



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

CESWG-RD-P

09 APR 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime  
Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322  
(2023),<sup>1</sup> SWG-2022-00037

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.<sup>2</sup> AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.<sup>3</sup> For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),<sup>4</sup> the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 "Revised Definition of 'Waters of the United States,'" as amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in Texas due to litigation.

1. SUMMARY OF CONCLUSIONS.

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<sup>1</sup> While the Supreme Court's decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.

<sup>2</sup> 33 CFR 331.2.

<sup>3</sup> Regulatory Guidance Letter 05-02.

<sup>4</sup> USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

- a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).
  - i. Stream A, Little Cypress Creek, jurisdictional, Sec. 404, 20,595 LF, 29.9831689, -95.6384619.
  - ii. Stream F, Cypress Creek, jurisdictional, Sec. 404, 670 LF, 29.9642565, -95.620469.
  - iii. Wetland A, non-jurisdictional, 3.01 ac, 29.9906566, -95.6477105.
  - iv. Wetland B, non-jurisdictional, 0.22 ac, 29.9898736, -95.642673.
  - v. Wetland C, non-jurisdictional, 0.07 ac, 29.9896049, -95.6411094.
  - vi. Wetland D, non-jurisdictional, 0.40 ac, 29.9873161, -95.6419256.
  - vii. Wetland E, non-jurisdictional, 0.14 ac, 29.9825311, -95.6355037.
  - viii. Wetland F, non-jurisdictional, 0.85 ac, 29.9811340, -95.6330105.
  - ix. Wetland G, non-jurisdictional, 1.07 ac, 29.9764351, -95.6290282 .
  - x. Wetland I, non-jurisdictional, 0.03 ac, 29.964449, -95.6196764.
  - xi. Wetland J, non-jurisdictional, 0.13 ac, 29.9670794, -95.6189076.
  - xii. Wetland N, non-jurisdictional, 0.46 ac, 29.9642846, -95.6194265.
  - xiii. Drainage Canal B, non-jurisdictional, 330 LF, 29.9909236, -95.6458614.
  - xiv. Drainage Canal C, non-jurisdictional, 355 LF, 29.9907874, -95.6434659.
  - xv. Drainage Canal D, non-jurisdictional, 377 LF, 29.9843334, -95.6421542.
  - xvi. Drainage Canal E, non-jurisdictional, 307 LF, 29.982168, -95.6343113.
  - xvii. Drainage Canal F, non-jurisdictional, 370 LF, 29.9793216, -95.6330986.
  - xviii. Drainage Canal G, non-jurisdictional, 364 LF, 29.9639567, -95.6205793.

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SUBJECT: Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), SWG-2022-00037

- xix. Ditch A, L122-00-00, non-jurisdictional, 286 LF, 29.9908838, -95.6496092.
- xx. Ditch C, non-jurisdictional, non-rpw, 311 LF, 29.9676344, -95.6199217.
- xxi. Ditch K, non-jurisdictional, non-rpw, 131 LF, 29.9698695, -95.6233489.
- xxii. Drainage Ditch A, non-jurisdictional, 719 LF, 29.9824984, -95.6380702.
- xxiii. Pond A, non-jurisdictional, 0.27 ac, 29.9905985, -95.650391.
- xxiv. Pond B, non-jurisdictional, 0.36 ac, 29.99102706, -95.64520331.
- xxv. Pond C, non-jurisdictional, 0.53 ac, 29.9910287, -95.645204.
- xxvi. Pond D, non-jurisdictional, 0.30 ac, 29.9744164, -95.6287853.
- xxvii. Pond E, non-jurisdictional, 0.06 ac, 29.9654356, -95.6201244.
- xxviii. Pond F, non-jurisdictional, 0.05 ac, 29.9649128, -95.6205176.
- xxix. Pond G, non-jurisdictional, 0.77 ac, 29.9851595, -95.6429323.
- xxx. Pond I, non-jurisdictional, 0.82 ac, 29.9757243, -95.6273386.
- xxxi. Swale C, non-RPW, non-jurisdictional, 273 LF, 29.9680898, -95.6205468.
- xxxii. Swale D1, non-RPW, non-jurisdictional, 382 LF, 29.9735599, -95.6247209.
- xxxiii. Swale D1-1, non-RPW, non-jurisdictional, 266 LF, 29.9736605, -95.6243666.
- xxxiv. Swale E, non-RPW, non-jurisdictional, 454 LF, 29.9725054, -95.6224957.
- xxxv. Swale H, non-RPW, non-jurisdictional, 190 LF, 29.9657679, -95.6198199.
- xxxvi. Swale I, non-RPW, non-jurisdictional, 255 LF, 29.9696439, -95.6229776.
- xxxvii. Swale J, non-RPW, non-jurisdictional, 123 LF, 29.9768902, -95.6288037.
- xxxviii. Swale K, non-RPW, non-jurisdictional, 103 LF, 29.9770521, -95.6296576.
- xxxix. Swale L, non-RPW, non-jurisdictional, 144 LF, 29.9833036, -95.6395105.

- xl. Swale M, non-RPW, non-jurisdictional, 231 LF, 29.9845959, -95.6424272.
- xli. Swale N, non-RPW, non-jurisdictional, 235 LF, 29.9849795, -95.6416673.
- xlii. Swale O, non-RPW, non-jurisdictional, 179 LF, 29.9892256, -95.6413025.
- xliii. Swale P, non-RPW, non-jurisdictional, 363 LF, 29.9878301, -95.6533398.
- xliv. Swale Q, non-RPW, non-jurisdictional, 498 LF, 29.9898859, -95.6515617.
- xl. Swale Q-1, non-RPW, non-jurisdictional, 174 LF, 29.9894839, -95.6523408.
- xlvi. Swale R, non-RPW, non-jurisdictional, 309 LF, 29.9688996, -95.6219112.

## 2. REFERENCES.

- a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).
- b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).
- c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008).
- d. *Sackett v. EPA*, 598 U.S. 651, 143 S. Ct. 1322 (2023).
- e. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008).
- f. 2008 Rapanos guidance: "In addition, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not waters of the United States because they are not tributaries, or they do not have a significant nexus to downstream traditional navigable waters."
- g. 2003 SWANCC guidance.
- h. 1980s preamble language (including regarding waters and features that are generally non-jurisdictional) (51 FR 41217 (November 13, 1986) and 53 FR 20765 (June 6, 1988)).

- i. 12 March 2025 Memo, Memorandum to the Field Between the U.S. Department of the Army, U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency Concerning the Proper Implementation of “Continuous Surface Connection” Under the Definition of “Waters of the United States” Under the Clean Water Act.
  - j. 24 July 2020 Memo, “Joint Memorandum to the Field Between the U.S. Department of the Army, Corps of Engineers and the U.S. Environmental Protection Agency Concerning Exempt Construction or Maintenance of Irrigation Ditches and Exempt Maintenance of Drainage Ditches Under Section 404 of the Clean Water Act”.
3. REVIEW AREA. The project area consists of approximately 24,849 LF of HCFCU Unit L 100-00-00. Located 1.41 miles West from the intersection of N. Eldridge Pkwy and Grant Rd, bounded between Telge Rd. and the confluence of Cypress Creek, in Northwest Houston, Harris County, Texas. The site can be located on the USGS quadrangle map titled: USGS US Topo 7.5- minute map for Satsuma, TX 2019. Latitude: 29.982165° N Longitude 95.636049° W
4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. Cypress Creek.
5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS. Little Cypress Creek (L100-00-00) flows south for 9 aerial miles and 15 river miles into TNW Cypress Creek.
6. SECTION 10 JURISDICTIONAL WATERS<sup>6</sup>: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.<sup>7</sup> N/A

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<sup>6</sup> 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as “navigable in law” even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

<sup>7</sup> This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

a. TNWs (a)(1): N/A

b. Interstate Waters (a)(2): N/A

c. Other Waters (a)(3): N/A

d. Impoundments (a)(4): N/A

e. Tributaries (a)(5): Stream A, Little Cypress Creek (22,766 LF) and Stream F, Cypress Creek, (2,128 LF), Section 404 portions only. 29.98283123, -95.63816013. Both streams are considered RPWs based on historical aerials, OHWM, and bed and bank determinations.

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7): N/A

## 8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").<sup>8</sup> Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water.

**Swales C, D, D1, D1-1, E, H thru Q, Q-1, and R** are non-RPW drainage features or erosional features with small washes characterized by low volume, infrequent,

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<sup>8</sup> 51 FR 41217, November 13, 1986.

or short duration flow. Based on references in Section #9, Swales C, D, D1, D1-1, E, H thru Q, Q-1, and R qualify as a preamble water and are non-jurisdictional.

- b. Describe aquatic resources and features within the review area identified as “generally not jurisdictional” in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance.

**Drainage Canals B thru G** are upland drainage ditches, non-rpws, and non-jurisdictional. They are non-RPWs based on historical USGS Topography, historical aerials, 2018 DEM, Lidar contours, and information referenced in Section 9. Based on historical aerials and topos, they do not have continuous flow and were constructed wholly out of uplands, drains only dry land, is not a rerouted tributary, has non-relatively permanent flow, and does not extend the ordinary high-water mark (OHWM) of a Water of the United States. Therefore, Drainage Canals B thru G meet the generally not jurisdictional category for certain ditches under the *Rapanos* guidance ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

**Drainage Ditch A, Ditch A (L122-00-00), and Ditches C and K** are all upland drainage ditches, non-rpws, and non-jurisdictional. They are non-RPWs based on historical USGS Topography, historical aerials, 2018 DEM, Lidar contours, and information referenced in Section 9. Based on historical aerials and topos, they do not have continuous flow and were constructed wholly out of uplands, drains only dry land, is not a rerouted tributary, has non-relatively permanent flow, and does not extend the ordinary high-water mark (OHWM) of a Water of the United States. Therefore, they meet the generally not jurisdictional category for certain ditches under the *Rapanos* guidance ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

- c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A
- d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

- e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in “*SWANCC*,” would have been jurisdictional based solely on the “Migratory Bird Rule.” Include the size of the aquatic resource or feature, and how it was determined to be an “isolated water” in accordance with *SWANCC*.

**Pond A (0.27 ac), Pond B (0.36 ac), Pond C (0.53 ac), Pond D (0.31 ac), Pond E (0.06 ac), Pond F (0.05 ac), Pond G (0.77 ac), and Pond I (0.83 ac)** are not impoundments of a water of the United States. The use, degradation, or destruction of them would not affect interstate or foreign commerce including use by interstate or foreign travelers for recreational purposes, from which fish or shellfish are or could be taken and sold in interstate or foreign commerce, or which are used for or could be used for industrial purposes by industries in interstate commerce. Based on data sources listed in #9, they do not have any known continuous surface connection to an RPW, Impoundment or TNW. They do not abut another prerequisite water and do not meet the definition of a water of the United States and is not subject to Section 404 of the Clean Water Act.

- f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court’s decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

**Wetland A (3.01 ac), Wetland B (0.22 ac), Wetland C (0.07 ac), Wetland D (0.40 ac), Wetland E (0.14 ac), Wetland F (0.85 ac), Wetland G (1.07 ac), Wetland I (0.023 ac), Wetland J (0.13 ac) and Wetland N (0.05 ac)** are non-adjacent thus, non-jurisdictional features. They do not have continuous surface connections nor abut any nearby water of the U.S. Based on data sources listed in #9, they sit in depressional areas that collect rainwater from the surrounding upland field. They do not meet the definition of adjacent as defined in the pre-2015 regime post *Sackett* guidance and are therefore not waters of the United States.

- 9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.



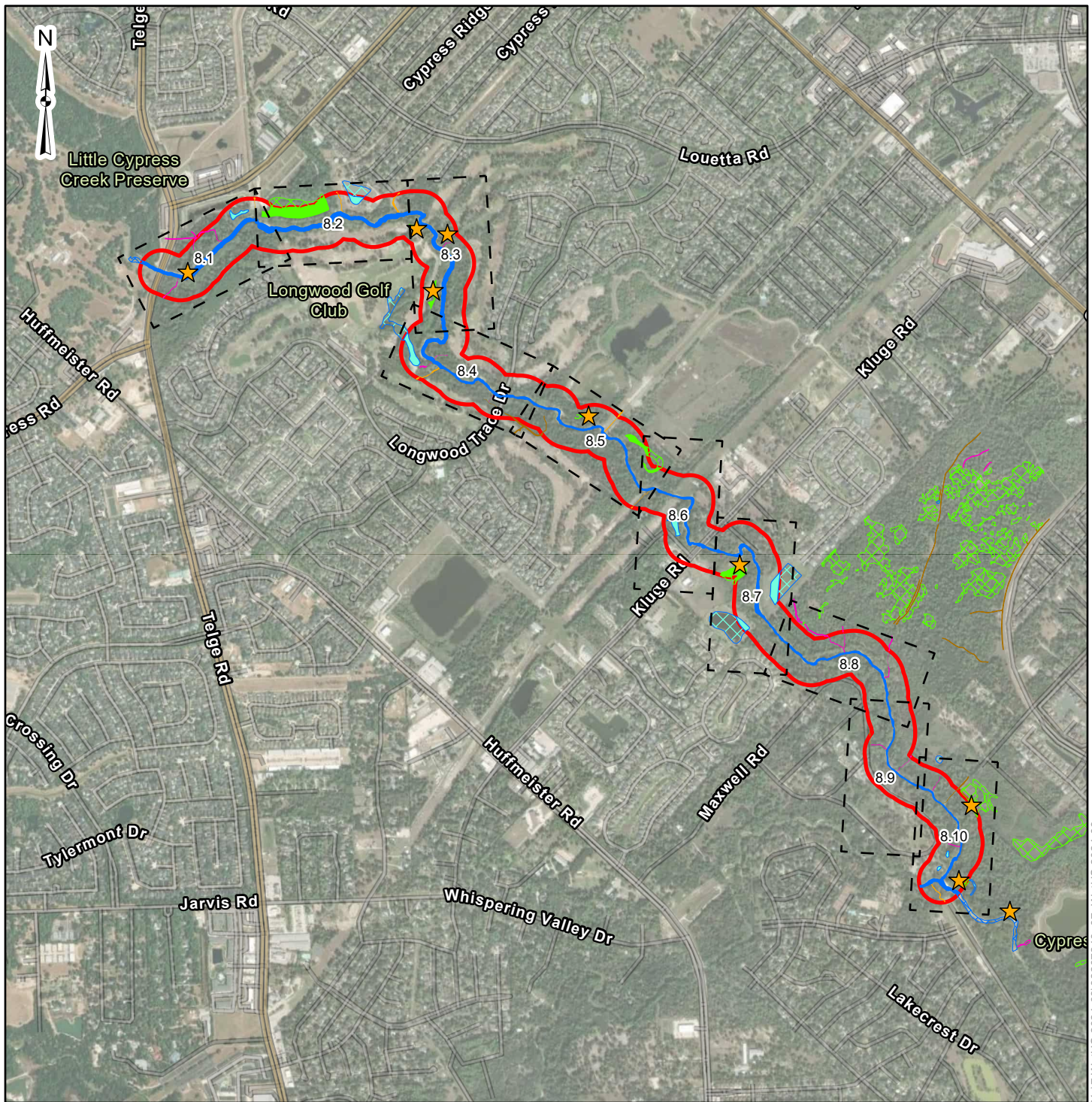
CESWG-RD-P

SUBJECT: Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), SWG-2022-00037

- a. Office evaluation(s) were conducted on 23 SEP 24, 19 DEC 2024, and 10 MAR 25.
- b. Pre-USACE Verified Waters of the U.S., Delineation Report, January 9, 2025. Terracon Project #92197167
- c. USGS, 7.5 Minute Satsuma and Cypress, TX. 2019.
- d. TNRIS Imagery: 943, 1977, 1988, 1995, 2006, 2010, and 2019.
- e. USGS Soil Survey GIS Data Layer
- f. TNRIS Imagery: 1943, 1977, 1988, 1995, 2006, 2010, and 2019.
- g. Wetland Mapper V1." National Wetlands Inventory, U.S. Fish and Wildlife Service. Last modified October 1, 2017. Web accessed July 2019.

10. OTHER SUPPORTING INFORMATION.

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.



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|--|----------------|
| <span style="border: 2px solid red; padding: 2px;"> </span> Project Limits     | Ditch          |
| <span style="border: 1px dashed black; padding: 2px;"> </span> Detail Exhibits | Drainage Canal |
| Sample Point   | Pond           |
|  | Stream         |
|  | Swale          |
|  | Wetland        |

0 1,000 2,000 4,000 Feet

DATA SOURCES:  
Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Maxar, October 28, 2017  
Google Earth Aerial Photograph

Project No.:  
92207243  
Date:  
Jan 2025  
Drawn By:  
REW  
Reviewed By:  
JCL



11555 Clay Road, Suite 100 Houston, TX 77043  
PH. (713) 690-8989 terracon.com

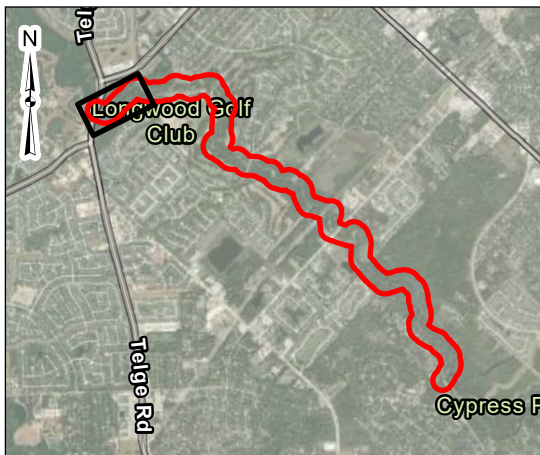
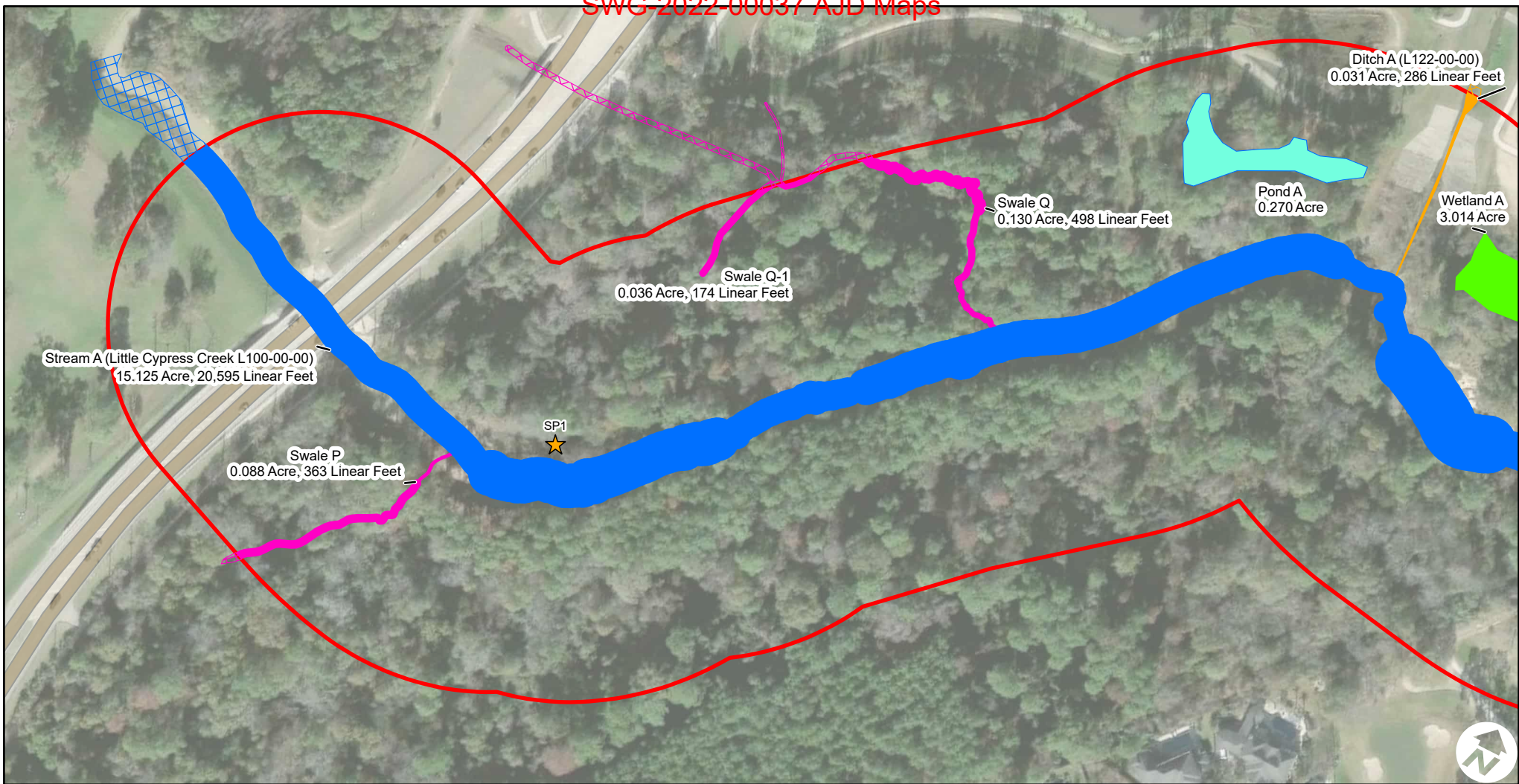
### Delineated Features Overview

Waters of the U.S. Assessment  
Little Cypress Segment 1  
HCFC Project ID L100-00-00-E001  
Houston, Harris County, Texas  
Sheet Center: 29.9773045°, -95.6372997°

### Exhibit

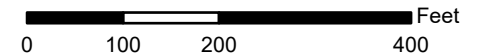
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- ▬ Project Limits
- ★ Sample Point
- ▬ Drainage Canal
- ▬ Pond

- ▬ Stream
- ▬ Swale
- ▬ Wetland



DATA SOURCES:  
Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, USDA, USFWS, Maxar

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Date:	Jan 2025
Drawn By:	REW
Reviewed By:	JCL

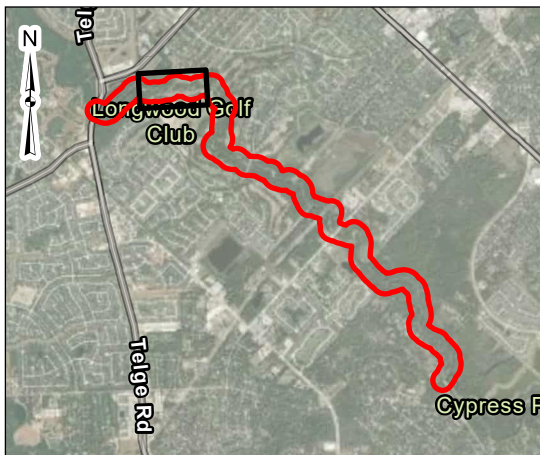
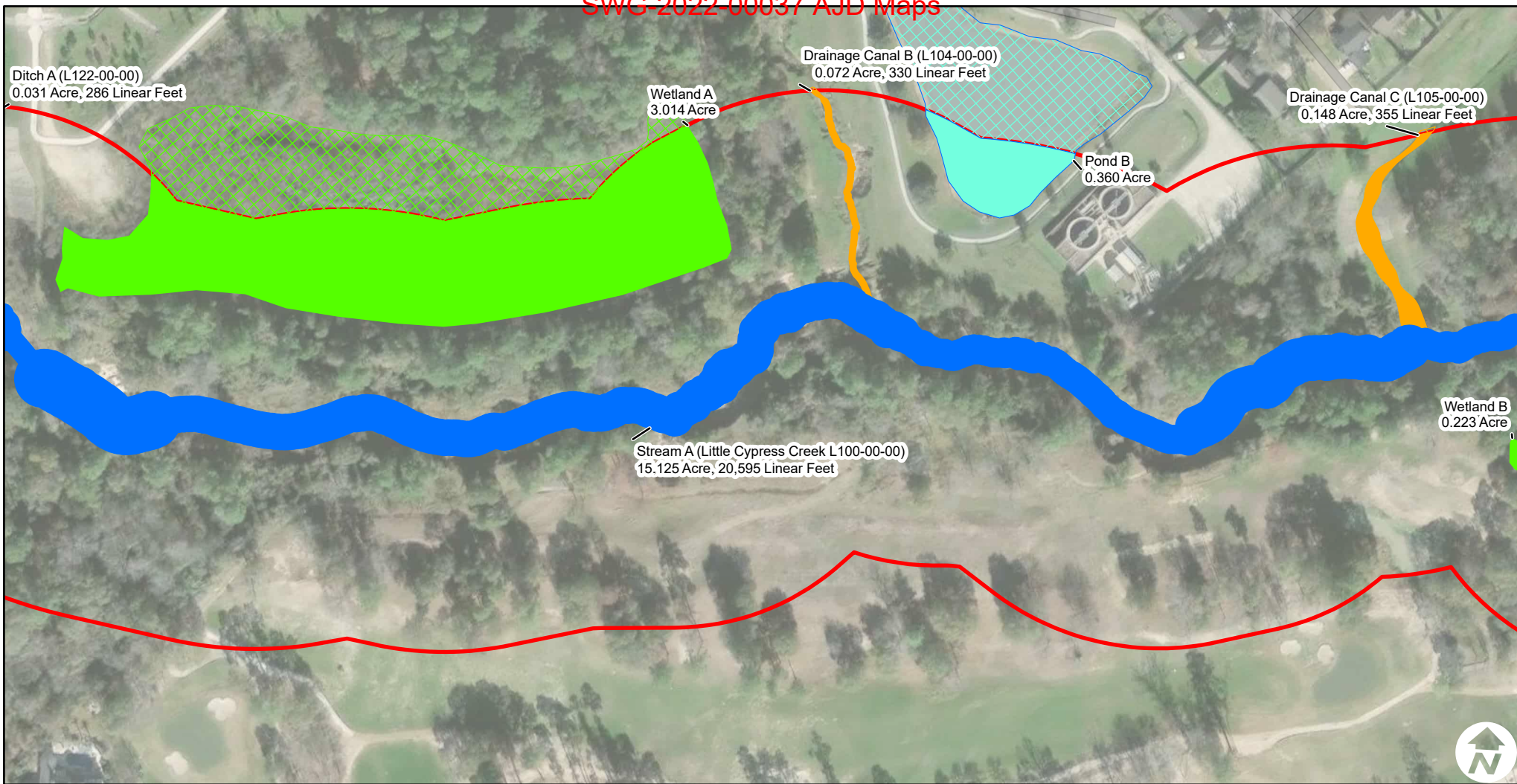
11555 Clay Road, Suite 100 Houston, TX 77043

PH. (713) 690-8989 [terracon.com](http://terracon.com)

Delineated Features
<p>Waters of the U.S. Assessment Little Cypress Segment 1 HCFC Project ID L100-00-00-E001 Houston, Harris County, Texas Sheet Center: 29.9889557°, -95.6519027°</p>

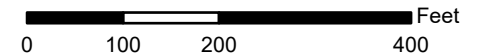
Exhibit
8.1





- Project Limits
- Drainage Canal
- Pond

- Stream
- Wetland



DATA SOURCES:  
Maxar, Microsoft, Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, USDA, USFWS

Project No.:  
92207243

Date:  
Jan 2025

Drawn By:  
REW

Reviewed By:  
JCL



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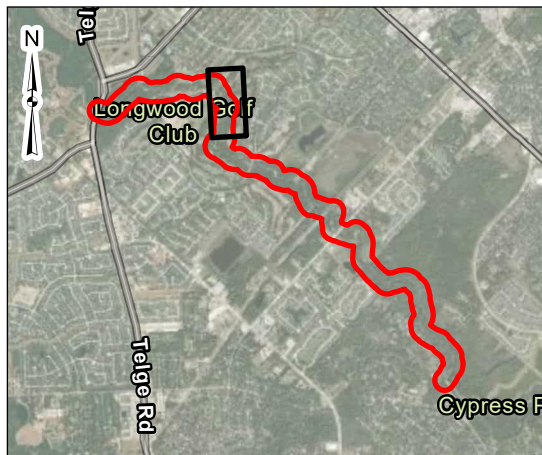
### Delineated Features

Waters of the U.S. Assessment  
Little Cypress Segment 1  
HCFCID Project ID L100-00-00-E001  
Houston, Harris County, Texas  
Sheet Center: 29.9901318°, -95.6462155°

### Exhibit

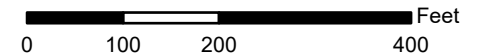
8.2





- ▬ Project Limits
- ★ Sample Point
- ▬ Stream

- ▬ Swale
- ▬ Wetland



DATA SOURCES:  
Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/INASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/INASA, USGS, EPA, NPS, USDA, USFWS, Maxar

Project No.:	92207243
Date:	Jan 2025
Drawn By:	REW
Reviewed By:	JCL

**Terracon**

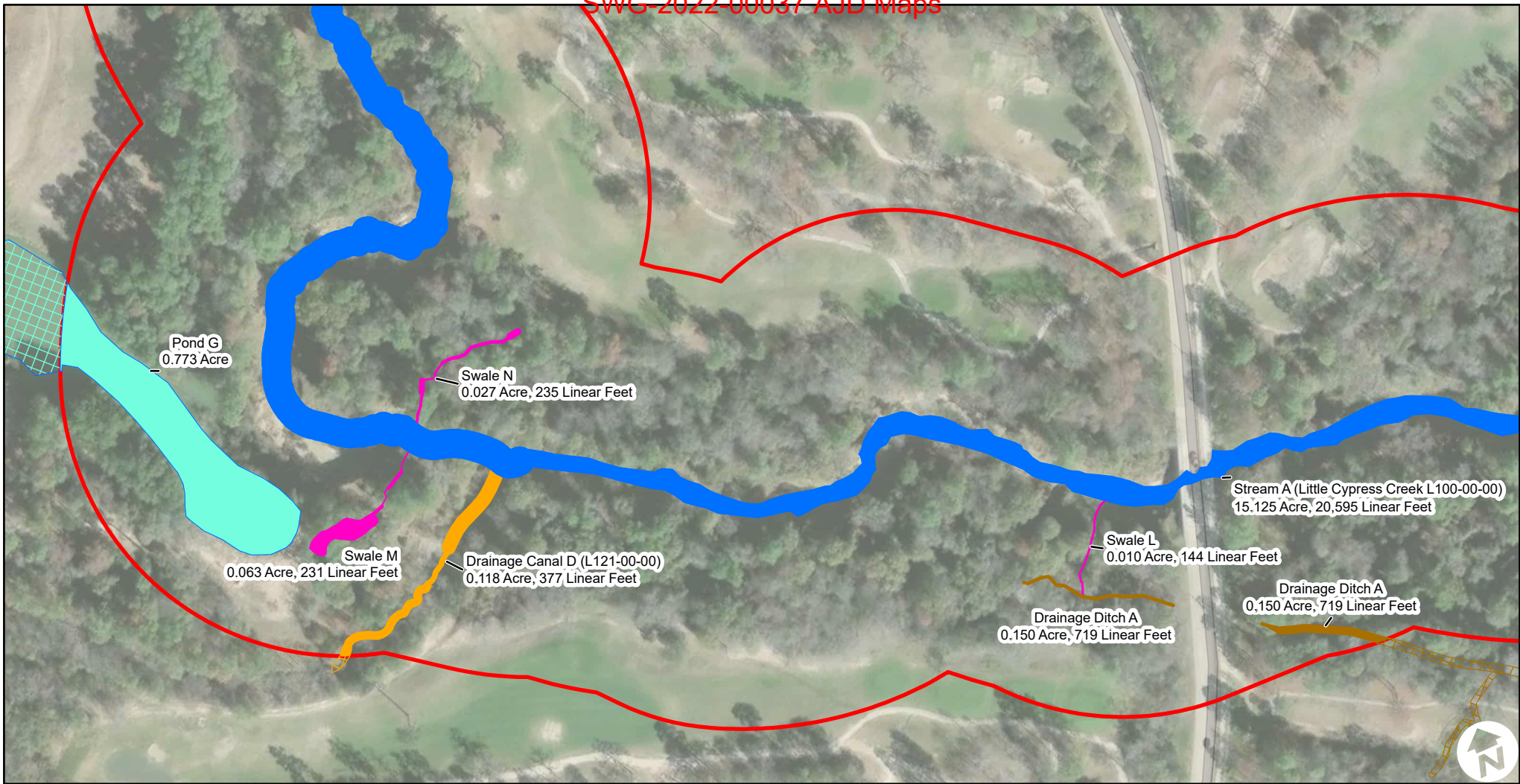
11555 Clay Road, Suite 100      Houston, TX 77043

PH. (713) 690-8989      [terracon.com](http://terracon.com)

Delineated Features
<p>Waters of the U.S. Assessment Little Cypress Segment 1 HCFC Project ID L100-00-00-E001 Houston, Harris County, Texas Sheet Center: 29.988831°, -95.6411049°</p>

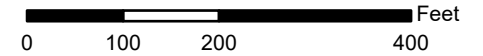
Exhibit
8.3





- ▬ Project Limits
- ▬ Ditch
- ▬ Drainage Canal

- ▬ Pond
- ▬ Stream
- ▬ Swale



DATA SOURCES:  
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Reviewed By:  
JCL



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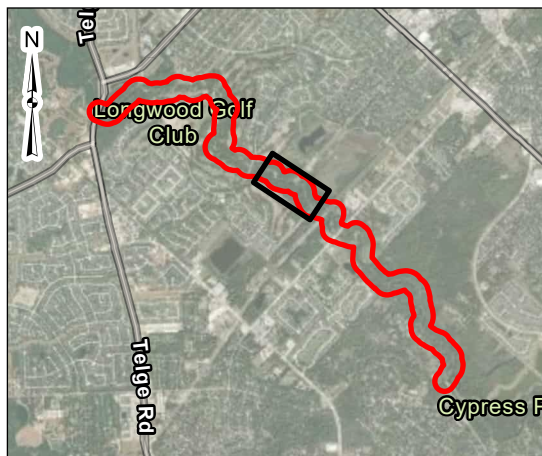
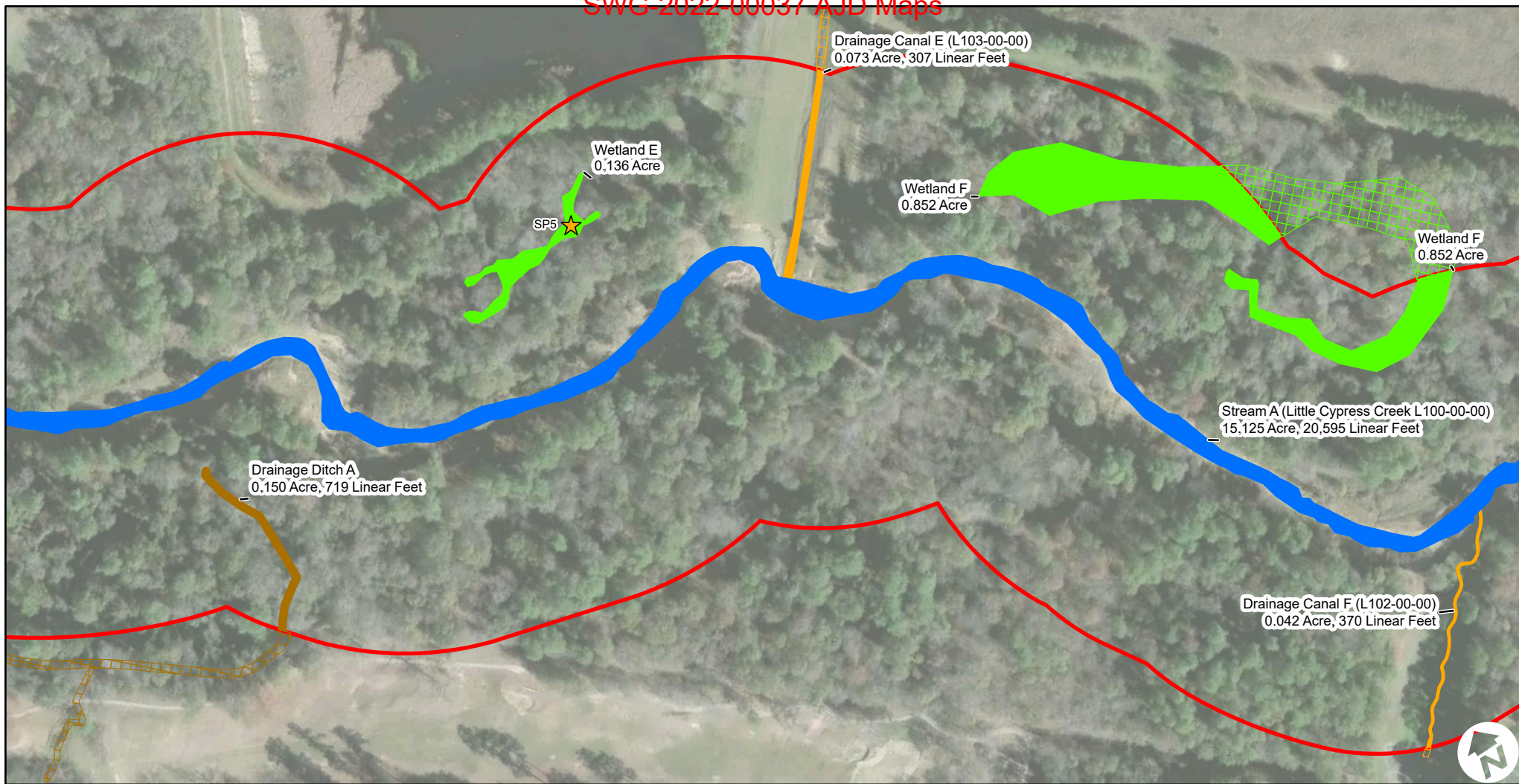
### Delineated Features

Waters of the U.S. Assessment  
Little Cypress Segment 1  
HCFCD Project ID L100-00-00-E001  
Houston, Harris County, Texas  
Sheet Center: 29.984375°, -95.6405286°

### Exhibit

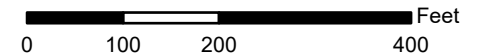
8.4





- Project Limits
- ★ Sample Point
- Ditch

- Drainage Canal
- Stream
- Wetland



DATA SOURCES:  
Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/INASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/INASA, USGS, EPA, NPS, USDA, USFWS, Maxar

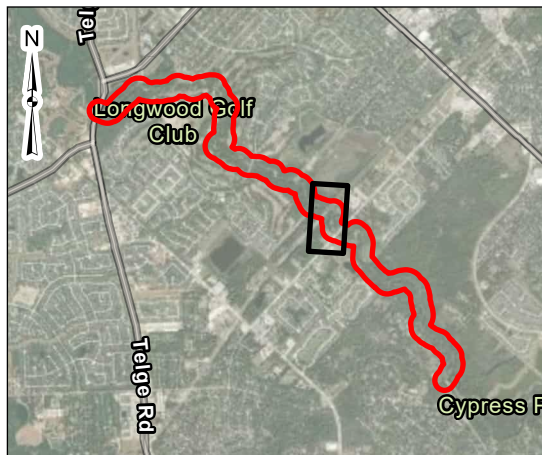
Project No.: 92207243  
Date: Jan 2025  
Drawn By: REW  
Reviewed By: JCL

**Terracon**  
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**Delineated Features**  
Waters of the U.S. Assessment  
Little Cypress Segment 1  
HCFC Project ID L100-00-00-E001  
Houston, Harris County, Texas  
Sheet Center: 29.9815786°, -95.6350088°

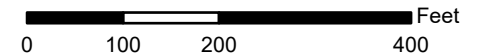
**Exhibit**  
  
**8.5**





- Project Limits
- Drainage Canal
- Pond

- Stream
- Wetland



DATA SOURCES:  
Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, USDA, USFWS, Maxar

Project No.:	92207243
Date:	Jan 2025
Drawn By:	REW
Reviewed By:	JCL

**Terracon**

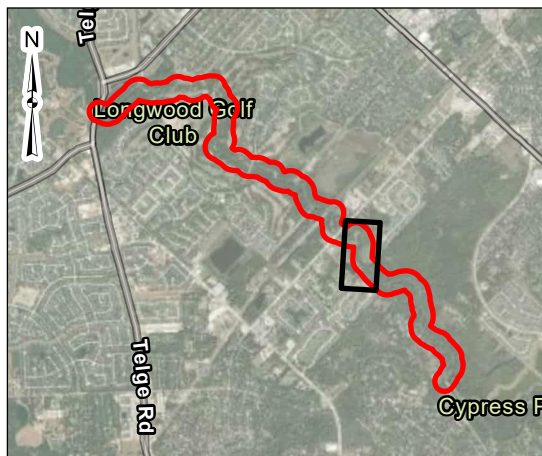
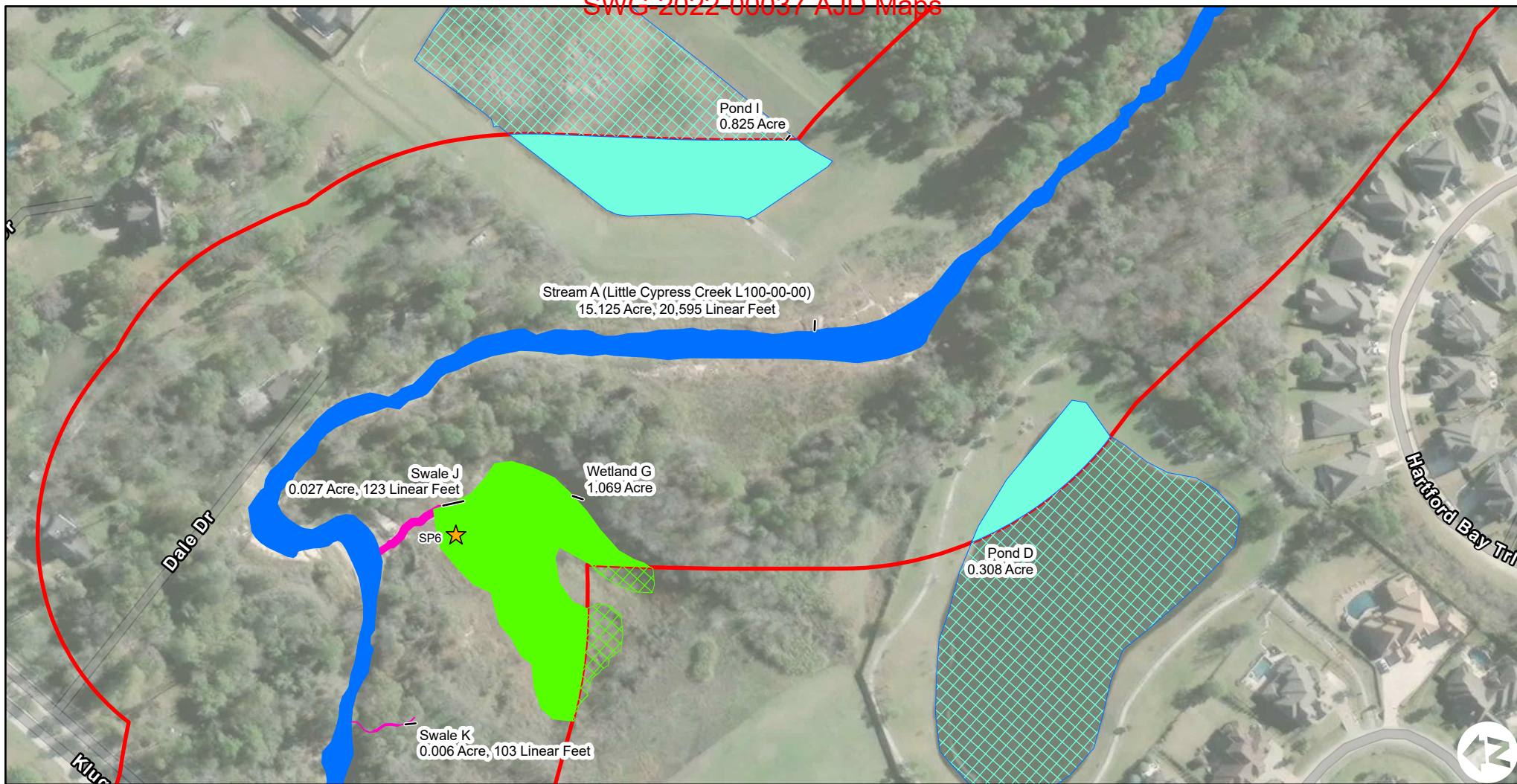
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Delineated Features
Waters of the U.S. Assessment Little Cypress Segment 1 HCFC Project ID L100-00-00-E001 Houston, Harris County, Texas Sheet Center: 29.9786589°, -95.6314769°

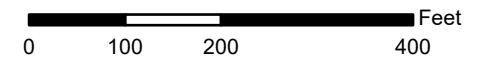
Exhibit
8.6





- Project Limits
- ★ Sample Point
- Pond

- Stream
- Swale
- Wetland



DATA SOURCES:  
Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/INASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/INASA, USGS, EPA, NPS, USDA, USFWS, Maxar

Project No.:  
92207243

Date:  
Jan 2025

Drawn By:  
REW

Reviewed By:  
JCL

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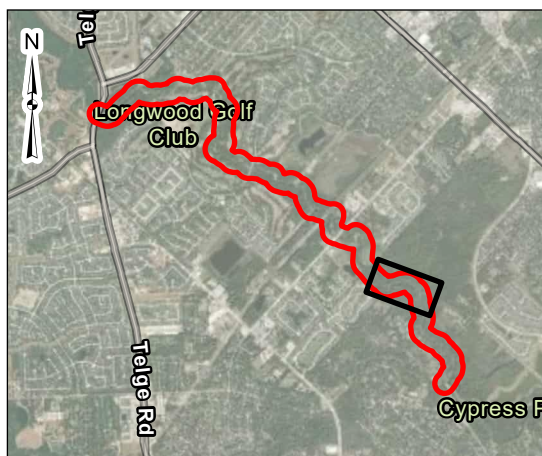
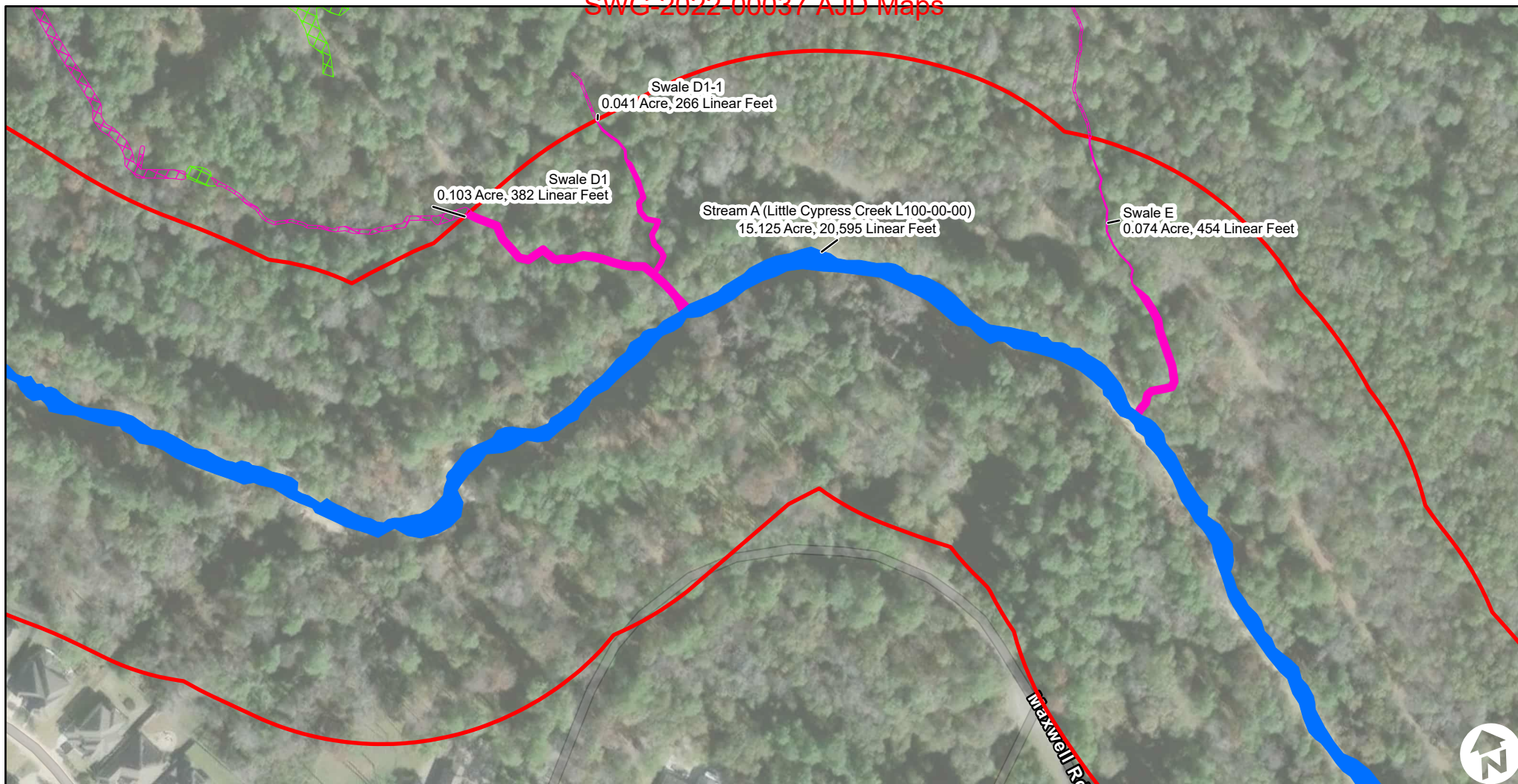
### Delineated Features

Waters of the U.S. Assessment  
Little Cypress Segment 1  
HCFC Project ID L100-00-00-E001  
Houston, Harris County, Texas  
Sheet Center: 29.9754818°, -95.6283553°

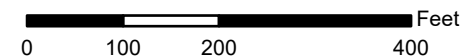
### Exhibit

8.7





- ▬ Project Limits
- ▬ Stream
- ▬ Swale



DATA SOURCES:  
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Project No.:  
92207243

Date:  
Jan 2025

Drawn By:  
REW

Reviewed By:  
JCL



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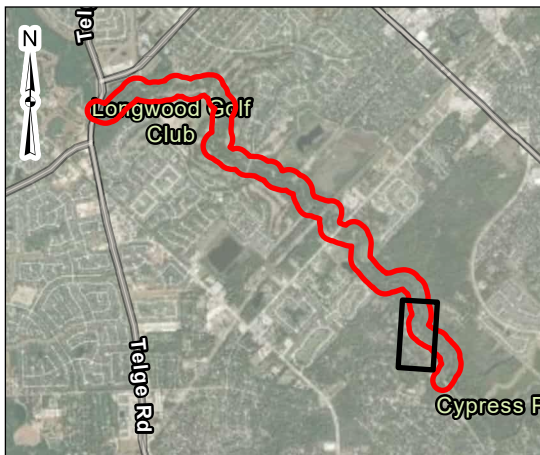
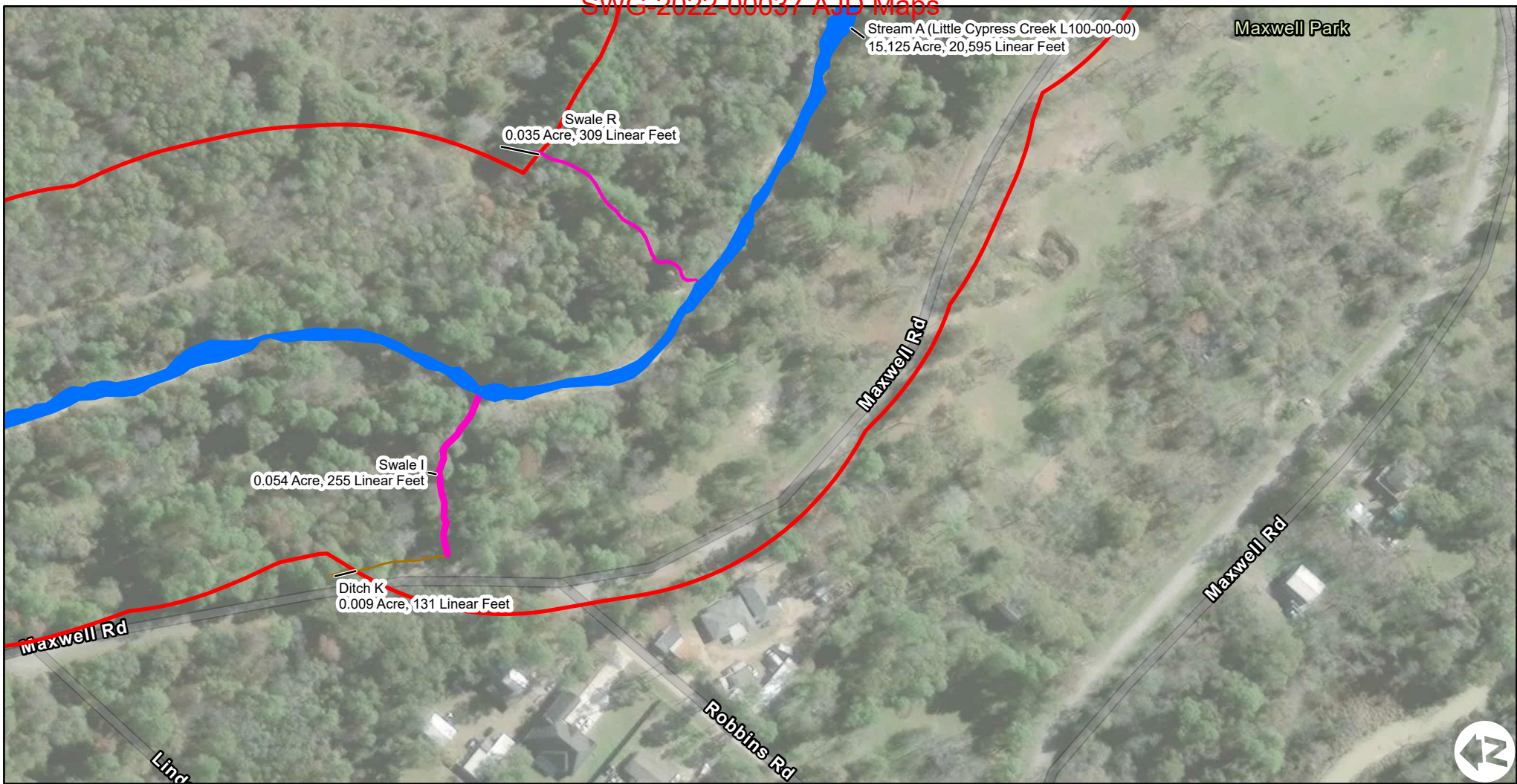
### Delineated Features

Waters of the U.S. Assessment  
Little Cypress Segment 1  
HCFC Project ID L100-00-00-E001  
Houston, Harris County, Texas  
Sheet Center: 29.9728021°, -95.6241828°

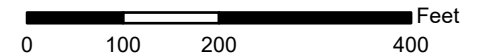
### Exhibit

8.8





- Project Limits
- Ditch
- Stream
- Swale



DATA SOURCES:  
Esri Community Maps Contributors, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, Earthstar Geographics, Baylor University, City of Houston, HPB, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, MET/NASA, USGS, EPA, NPS, USDA, USFWS, Maxar

Project No.:	92207243
Date:	Jan 2025
Drawn By:	REW
Reviewed By:	JCL

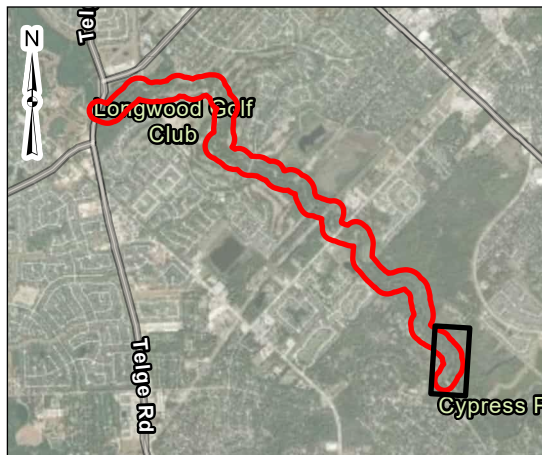
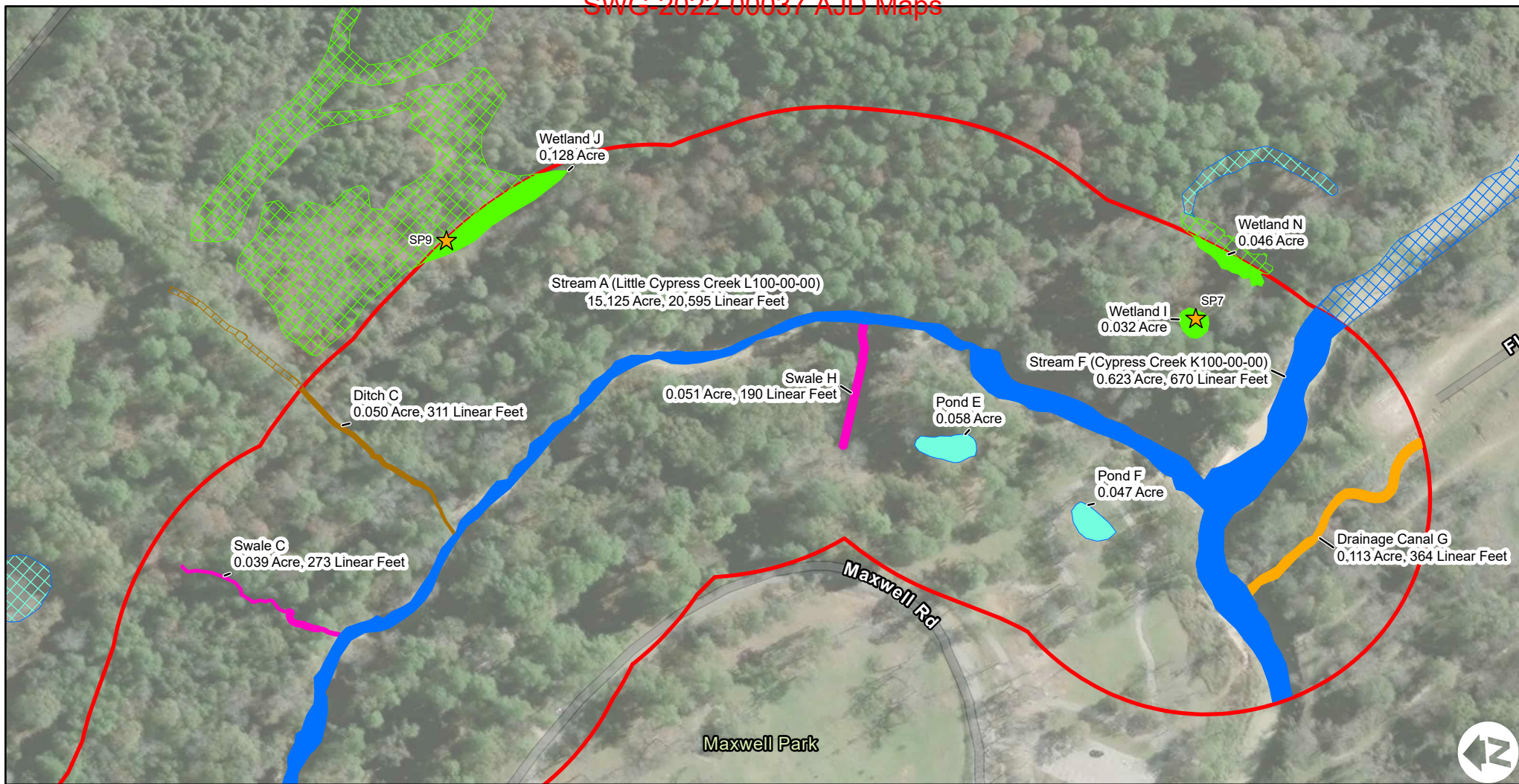
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Delineated Features
<p>Waters of the U.S. Assessment</p> <p>Little Cypress Segment 1</p> <p>HCFC Project ID L100-00-00-E001</p> <p>Houston, Harris County, Texas</p> <p>Sheet Center: 29.9684278°, -95.6227566°</p>

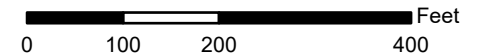
Exhibit
8.9





- ▬ Project Limits
- ★ Sample Point
- ▬ Ditch
- ▬ Drainage Canal

- ▬ Pond
- ▬ Stream
- ▬ Swale
- ▬ Wetland



DATA SOURCES:  
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Project No.:	92207243
Date:	Jan 2025
Drawn By:	REW
Reviewed By:	JCL

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Delineated Features
<p>Waters of the U.S. Assessment</p> <p>Little Cypress Segment 1</p> <p>HCFC Project ID L100-00-00-E001</p> <p>Houston, Harris County, Texas</p> <p>Sheet Center: 29.966127°, -95.6198212°</p>

Exhibit
8.10