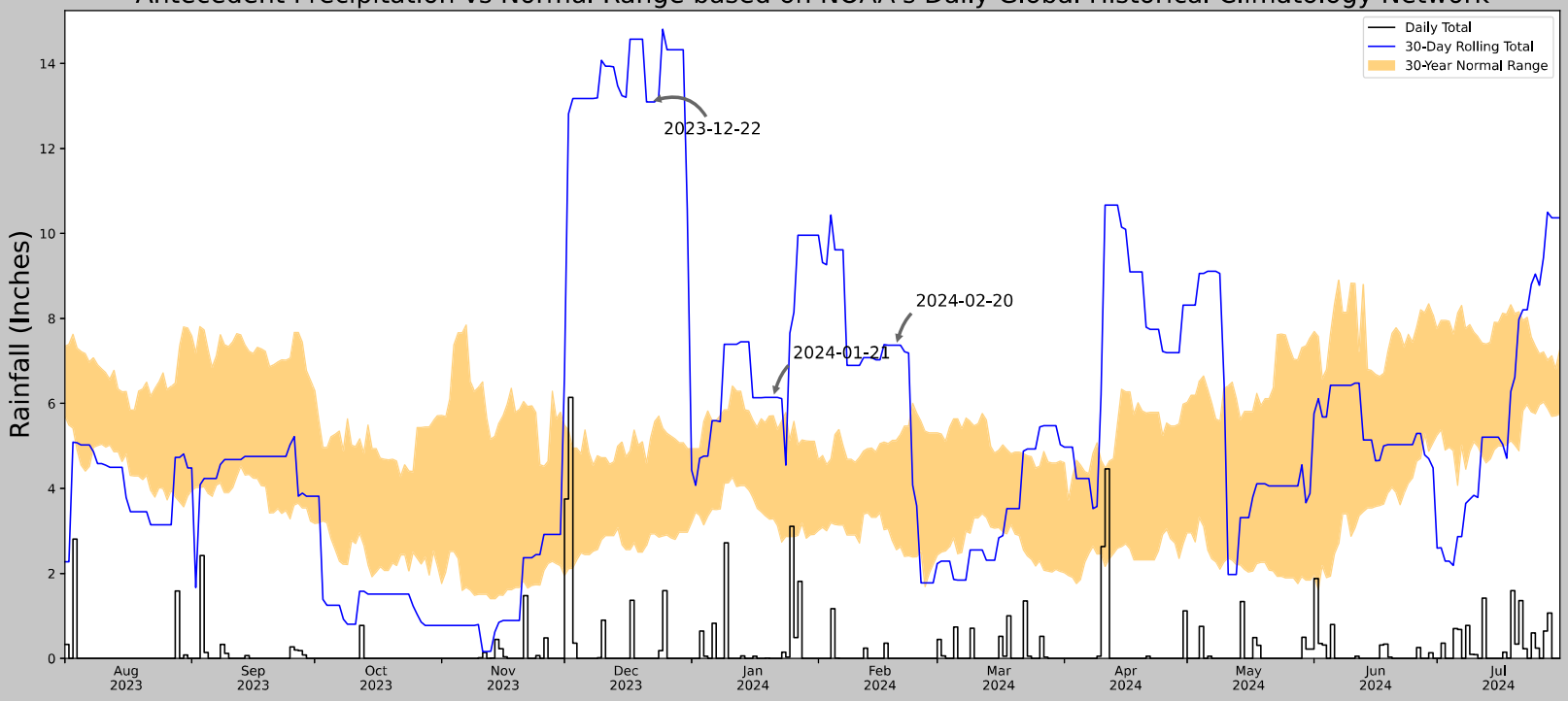
Type: N/A

Depth (inches): ___

**Hydric Soil Present?** **Yes** X **No** ___

Remarks:
Hydric soils were observed.

## Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network




| | |
|---|---|
| Coordinates | 30.040214, -90.909726 |
| Observation Date | 2024-02-20 |
| Elevation (ft) | 10.544 |
| Drought Index (PDSI) | Mild wetness |
| WebWIMP $H_2O$ Balance | Wet Season |

| 30 Days Ending | 30$^{th}$ %ile (in) | 70$^{th}$ %ile (in) | Observed (in) | Wetness Condition | Condition Value | Month Weight | Product |
|---|---|---|---|---|---|---|---|
| 2024-02-20 | 2.55748 | 5.129528 | 7.370079 | Wet | 3 | 3 | 9 |
| 2024-01-21 | 3.282677 | 5.707874 | 6.145669 | Wet | 3 | 2 | 6 |
| 2023-12-22 | 2.924016 | 5.190158 | 13.094489 | Wet | 3 | 1 | 3 |
| Result | | | | | | | Wetter than Normal - 18 |

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

| Weather Station Name | Coordinates | Elevation (ft) | Distance (mi) | Elevation Δ | Weighted Δ | Days Normal | Days Antecedent |
|---|---|---|---|---|---|---|---|
| DONALDSONVILLE 4 SW | 30.0719, -91.0278 | 29.856 | 7.393 | 19.312 | 3.47 | 11307 | 90 |
| DONALDSONVILLE 4E | 30.0992, -90.9269 | 17.06 | 6.32 | 12.796 | 2.925 | 39 | 0 |
| GONZALES 4.5 S | 30.1519, -90.9289 | 14.108 | 8.093 | 15.748 | 3.769 | 2 | 0 |
| SAMSTOWN | 30.1217, -91.1581 | 15.092 | 8.515 | 14.764 | 3.957 | 4 | 0 |