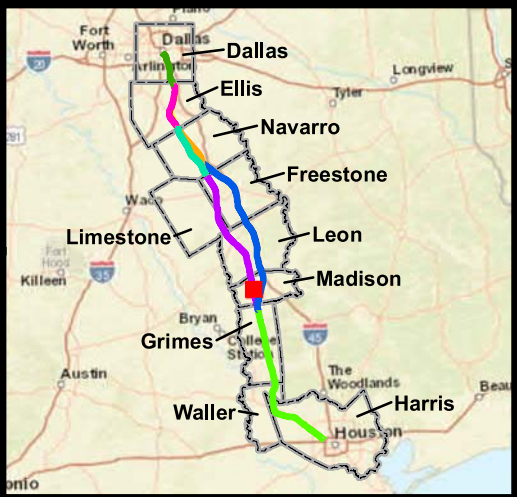
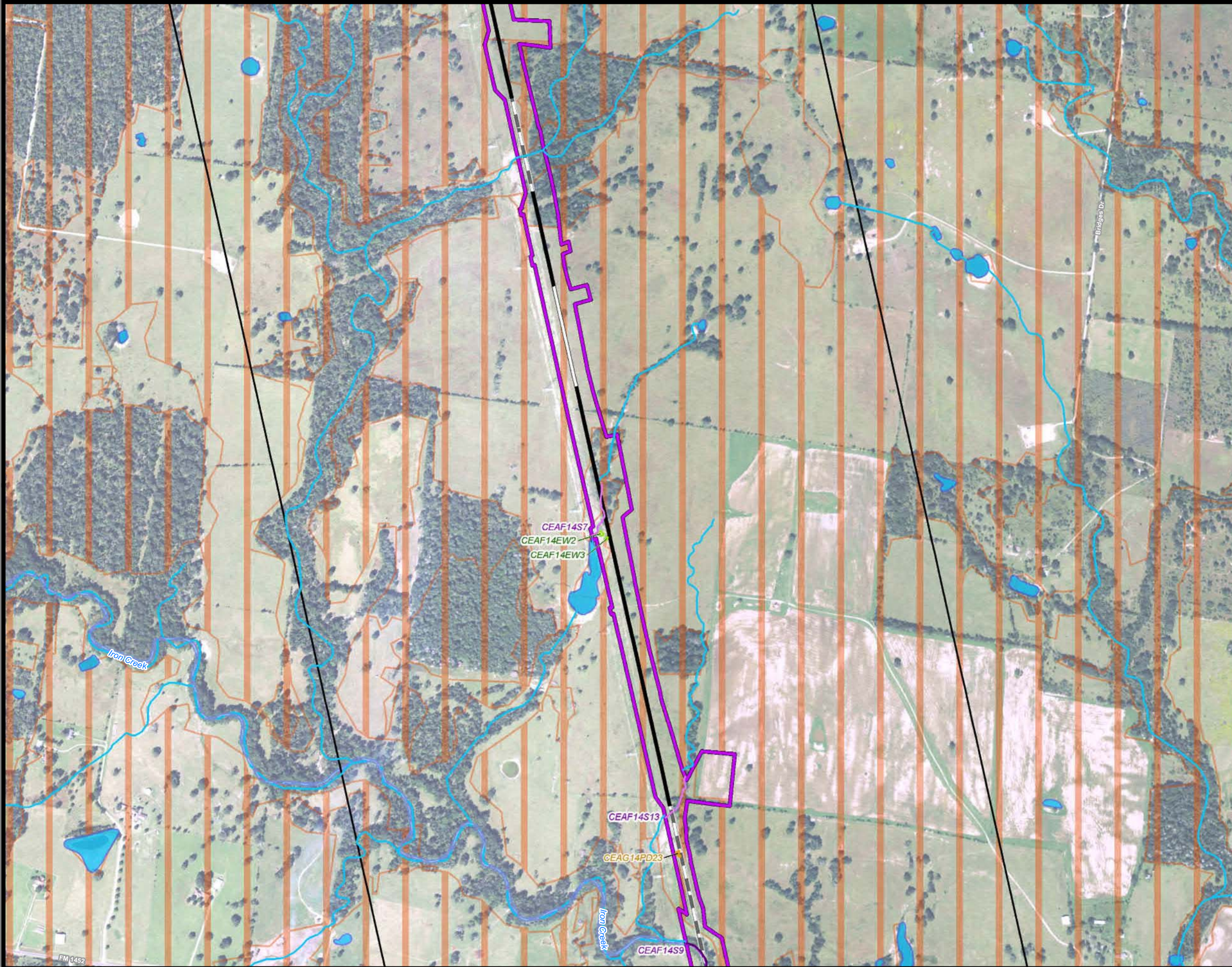


**Dallas to Houston High-Speed Rail
Draft Environmental Impact Statement**

**Appendix D:
Natural Resources
Mapbook Set 4 of 4**



**Federal Railroad
Administration**



**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 4
Sheet 194 of 257

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total

- Maximum Daily Load (TMDL)

Impaired Waters

- Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

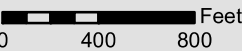
National Wetlands Inventory (NWI)

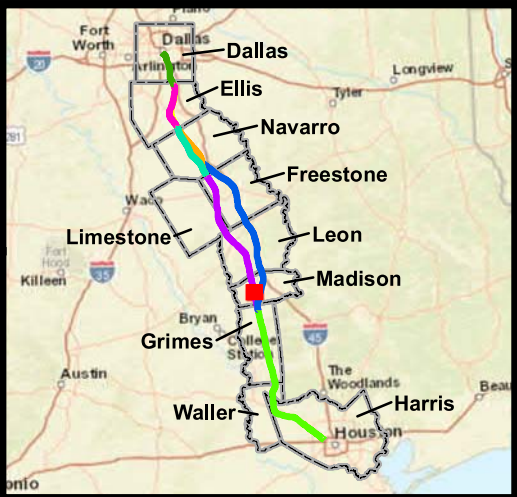
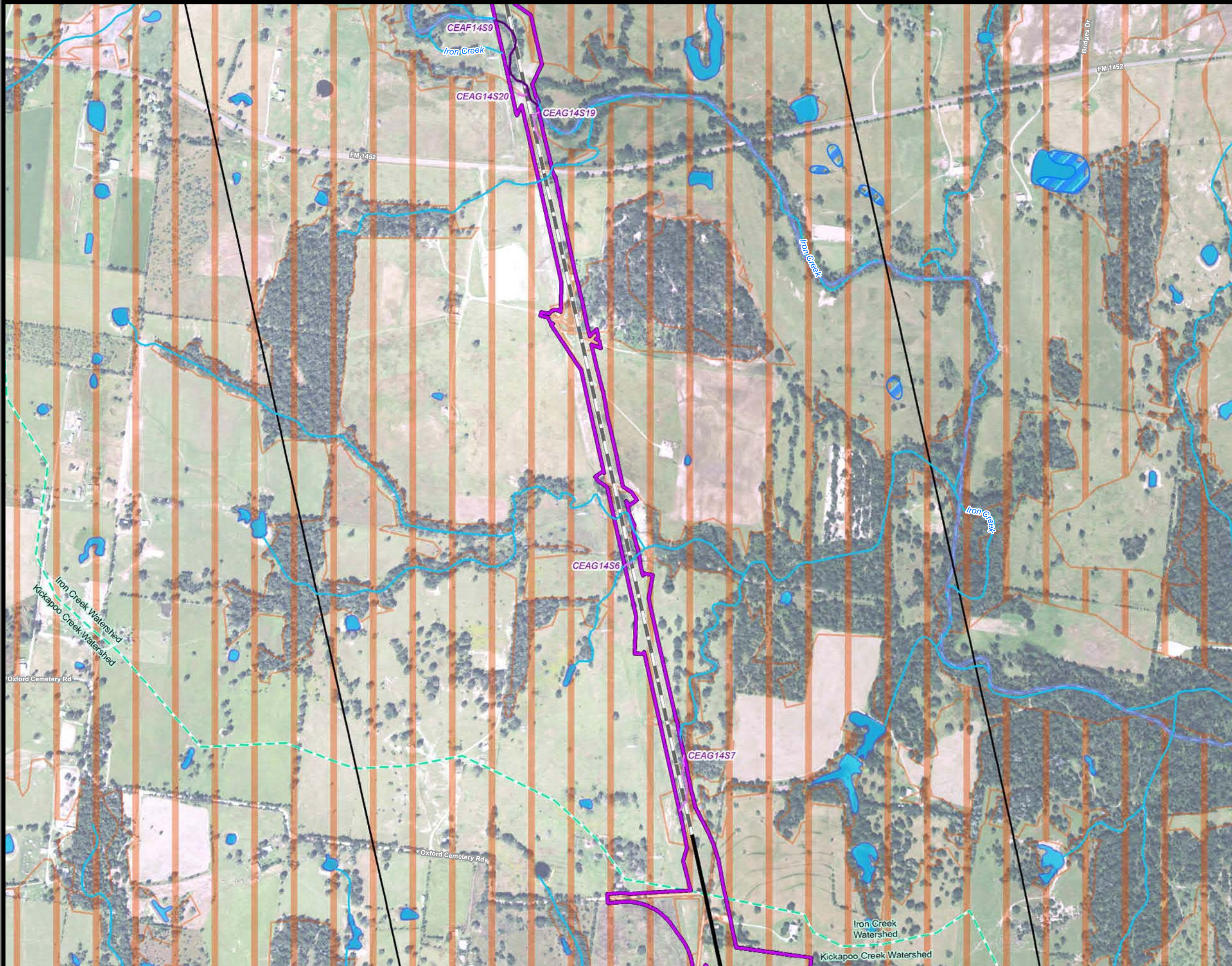
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

*Floodplains in Freestone and Madison Counties digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to lack of digitally mapped FEMA floodplains.

Data Sources: County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2013; MSD - TCEQ 2015; USACE Project Areas - USACE 2014; Public Water Supply/Impaired Waters - EPA 2016; Groundwater Wells - TWDB 2015; NHD/HUC12 - USGS 2016; Reservoirs - TWDB 2014; NWI - USFWS 2016; Floodplains - FEMA 2016; Endangered/Threatened Species - TPWD TXNDD Element of Occurrence Records (EOR) 2017; ESRI World Street Map
Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 195 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Federal Emergency Management Agency (FEMA) Flood Zone

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

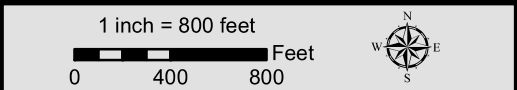
- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

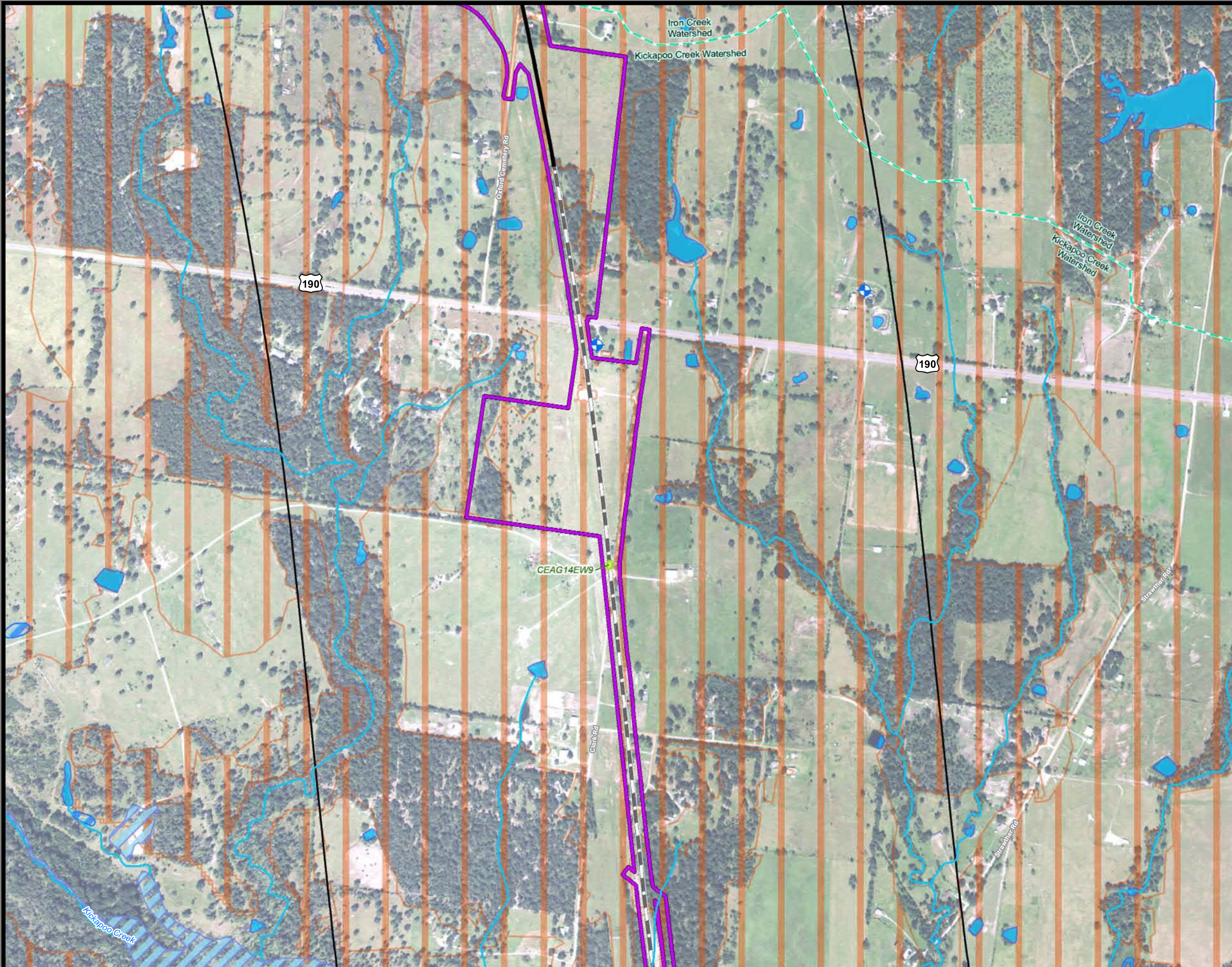
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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Aerial Imagery: USDA NAIP 2014



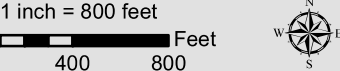


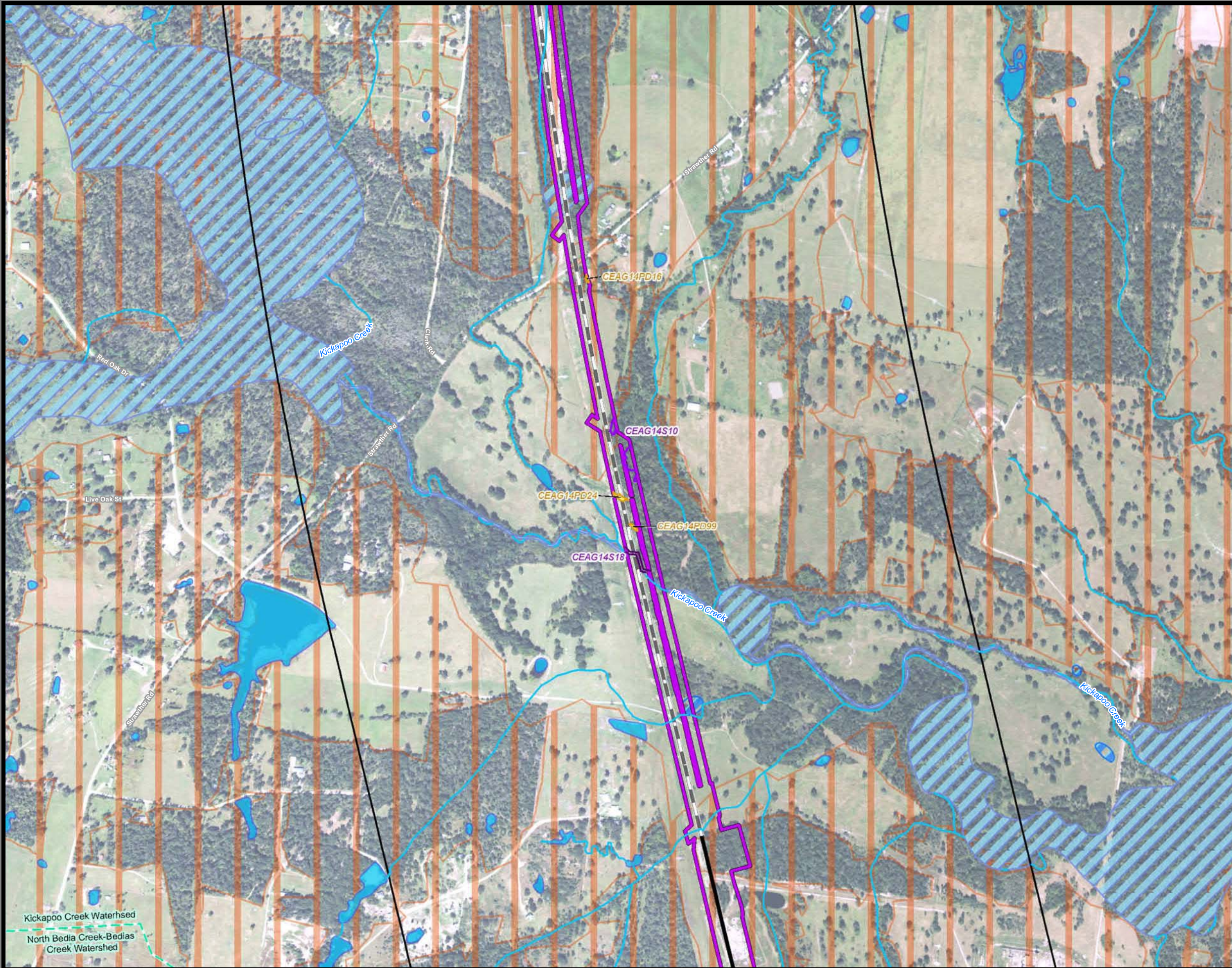
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 196 of 257**

- Legend**
- Limits of Disturbance**
- Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
- Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
- Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone**
- A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Field-Collected Data**
- Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- National Hydrography Dataset (NHD)**
- Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
- Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 197 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
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- Municipal Setting Designation (MSD)

Potential Habitat

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- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

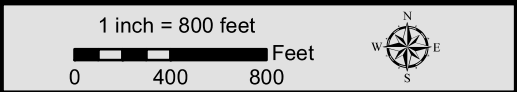
- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

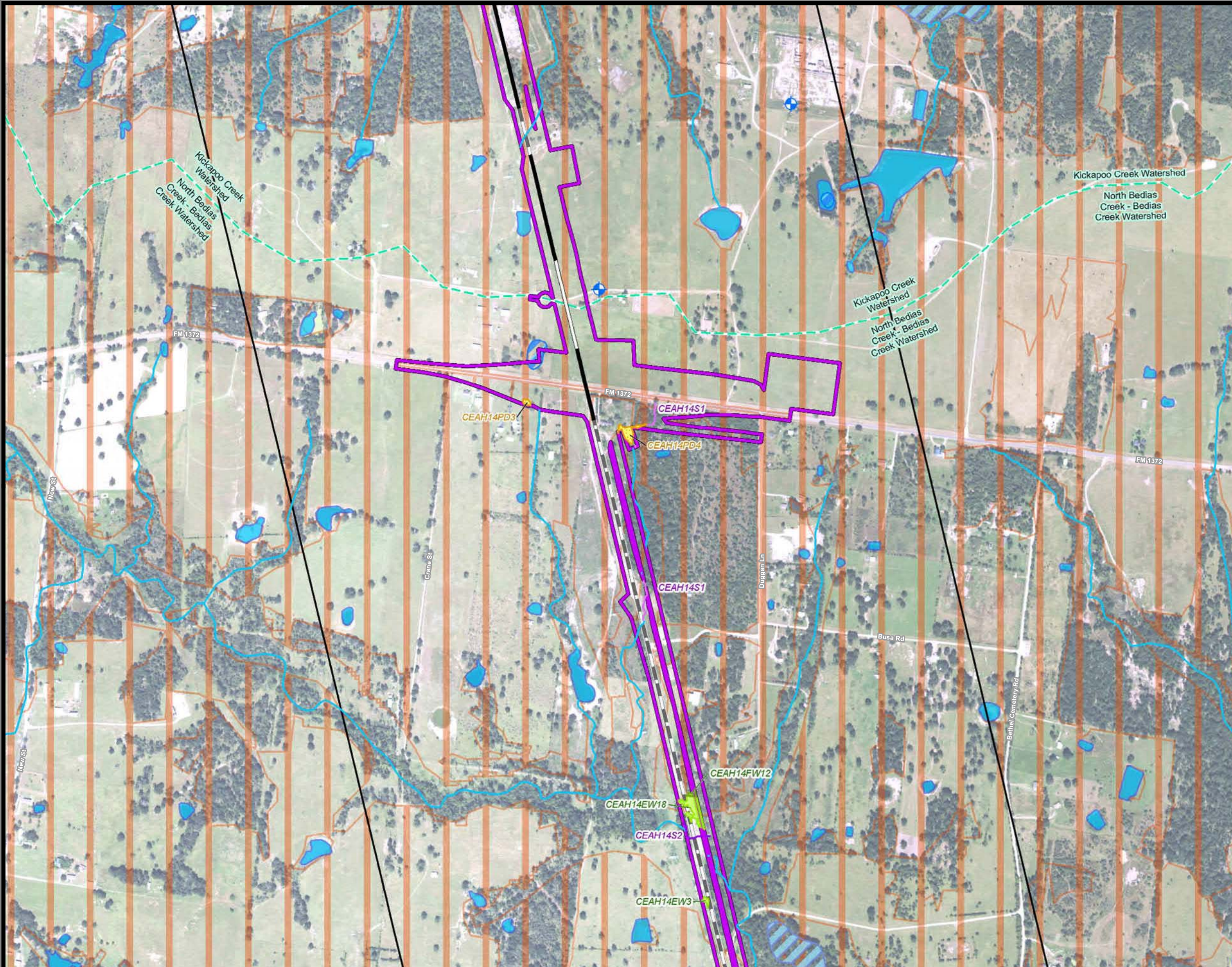
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 198 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

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- County Boundary
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- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

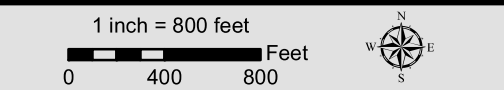
National Wetlands Inventory (NWI)

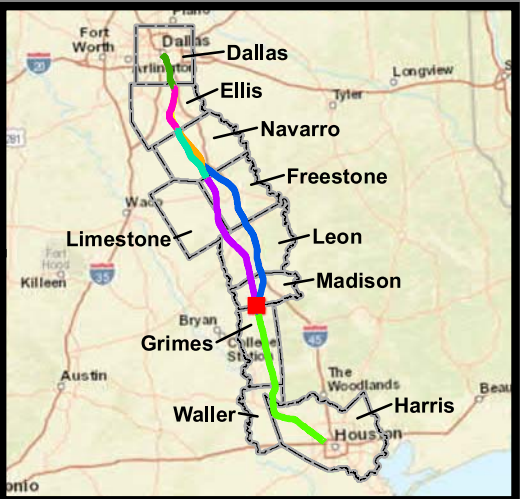
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 199 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

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- Large-fruited Sand Verbena
- Navasota Ladies-tresses
- Endangered Species
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- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Federal Emergency Management Agency (FEMA) Flood Zone

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

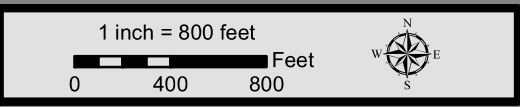
National Wetlands Inventory (NWI)

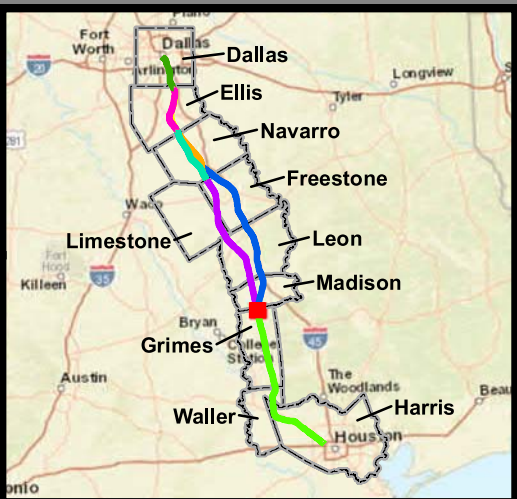
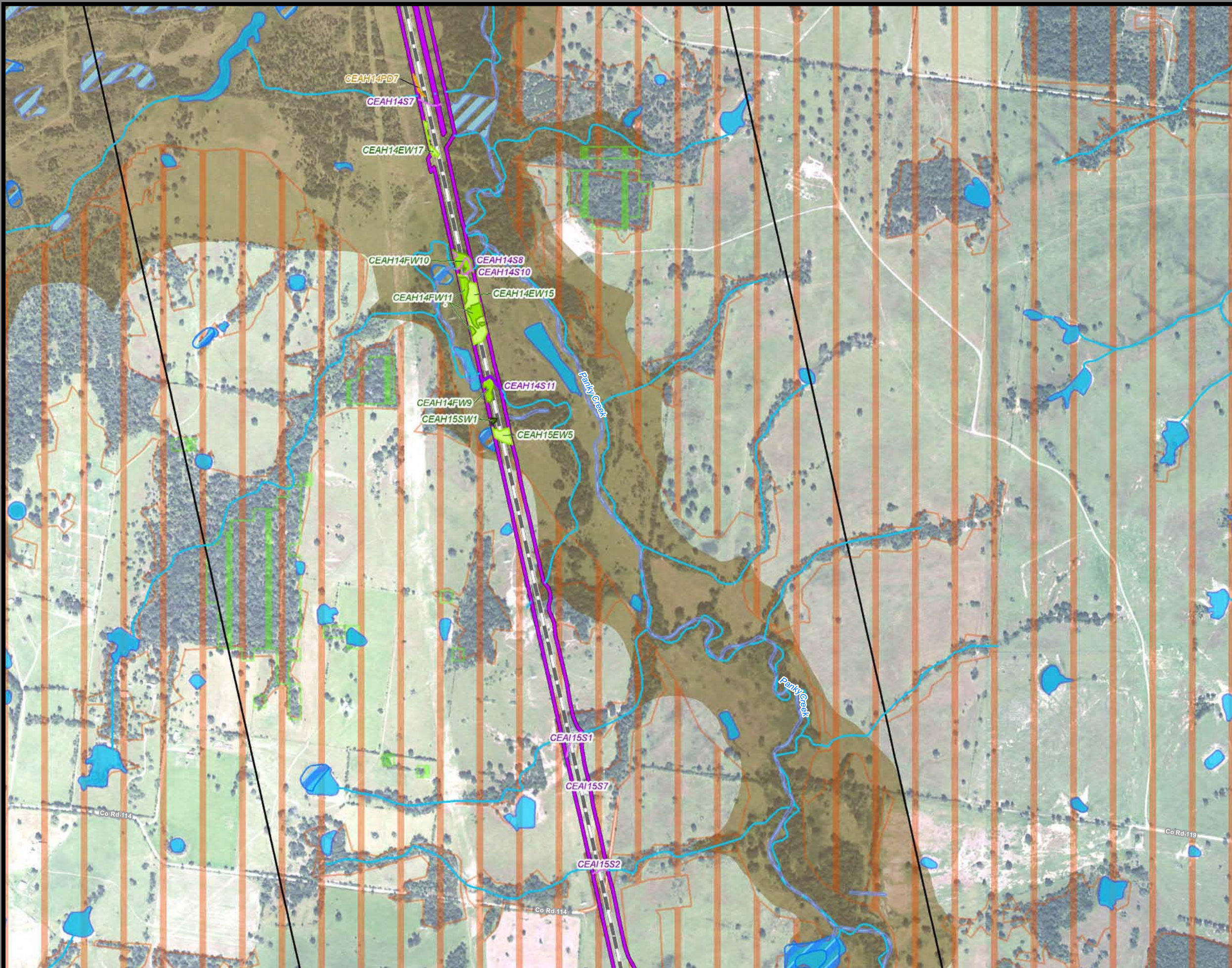
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

This Sheet only depicts Segment 4; Segment 3C is also located in this same area and can be referenced on Sheet 150.

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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 200 of 257**

Legend

- Limits of Disturbance**
 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
 - Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
 - Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
 - Impaired Waters
 - Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Field-Collected Data**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- National Hydrography Dataset (NHD)**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Other

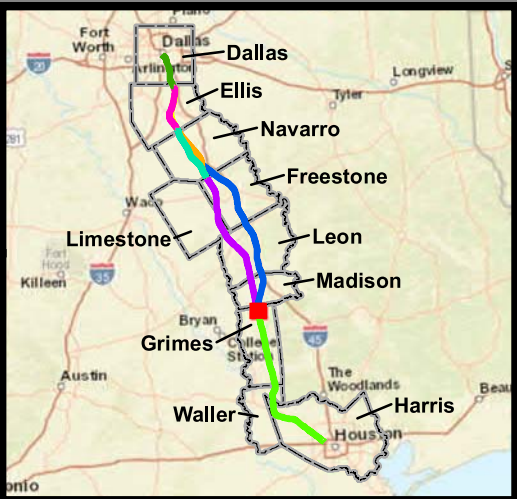
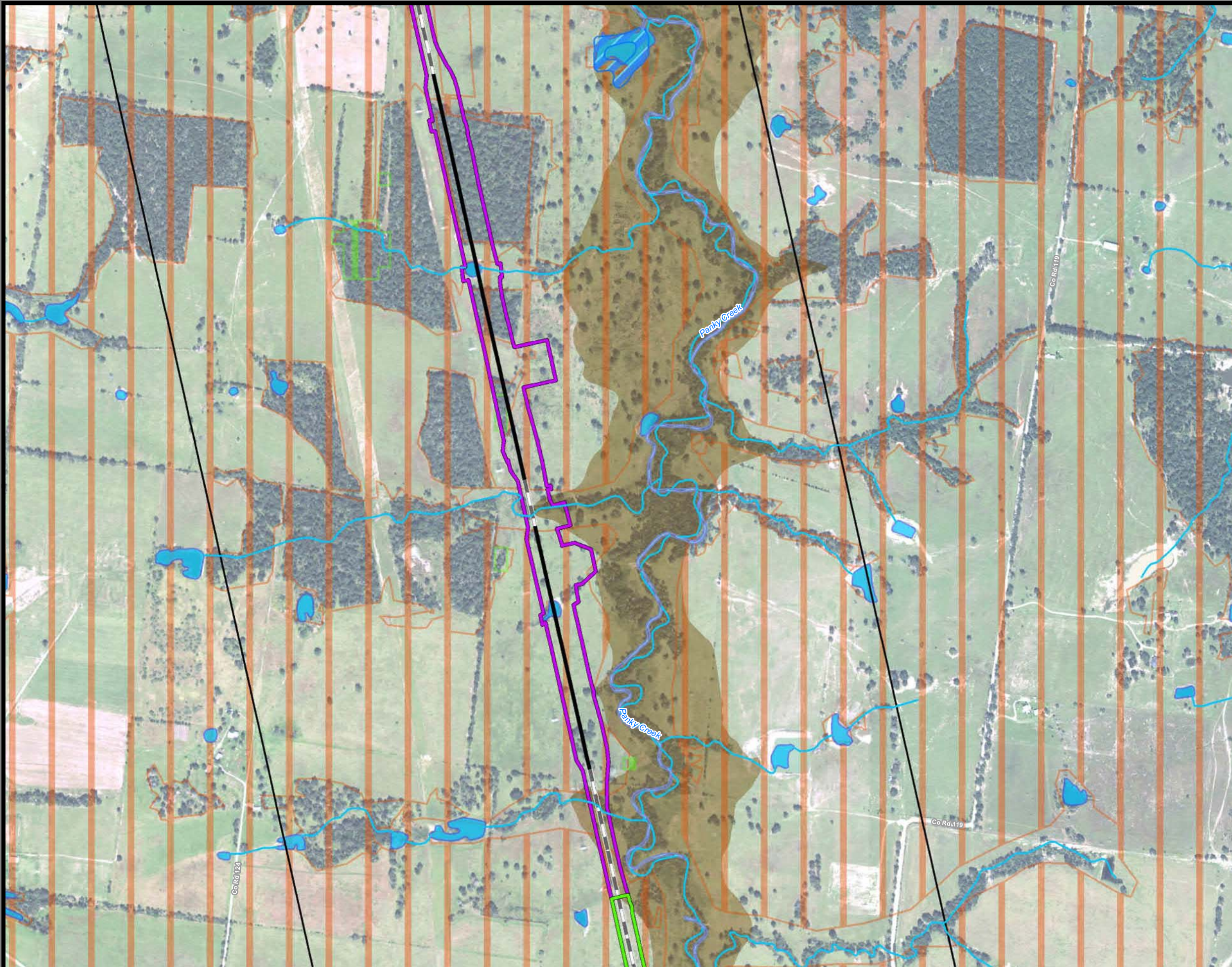
This Sheet only depicts Segment 4; Segment 3C is also located in this same area and can be referenced on Sheet 151.

*Floodplains in Freestone and Madison Counties digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to lack of digitally mapped FEMA floodplains.

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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4, 5
Sheet 201 of 257**

Legend

- Limits of Disturbance**
 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
 - Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
 - Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
 - Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone**
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Field-Collected Data**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- National Hydrography Dataset (NHD)**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Other

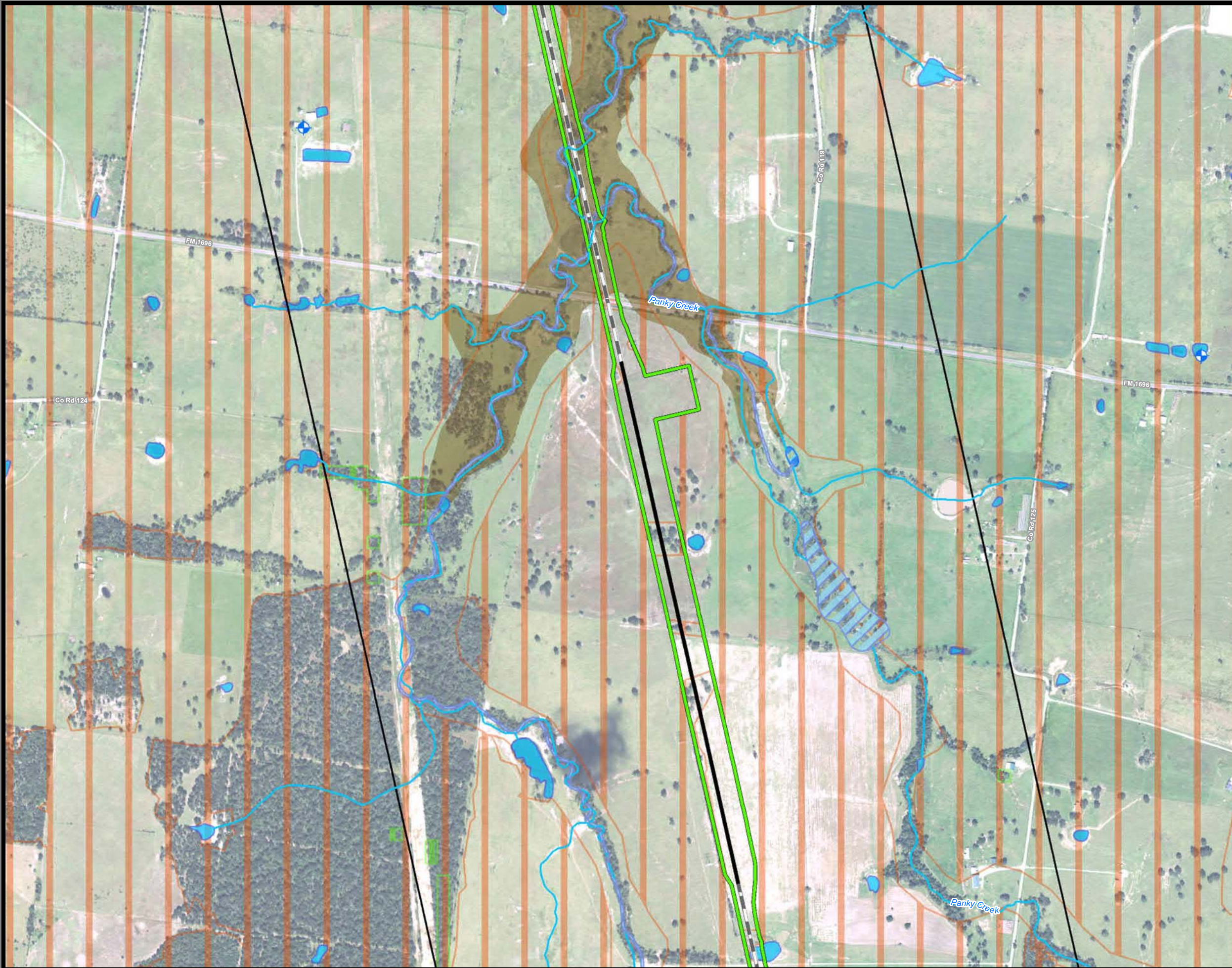
This Sheet only depicts Segments 4 & 5; Segment 3C is also located in this same area and can be referenced on Sheet 152.

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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 202 of 257**

Legend

- Limits of Disturbance**

 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5

Track Configuration

 - Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)

Potential Habitat

 - Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)

Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

 - Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh

National Wetlands Inventory (NWI)

 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Other

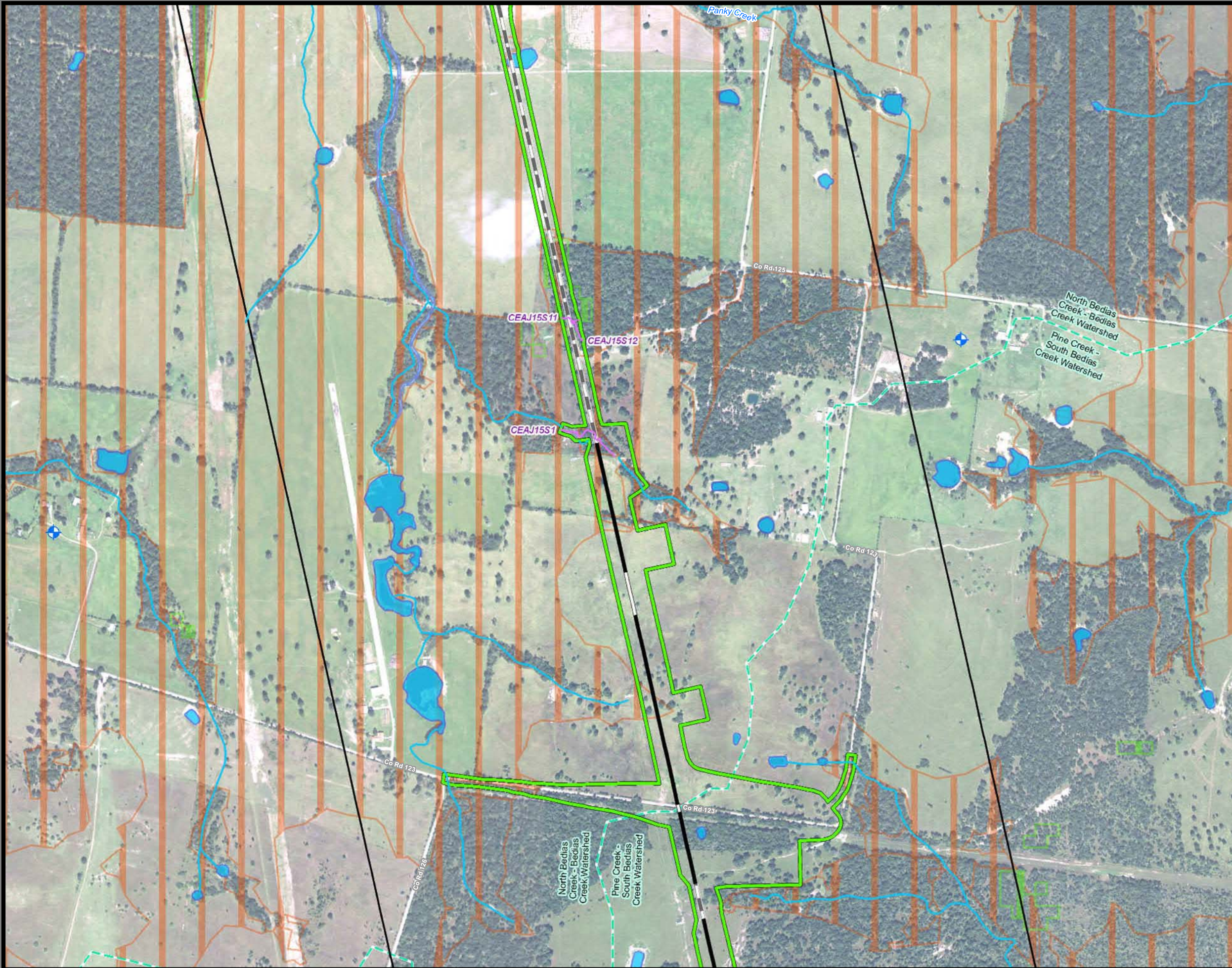
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet

0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 203 of 257**

- Legend**
- Limits of Disturbance**
- Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
- Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
- Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
- Impaired Waters
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Federal Emergency Management Agency (FEMA) Flood Zone**
- Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- Field-Collected Data**
- Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Hydrography Dataset (NHD)**
- Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
- Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Other

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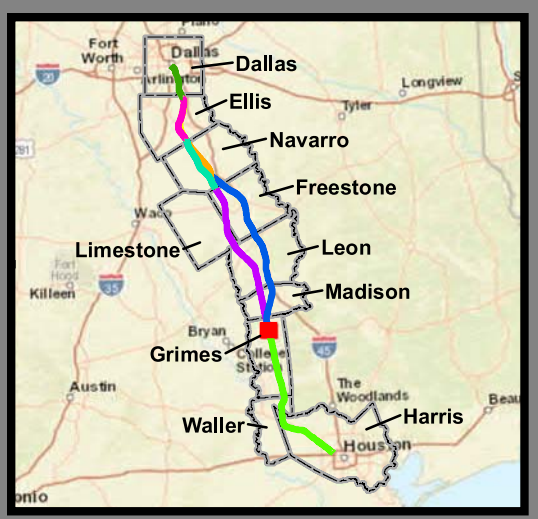
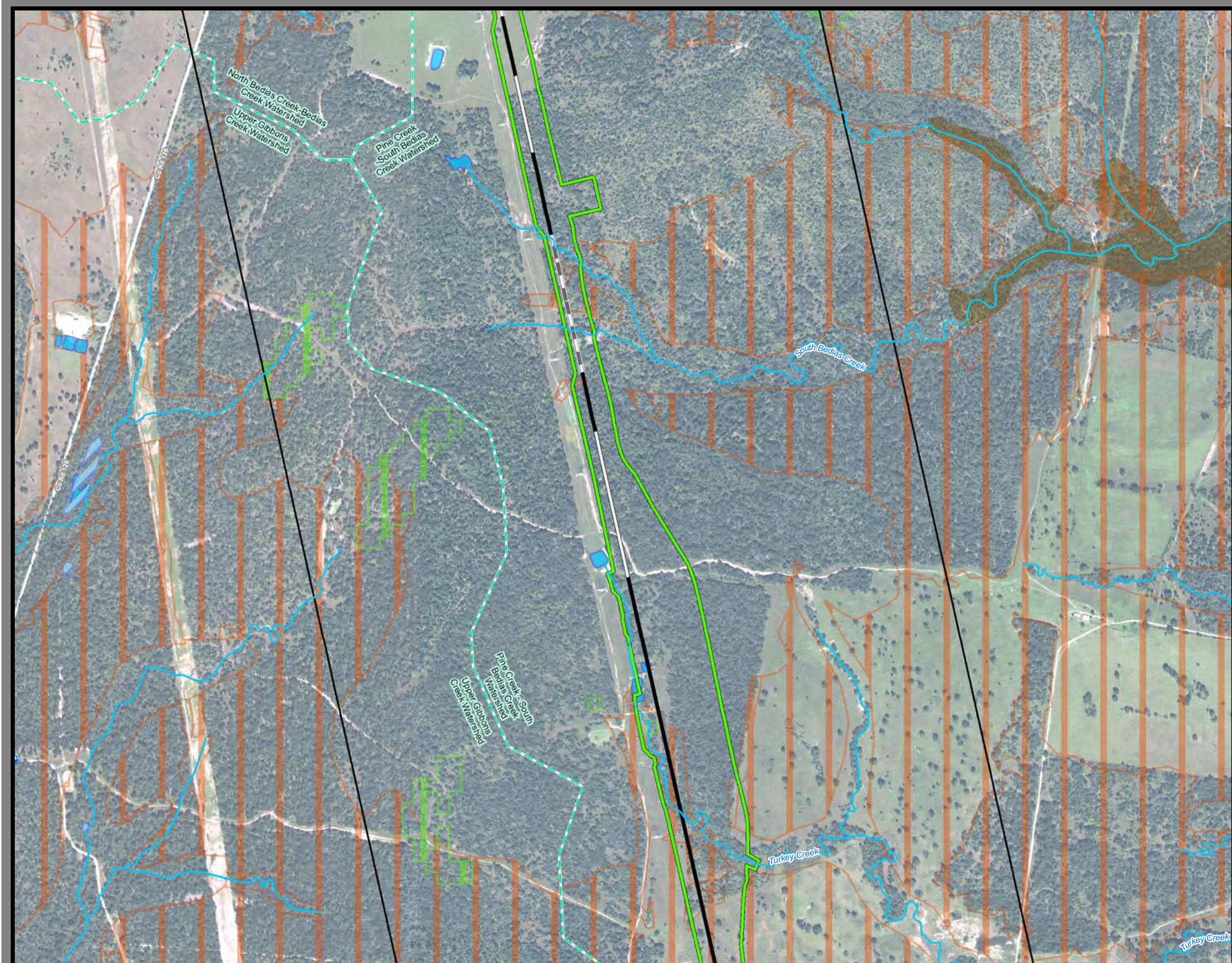
Data Sources: County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2013; MSD - TCEQ 2015; USACE Project Areas - USACE 2014; Public Water Supply/Impaired Waters - EPA 2016; Groundwater Wells - TWDB 2015; NHD/HUC12 - USGS 2016; Reservoirs - TWDB 2014; NWI - USFWS 2016; Floodplains - FEMA 2016; Endangered/Threatened Species - TPWD TXNDD Element of Occurrence Records (EOR) 2017; ESRI World Street Map

Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet

0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 204 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

National Wetlands Inventory (NWI)

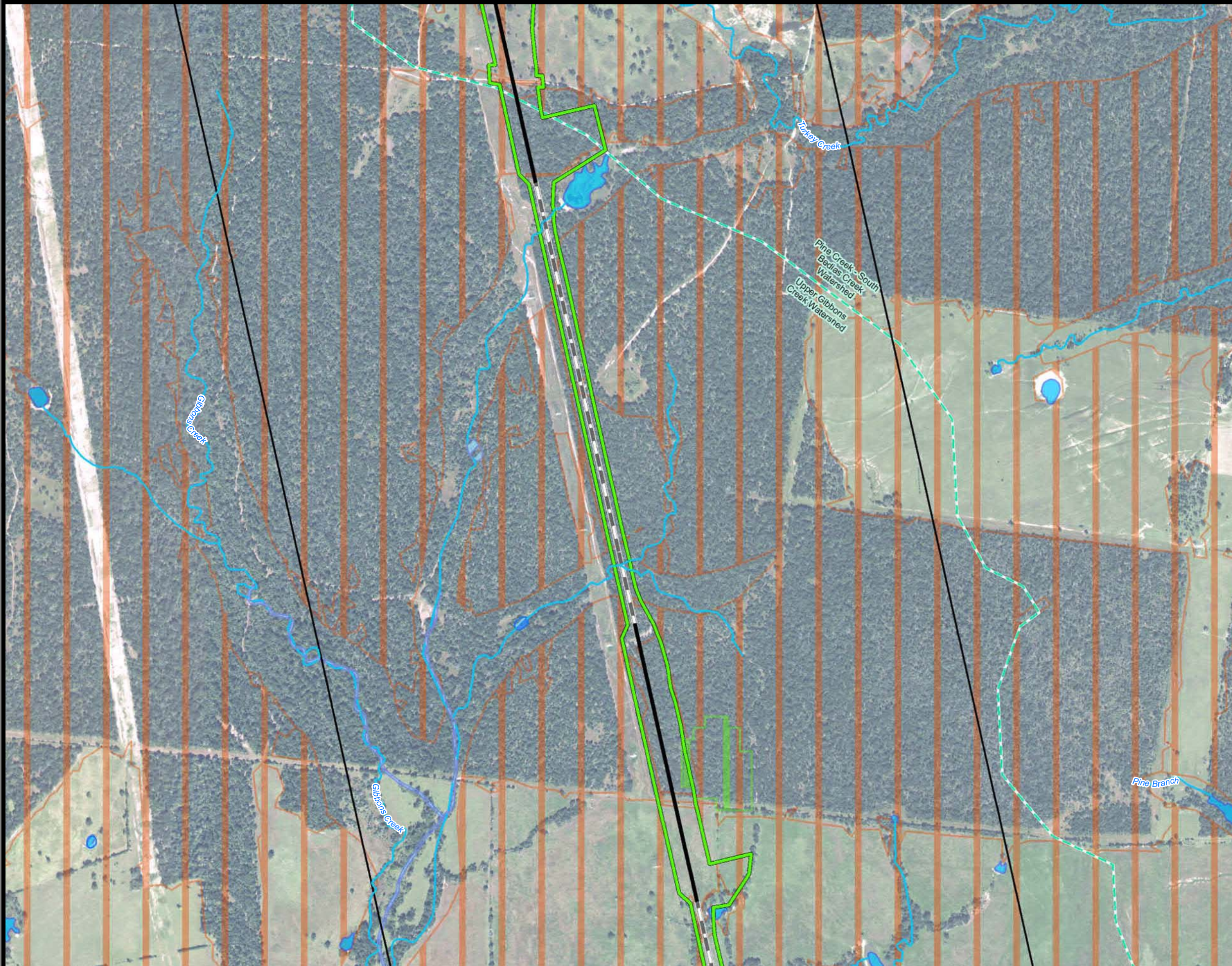
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

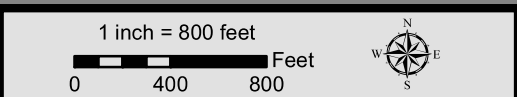
- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

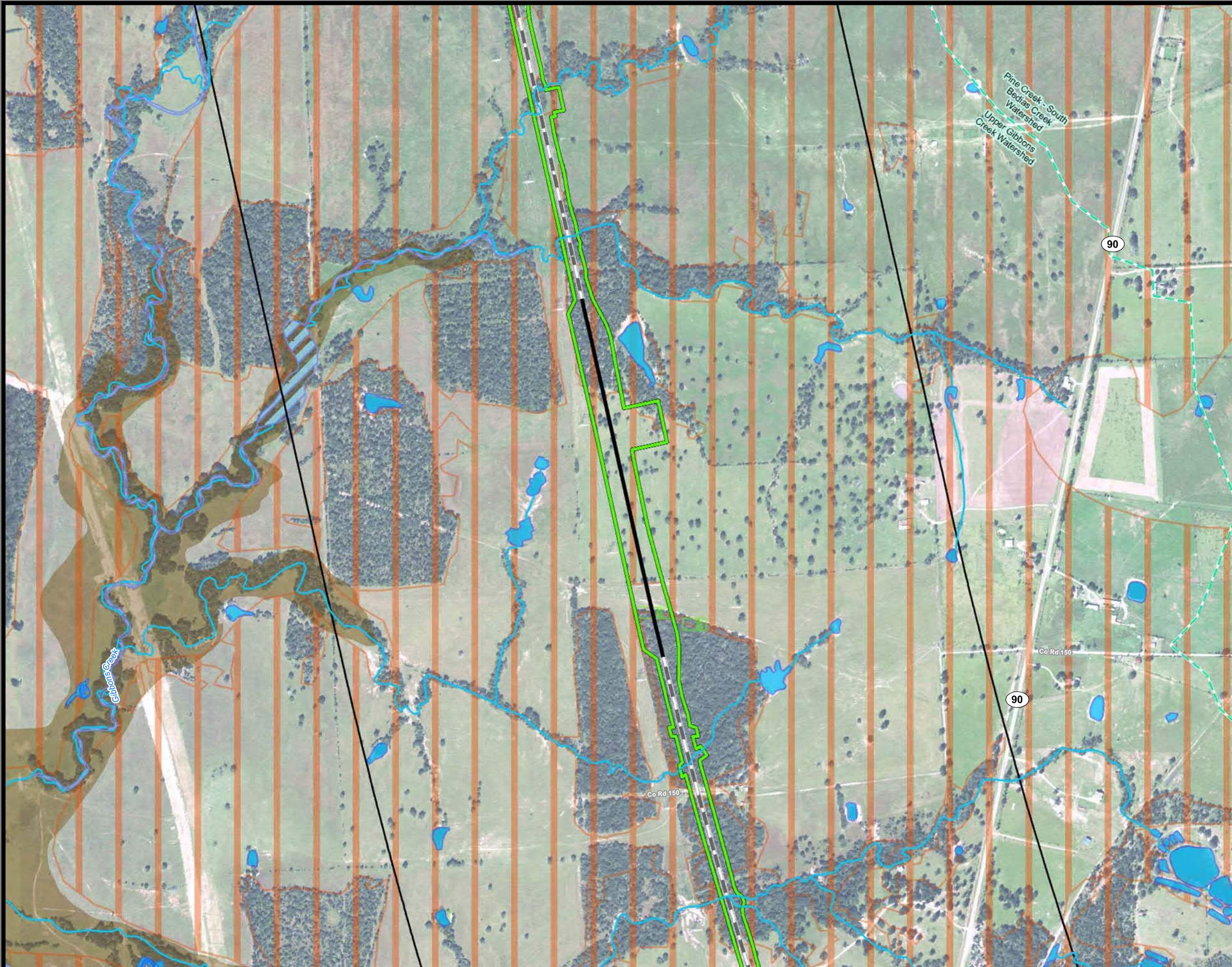
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5
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Legend

- Limits of Disturbance**

 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5

Track Configuration

 - Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)

Potential Habitat

 - Houston Toad
 - Verberna
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)

Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

 - Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh

National Wetlands Inventory (NWI)

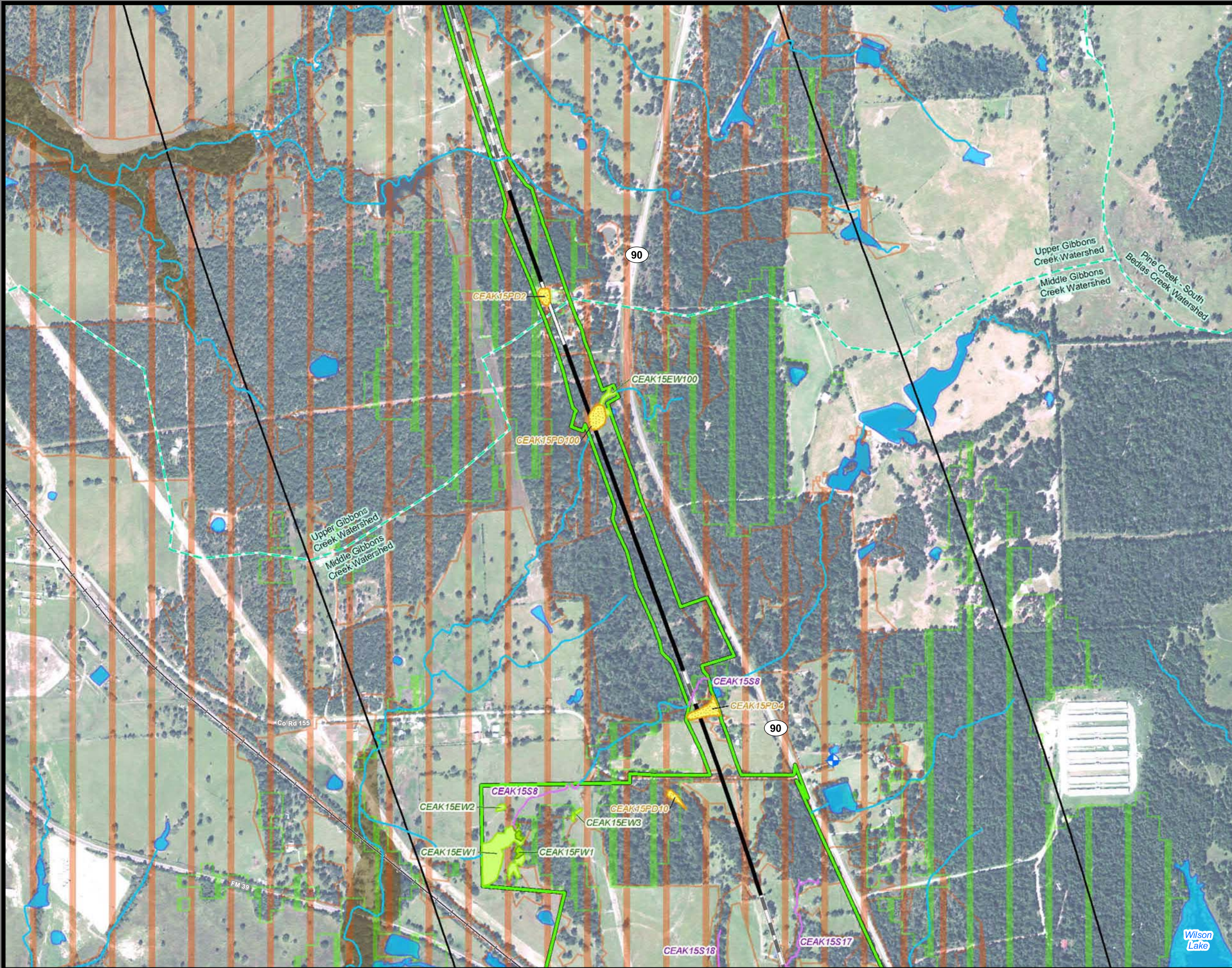
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 207 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

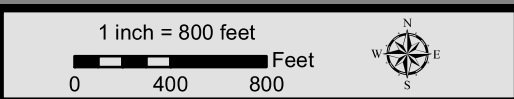
National Wetlands Inventory (NWI)

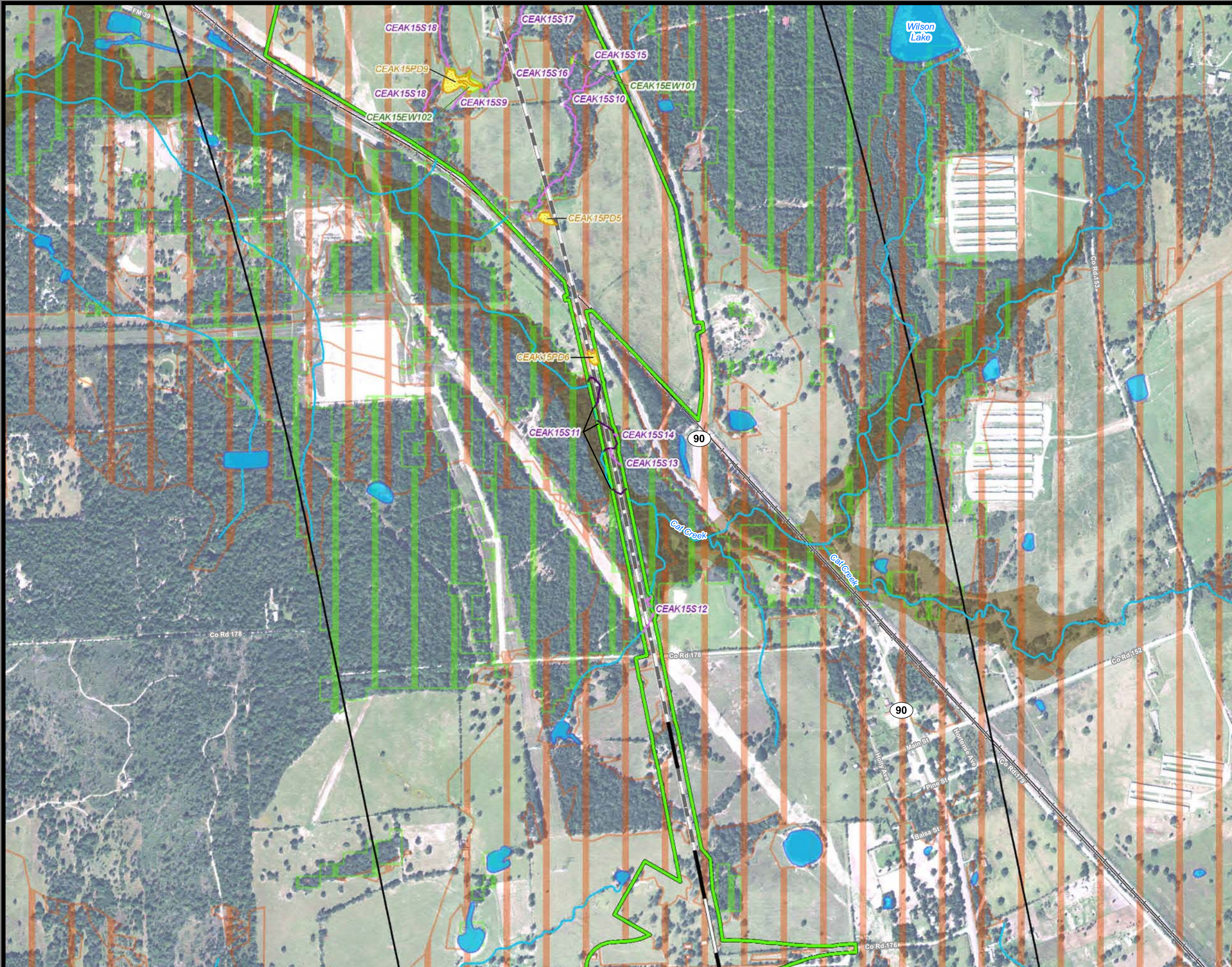
- Freshwater Emergent Wetland
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
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Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Federal Emergency Management Agency (FEMA) Flood Zone

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

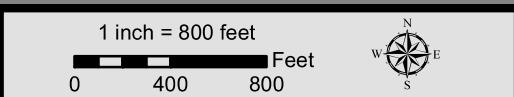
National Wetlands Inventory (NWI)

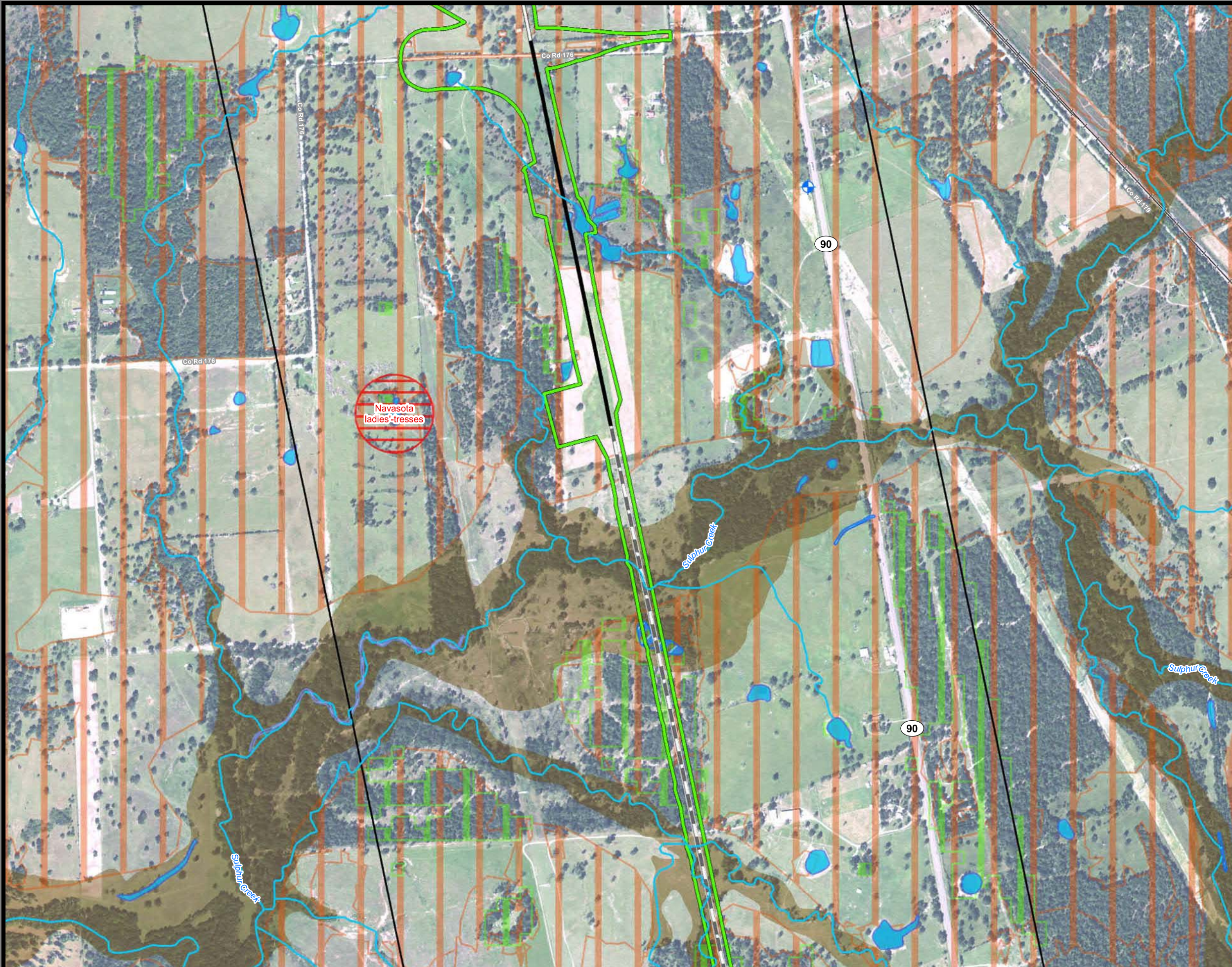
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

- Limits of Disturbance**

 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5

Track Configuration

 - Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)

Potential Habitat

 - Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)

Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

 - Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh

National Wetlands Inventory (NWI)

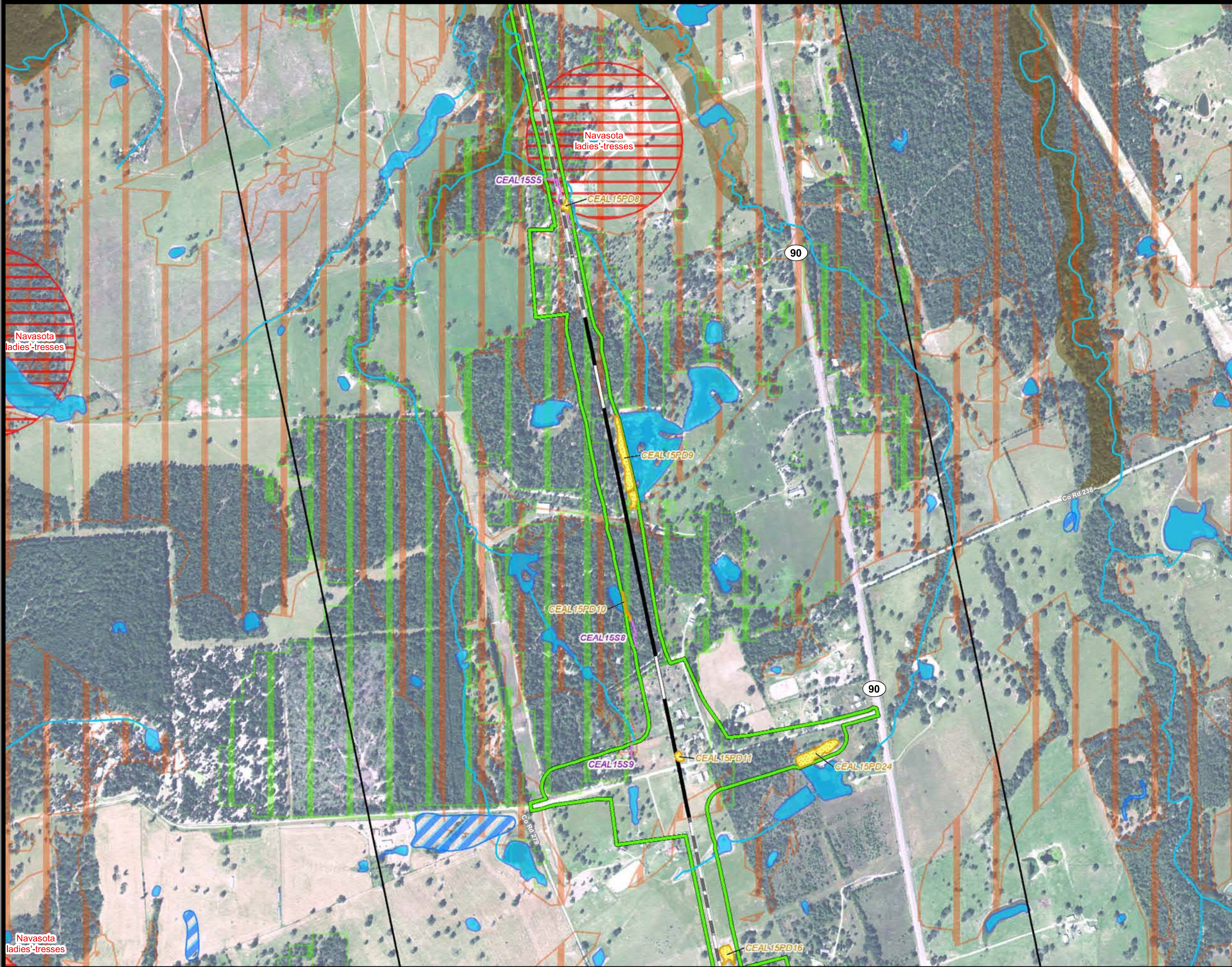
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Other

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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5
Sheet 210 of 257

- Legend**
- Limits of Disturbance**
- Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
- Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
- Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
- Impaired Waters
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Federal Emergency Management Agency (FEMA) Flood Zone**
- Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- Field-Collected Data**
- Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- National Hydrography Dataset (NHD)**
- Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
- Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Other

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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources**
Segment 5, Brazos Valley Terminal
Sheet 211 of 257

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

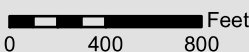
National Wetlands Inventory (NWI)

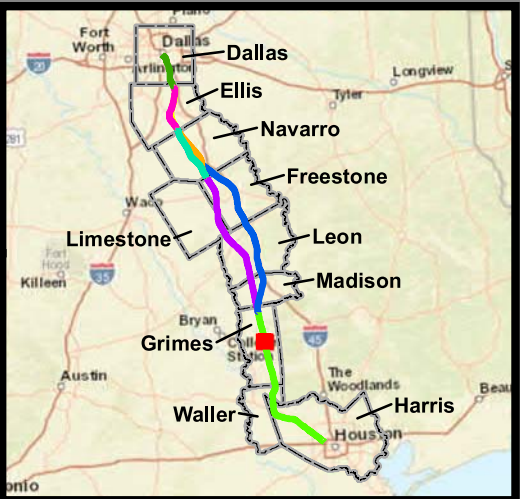
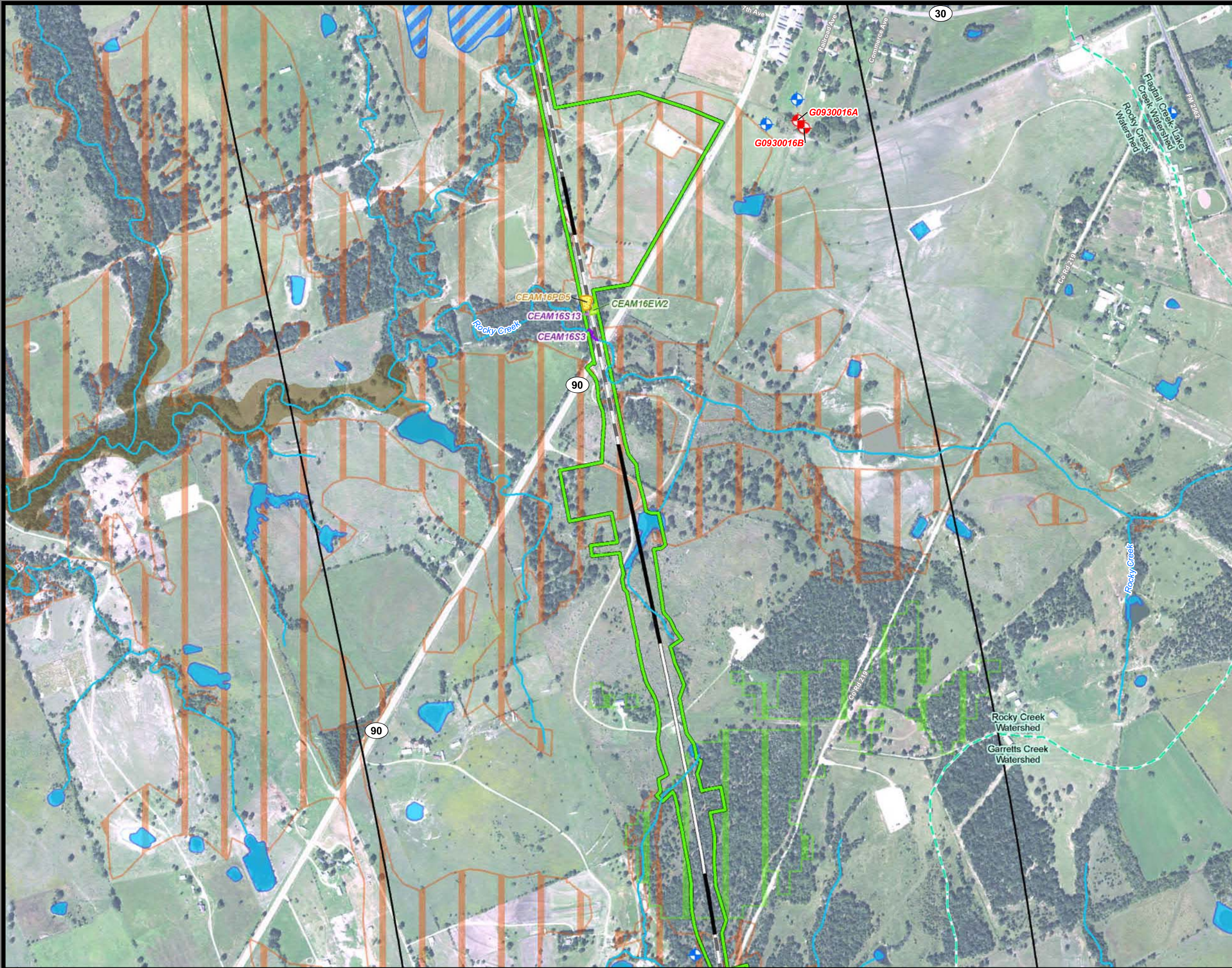
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- Other

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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 212 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

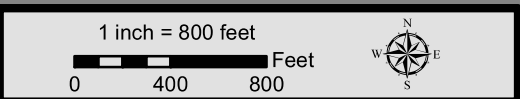
- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5
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- Legend**
- Limits of Disturbance**
- Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
- Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
- Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
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 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone**
- A - 1%
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 - AO - 1%
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- Field-Collected Data**
- Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- National Hydrography Dataset (NHD)**
- Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
- Freshwater Emergent Wetland
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
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High-Speed Rail Project
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Segment 5
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Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
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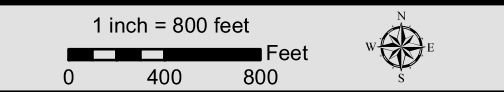
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**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5
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Legend

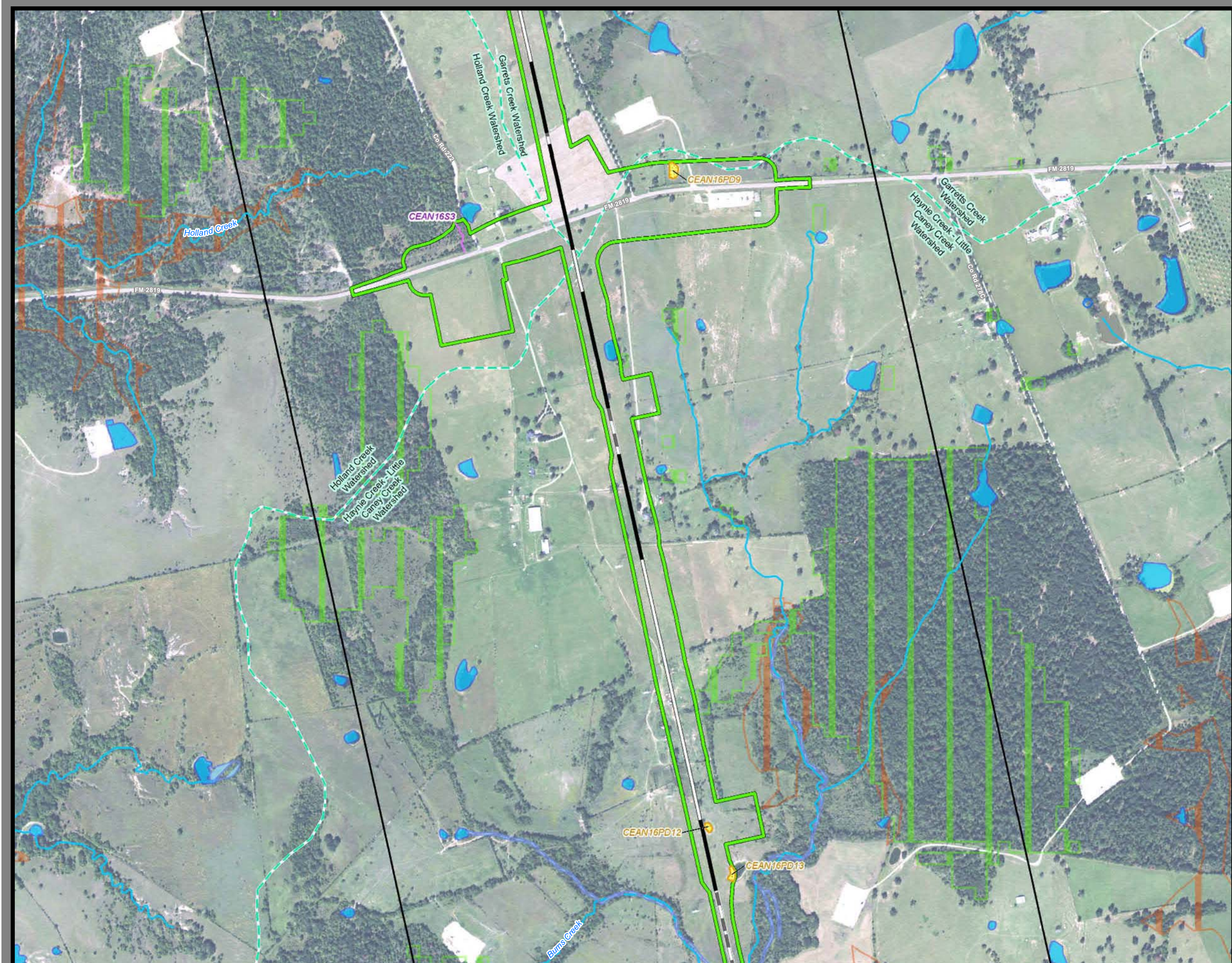
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High-Speed Rail Project
Natural Resources
Segment 5
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National Wetlands Inventory (NWI)

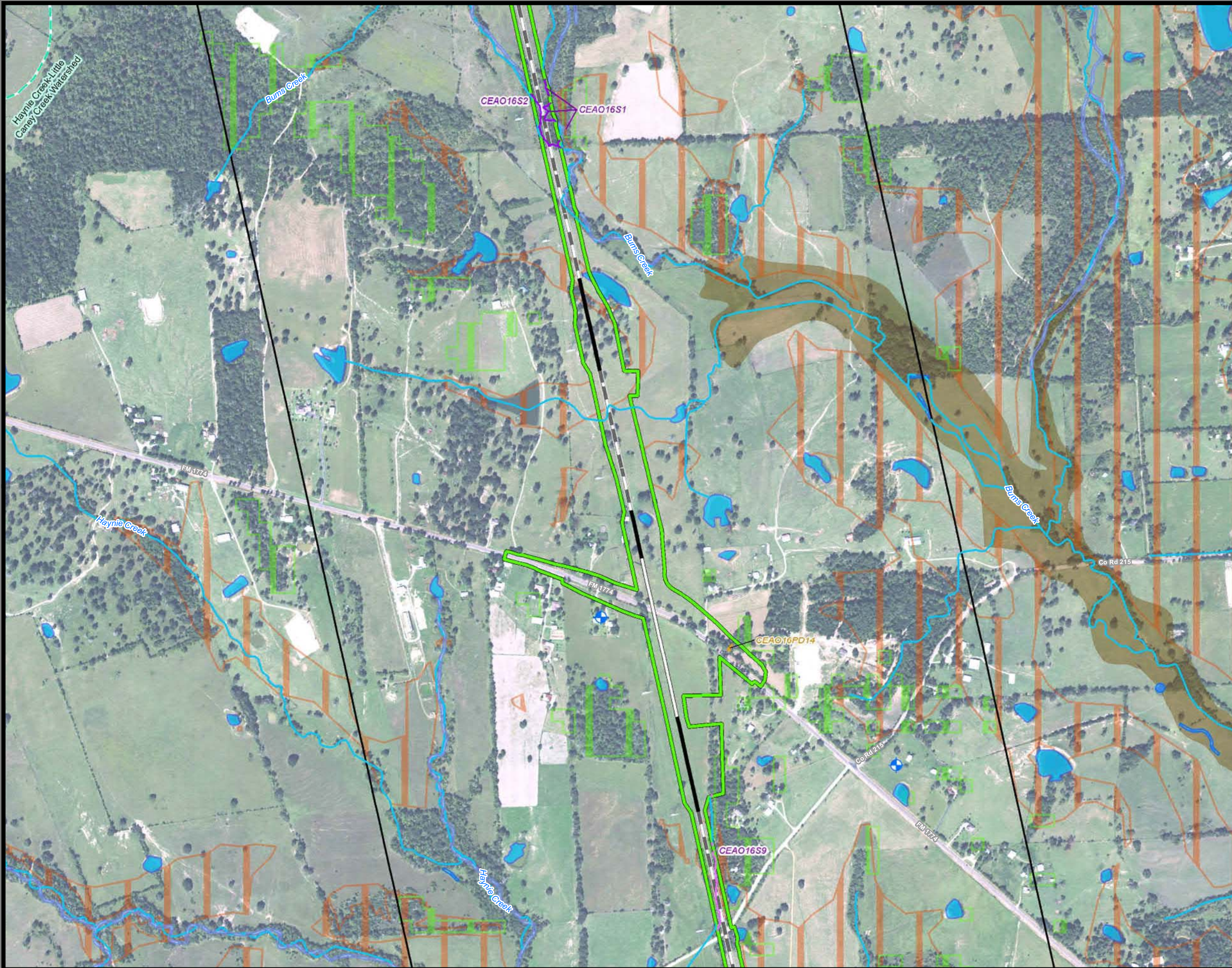
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project**
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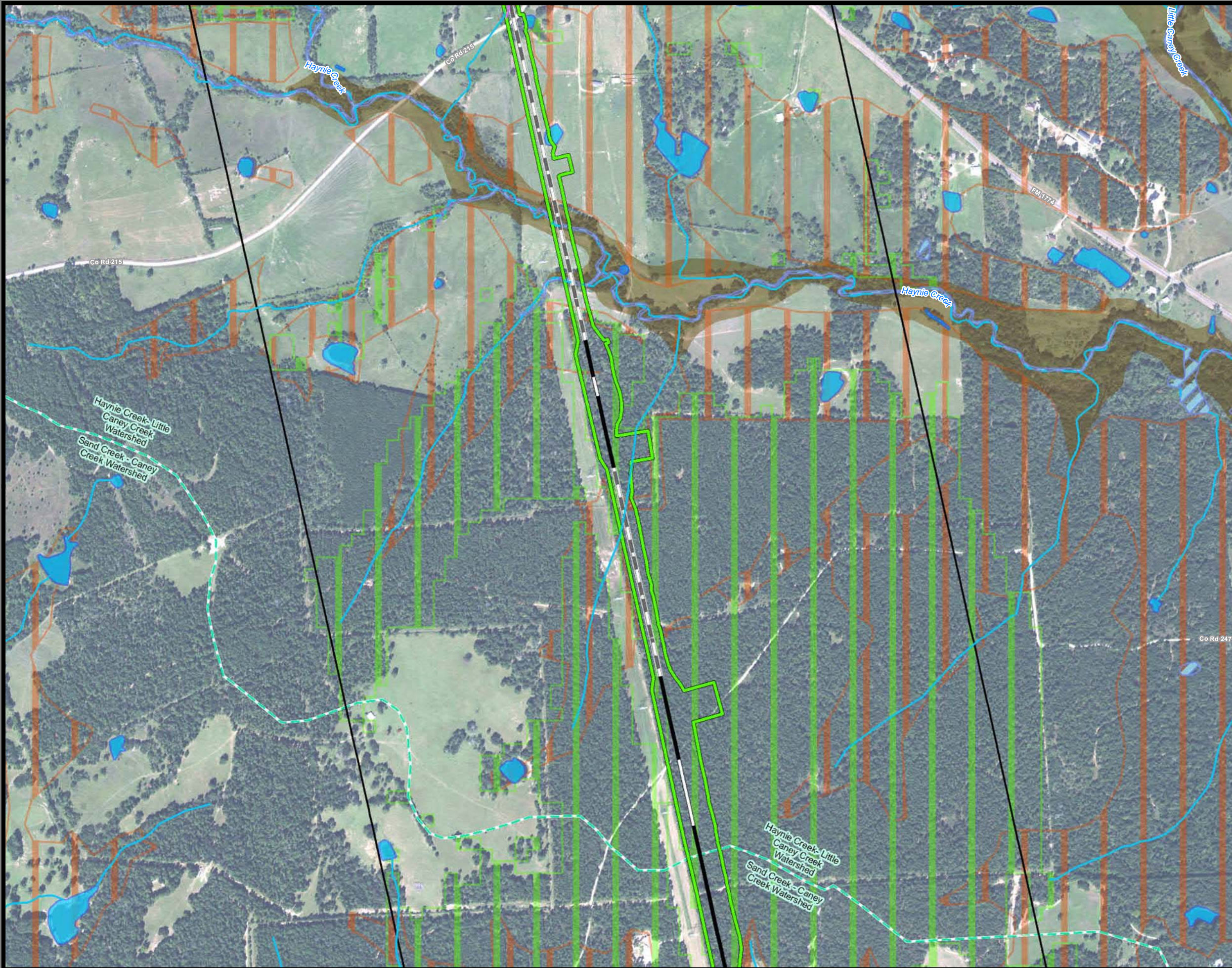
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High-Speed Rail Project
Natural Resources
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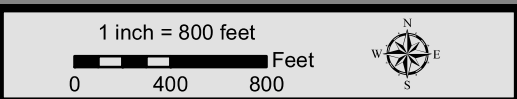
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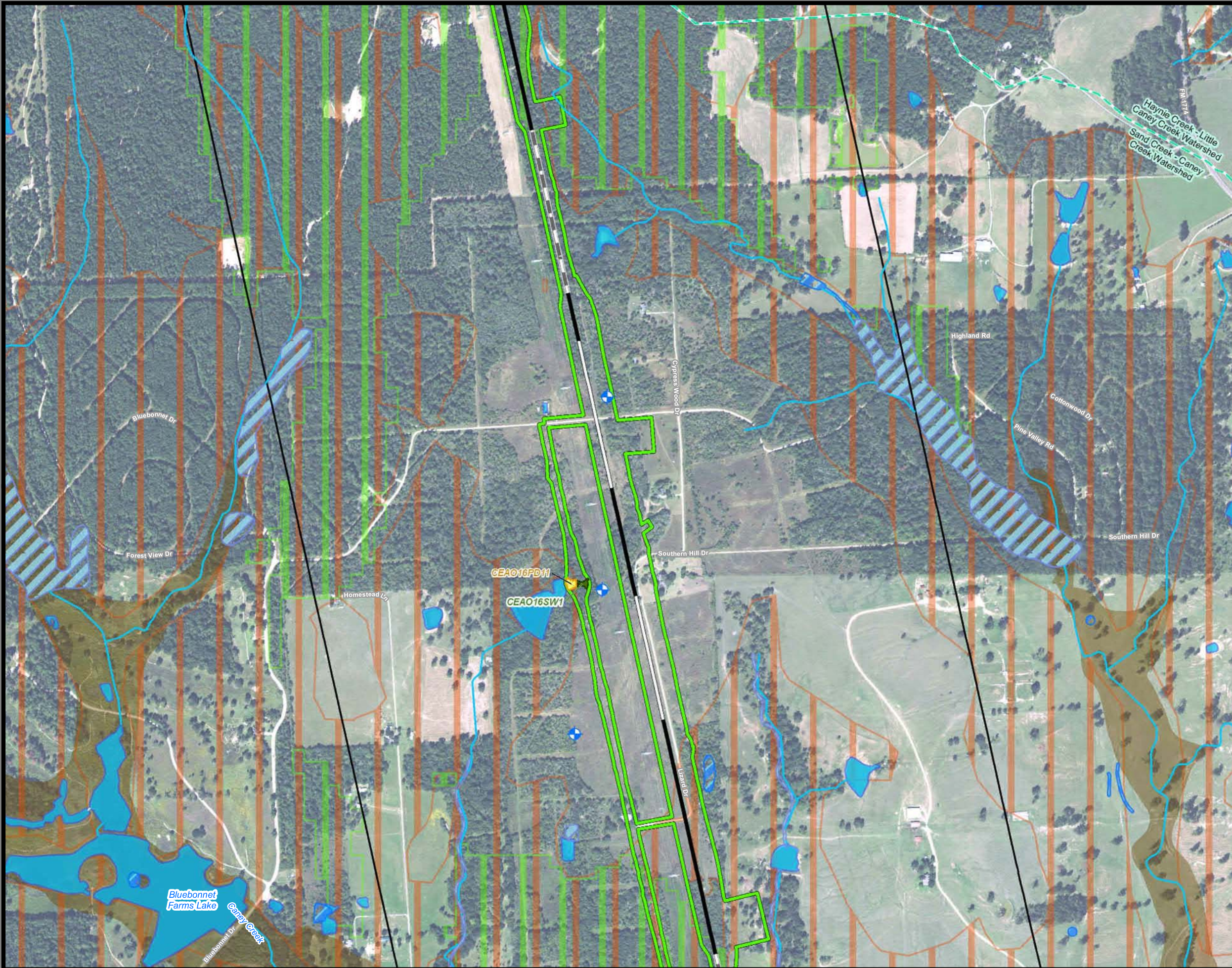
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Dallas to Houston
High-Speed Rail Project
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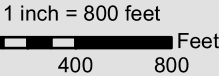
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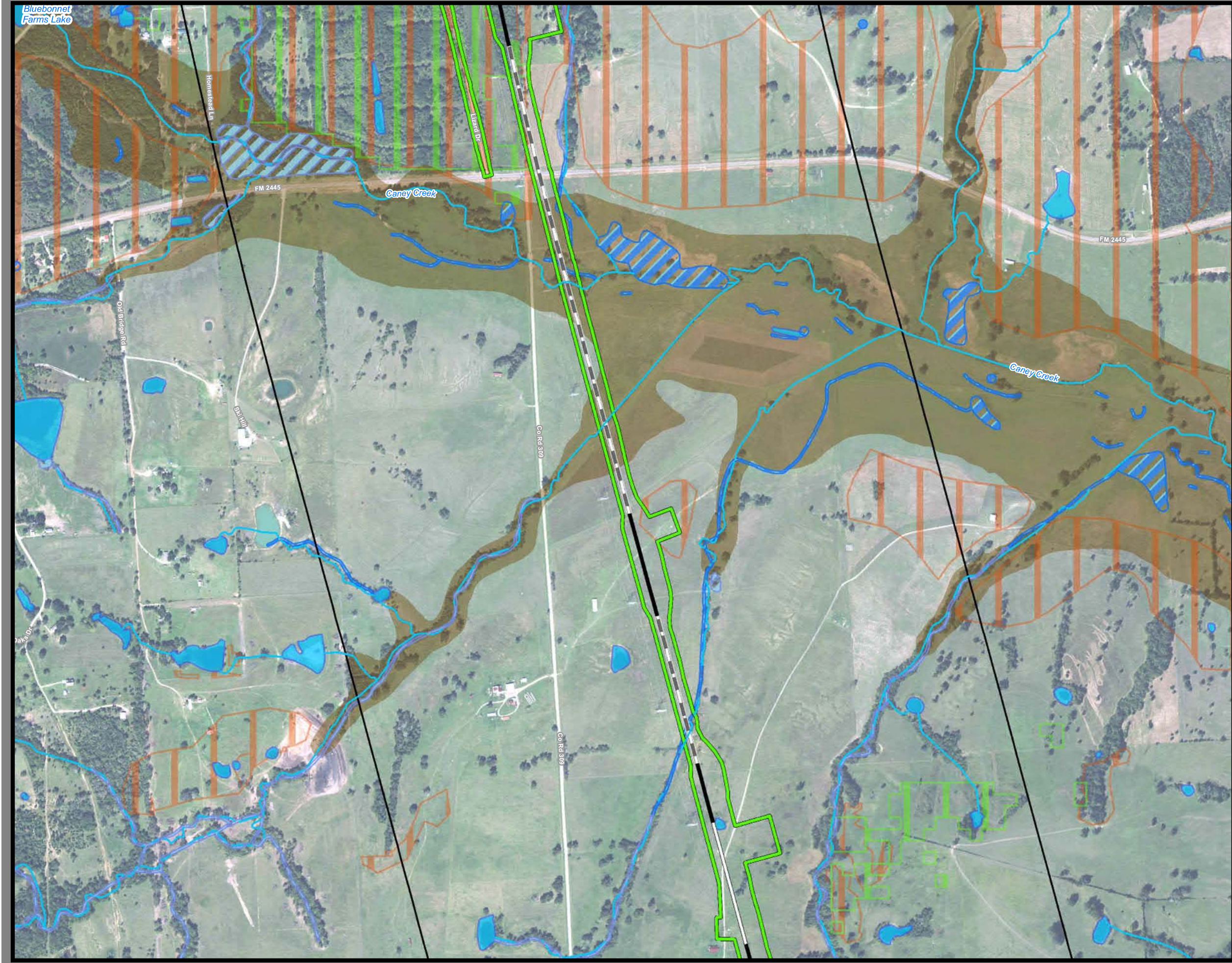
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Legend

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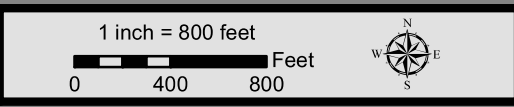
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

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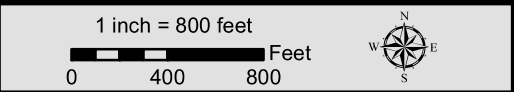
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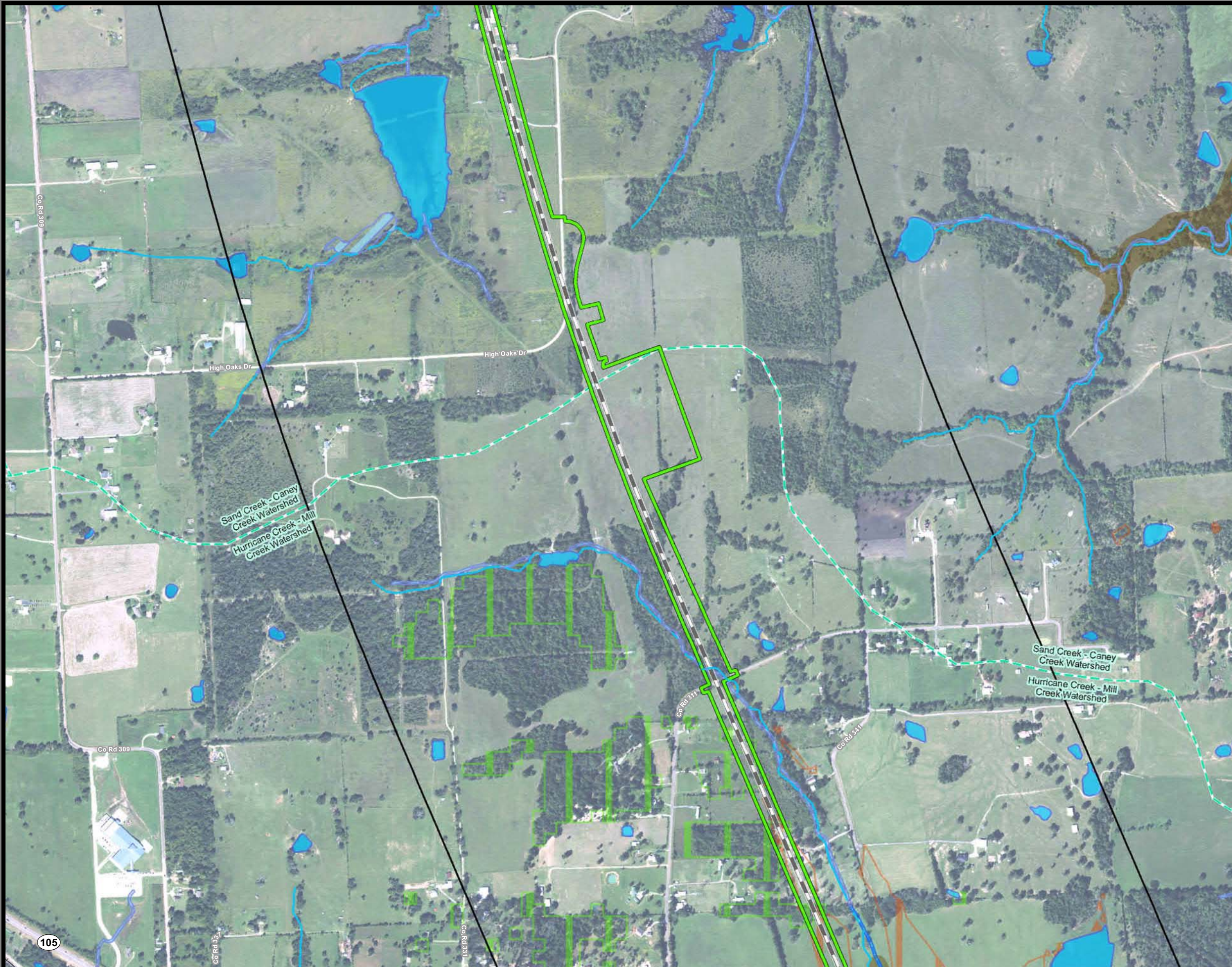
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

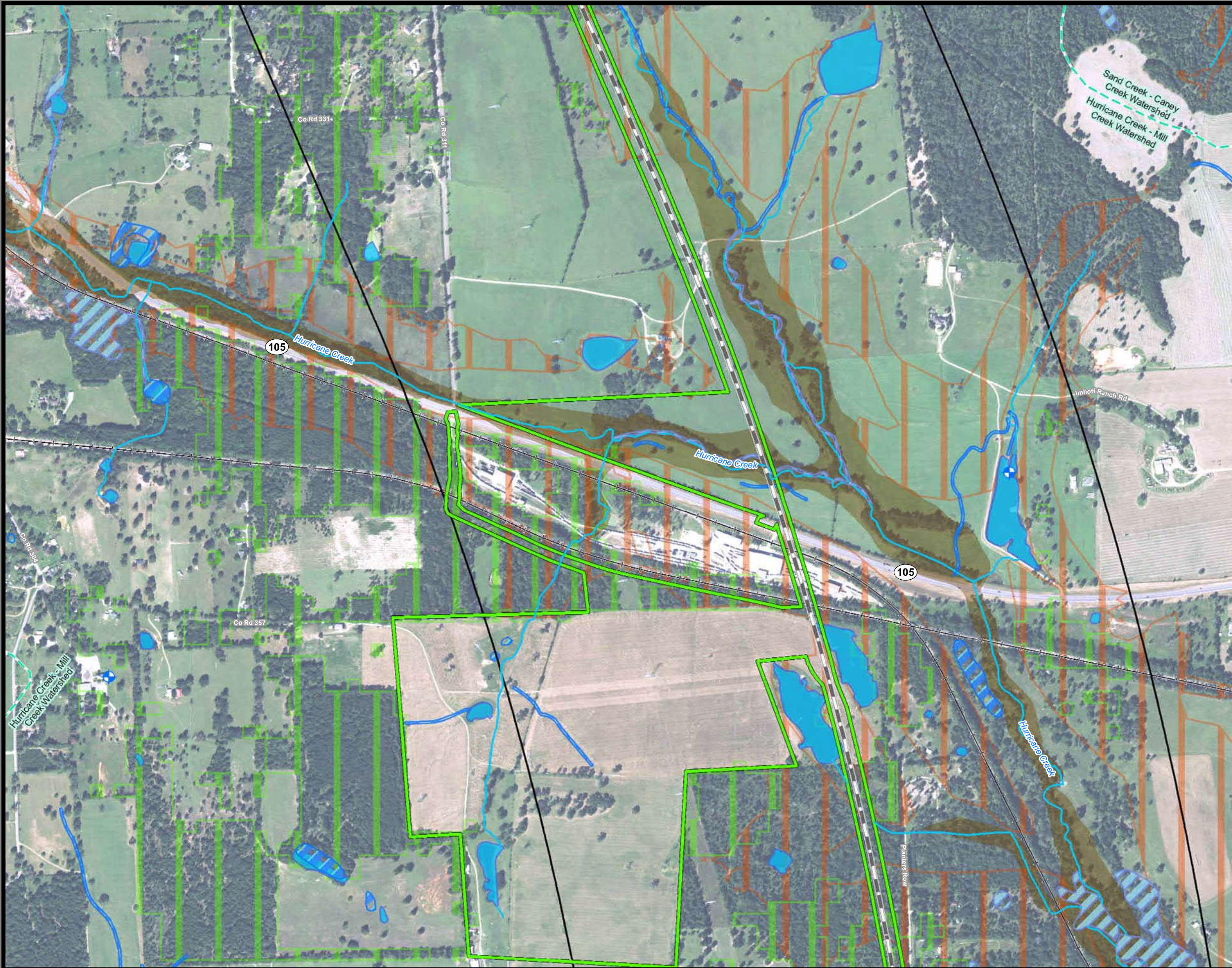
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High-Speed Rail Project
Natural Resources
Segment 5
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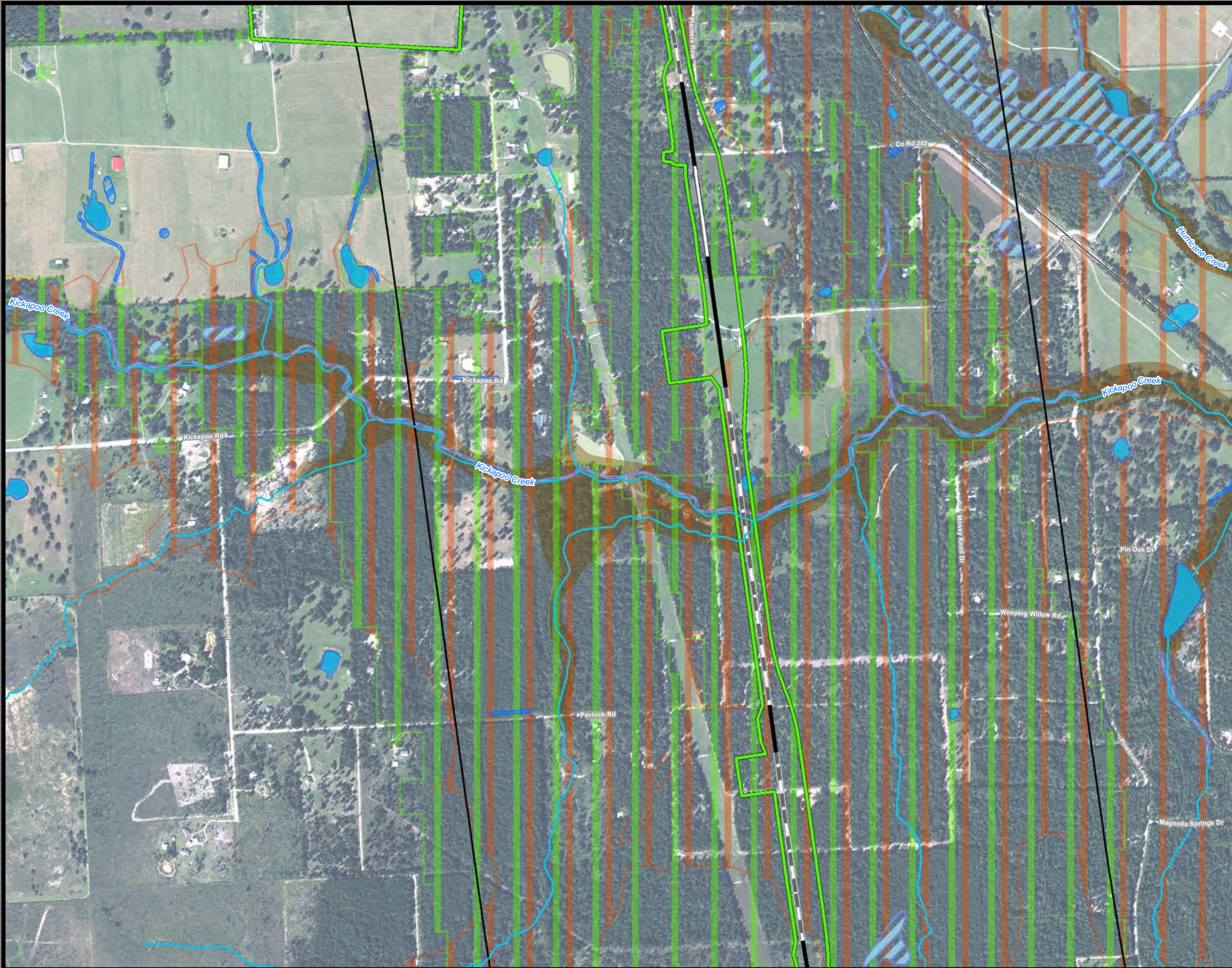
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High-Speed Rail Project
Natural Resources
Segment 5
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- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
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- AO - 1%
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Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

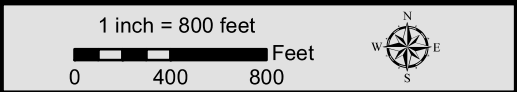
- Perennial Stream/River
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- Reservoir
- Swamp/Marsh

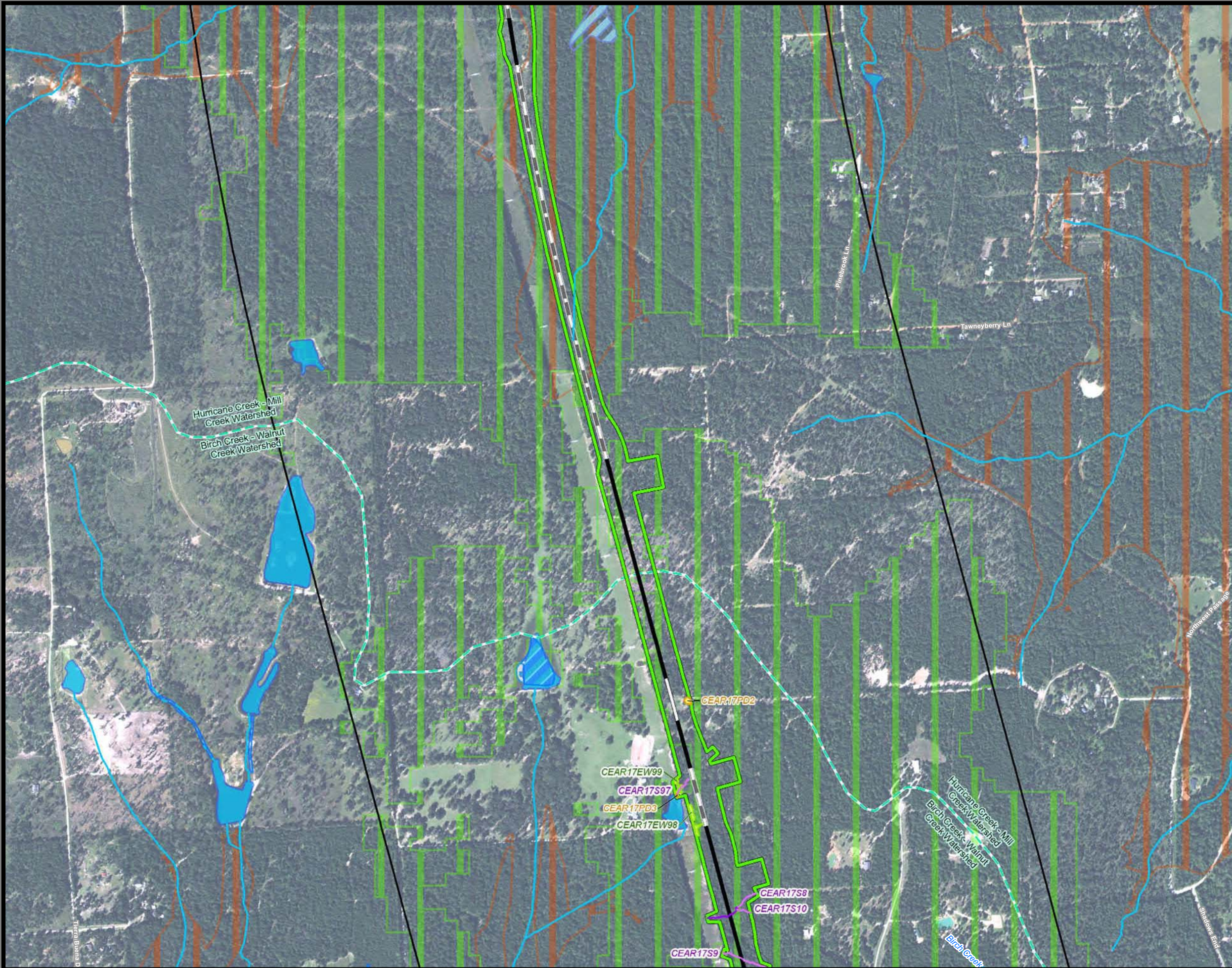
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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Aerial Imagery: USDA NAIP 2014





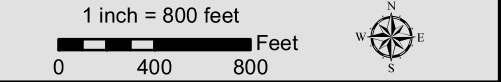
**Dallas to Houston
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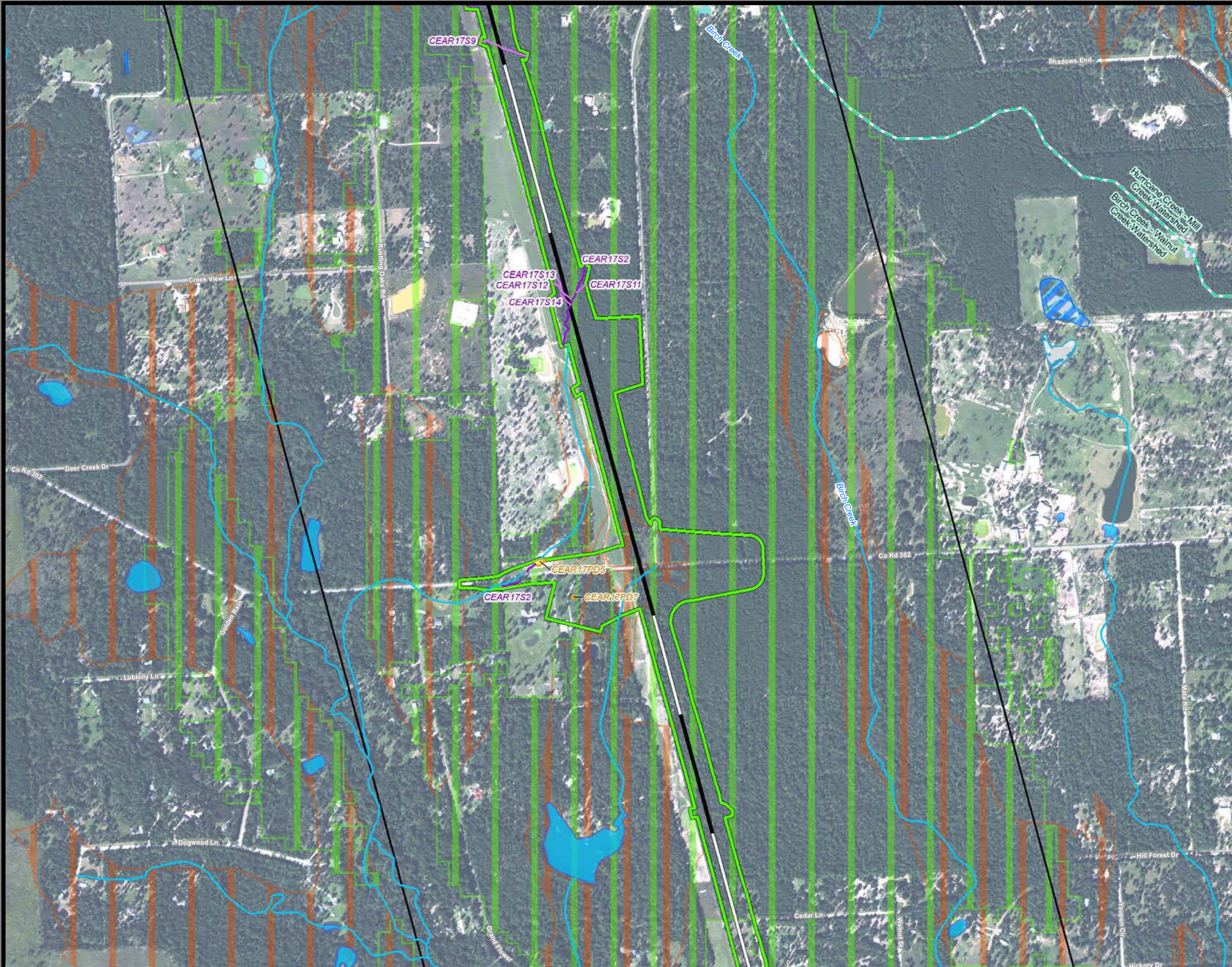
Legend

- Limits of Disturbance**
 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
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 - Segment 4
 - Segment 5
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Legend

Limits of Disturbance

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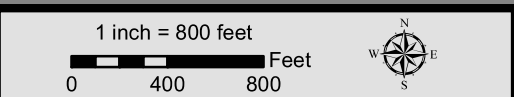
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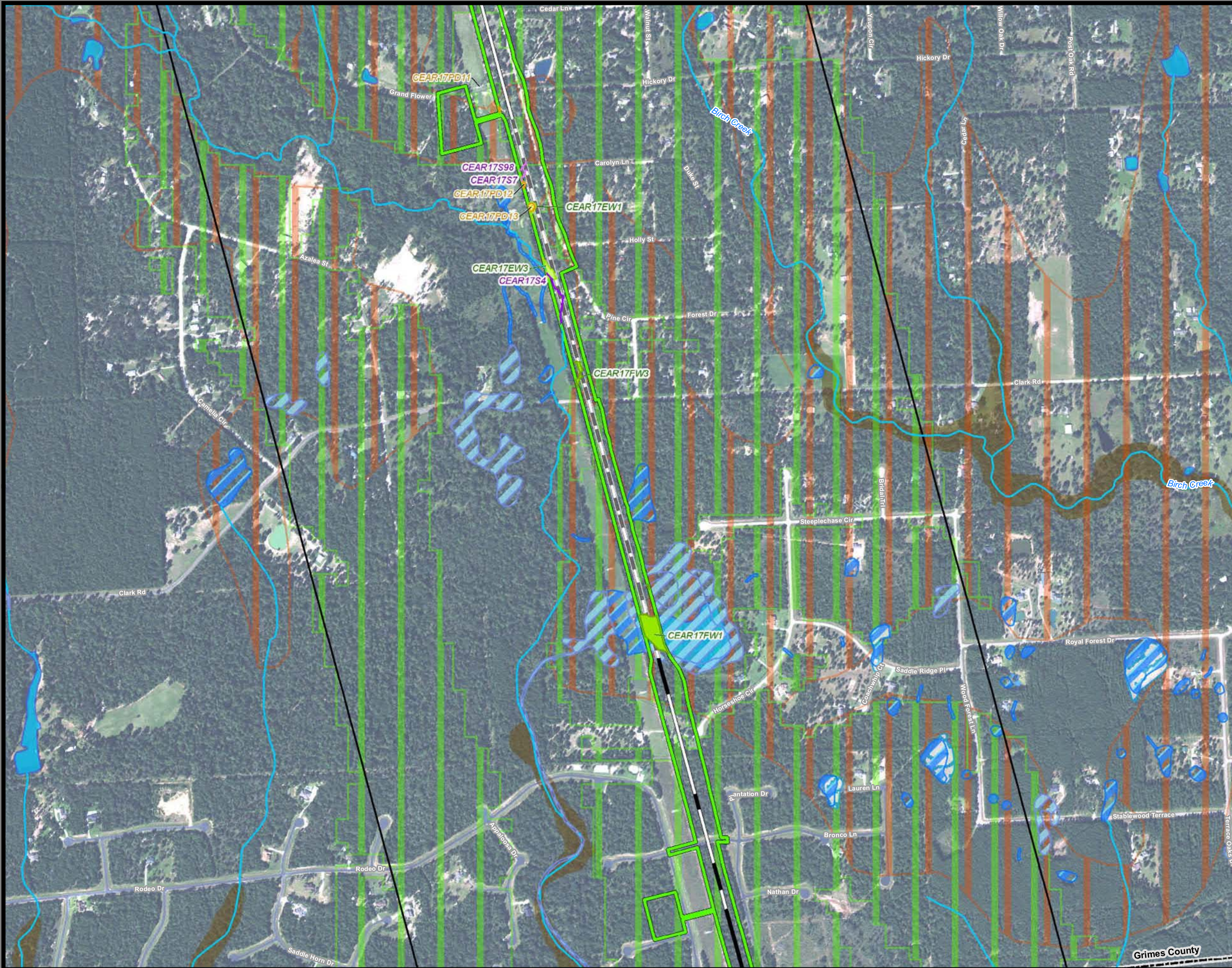
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Aerial Imagery: USDA NAIP 2014





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High-Speed Rail Project
Natural Resources
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- Legend**
- Limits of Disturbance**
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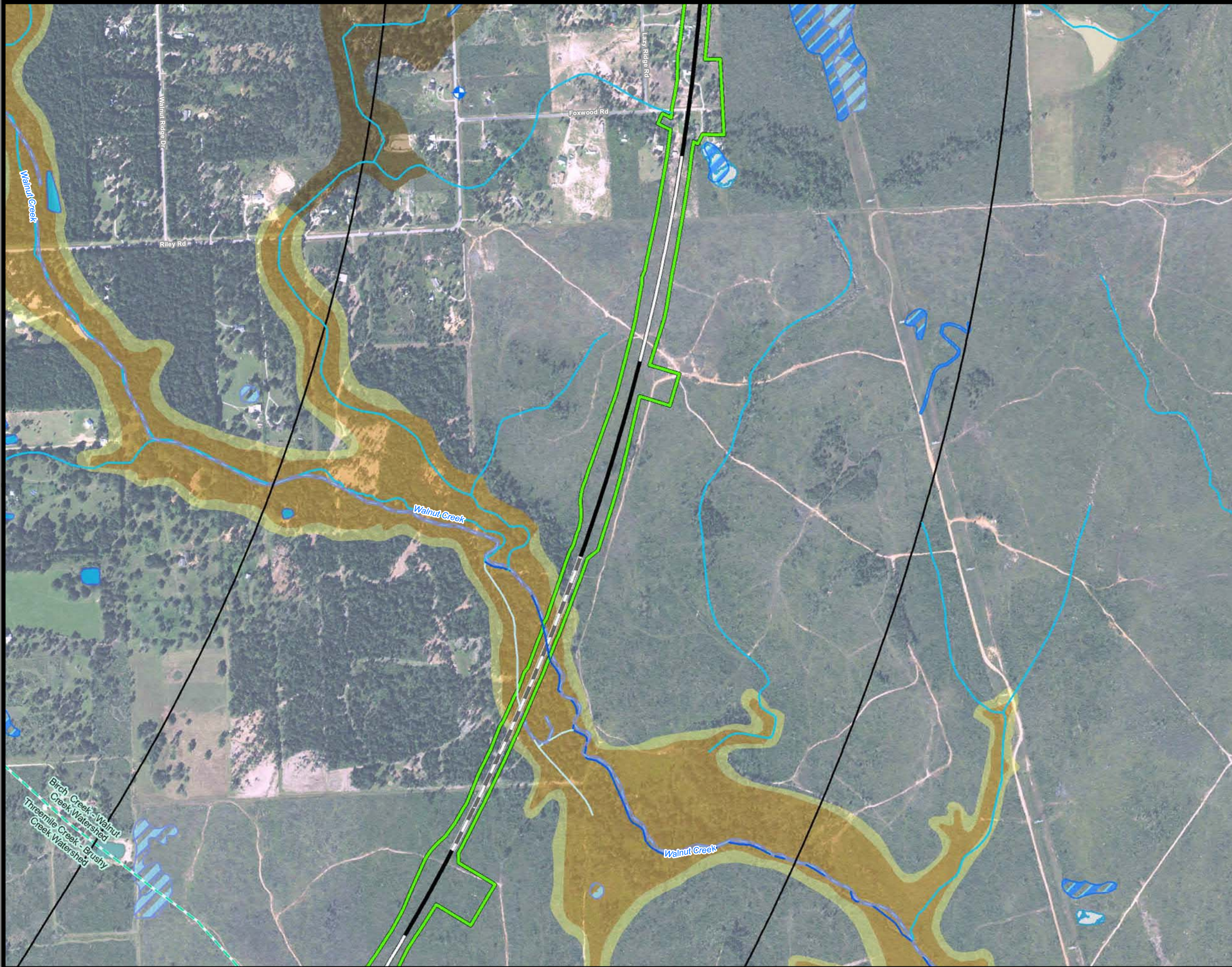
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Aerial Imagery: USDA NAIP 2014

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0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

Limits of Disturbance

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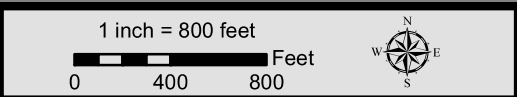
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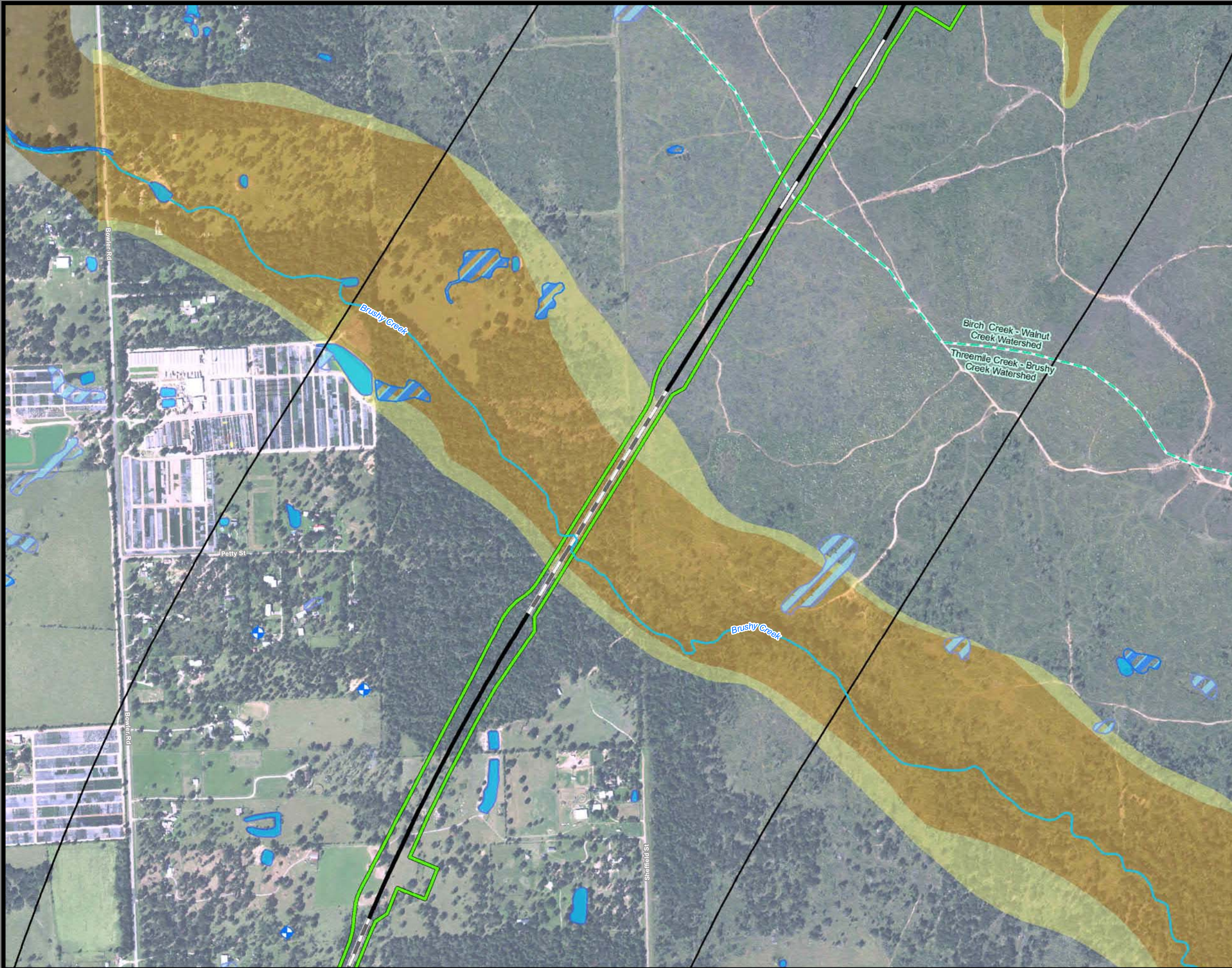
National Wetlands Inventory (NWI)

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High-Speed Rail Project
Natural Resources
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Legend

- Limits of Disturbance**

 - Segment 1
 - Segment 2A
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National Hydrography Dataset (NHD)

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National Wetlands Inventory (NWI)

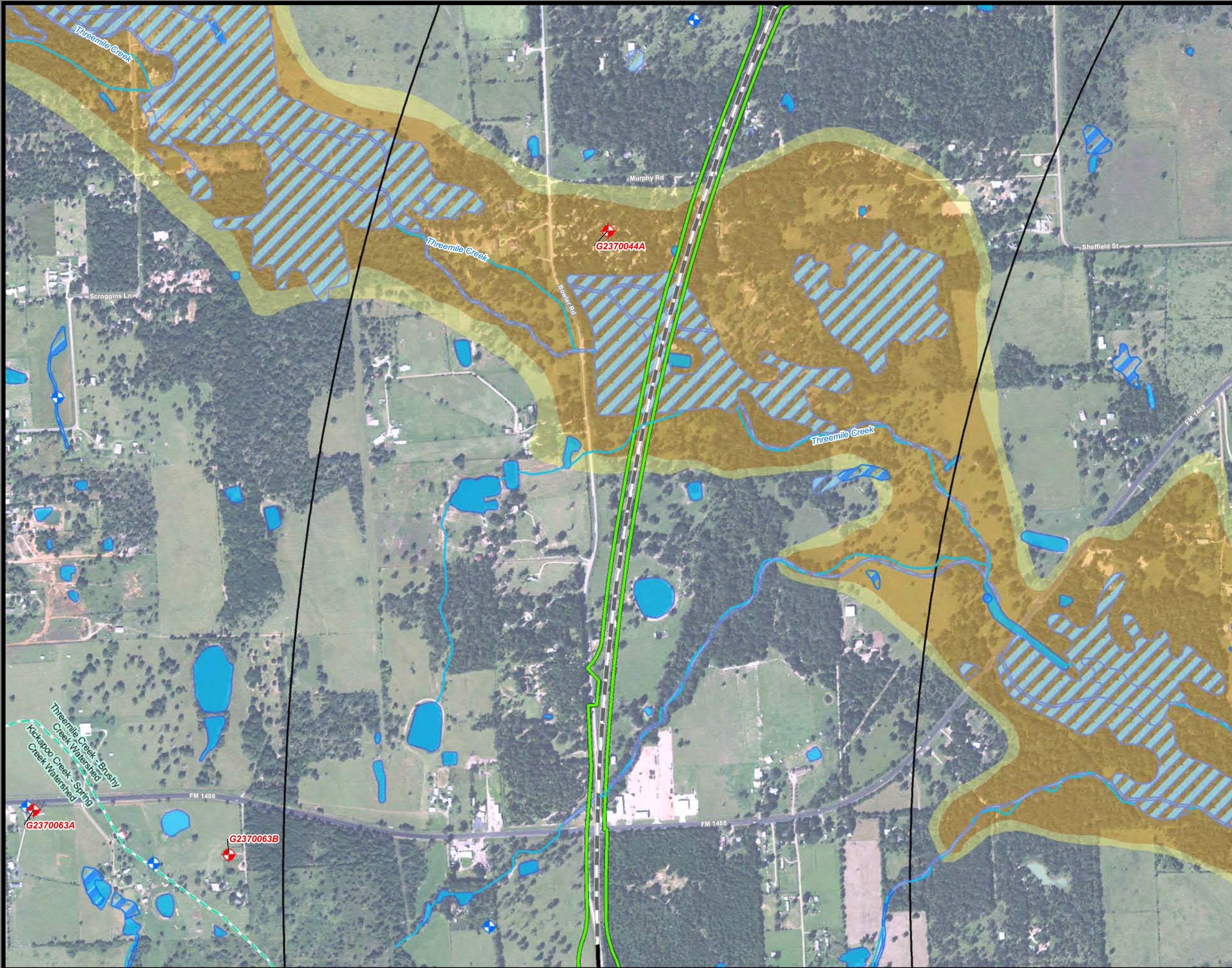
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1 inch = 800 feet
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Legend

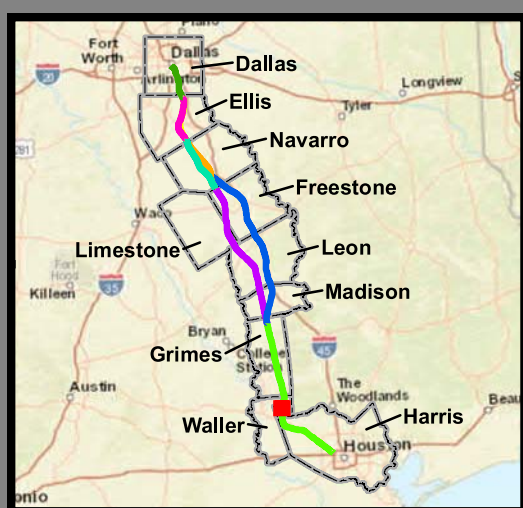
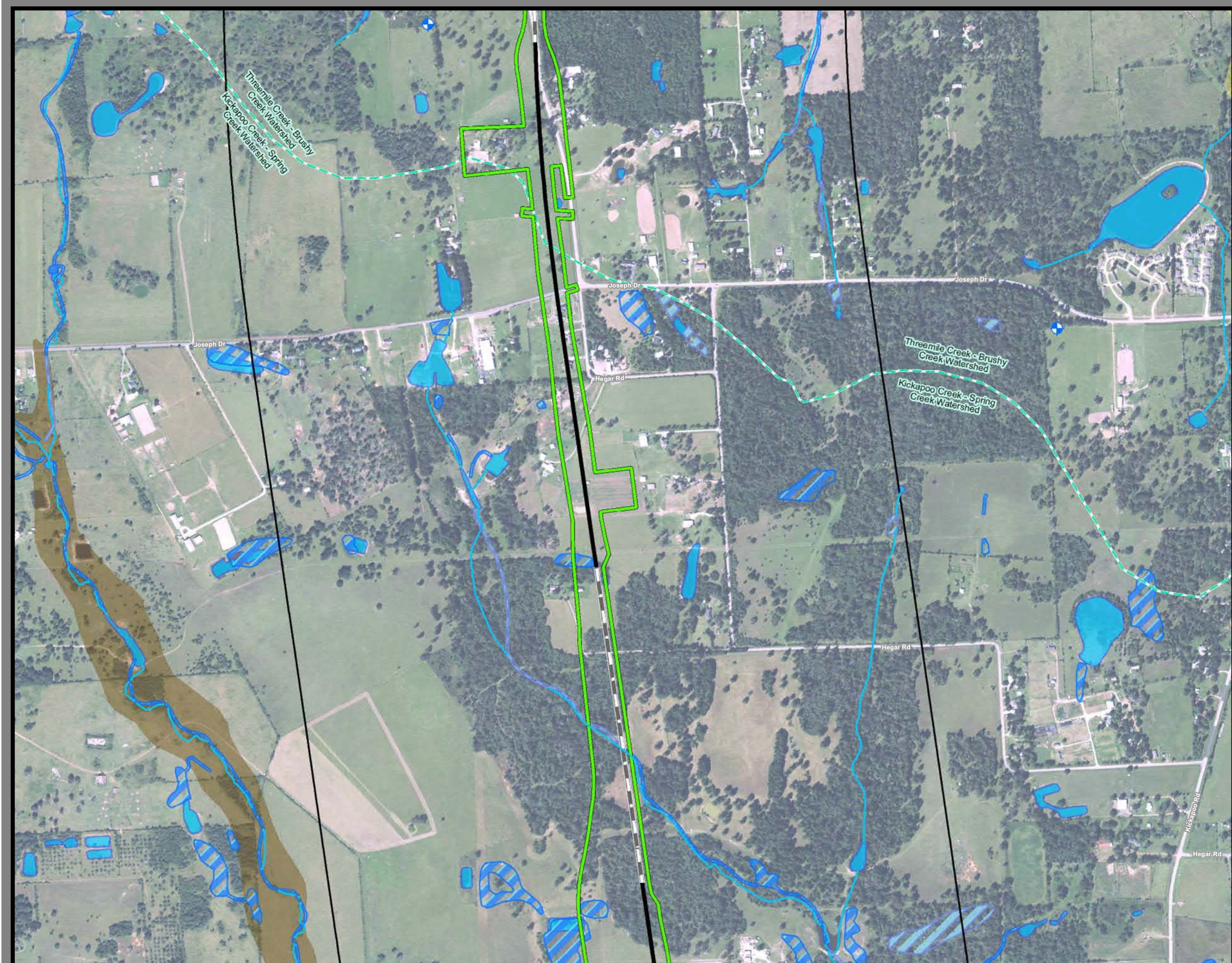
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**Dallas to Houston
High-Speed Rail Project
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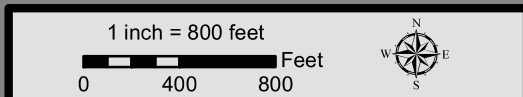
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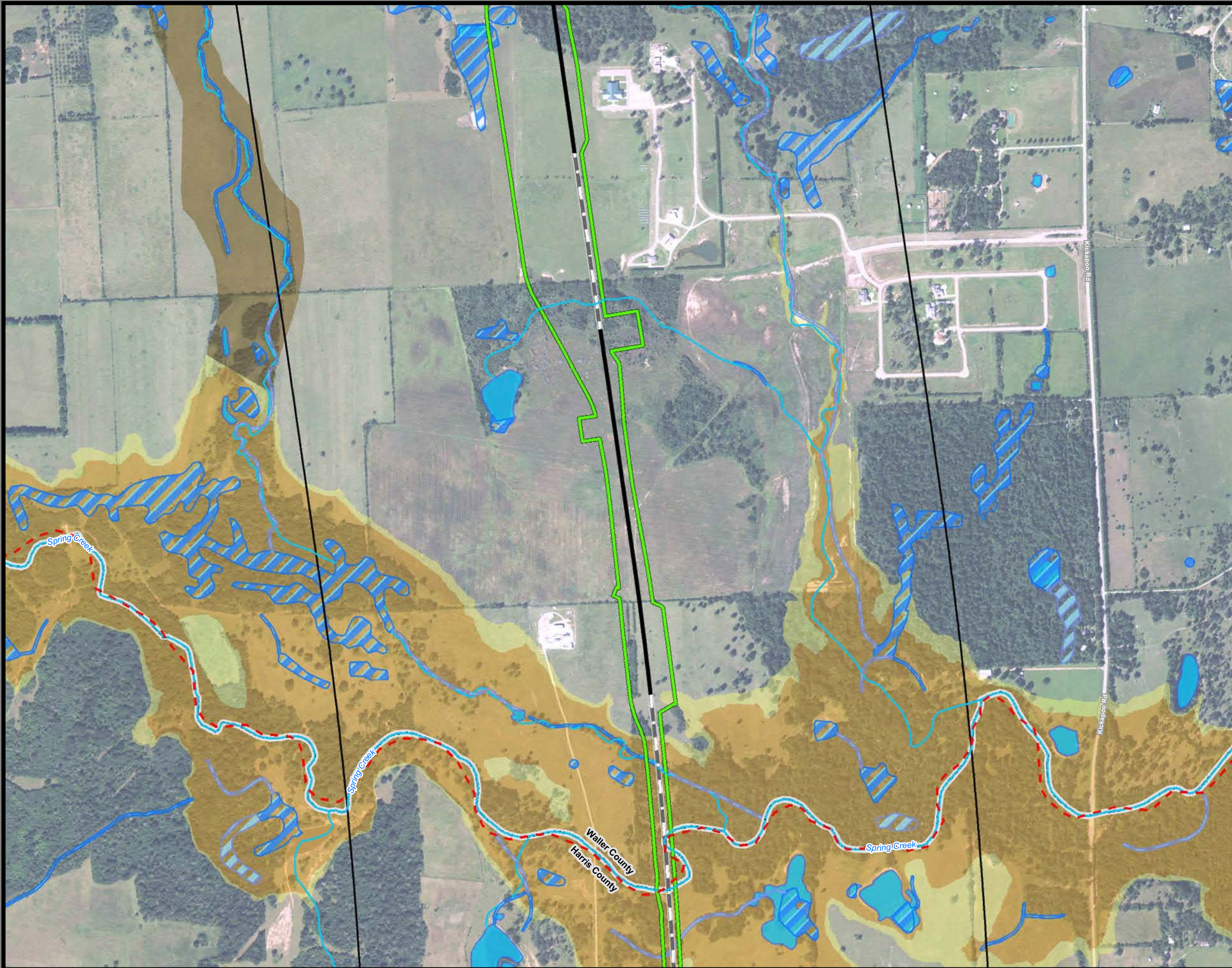
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High-Speed Rail Project
Natural Resources
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Legend

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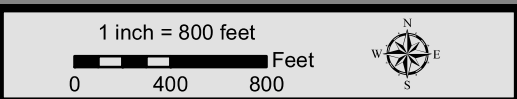
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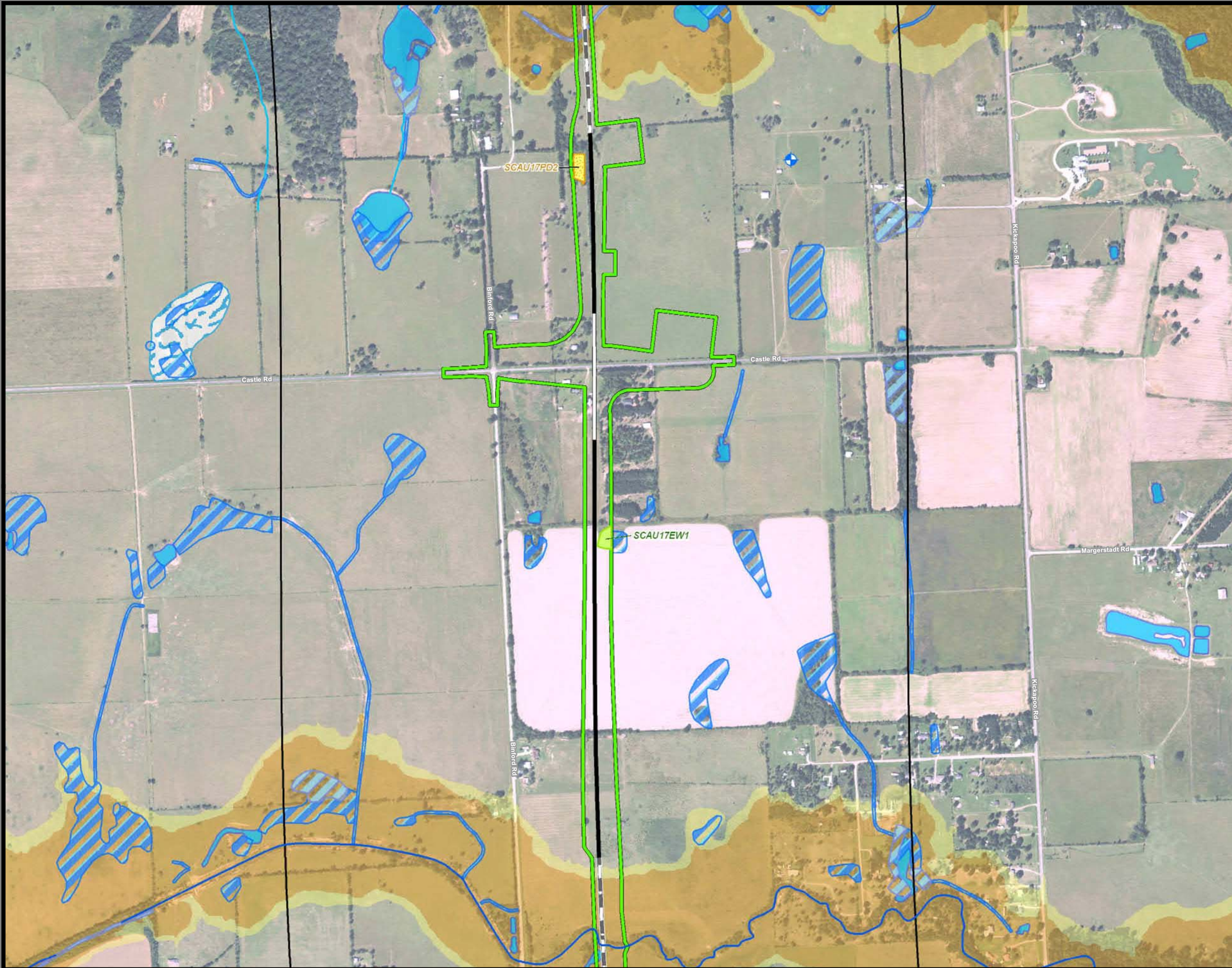
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Legend

- Limits of Disturbance**

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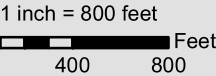
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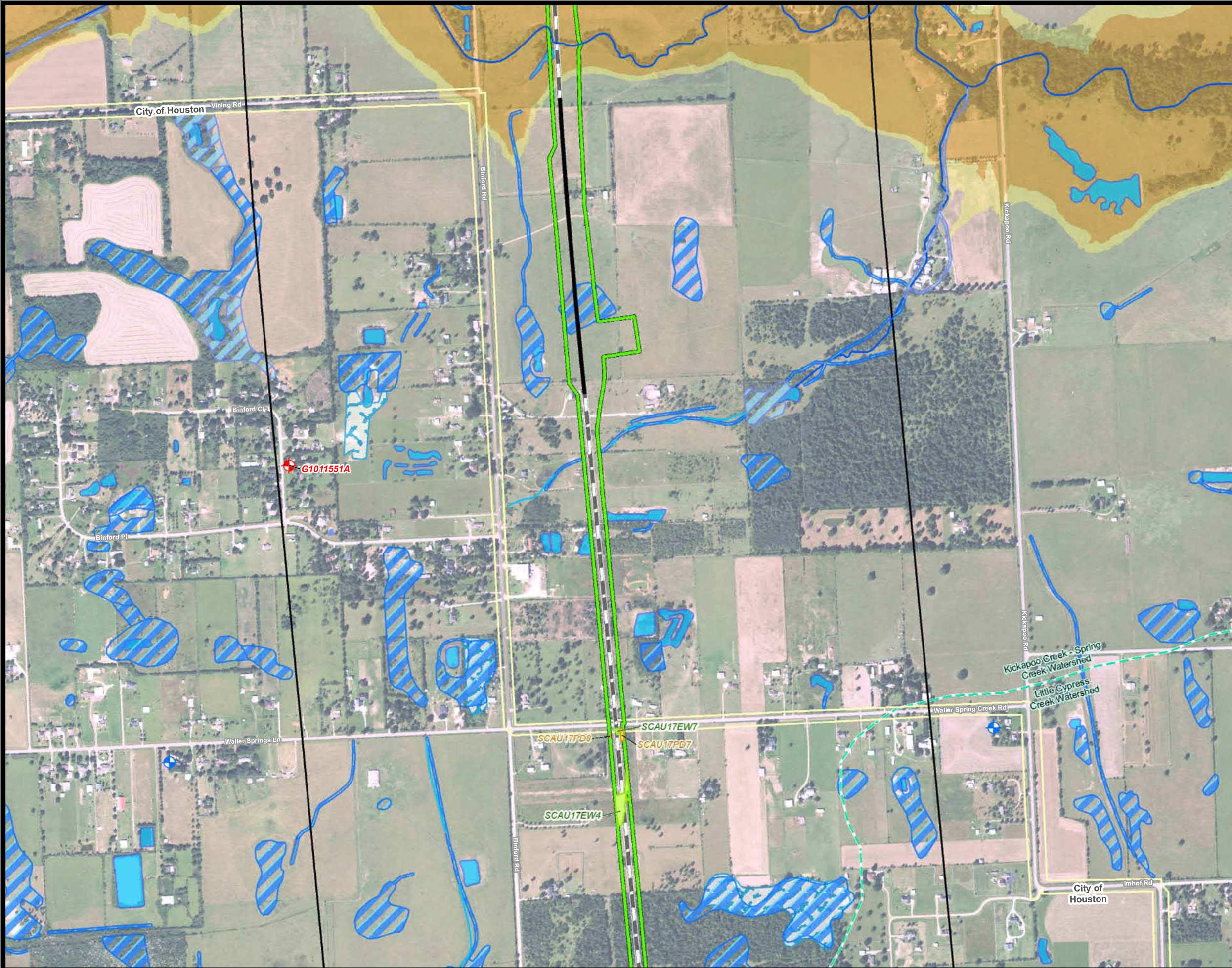
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

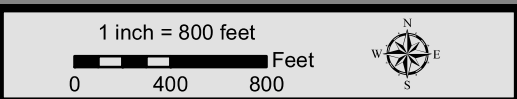
- Perennial Stream/River
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- Reservoir
- Swamp/Marsh

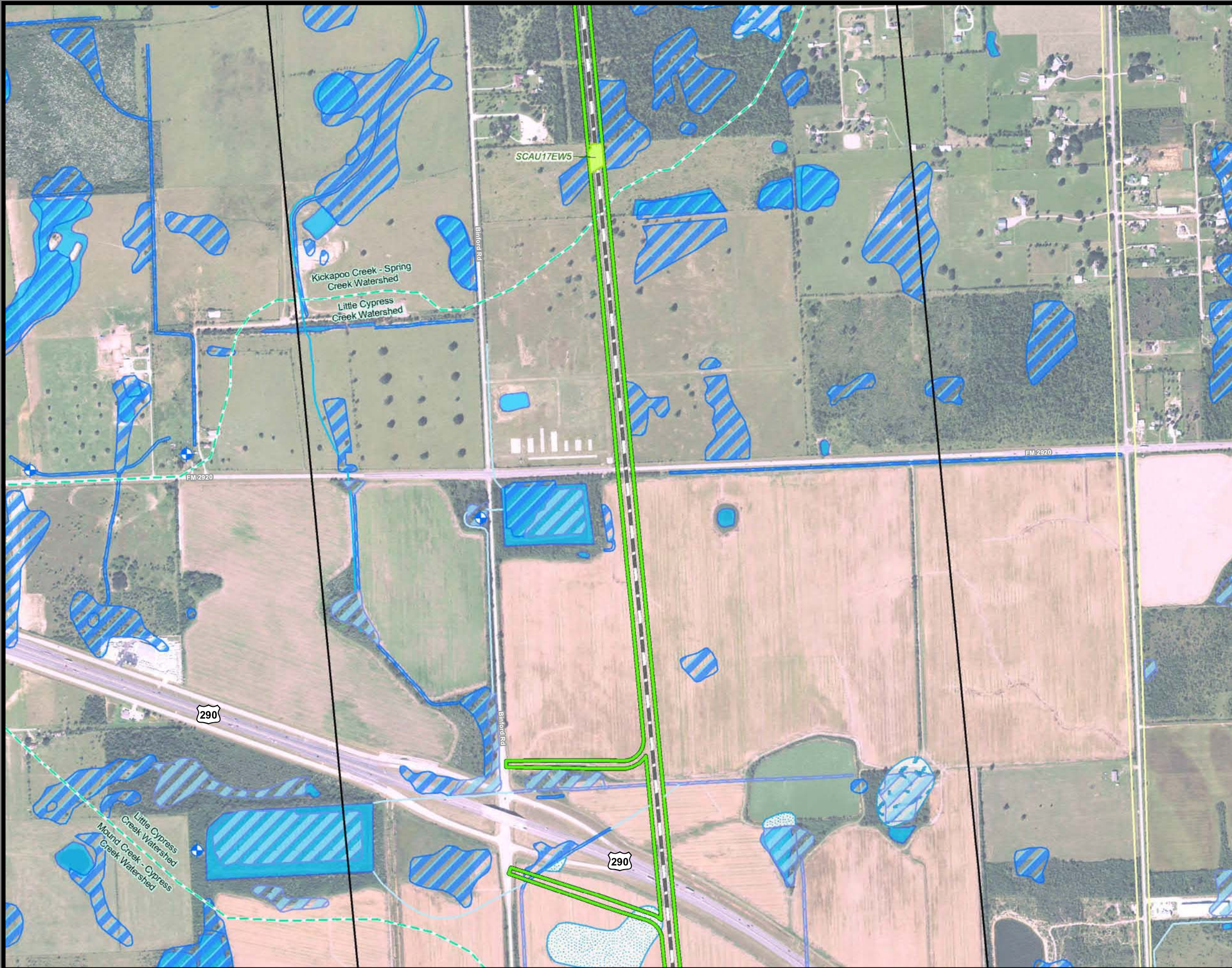
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other

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Legend

Limits of Disturbance

- Segment 1
- Segment 2A
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- Segment 3B
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Track Configuration

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Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
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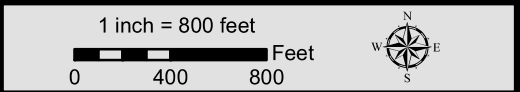
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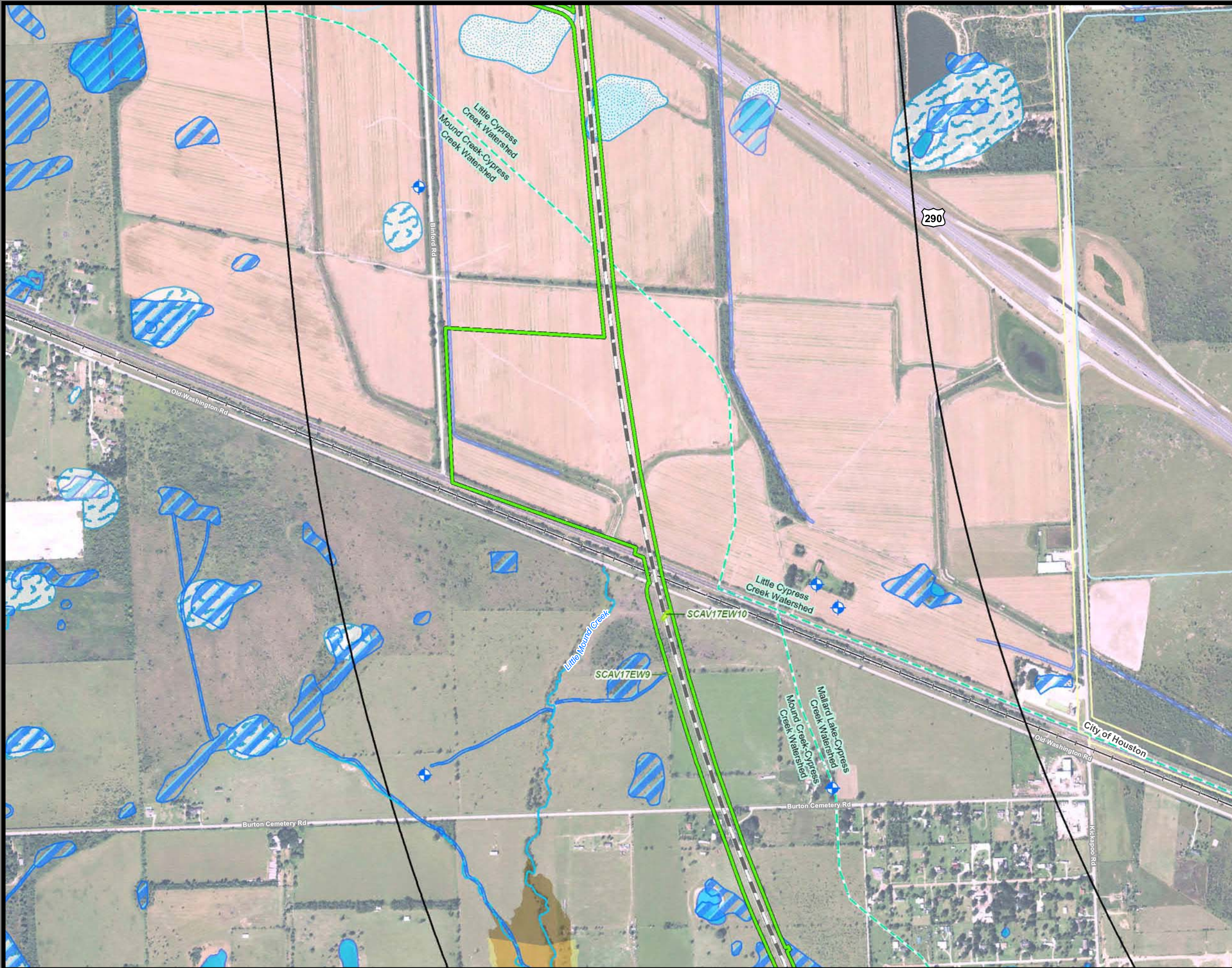
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Legend

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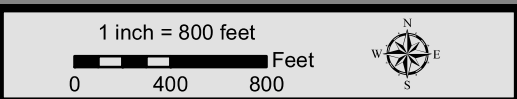
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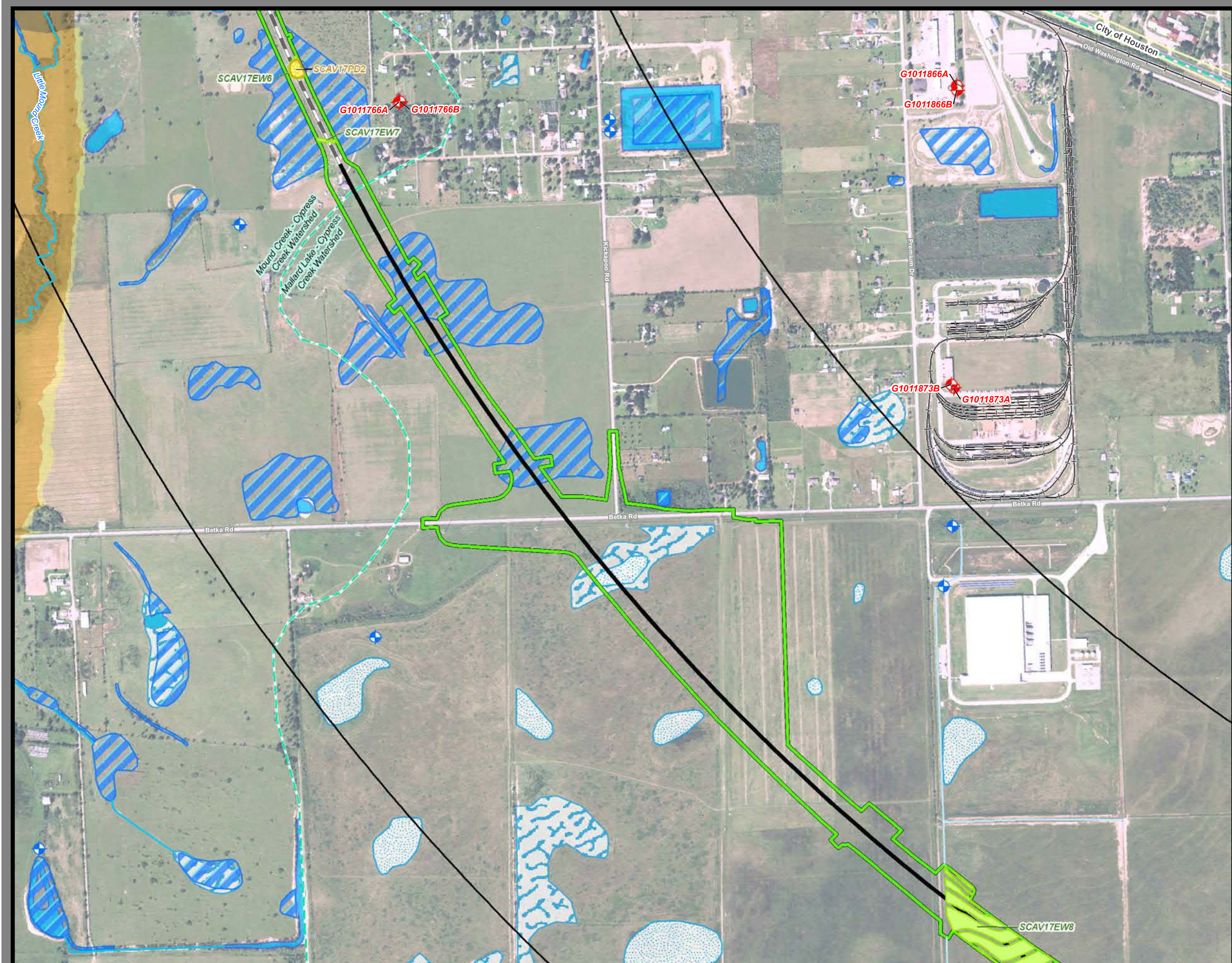
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

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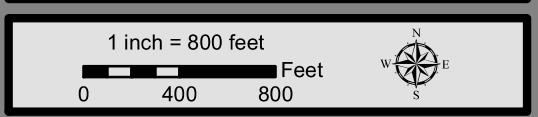
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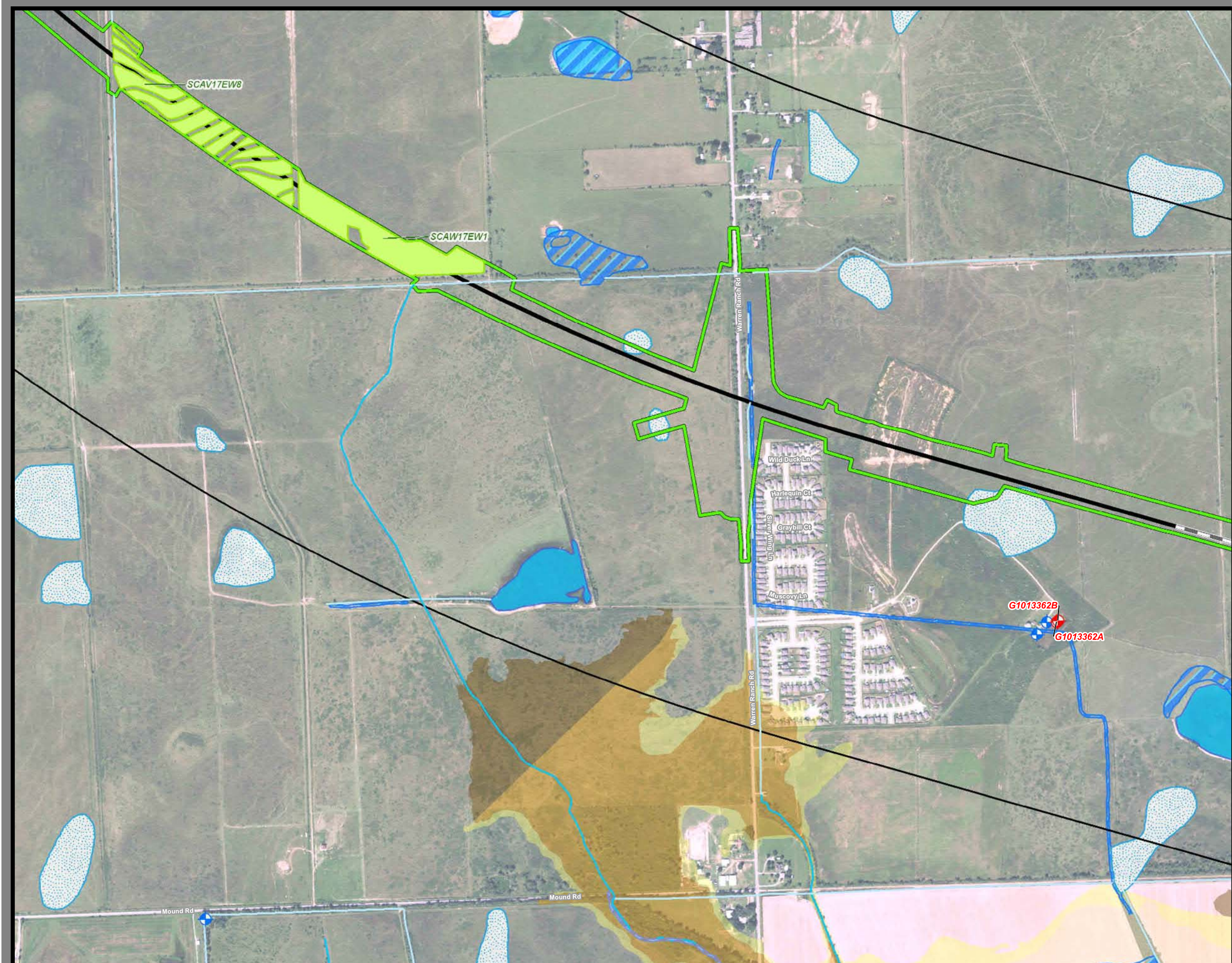
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**Dallas to Houston
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Legend

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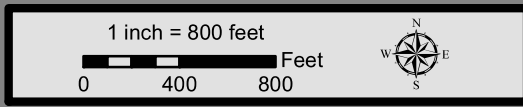
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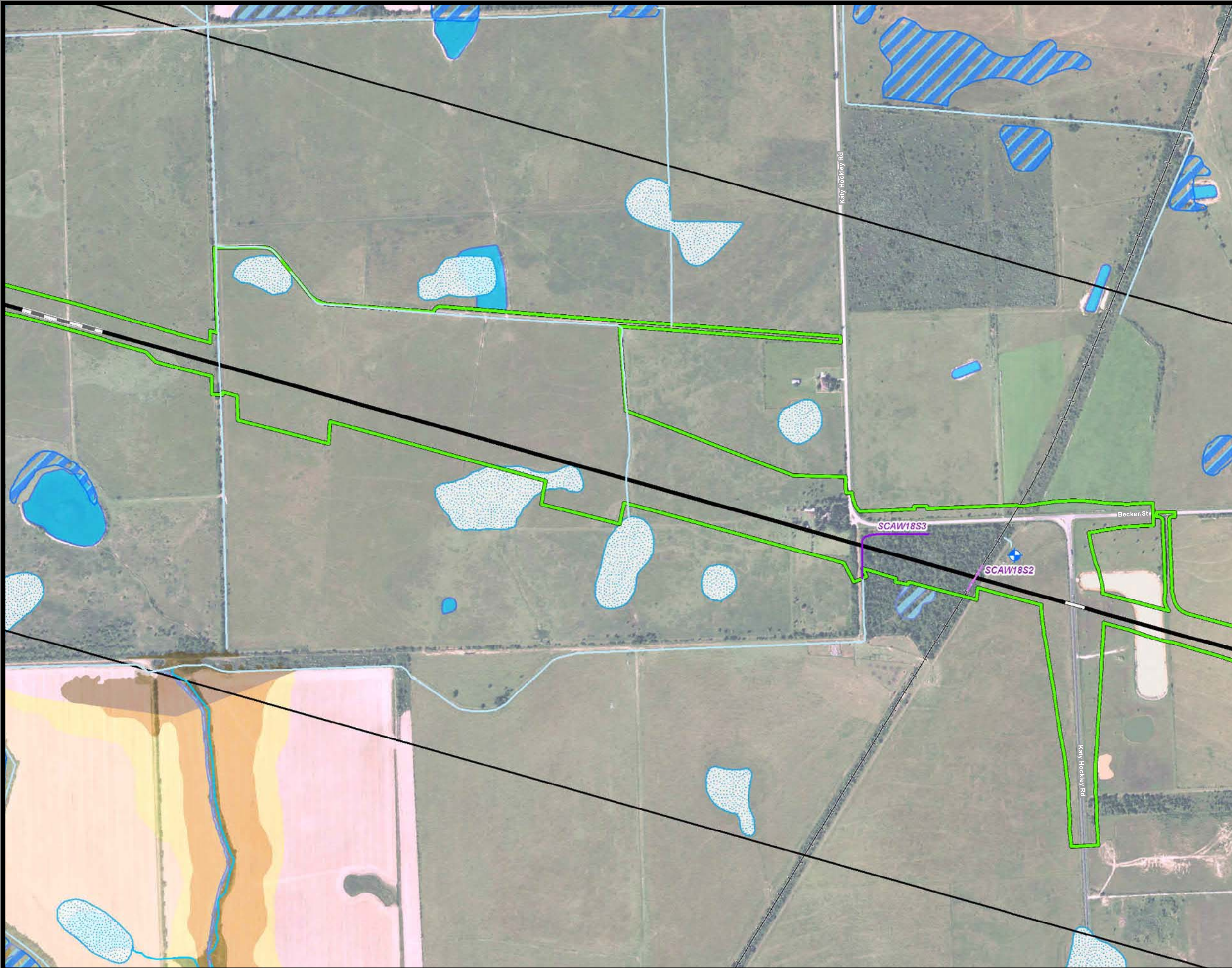
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**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5
Sheet 240 of 257

- Legend**
- Limits of Disturbance**
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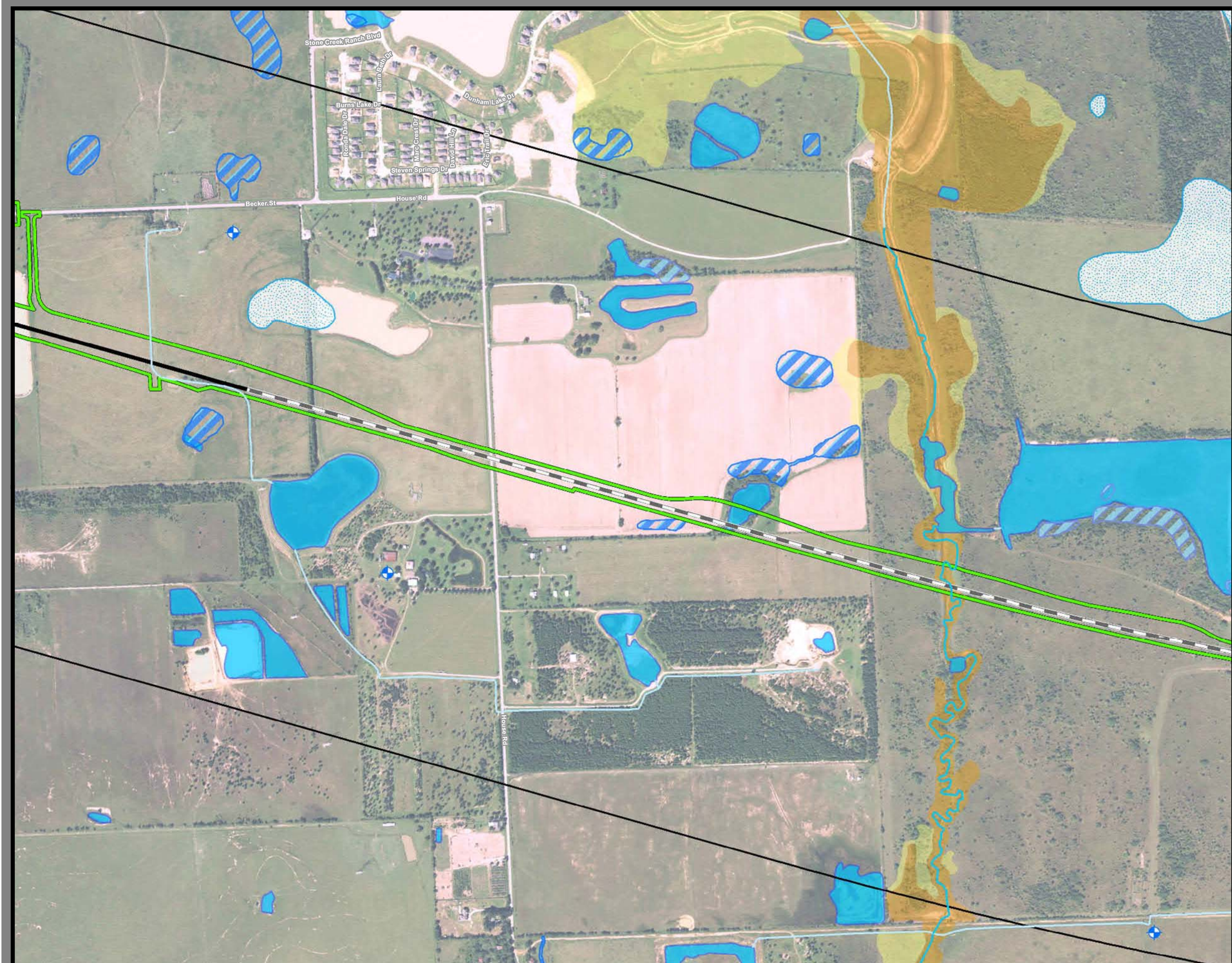
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0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Legend

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- Segment 1
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Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

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Field-Collected Data

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National Hydrography Dataset (NHD)

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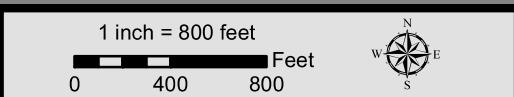
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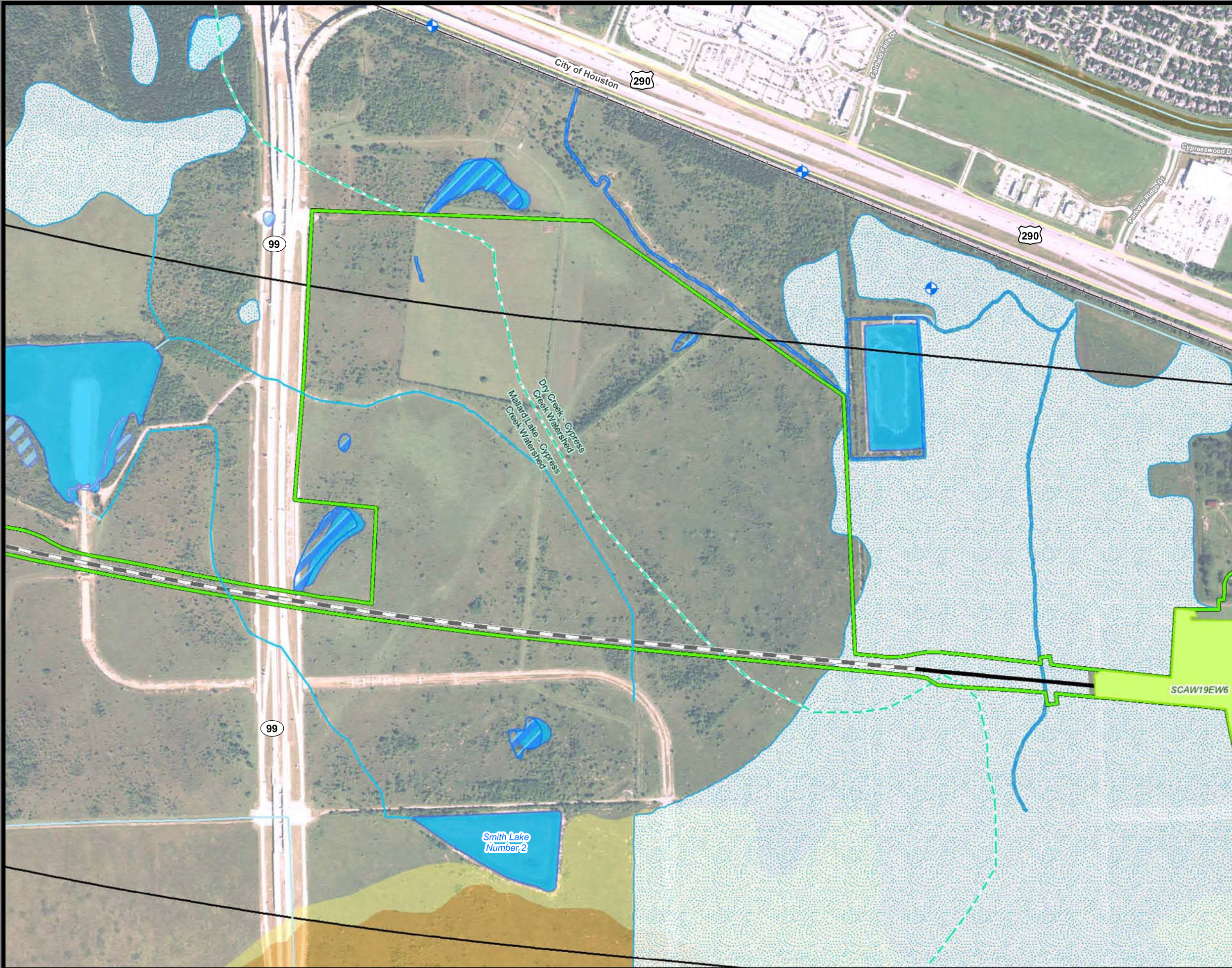
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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Legend

Limits of Disturbance

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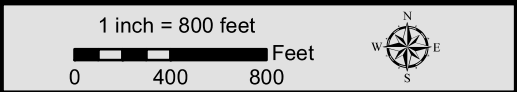
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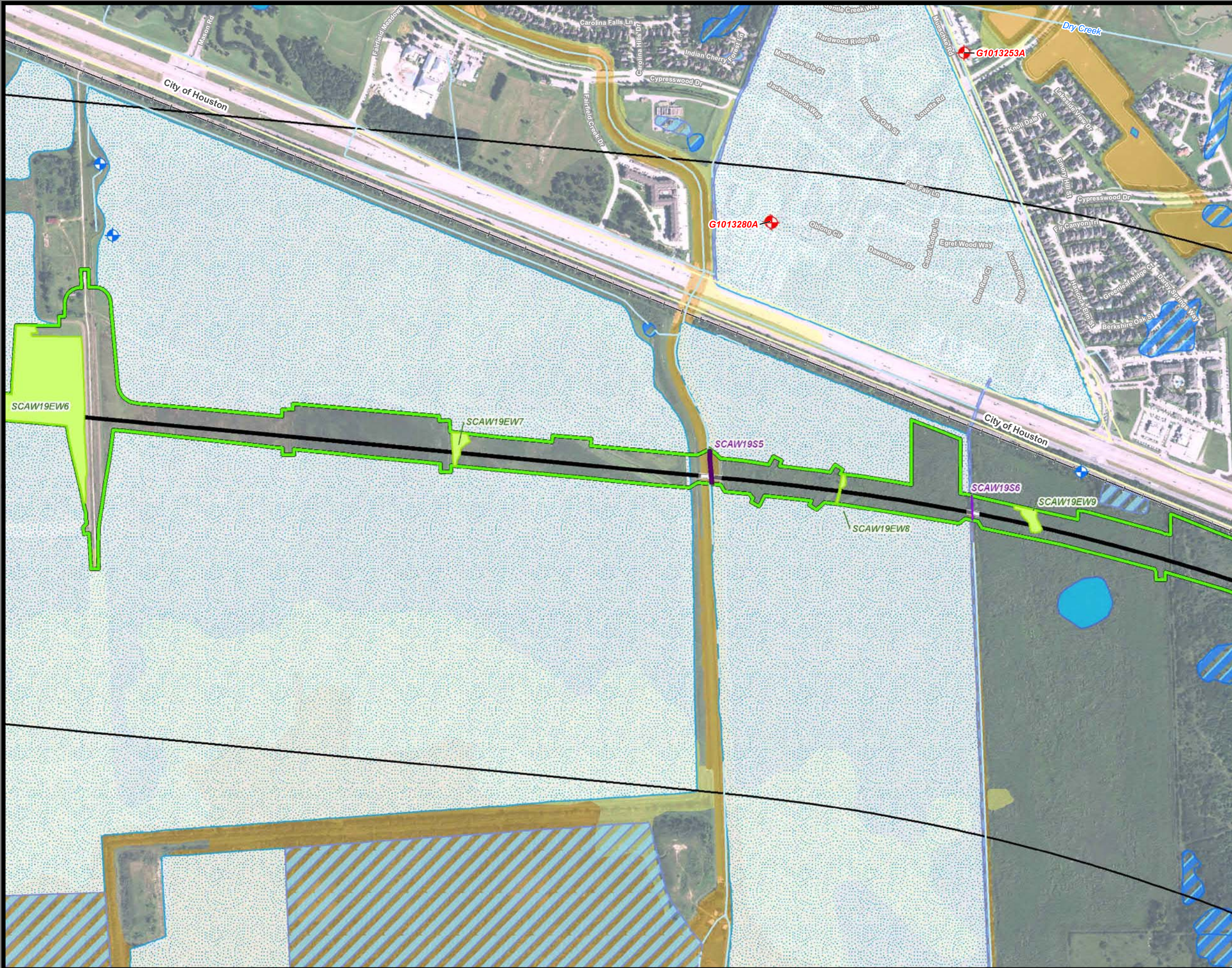
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
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- Legend**
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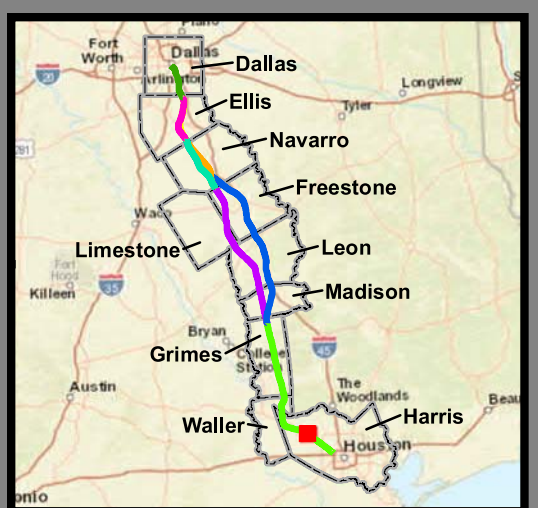
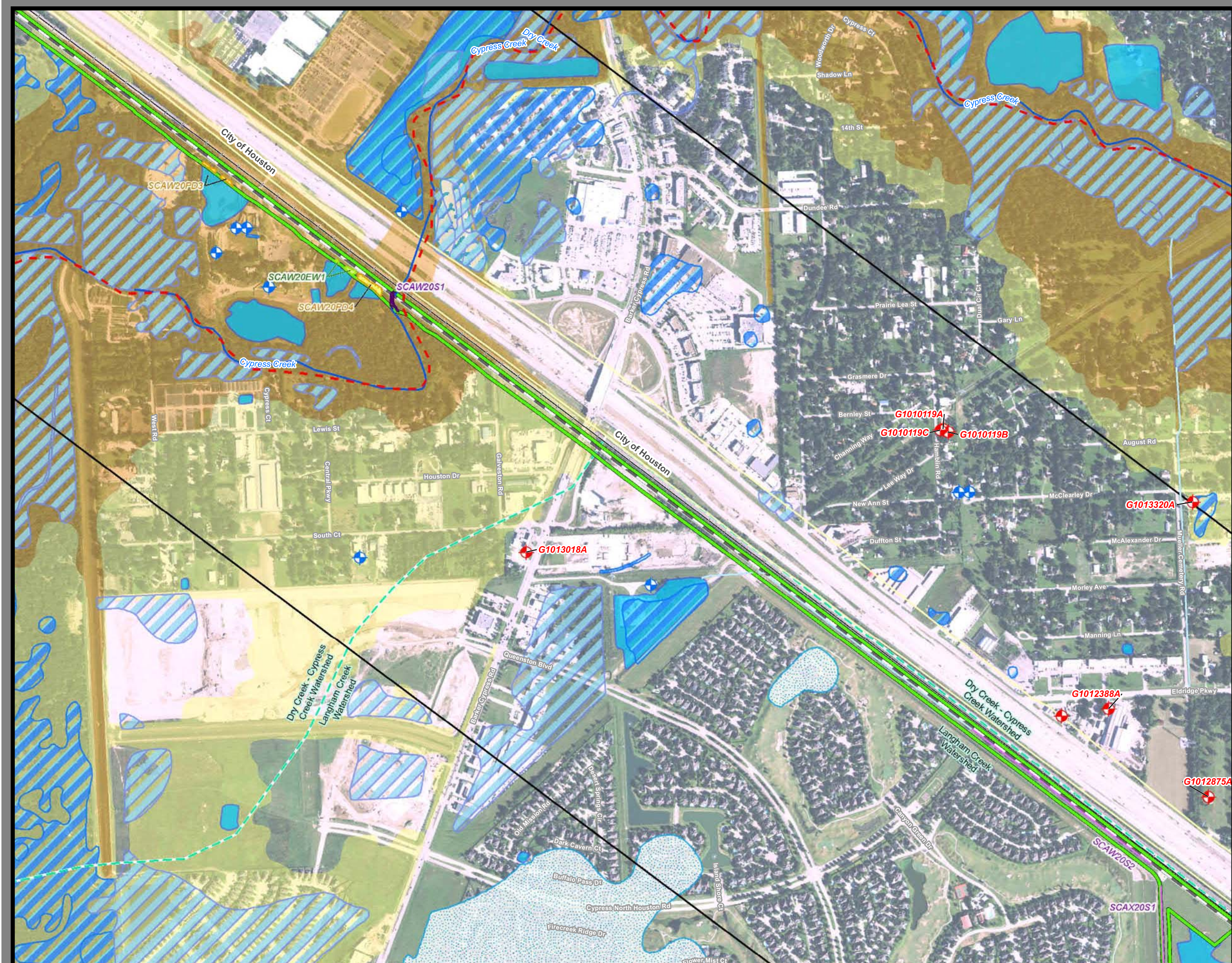
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 245 of 257**

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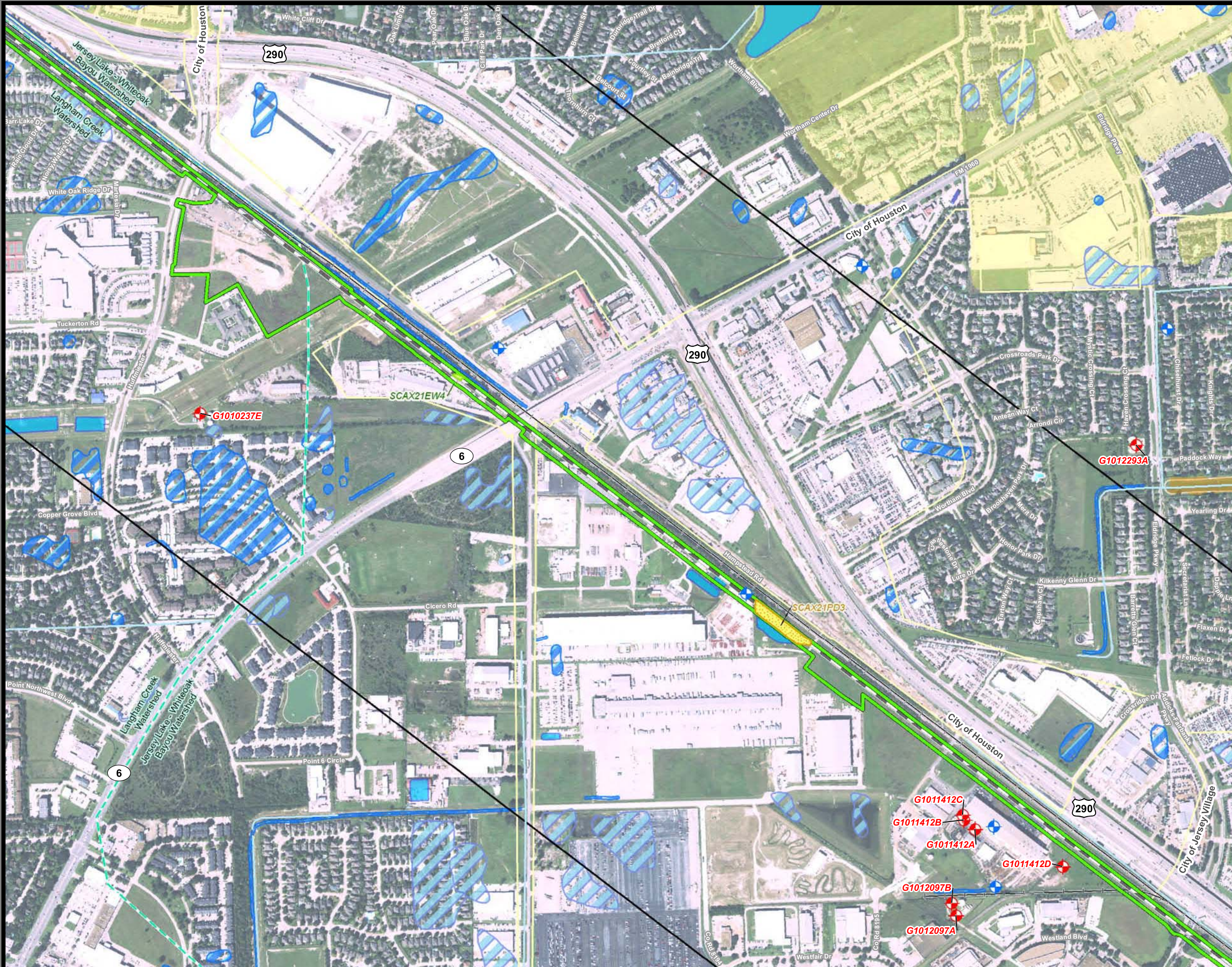
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- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Other



**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 247 of 257**

Legend

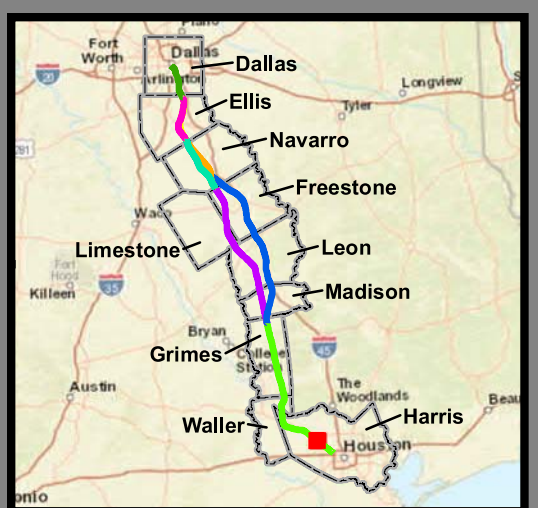
- Limits of Disturbance**
 - Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
 - Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
 - Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
 - Impaired Waters
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Federal Emergency Management Agency (FEMA) Flood Zone**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- Field-Collected Data**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Hydrography Dataset (NHD)**
 - Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
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 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 248 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
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- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies-tresses
- Endangered Species
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- U.S. Army Corps of Engineers (USACE) Project Area
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- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
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 - X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
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- Other

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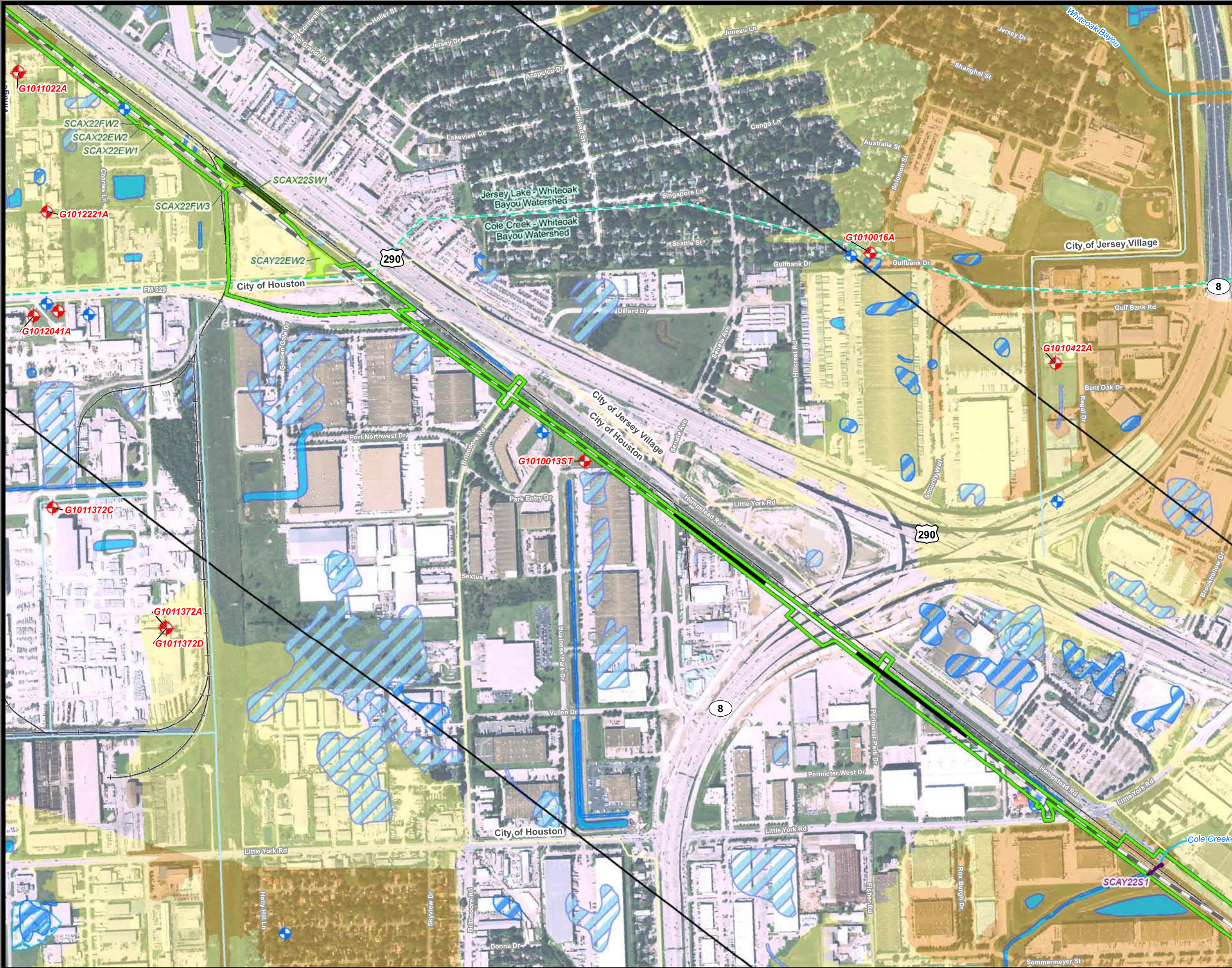
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet

0 400 800 Feet

N
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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 249 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

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- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

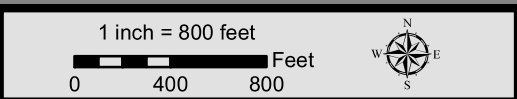
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- Lake/Pond
- Reservoir
- Swamp/Marsh

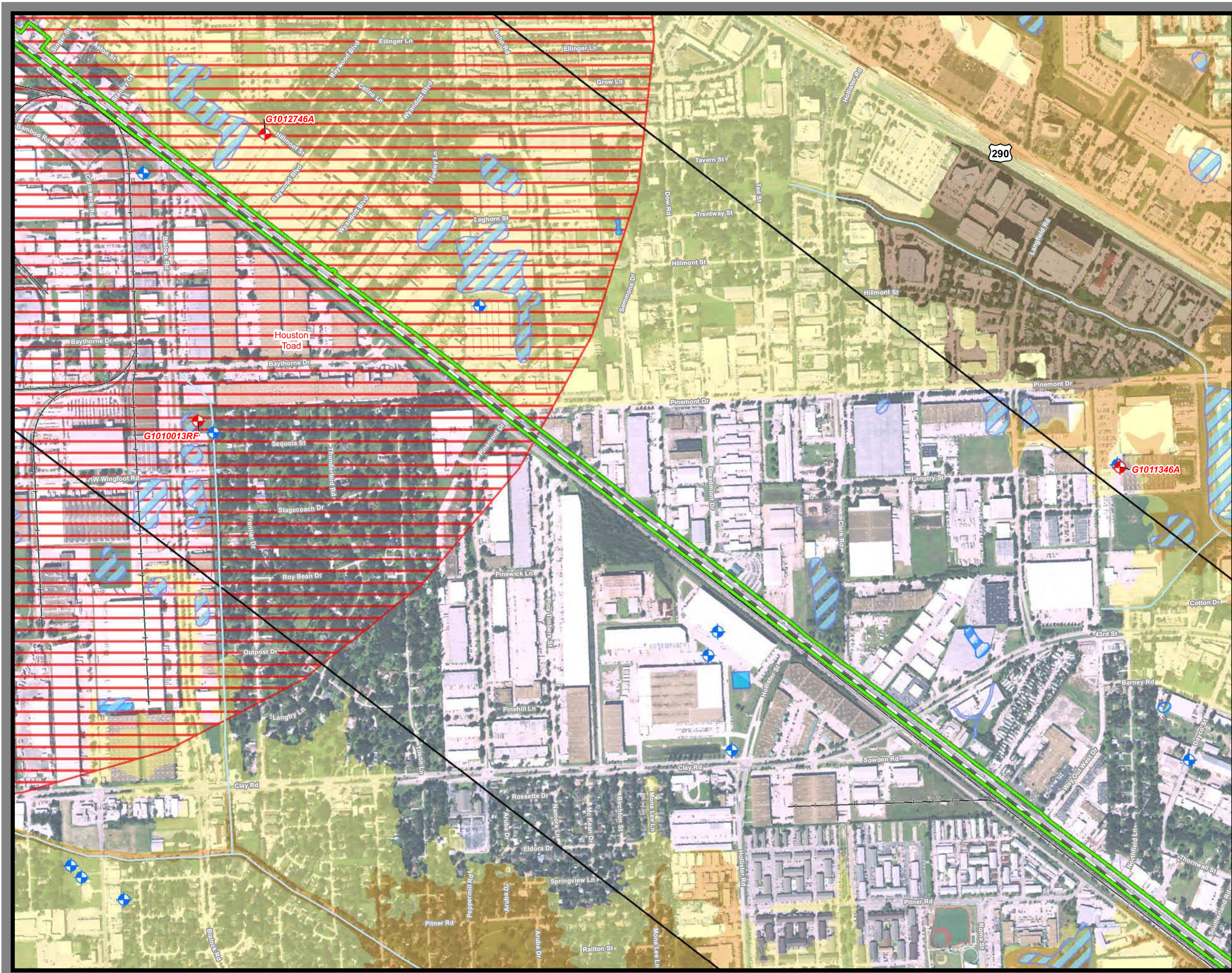
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5
Sheet 251 of 257

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
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- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
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- Public Water Supply
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Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
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- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

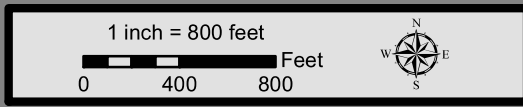
- Perennial Stream/River
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- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

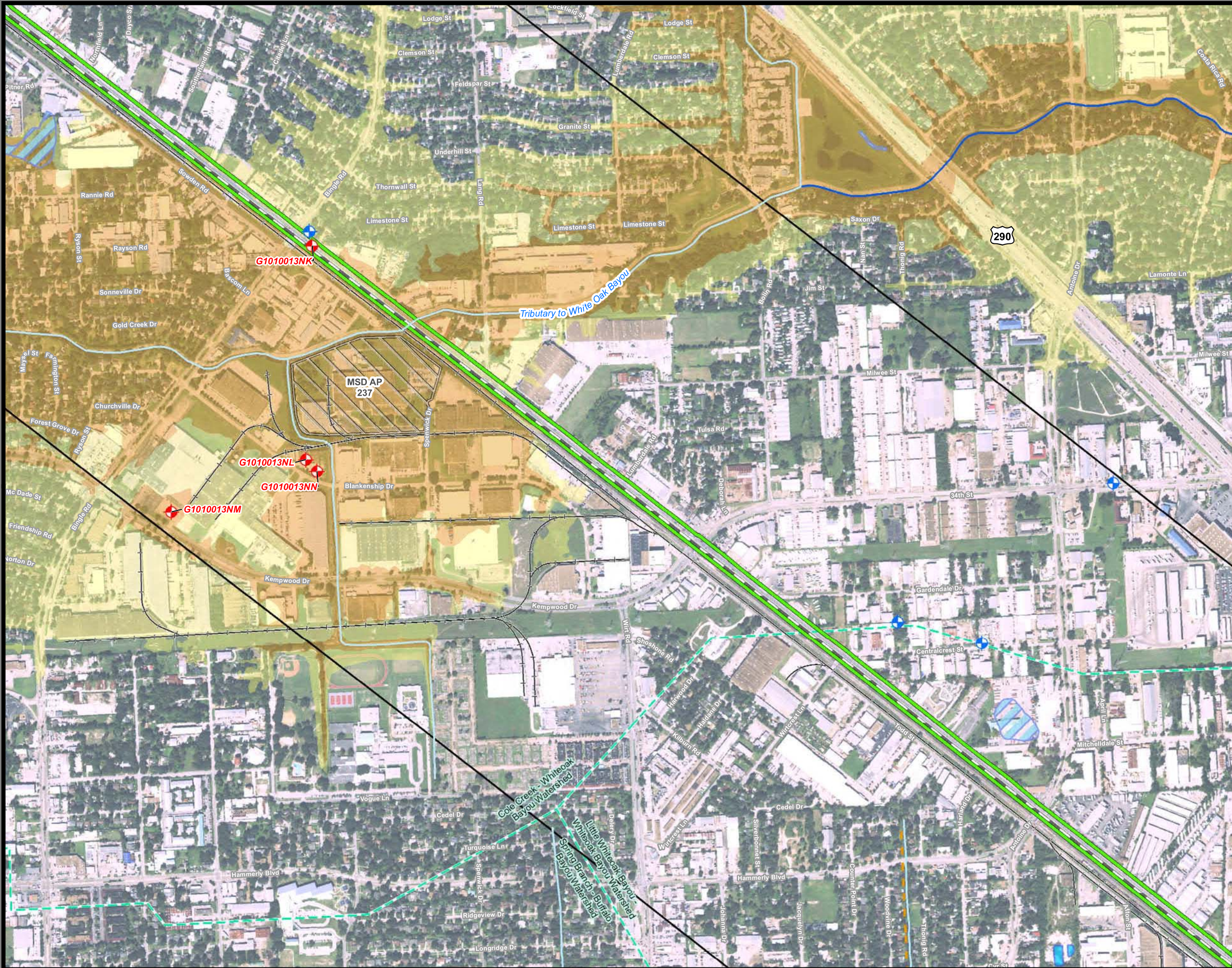
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 5
Sheet 252 of 257**

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

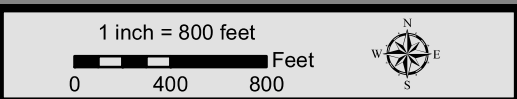
- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

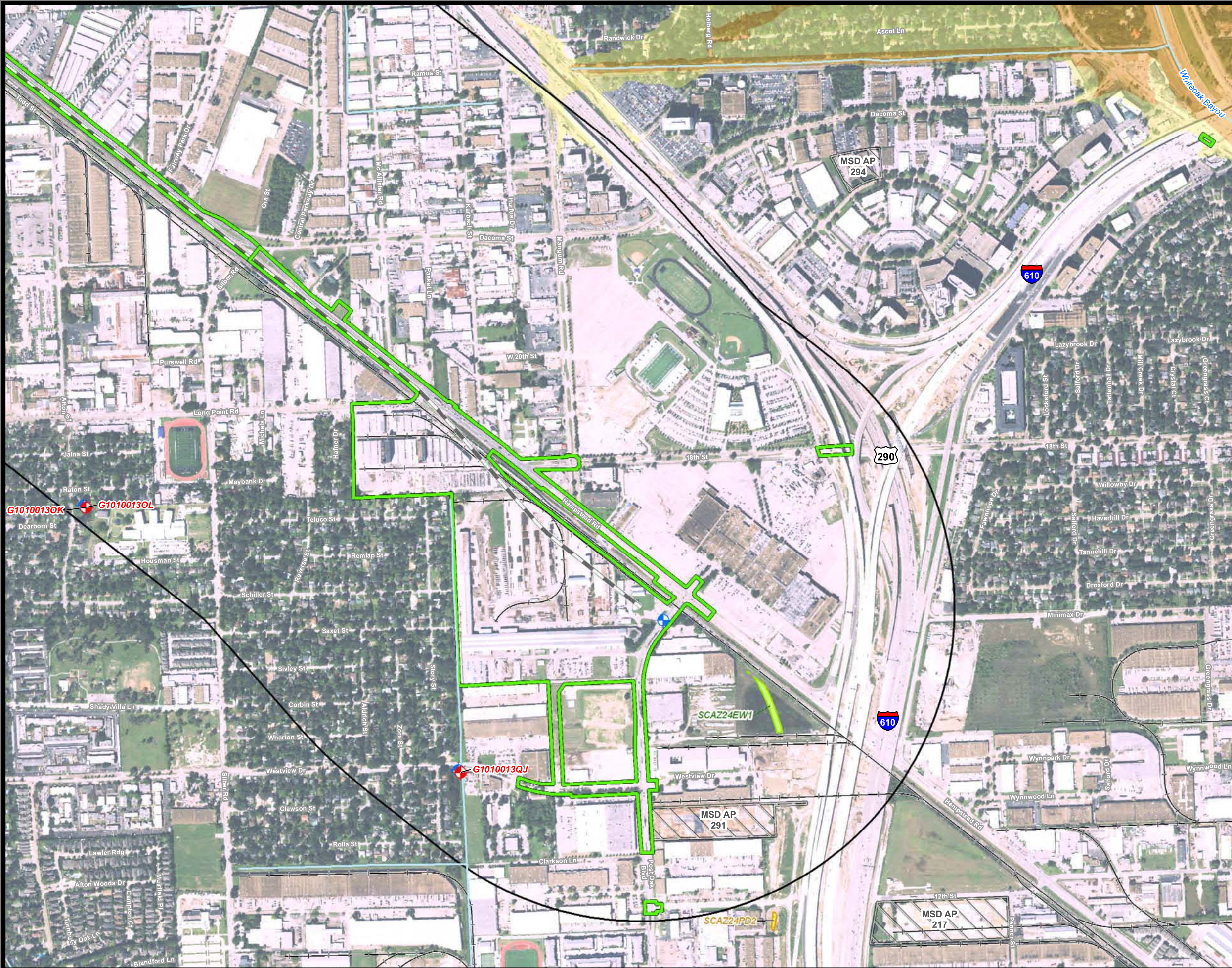
National Wetlands Inventory (NWI)

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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5, Industrial Site Terminal Option
Sheet 253 of 257

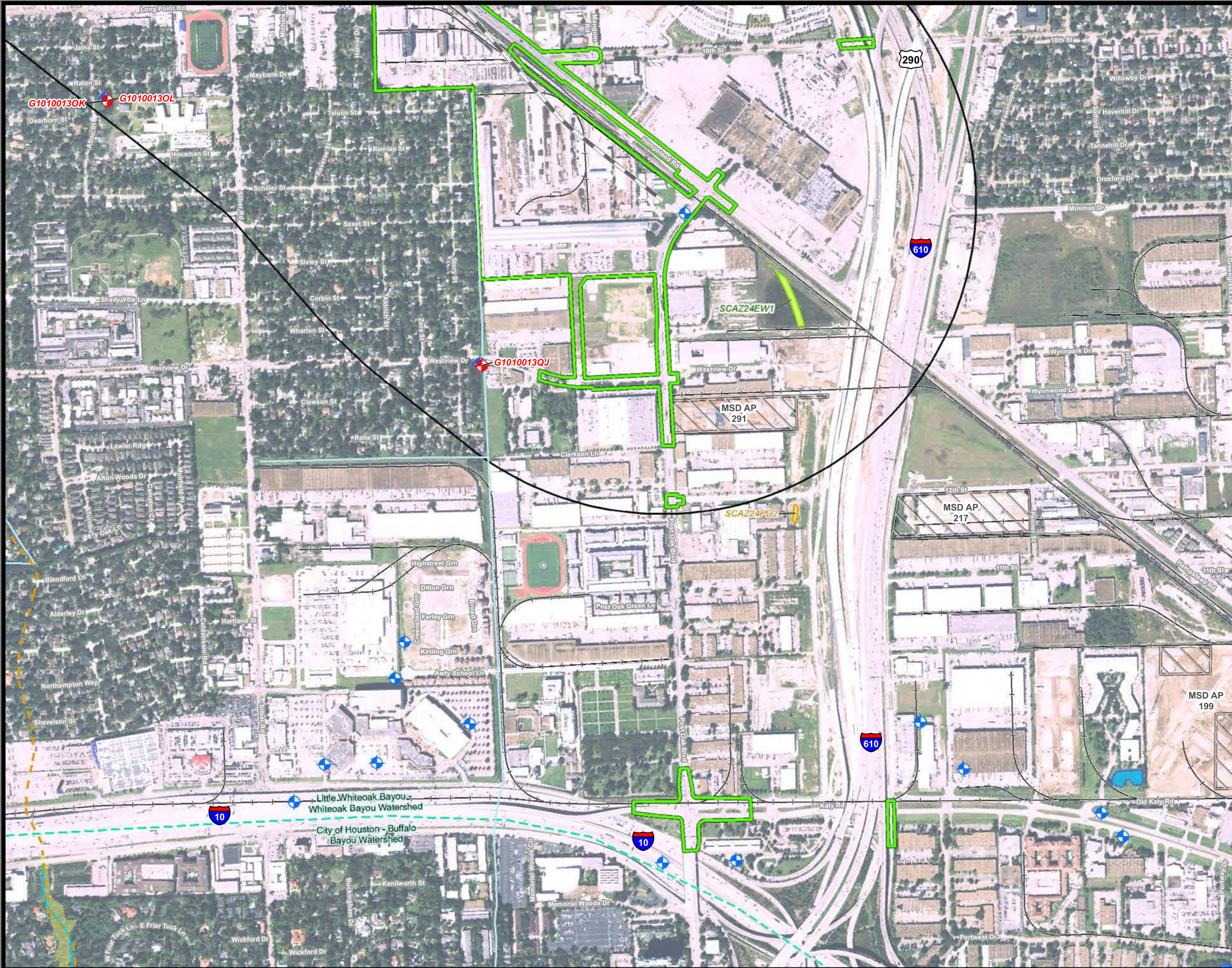
- Legend**
- Limits of Disturbance**
- Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
- Viaduct
 - Embankment
 - Cut
 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
- Houston Toad
 - Large-fruited Sand Verbena
 - Navasota Ladies'-tresses
 - Endangered Species
 - Threatened Species
 - U.S. Army Corps of Engineers (USACE) Project Area
 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
- Impaired Waters with Total Maximum Daily Load (TMDL)**
- Impaired Waters
 - Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%
- Field-Collected Data**
- Perennial Stream/River
 - Intermittent Stream/River
 - Ephemeral Stream/River
 - Other Stream/River
 - Lake/Pond
 - Emergent Wetland
 - Forested Wetland
 - Scrub/Shrub Wetland
- National Hydrography Dataset (NHD)**
- Perennial Stream/River
 - Intermittent Stream/River
 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Wetlands Inventory (NWI)**
- Freshwater Emergent Wetland
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project
Natural Resources**
Segment 5, Industrial Site Terminal Option
Sheet 254 of 257

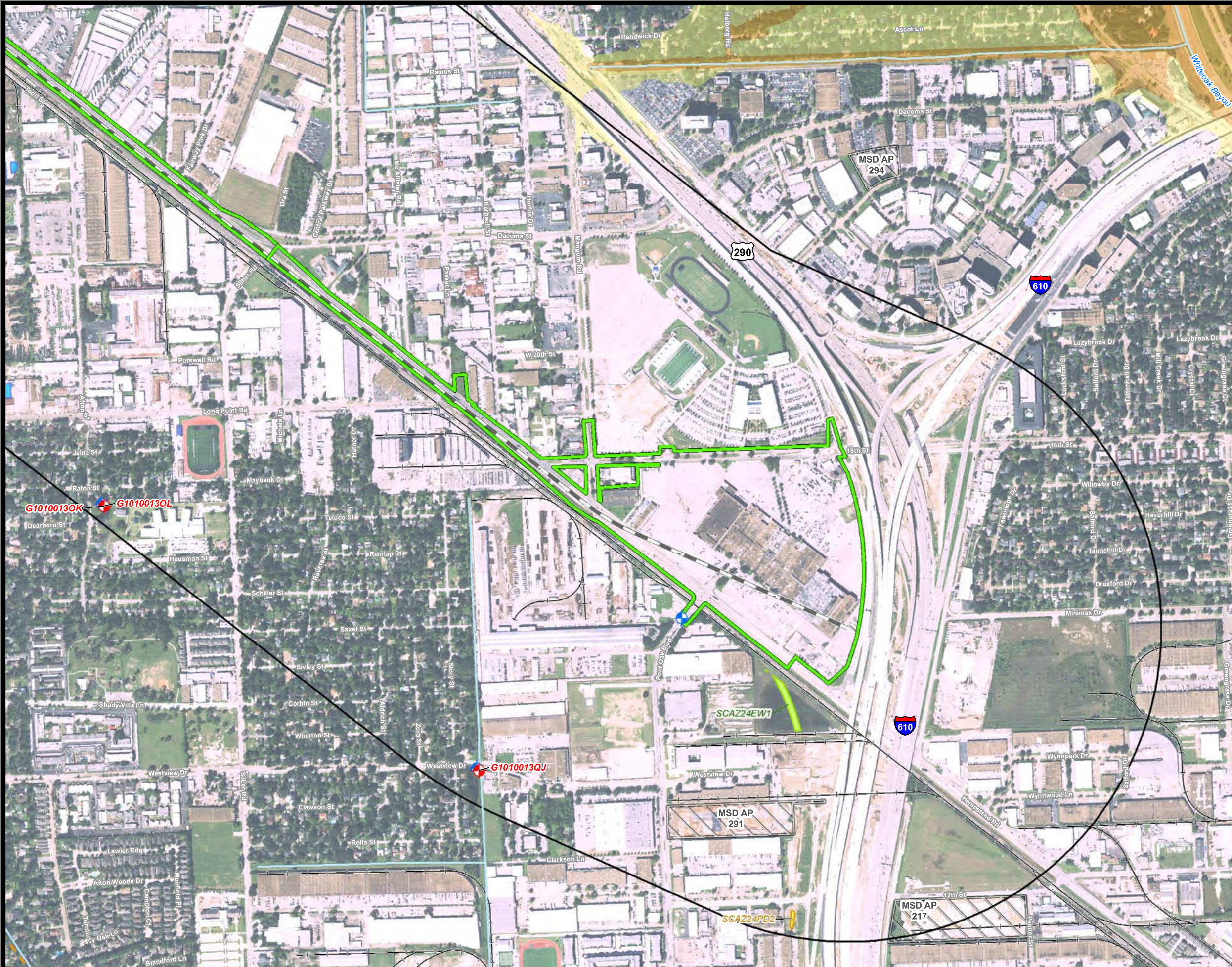
- Legend**
- Limits of Disturbance**
- Segment 1
 - Segment 2A
 - Segment 2B
 - Segment 3A
 - Segment 3B
 - Segment 3C
 - Segment 4
 - Segment 5
- Track Configuration**
- Viaduct
 - Embankment
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 - Half Mile Buffer
 - City Boundary
 - County Boundary
 - Railroad
 - Municipal Setting Designation (MSD)
- Potential Habitat**
- Houston Toad
 - Large-fruited Sand Verbena
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 - Endangered Species
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 - Watershed (HUC 12) Boundary
 - Public Water Supply
 - Groundwater Well
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- Impaired Waters
 - A - 1%
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- Federal Emergency Management Agency (FEMA) Flood Zone**
- Perennial Stream/River
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 - Forested Wetland
 - Scrub/Shrub Wetland
- Field-Collected Data**
- Perennial Stream/River
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 - Artificial Stream/Canal
 - Lake/Pond
 - Reservoir
 - Swamp/Marsh
- National Hydrography Dataset (NHD)**
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 - Artificial Stream/Canal
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Aerial Imagery: USDA NAIP 2014

1 inch = 800 feet
0 400 800 Feet





**Dallas to Houston
High-Speed Rail Project**
Natural Resources
Segment 5, Northwest Mall Terminal Option
Sheet 255 of 257

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters
- Federal Emergency Management Agency (FEMA) Flood Zone
 - A - 1%
 - AE - 1%
 - AO - 1%
 - X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
- Other Stream/River
- Lake/Pond
- Emergent Wetland
- Forested Wetland
- Scrub/Shrub Wetland

National Hydrography Dataset (NHD)

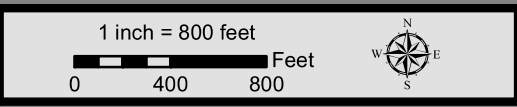
- Perennial Stream/River
- Intermittent Stream/River
- Artificial Stream/Canal
- Lake/Pond
- Reservoir
- Swamp/Marsh

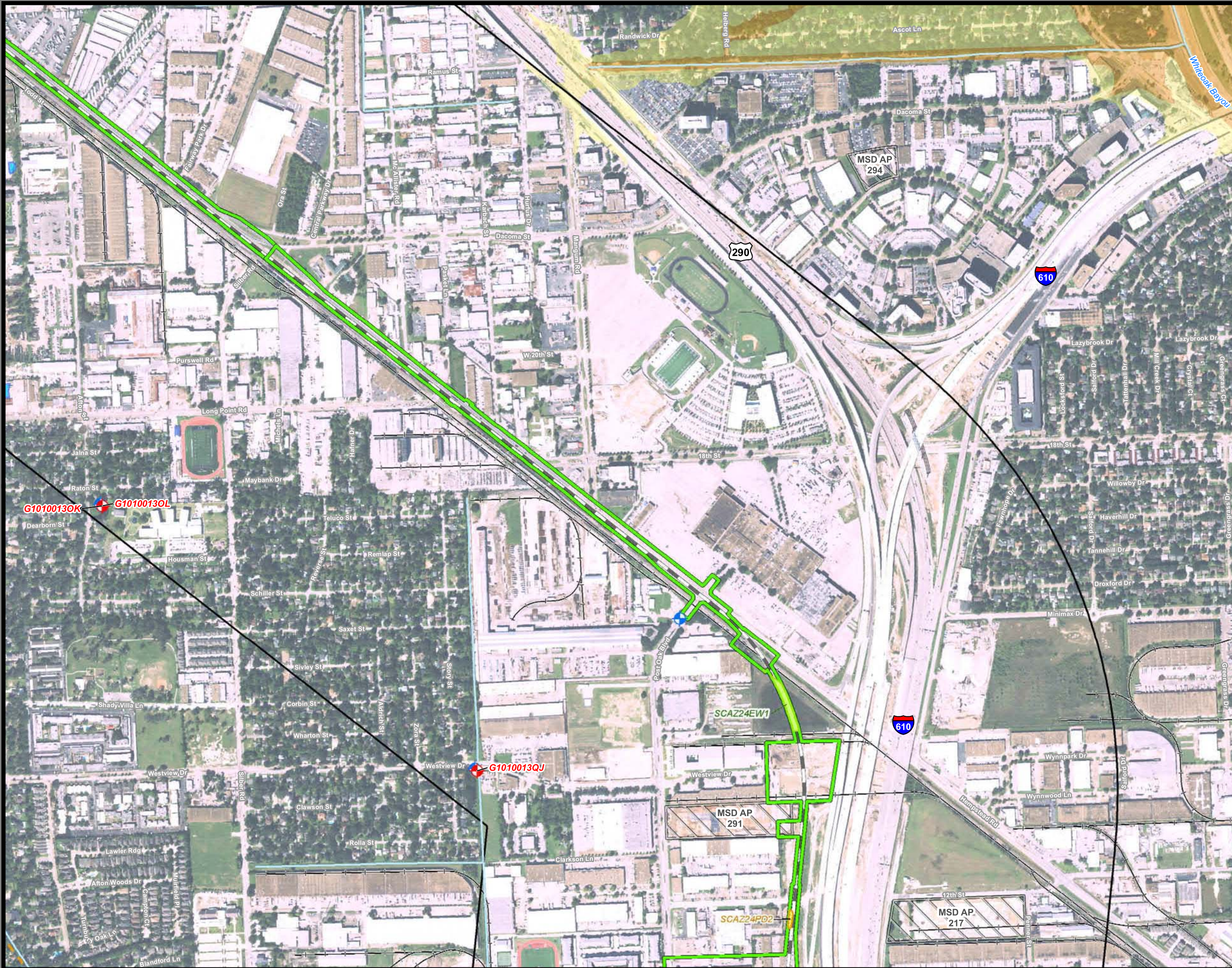
National Wetlands Inventory (NWI)

- Freshwater Emergent Wetland
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources**
Segment 5, Northwest Transit Center Terminal Option
Sheet 256 of 257

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
- Large-fruited Sand Verbena
- Navasota Ladies'-tresses
- Endangered Species
- Threatened Species
- U.S. Army Corps of Engineers (USACE) Project Area
- Watershed (HUC 12) Boundary
- Public Water Supply
- Groundwater Well

Impaired Waters with Total Maximum Daily Load (TMDL)

- Impaired Waters

Federal Emergency Management Agency (FEMA) Flood Zone

- A - 1%
- AE - 1%
- AO - 1%
- X - 0.2%

Field-Collected Data

- Perennial Stream/River
- Intermittent Stream/River
- Ephemeral Stream/River
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- Emergent Wetland
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National Hydrography Dataset (NHD)

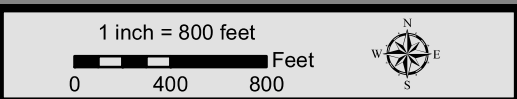
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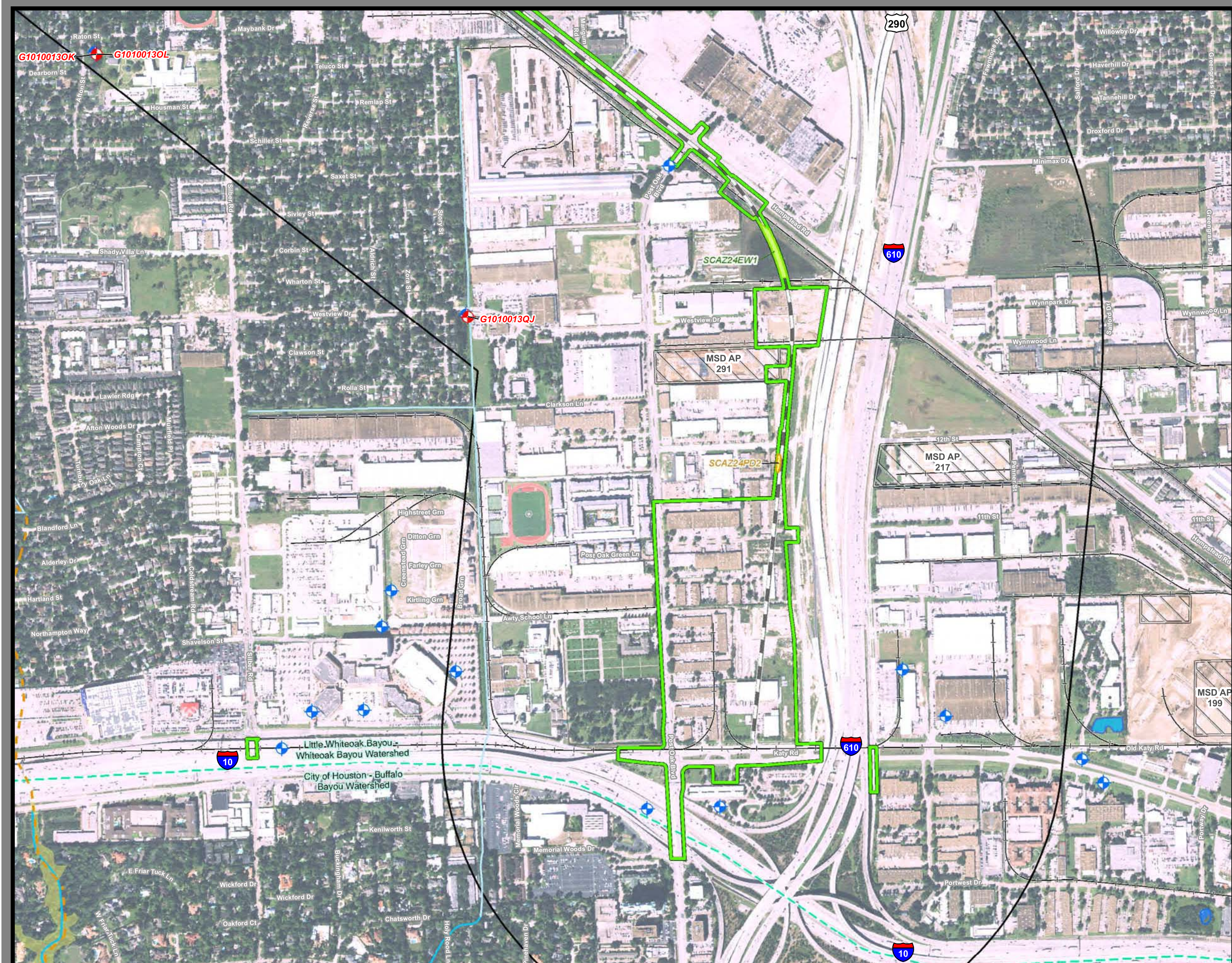
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Aerial Imagery: USDA NAIP 2014





**Dallas to Houston
High-Speed Rail Project
Natural Resources**
Segment 5, Northwest Center Terminal Option
Sheet 257 of 257

Legend

Limits of Disturbance

- Segment 1
- Segment 2A
- Segment 2B
- Segment 3A
- Segment 3B
- Segment 3C
- Segment 4
- Segment 5

Track Configuration

- Viaduct
- Embankment
- Cut
- Half Mile Buffer
- City Boundary
- County Boundary
- Railroad
- Municipal Setting Designation (MSD)

Potential Habitat

- Houston Toad
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Impaired Waters with Total Maximum Daily Load (TMDL)

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Federal Emergency Management Agency (FEMA) Flood Zone

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Field-Collected Data

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National Hydrography Dataset (NHD)

- Perennial Stream/River
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National Wetlands Inventory (NWI)

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