

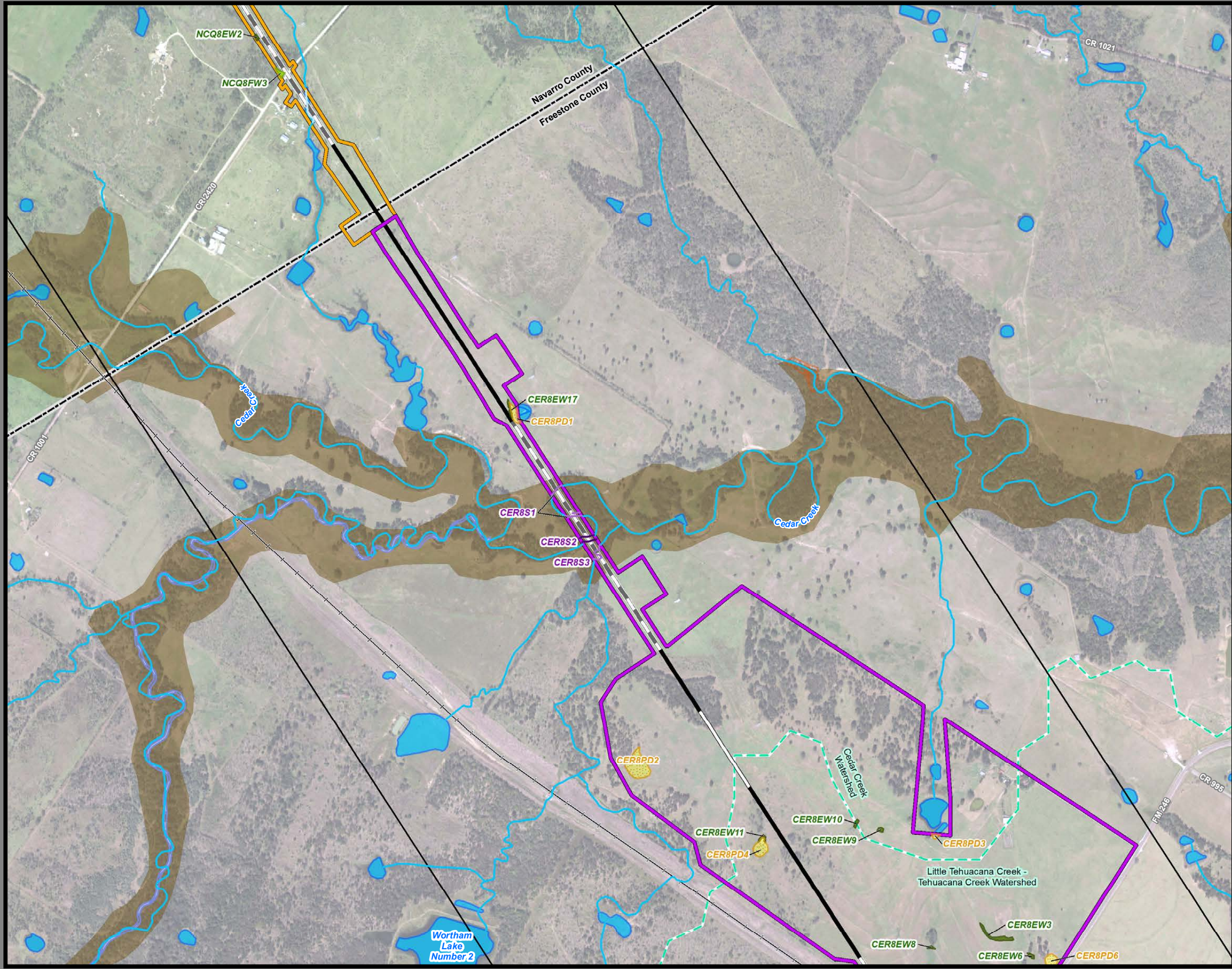
**Dallas to Houston High-Speed Rail  
Final Environmental Impact Statement**

**Appendix D:  
Natural Resources  
Mapbook Set 3 of 4**



**Federal Railroad  
Administration**





**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 3B, 4  
Sheet 153 of 257**

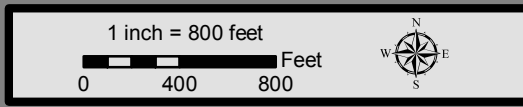
**Legend**

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

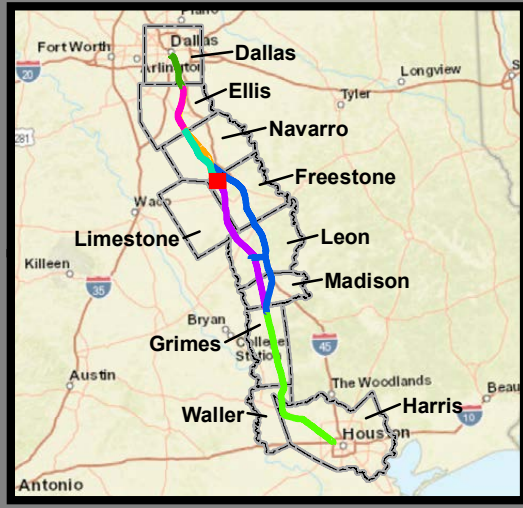
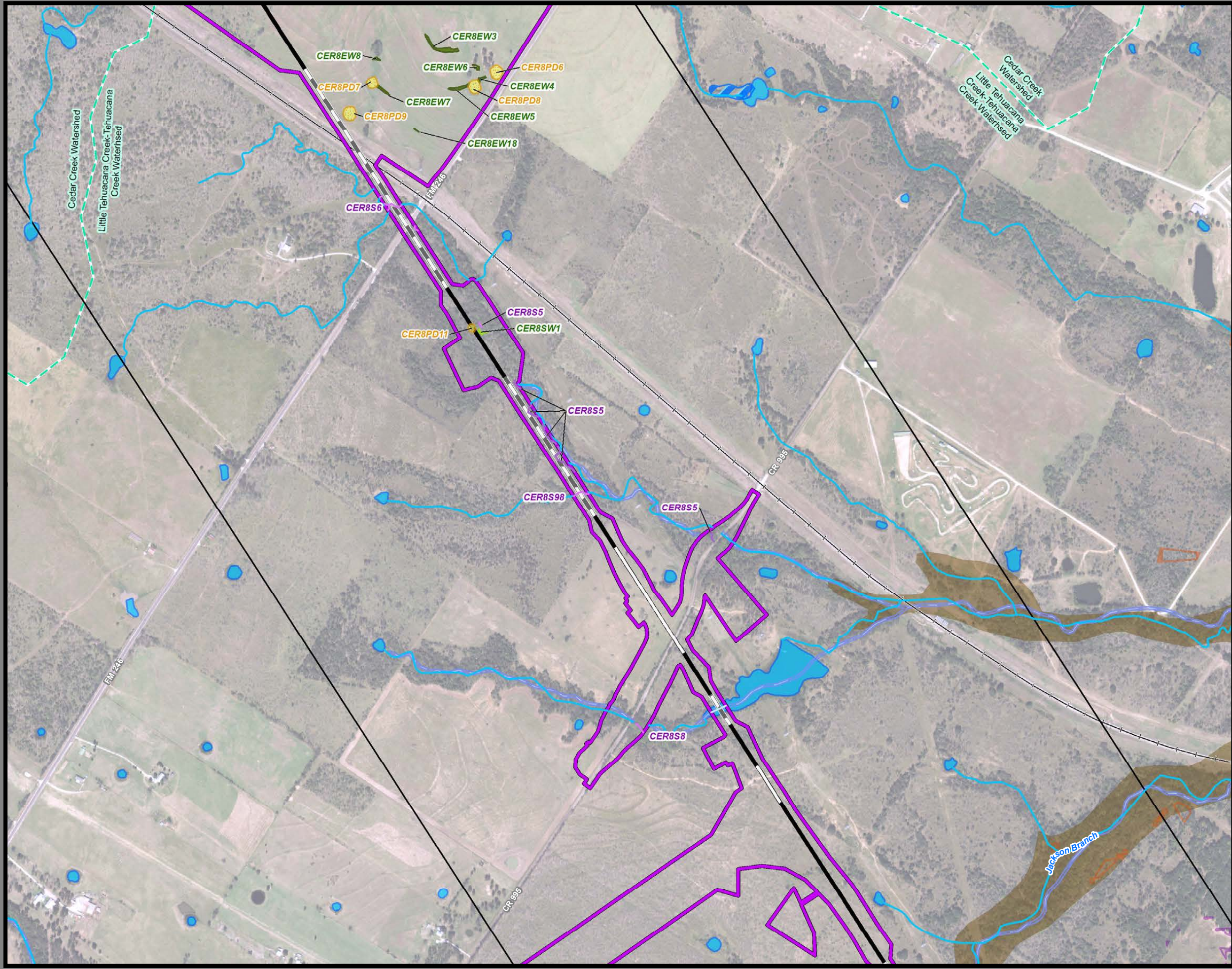
\*\*\*This Sheet only depicts Segments 3B & 4; Segment 3A is also located in this same area and can be referenced on Sheet 61.\*\*\*

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

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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 154 of 257**

**Legend**

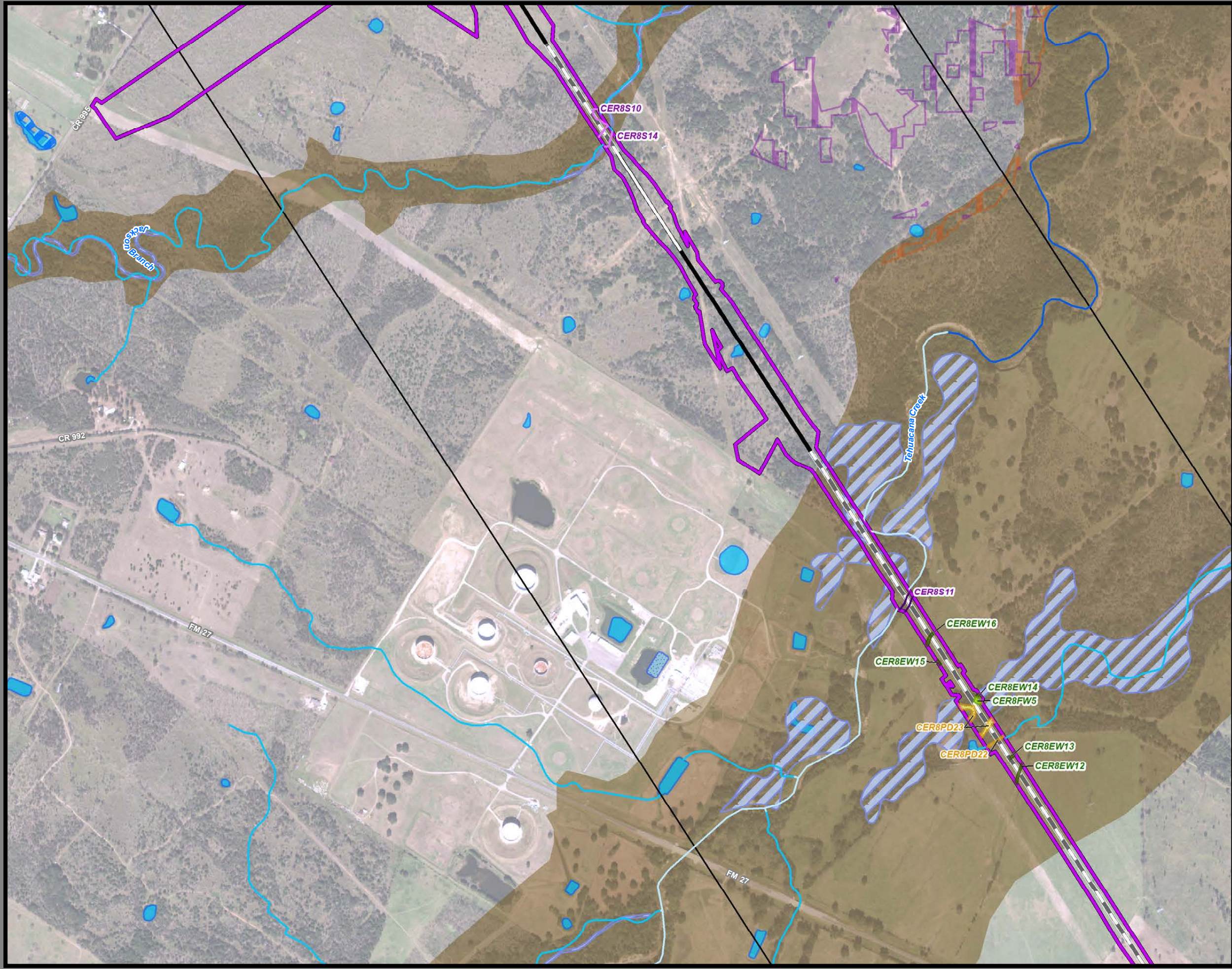
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 155 of 257**

**Legend**

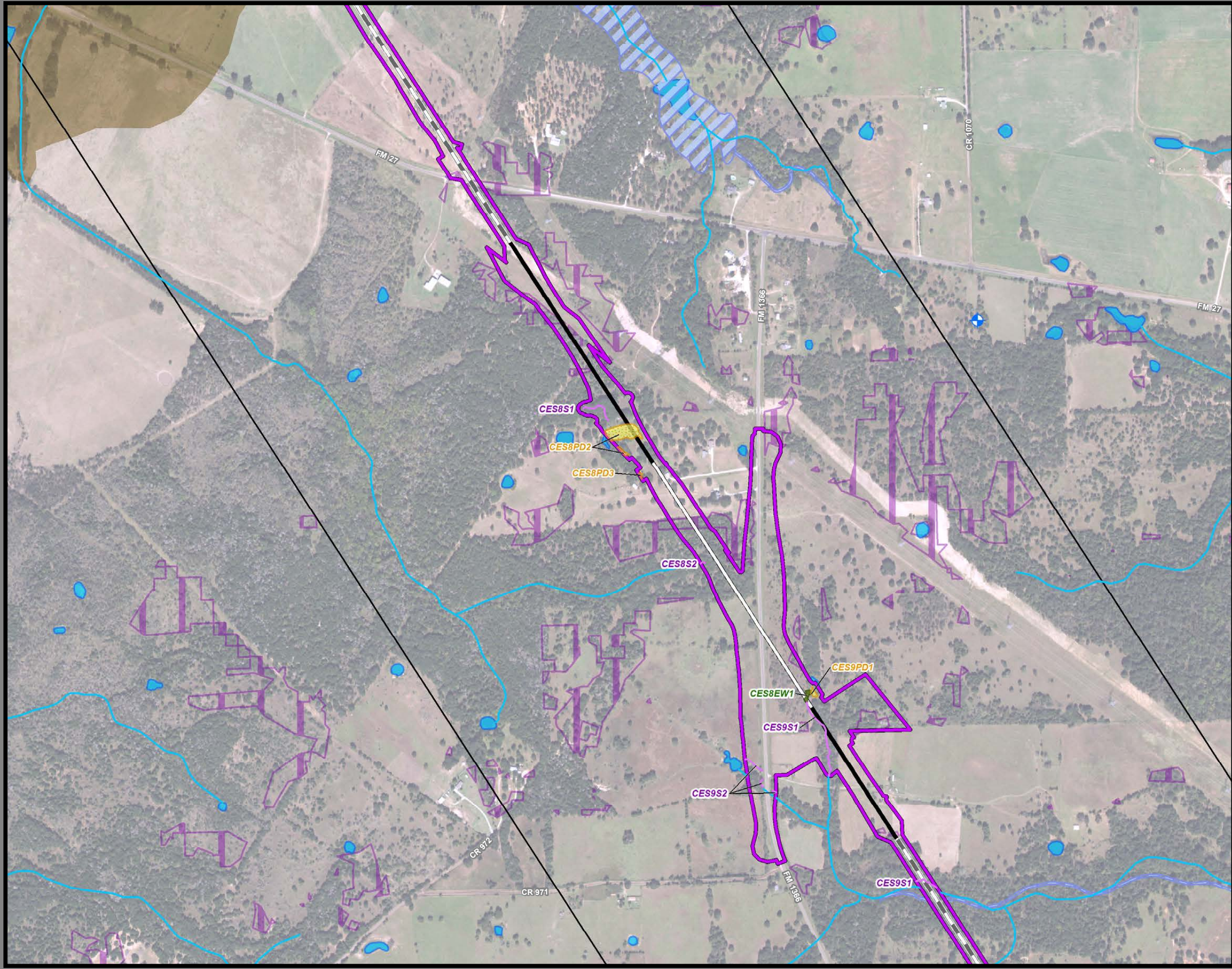
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 156 of 257**

**Legend**

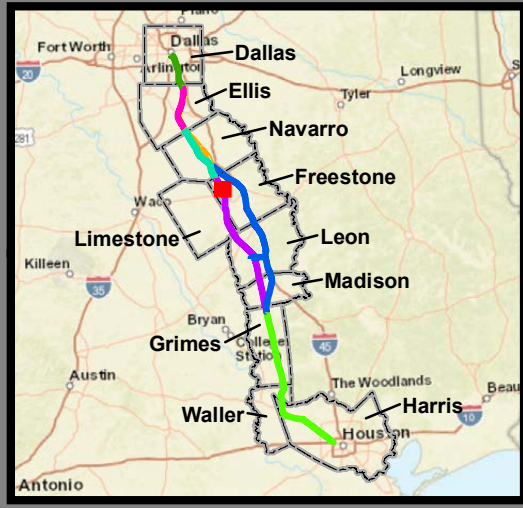
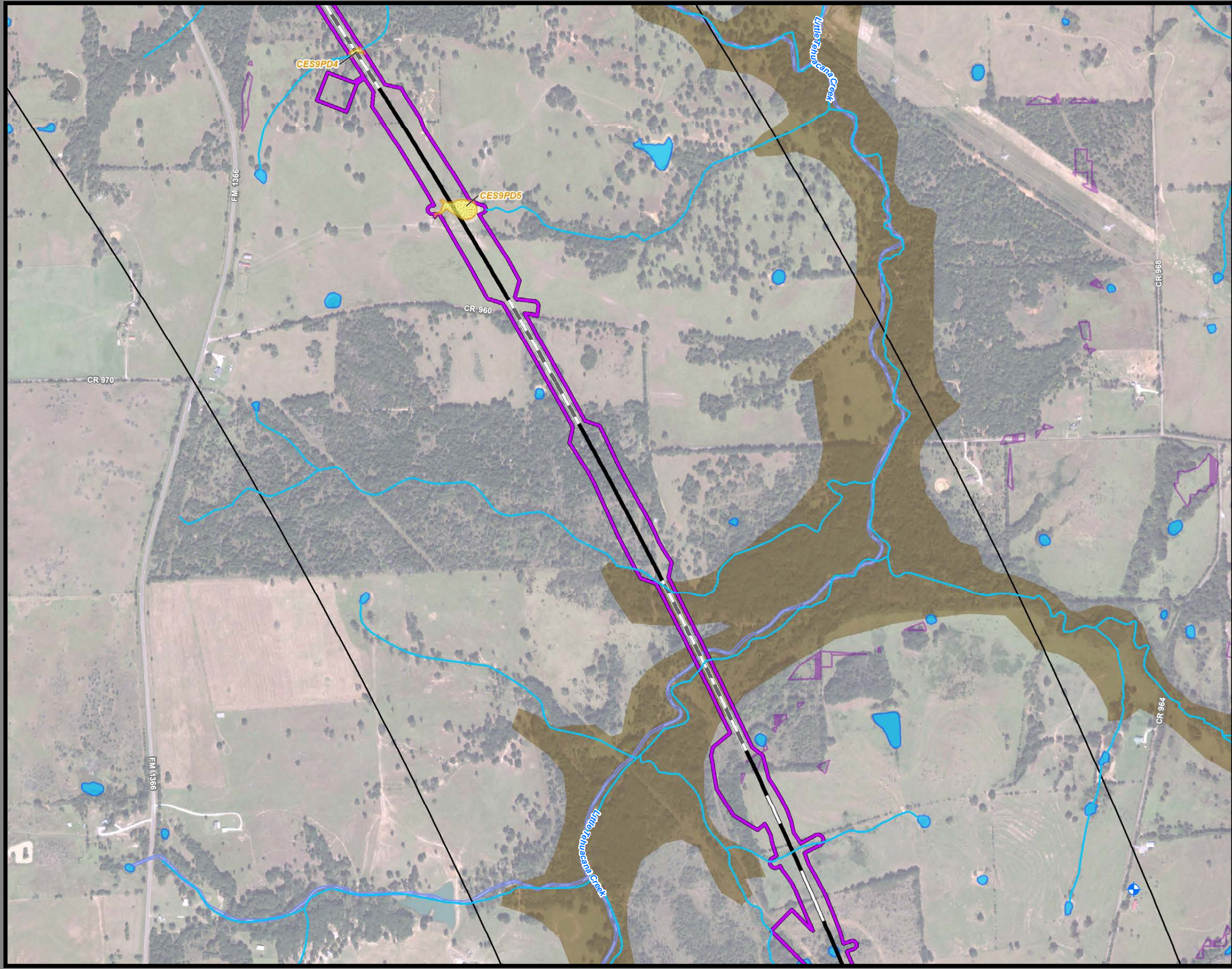
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 157 of 257**

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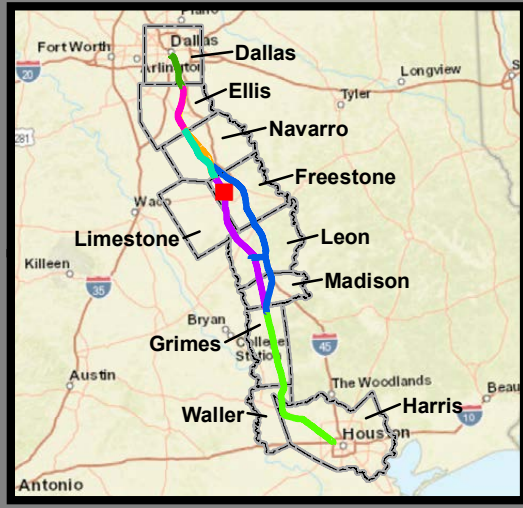
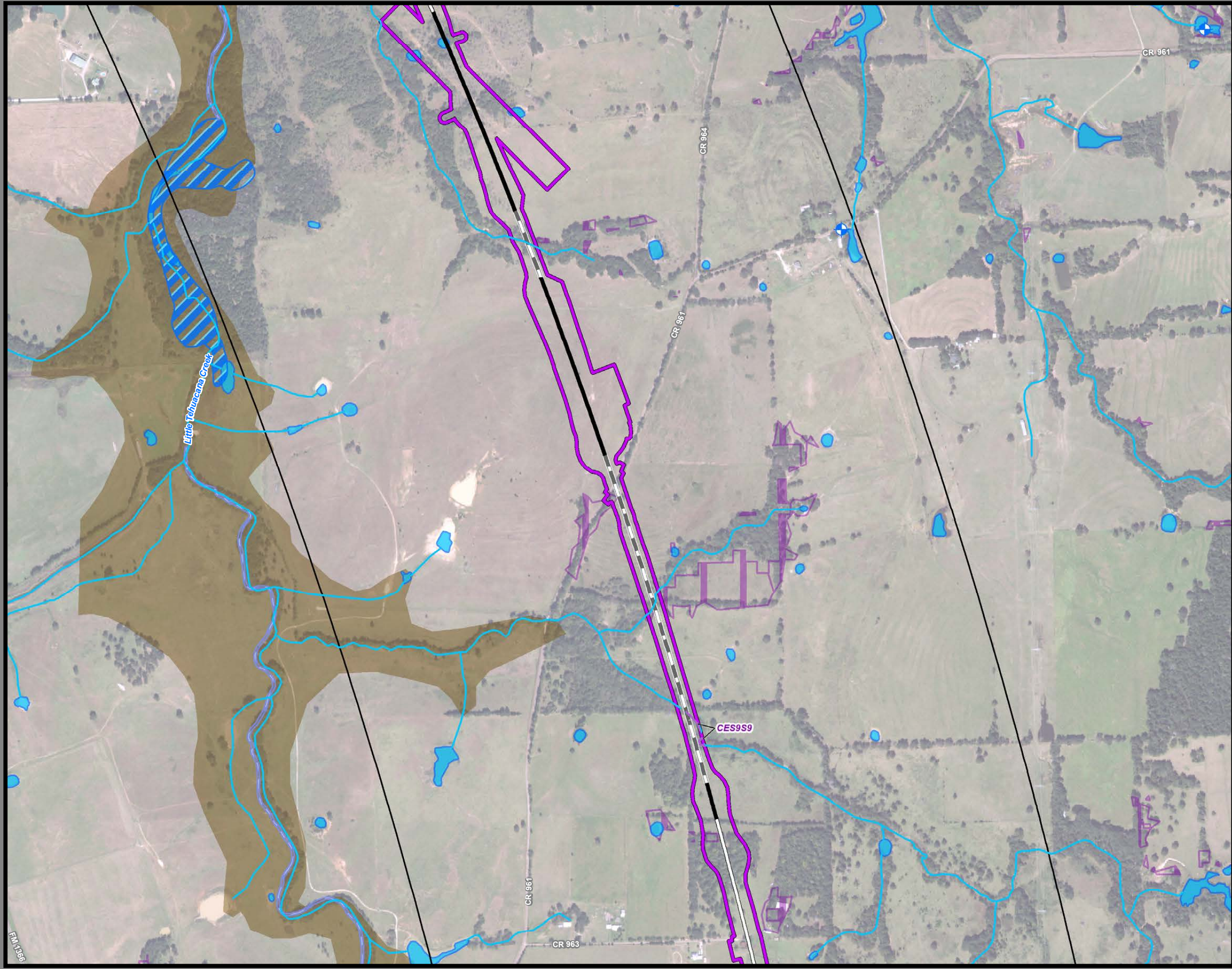
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 158 of 257**

**Legend**

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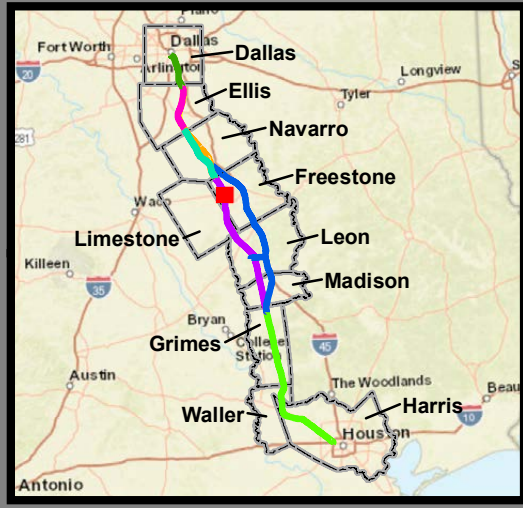
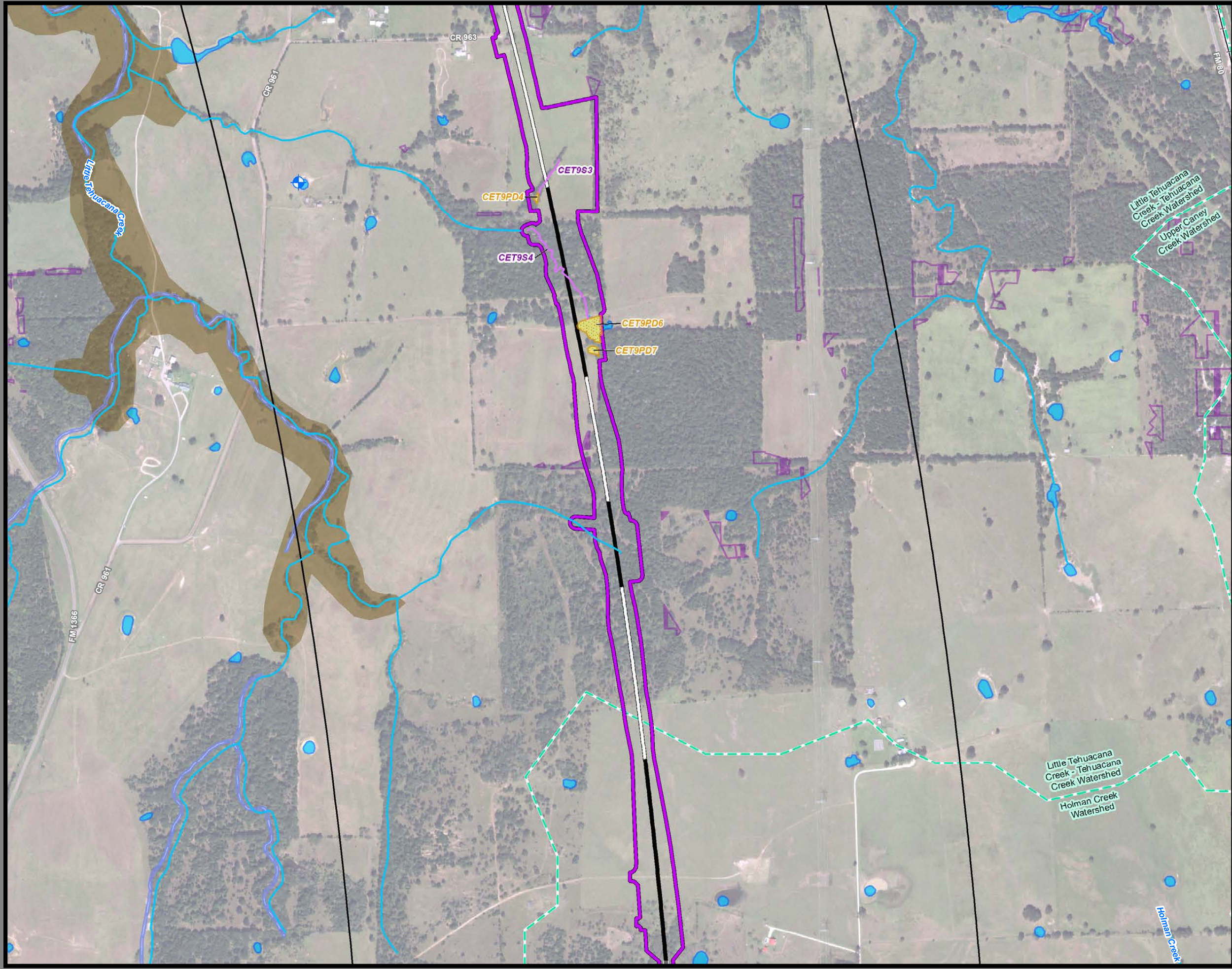
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FM 1396





**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 159 of 257**

**Legend**

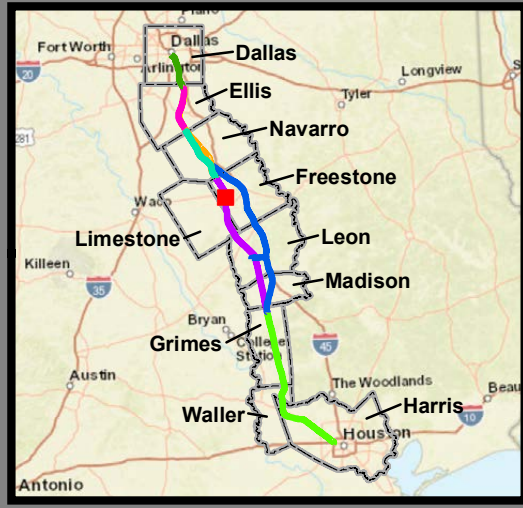
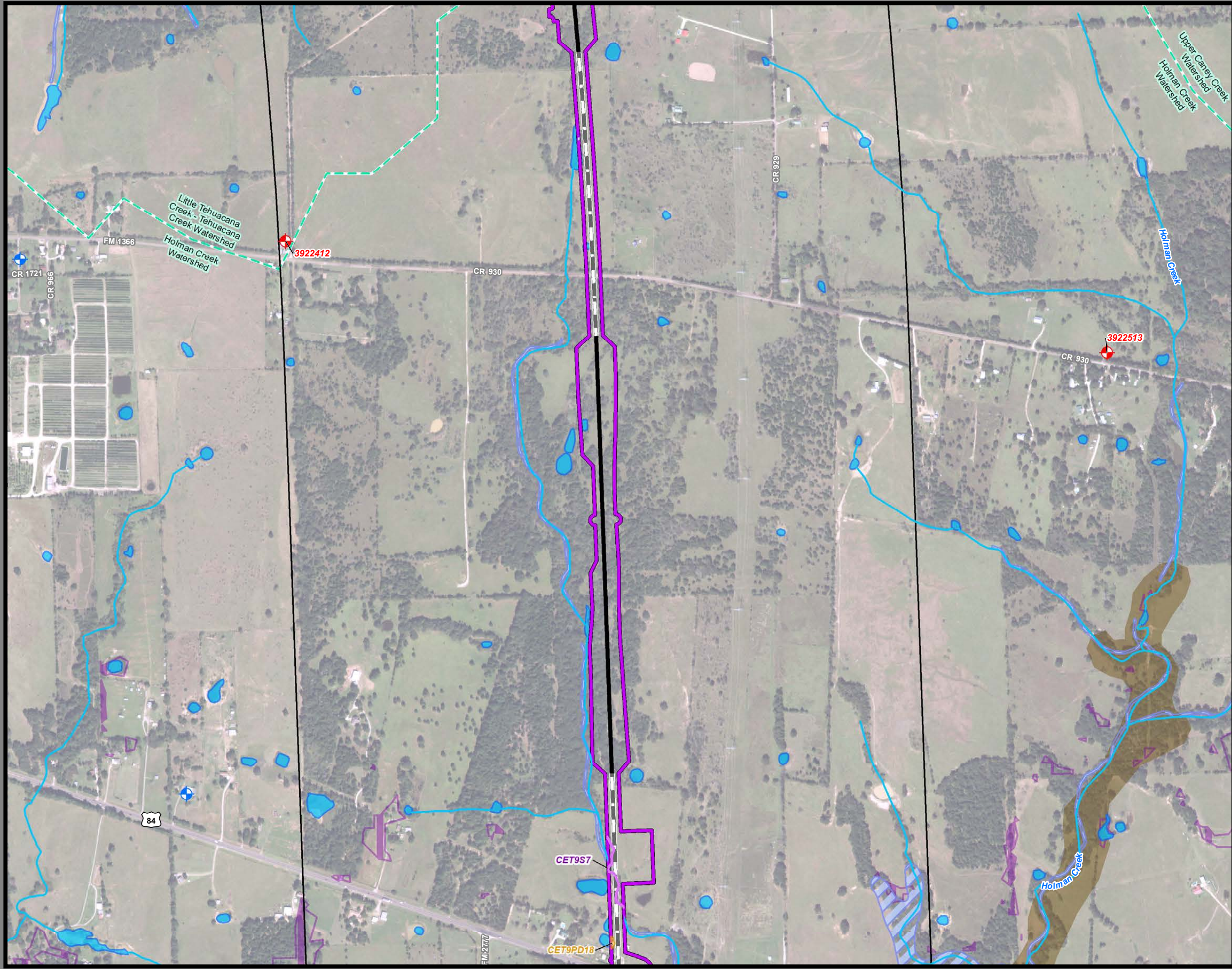
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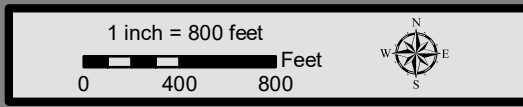
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High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 160 of 257**

**Legend**

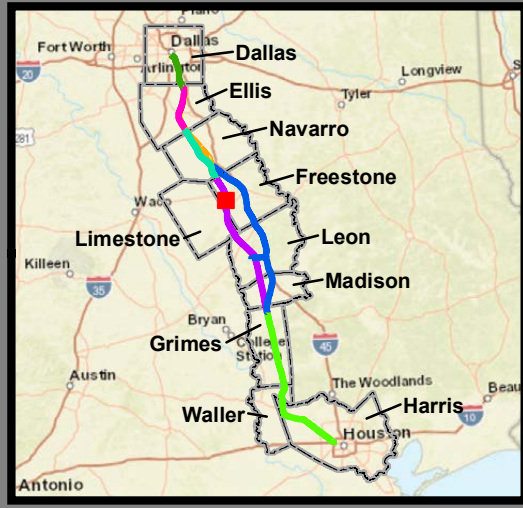
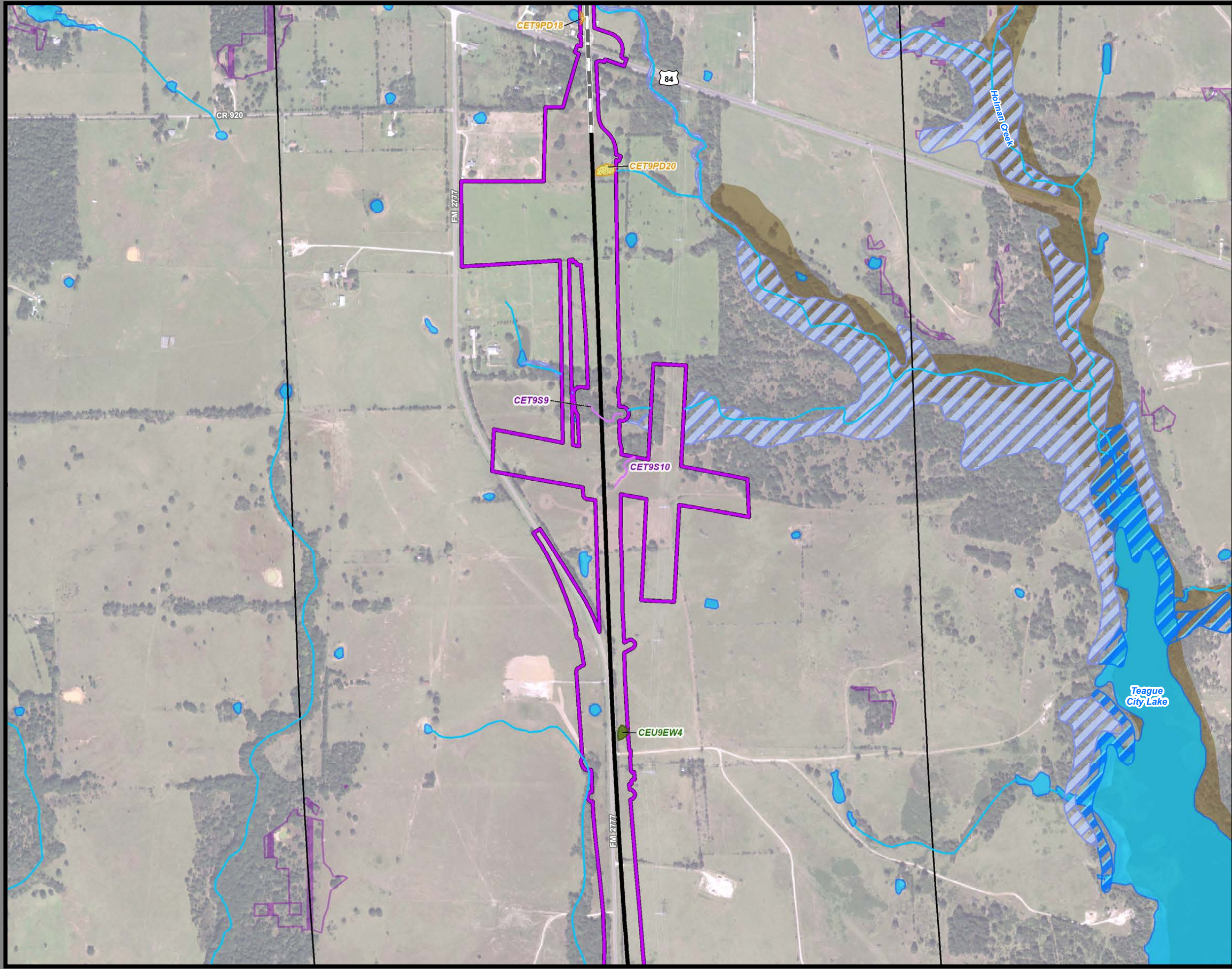
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> <li><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></li> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> <li><b>Field-Collected Data</b></li> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> <li><b>National Hydrography Dataset (NHD)</b></li> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> <li><b>National Wetlands Inventory (NWI)</b></li> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







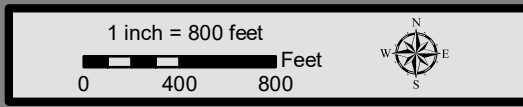
**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 161 of 257**

**Legend**

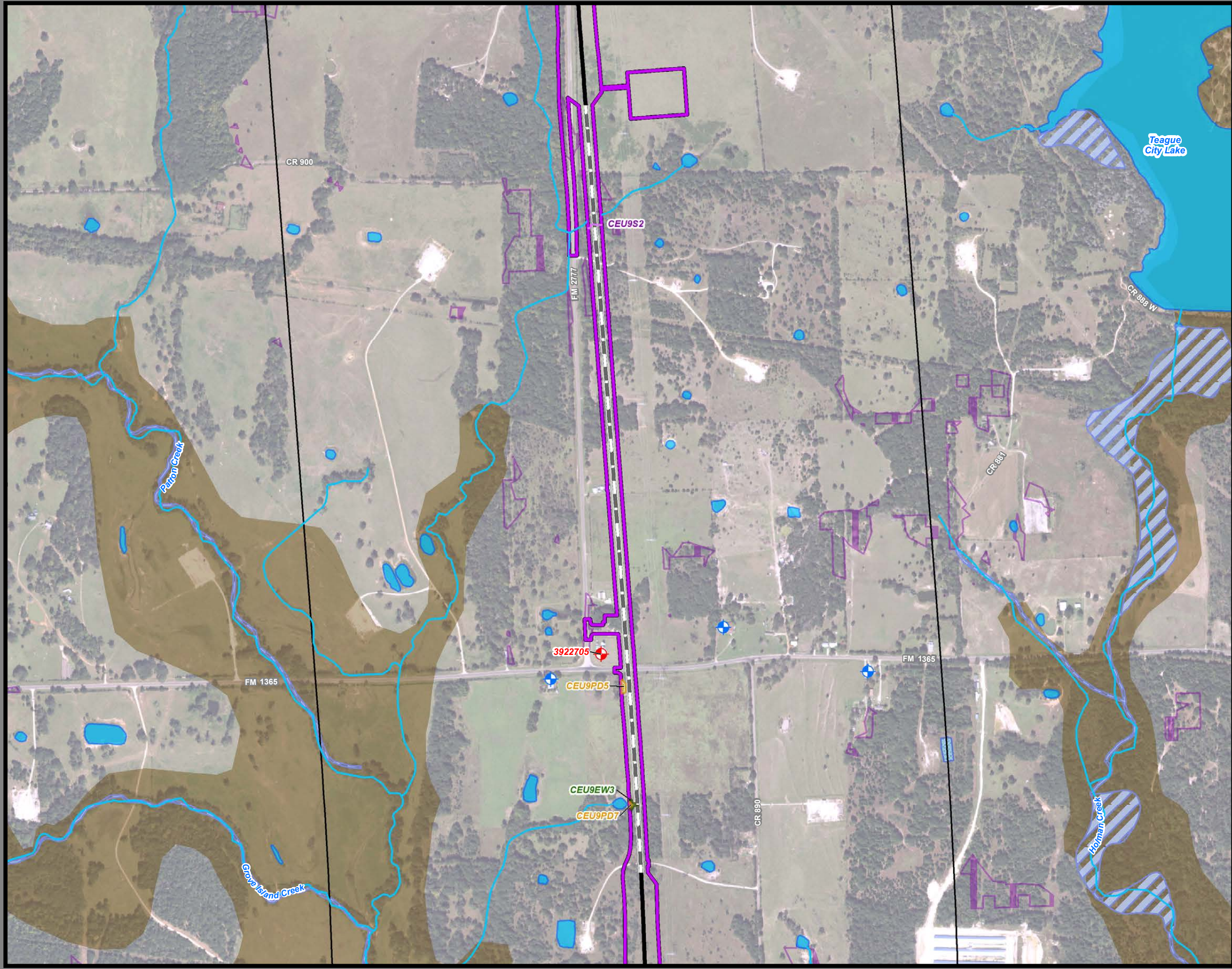
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 162 of 257**

**Legend**

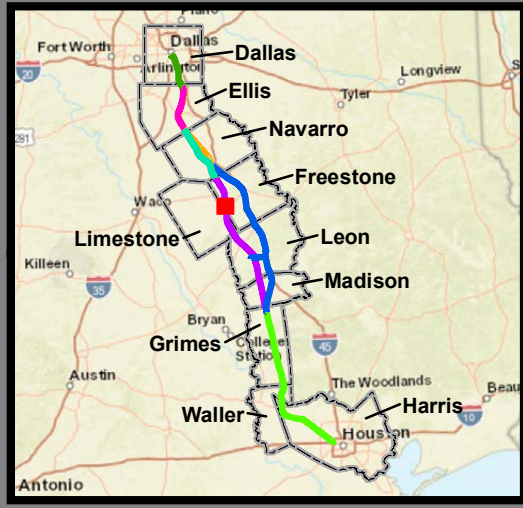
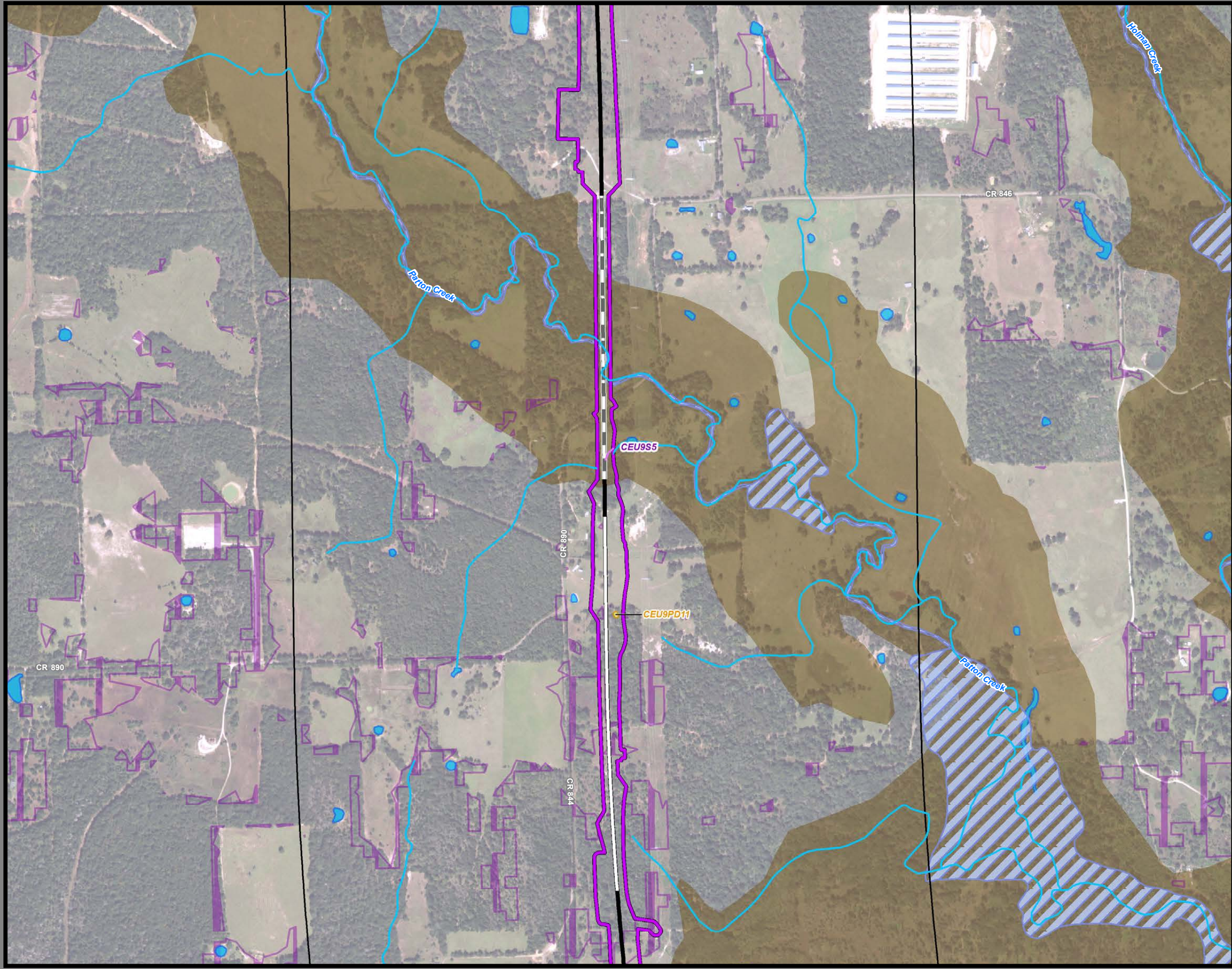
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 163 of 257**

**Legend**

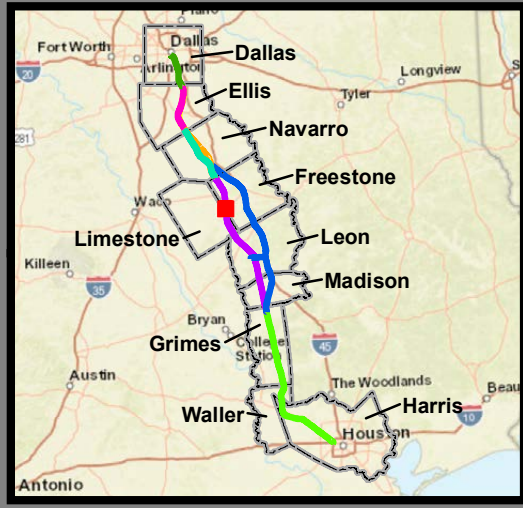
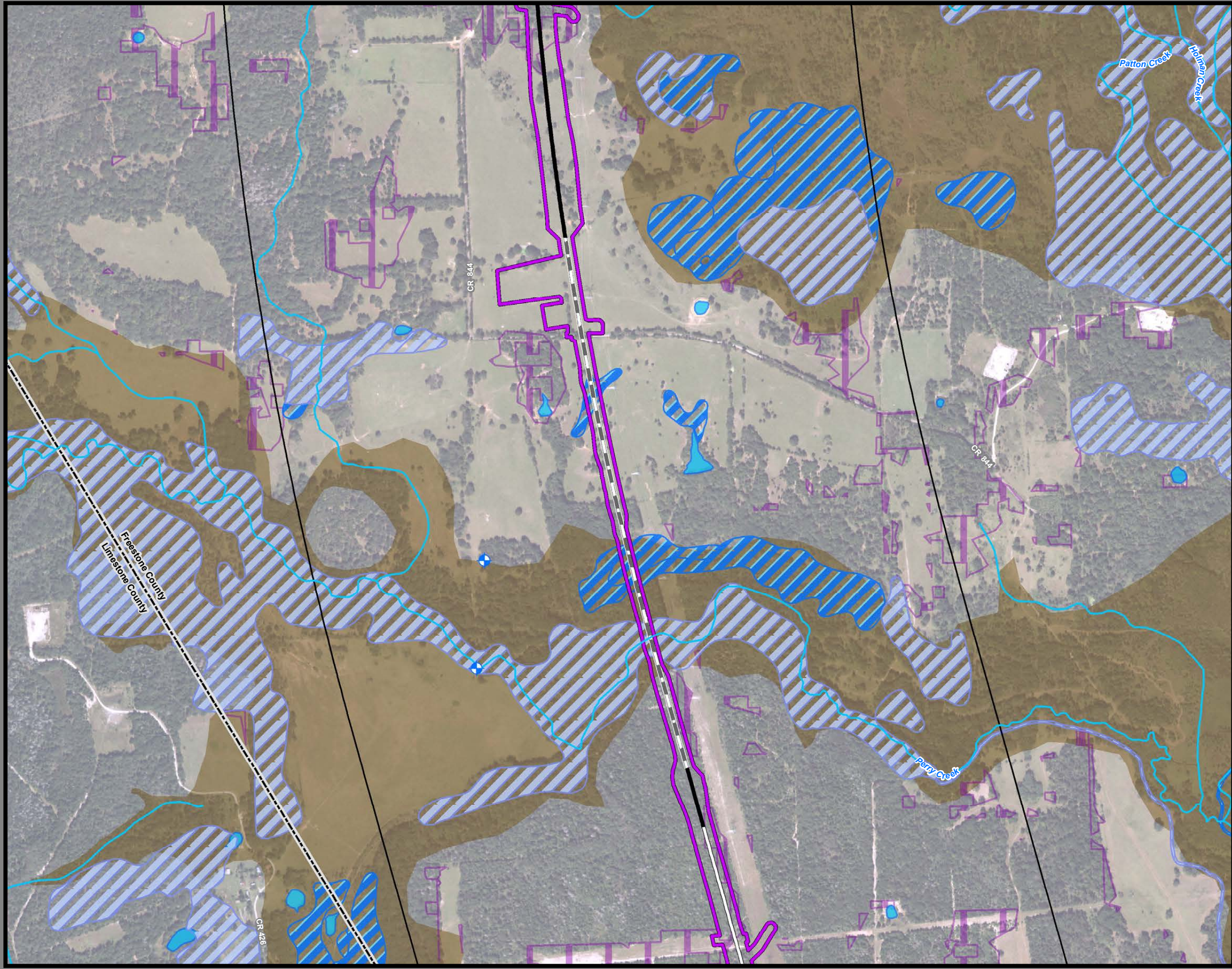
<ul style="list-style-type: none"> <li><b>Limits of Disturbance</b></li> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> <li><b>Track Configuration</b></li> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> <li><b>Potential Habitat</b></li> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> <li><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></li> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> <li><b>Field-Collected Data</b></li> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> <li><b>National Hydrography Dataset (NHD)</b></li> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> <li><b>National Wetlands Inventory (NWI)</b></li> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 164 of 257**

**Legend**

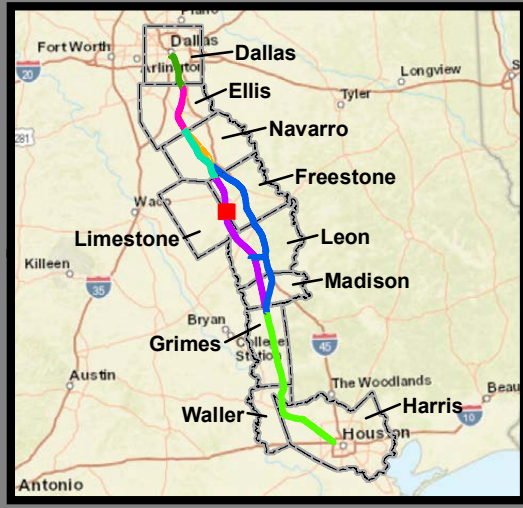
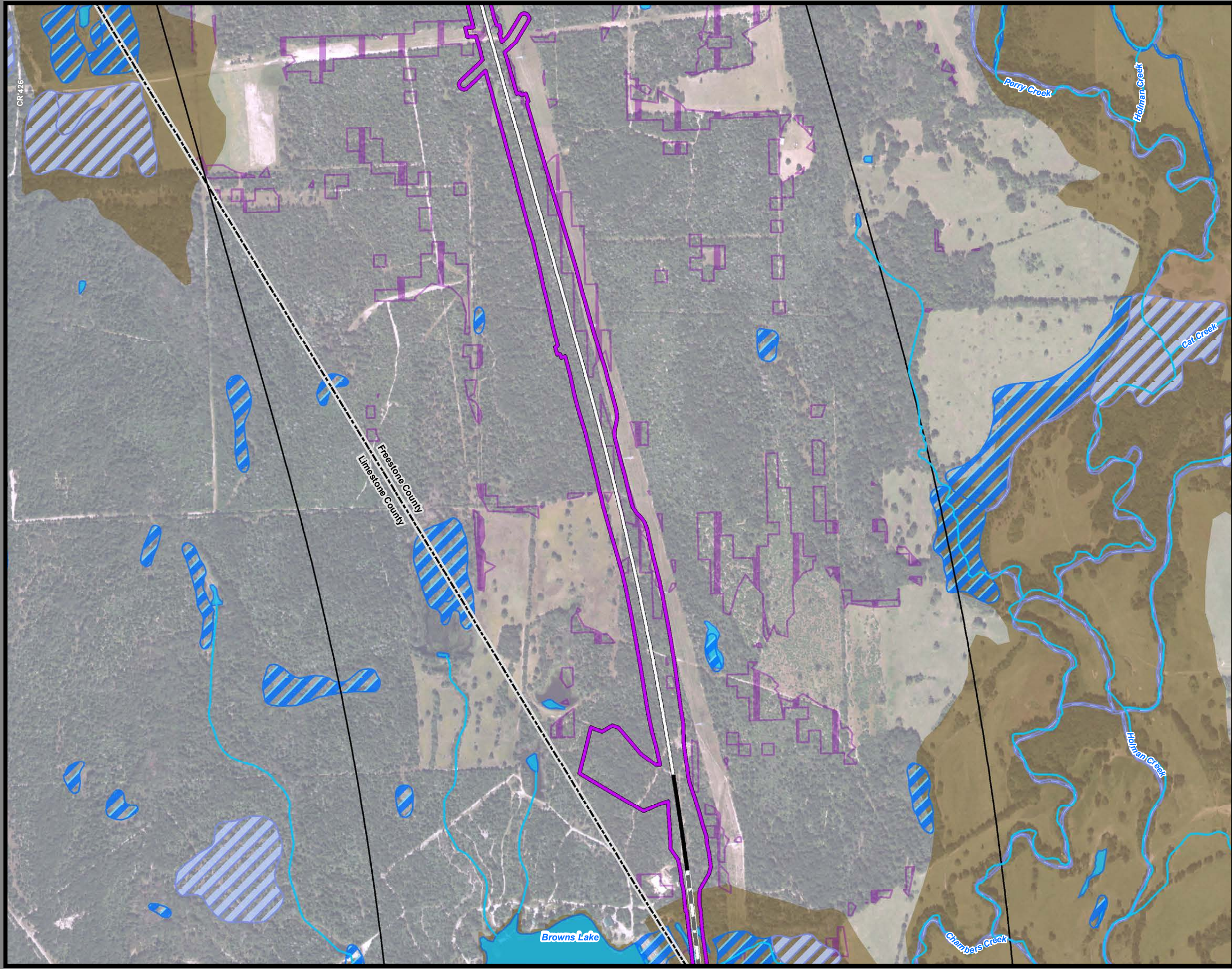
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 165 of 257**

**Legend**

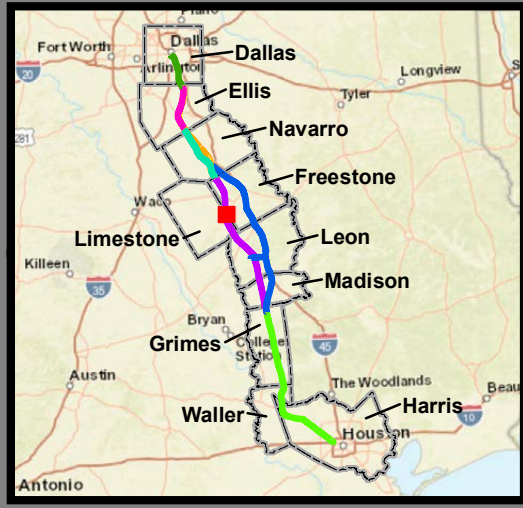
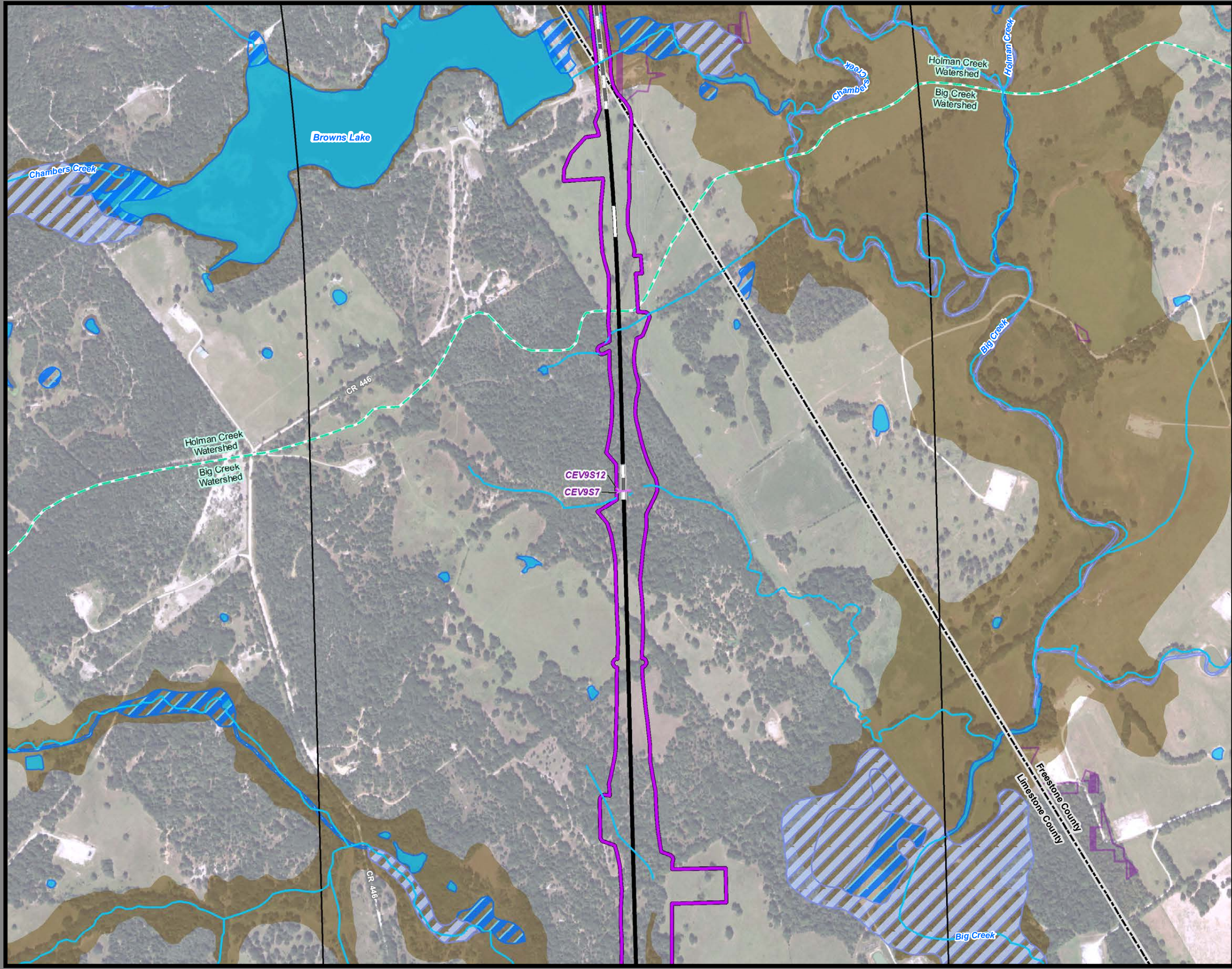
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 166 of 257**

**Legend**

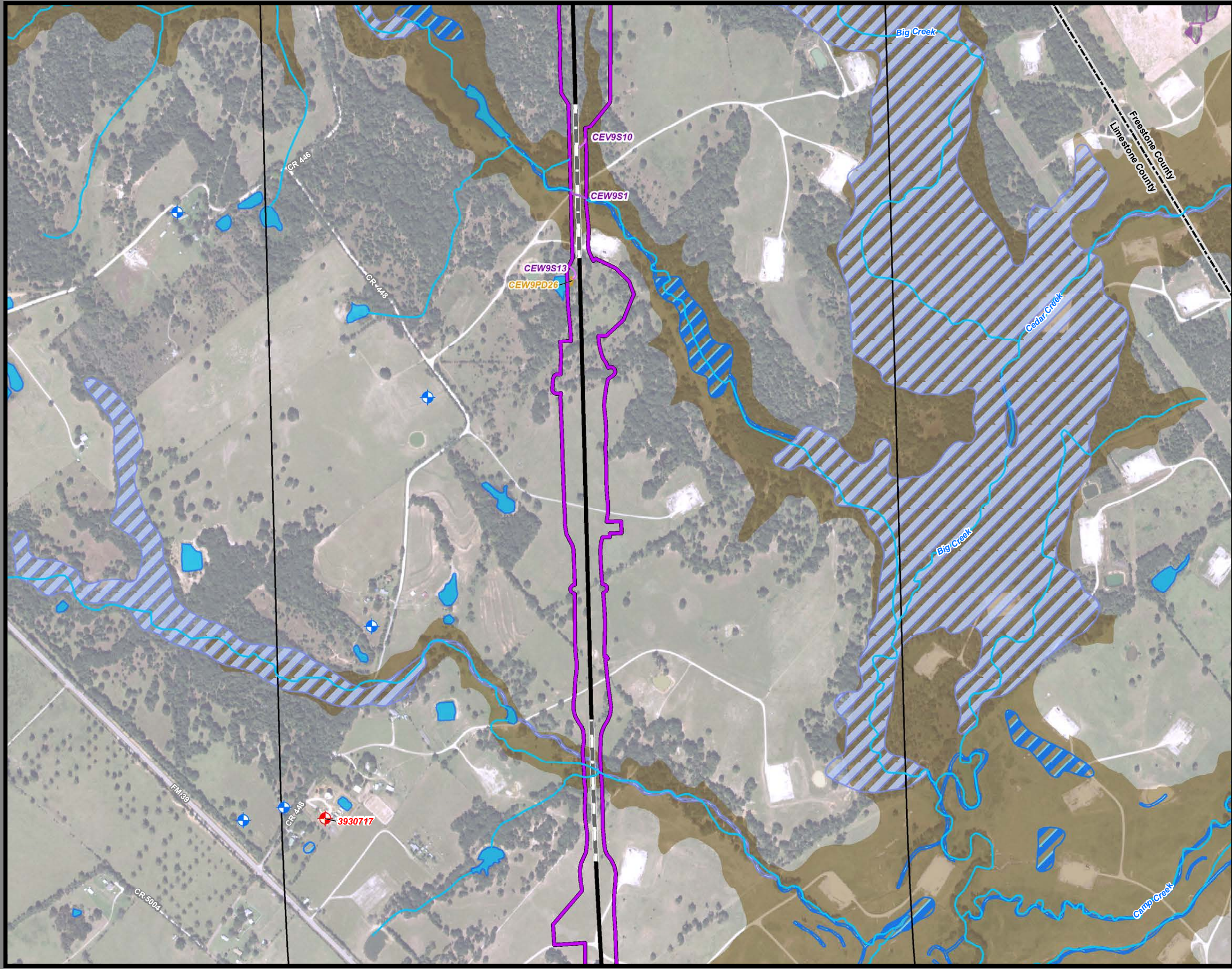
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
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Sheet 167 of 257**

**Legend**

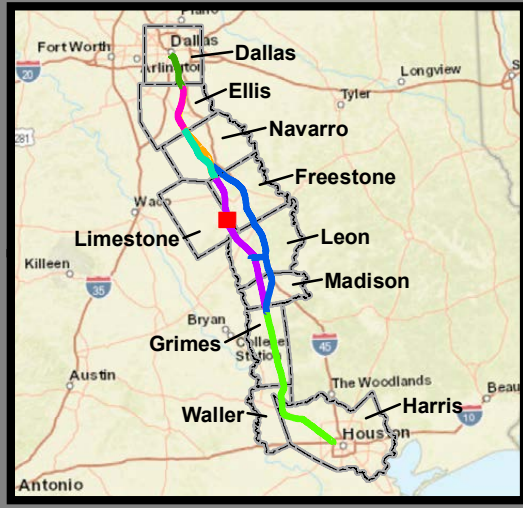
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 168 of 257**

**Legend**

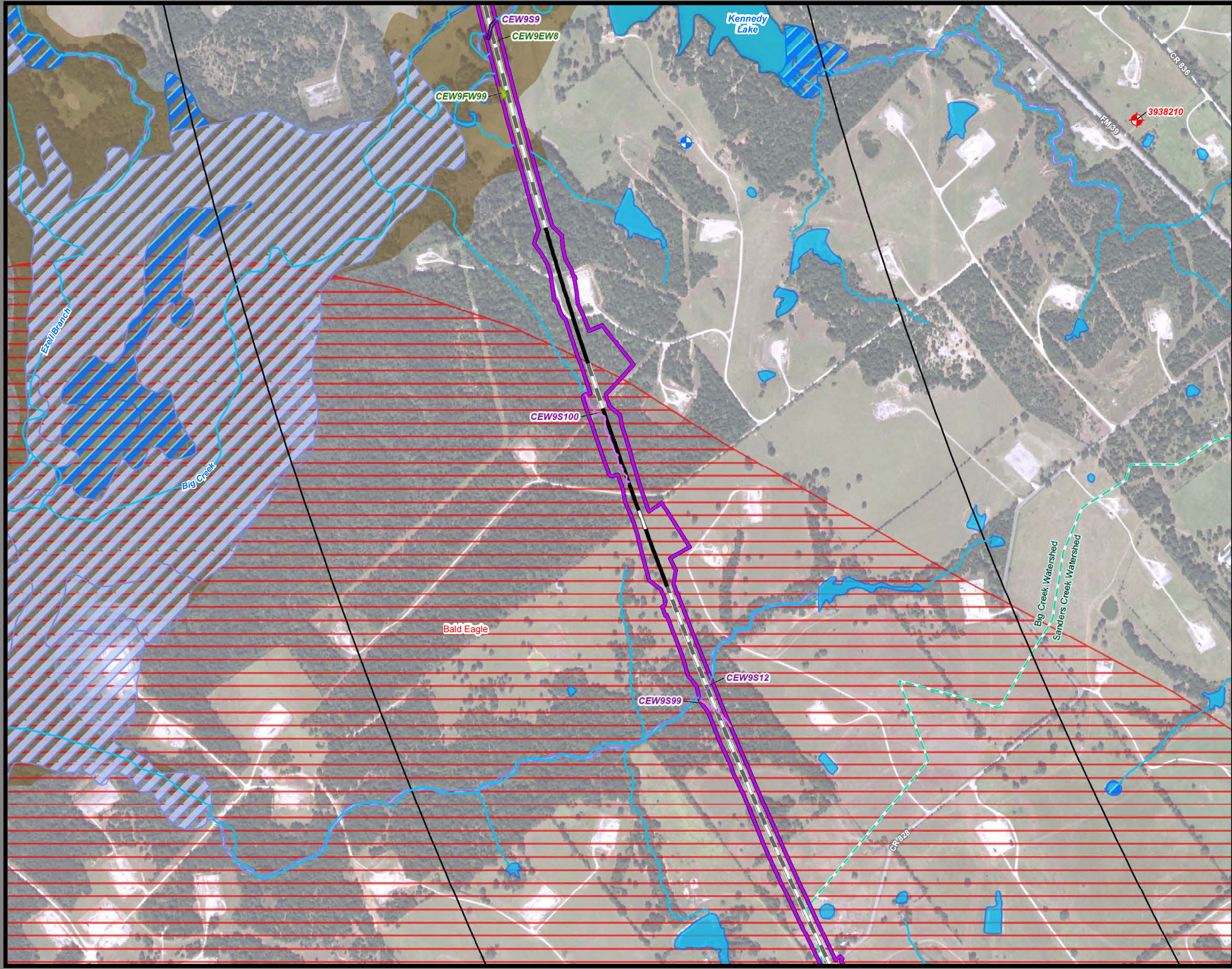
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 169 of 257**

**Legend**

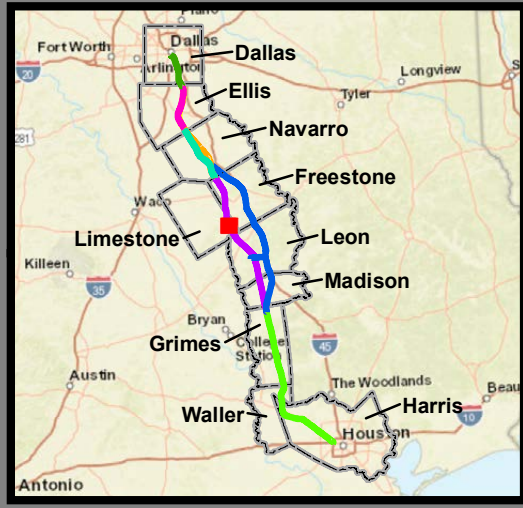
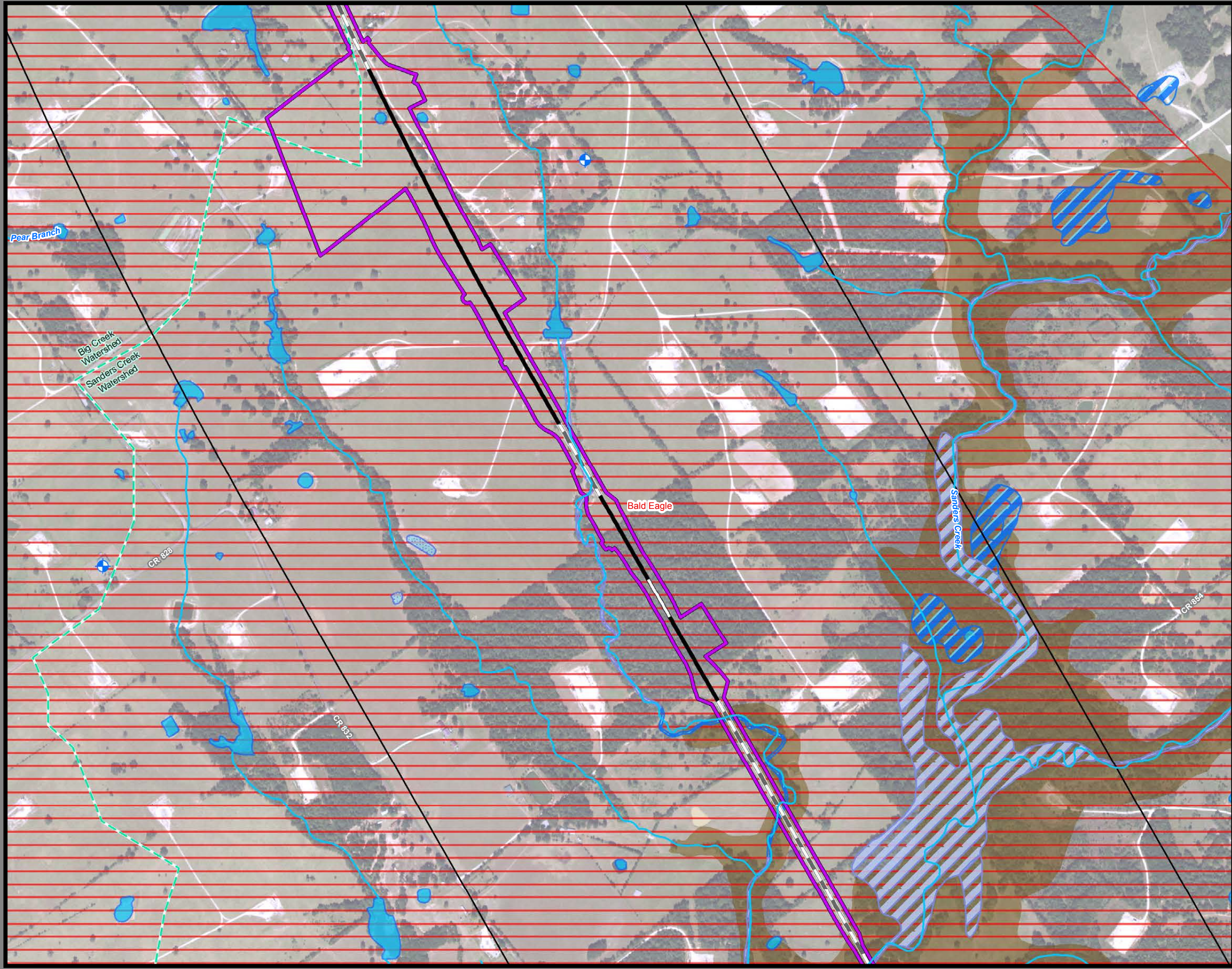
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 170 of 257**

**Legend**

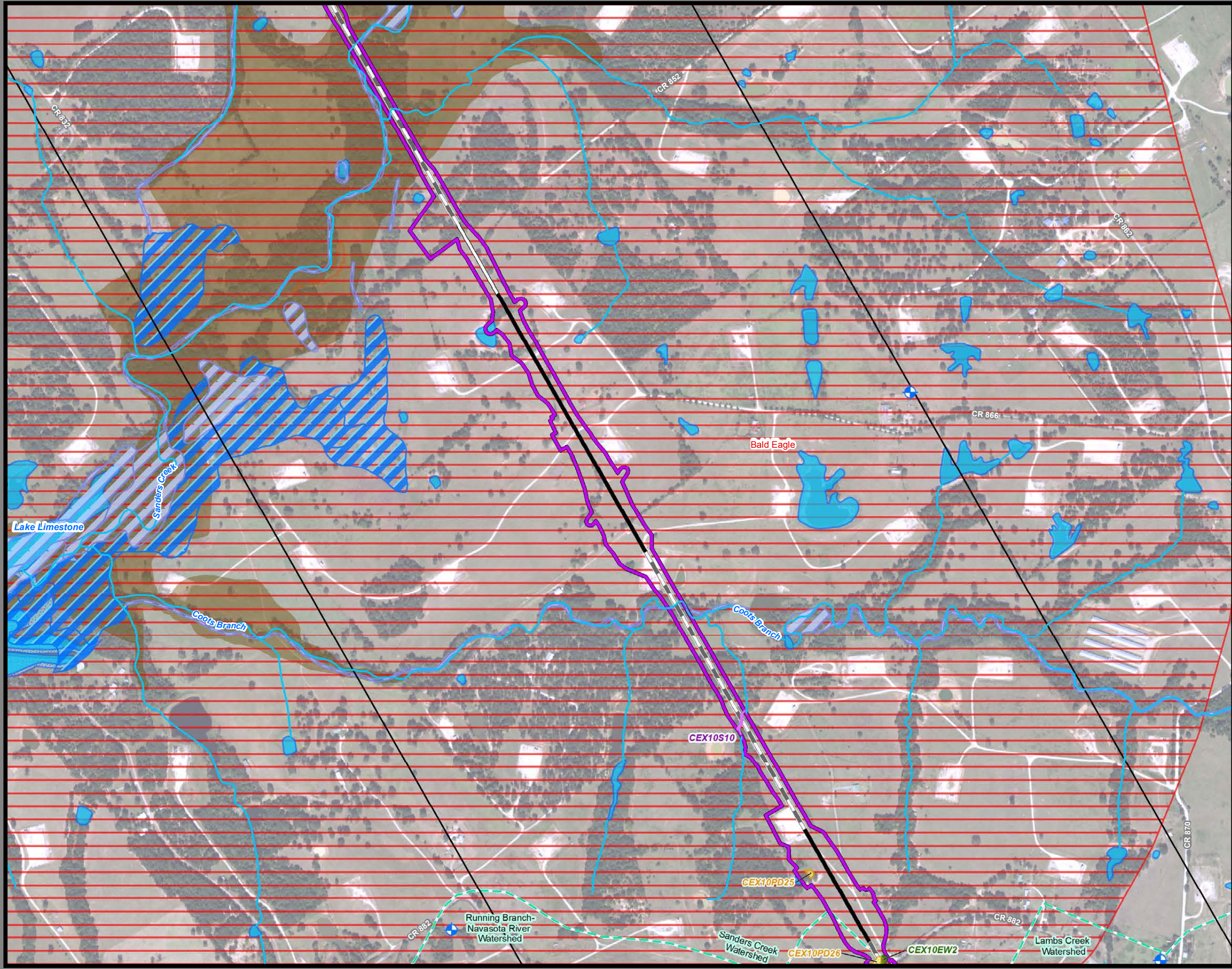
<b>Limits of Disturbance</b>	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	<b>Federal Emergency Management Agency (FEMA) Flood Zone</b>
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	<b>Field-Collected Data</b>
Segment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

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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 171 of 257**

**Legend**

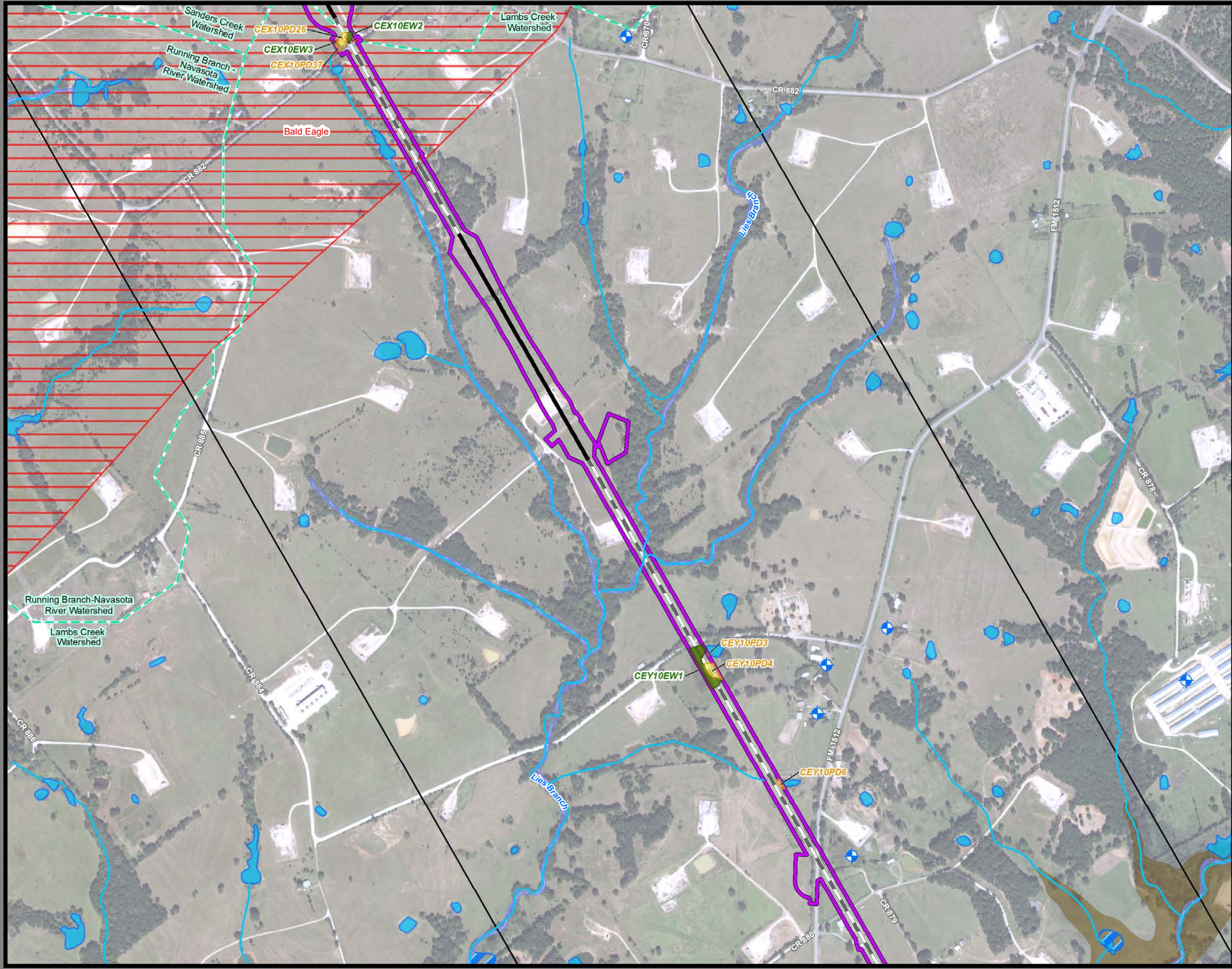
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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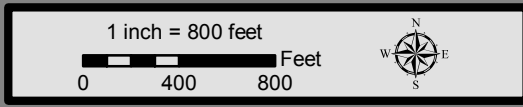
**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 172 of 257**

**Legend**

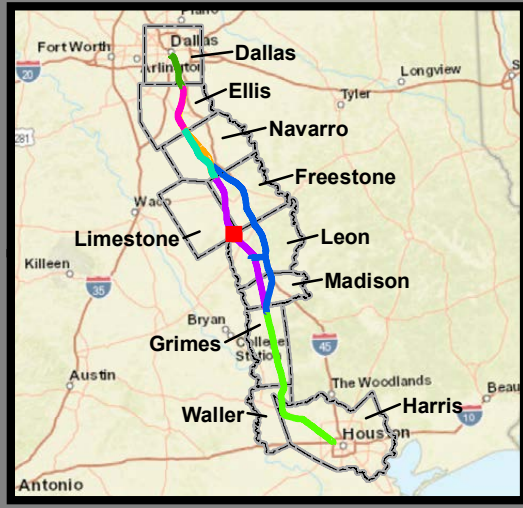
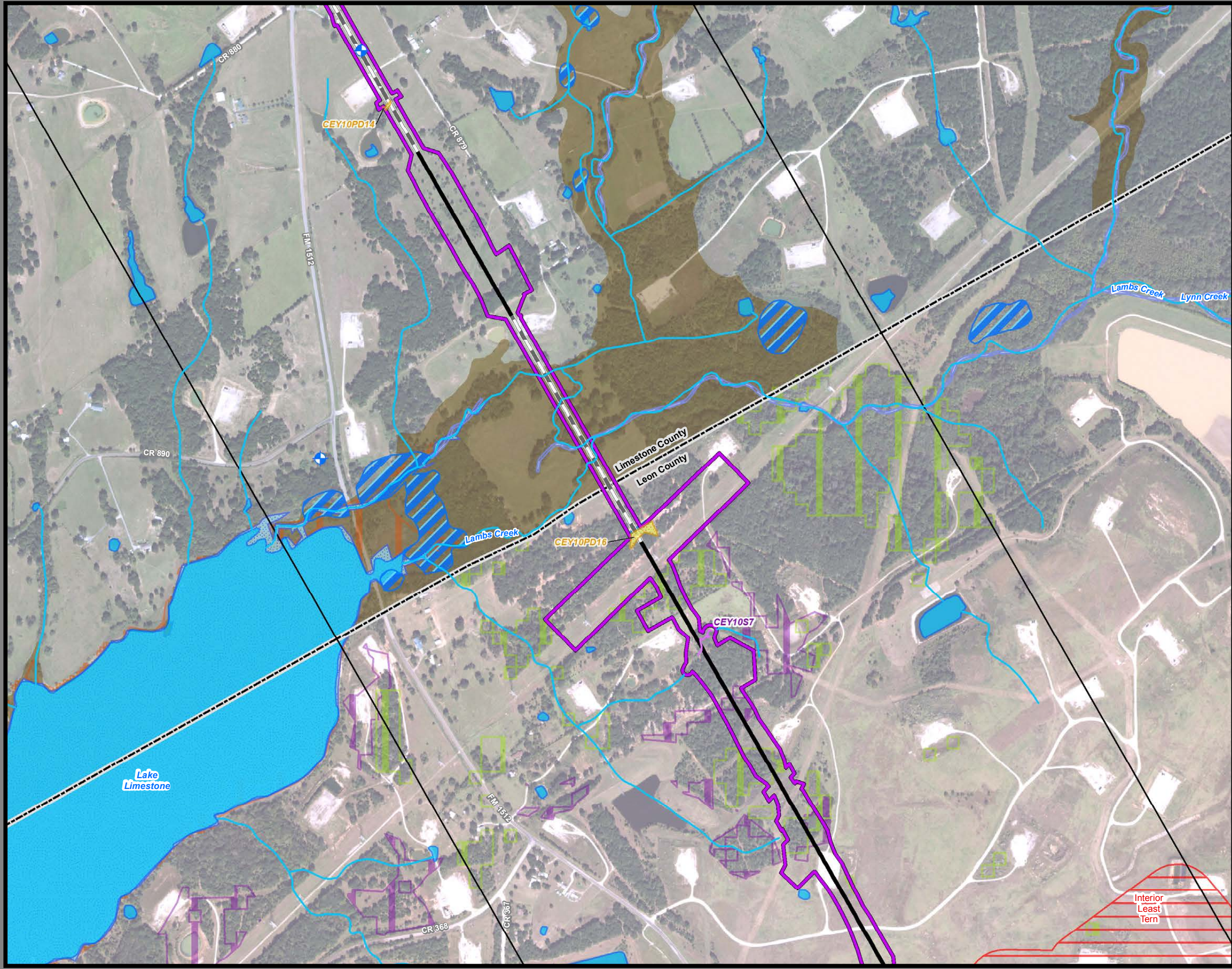
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<ul style="list-style-type: none"> <li>Potential Habitat           <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> </li> <li>Element of Occurrence           <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> </ul> </li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Field-Collected Data           <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> </li> <li>National Hydrography Dataset (NHD)           <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> </li> <li>National Wetlands Inventory (NWI)           <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul> </li> </ul>

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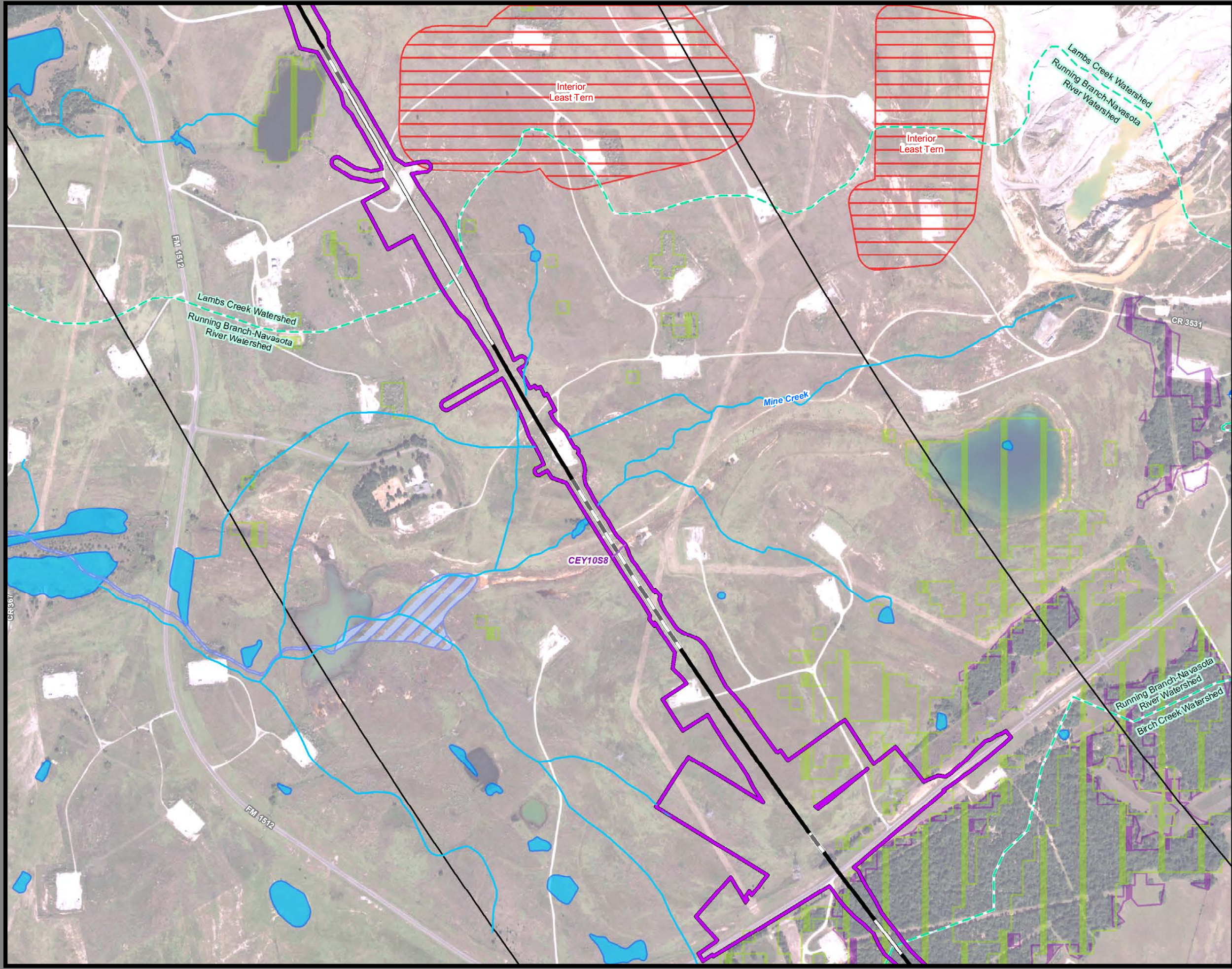
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 174 of 257**

**Legend**

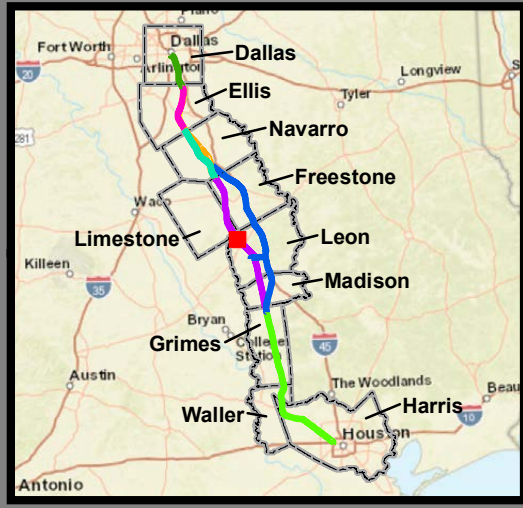
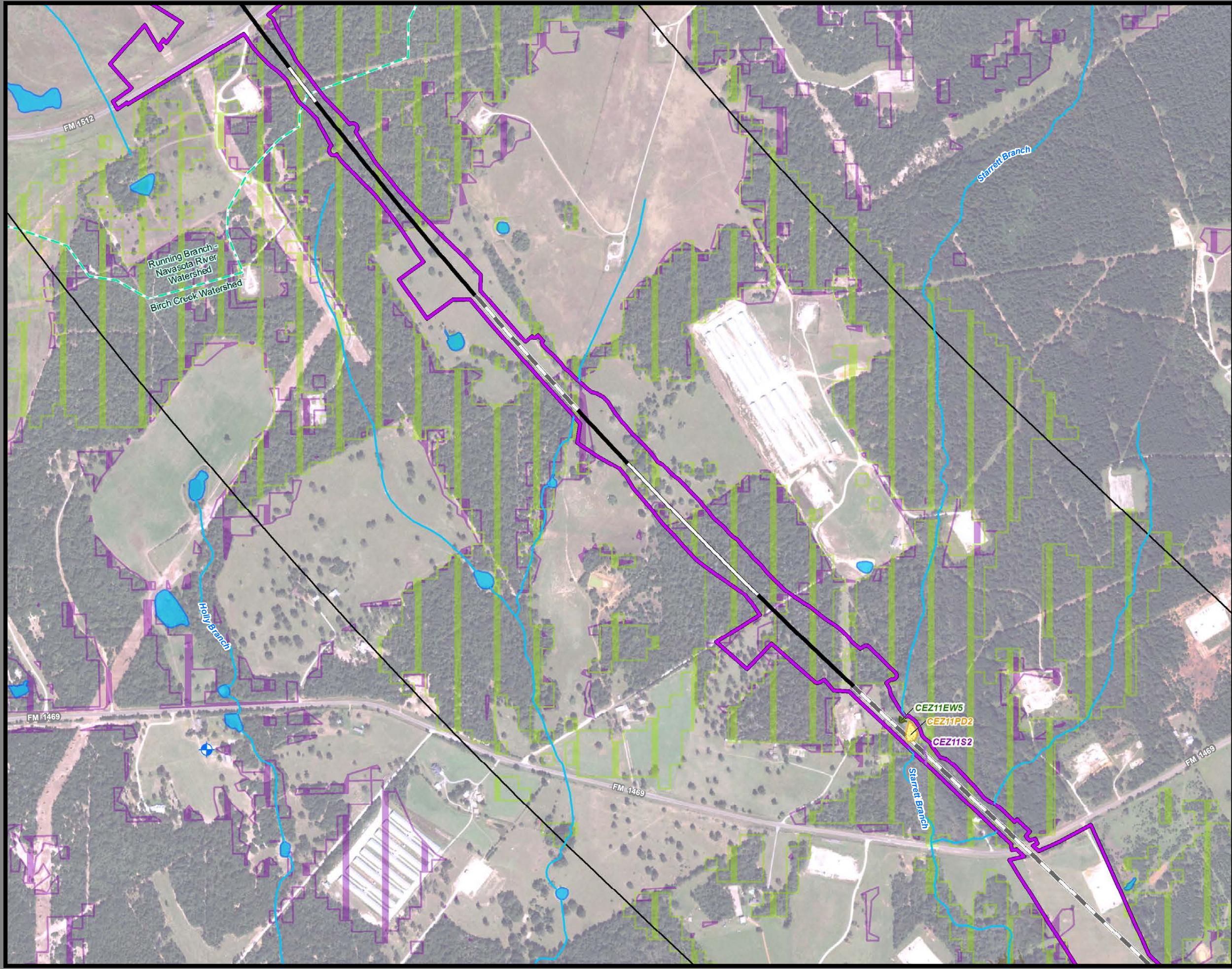
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







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

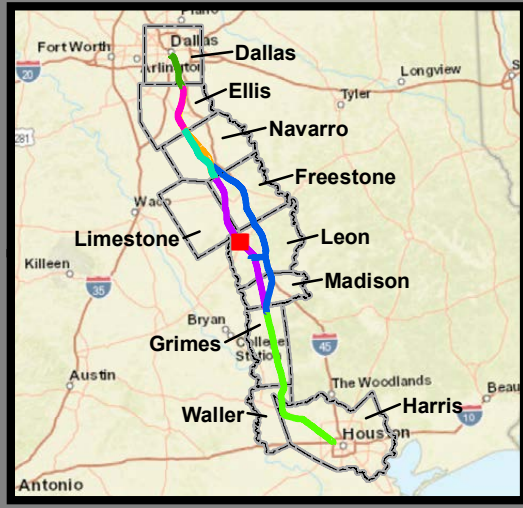
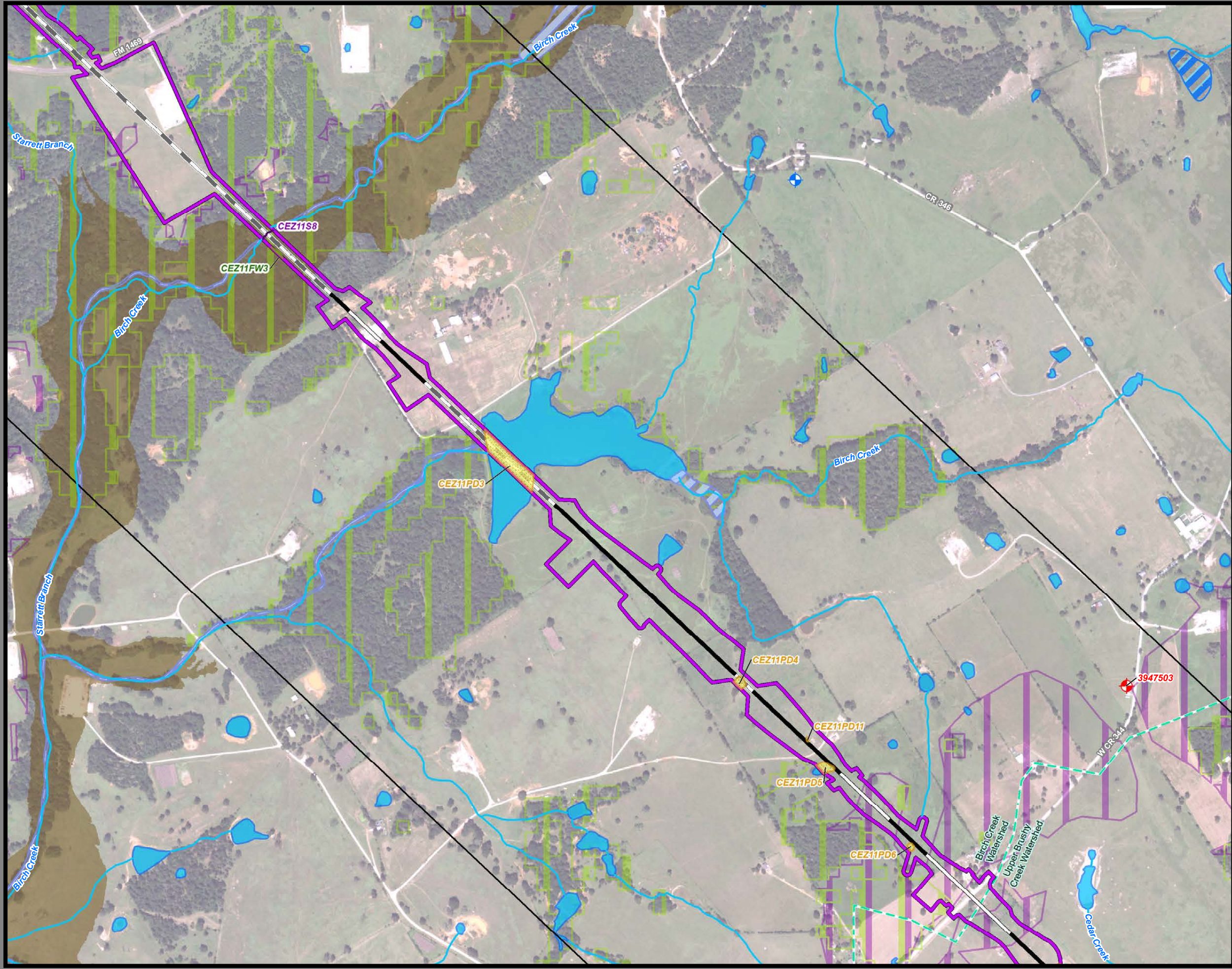
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 176 of 257**

**Legend**

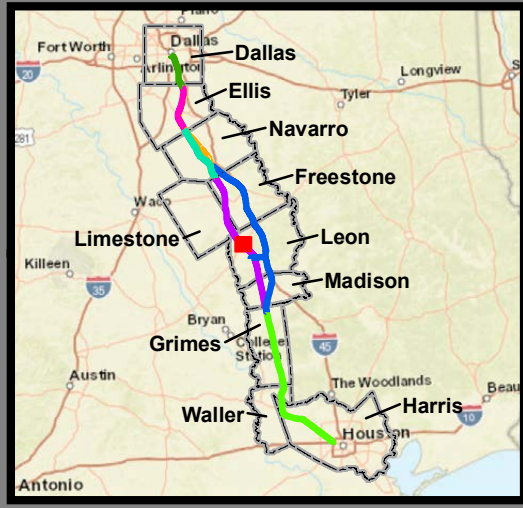
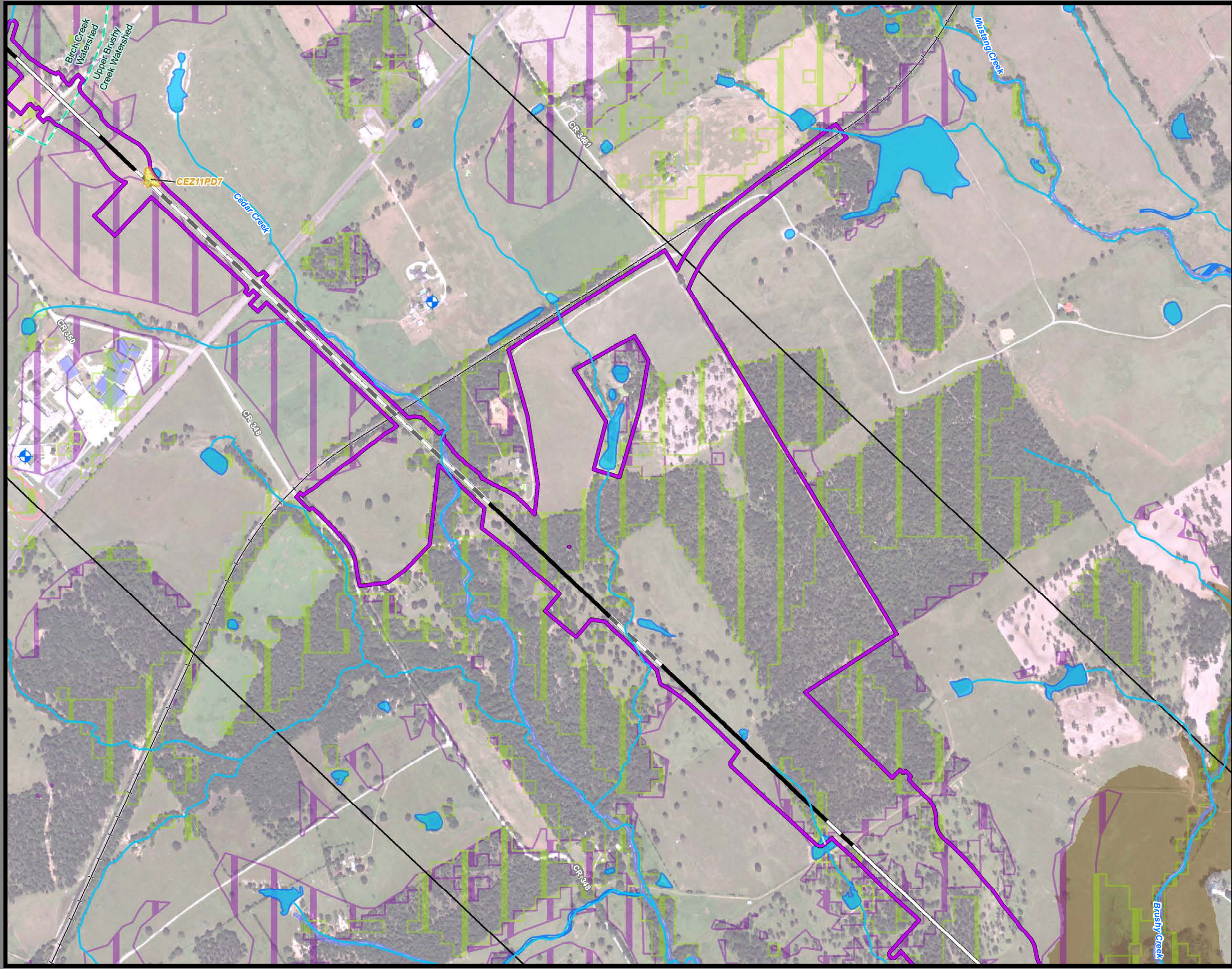
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
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Sheet 177 of 257**

**Legend**

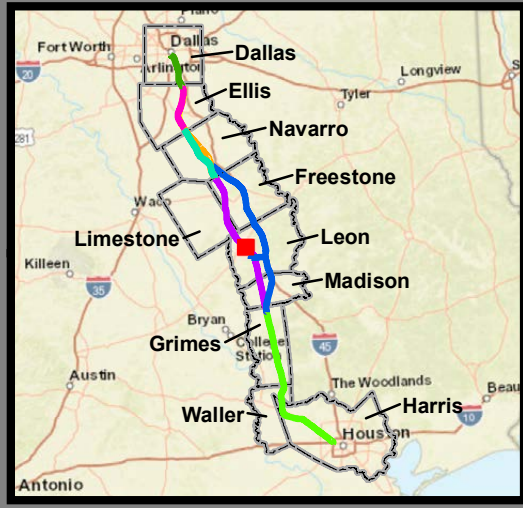
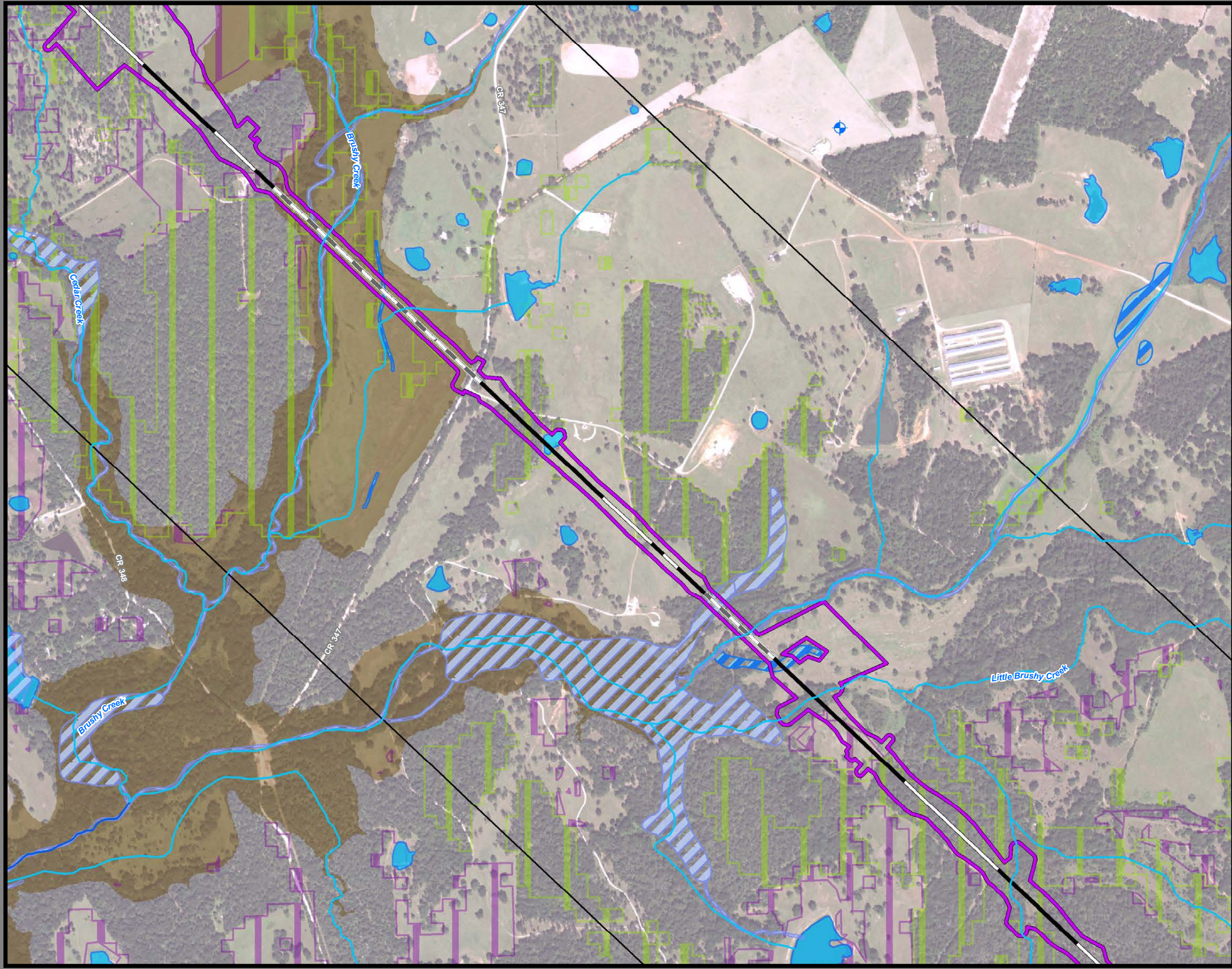
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 178 of 257**

**Legend**

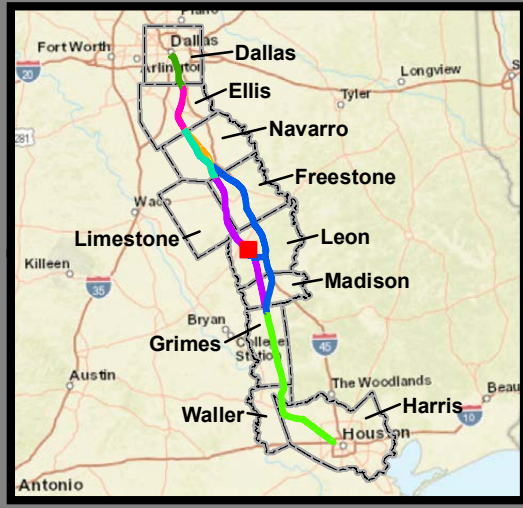
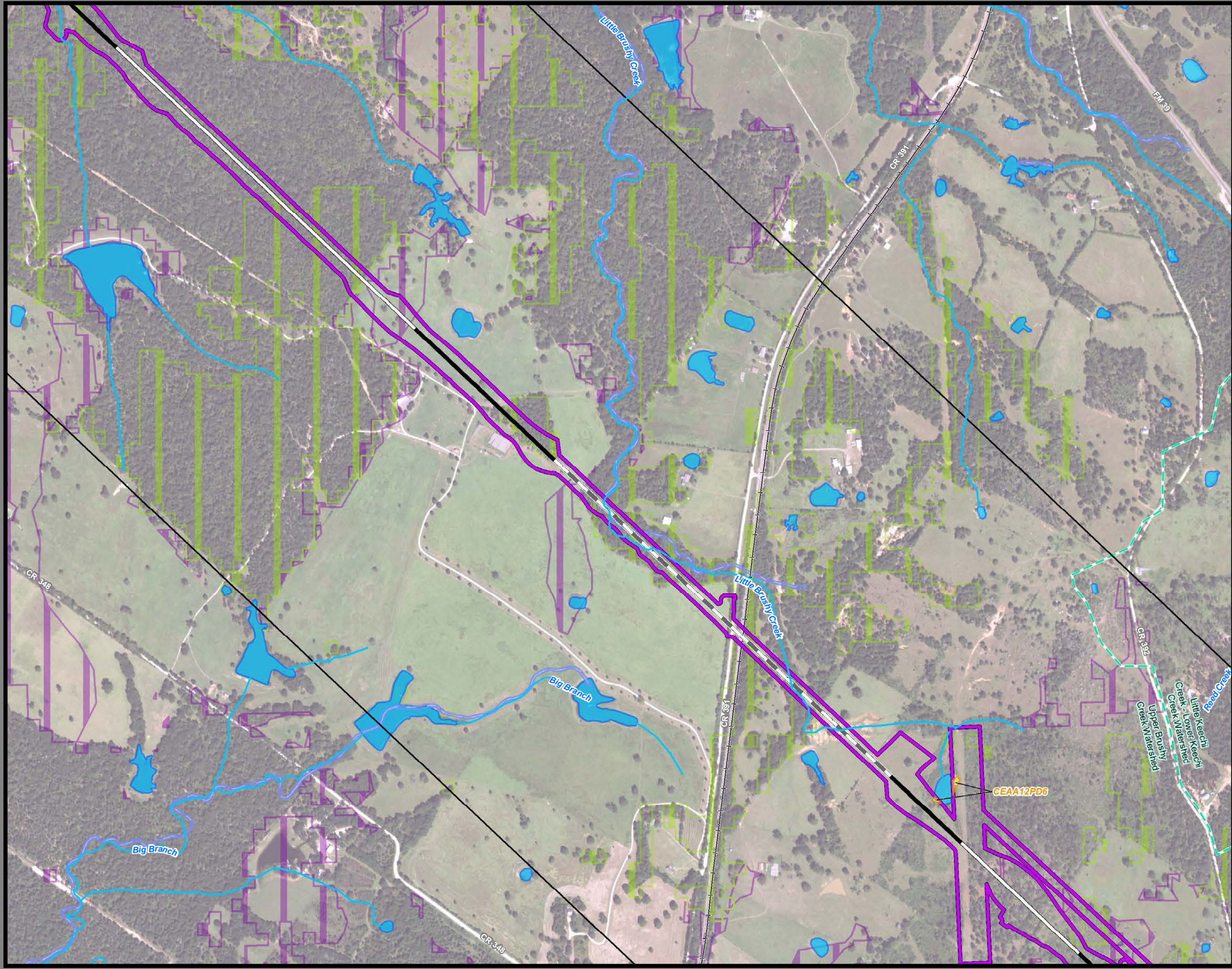
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
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Natural Resources  
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Sheet 179 of 257**

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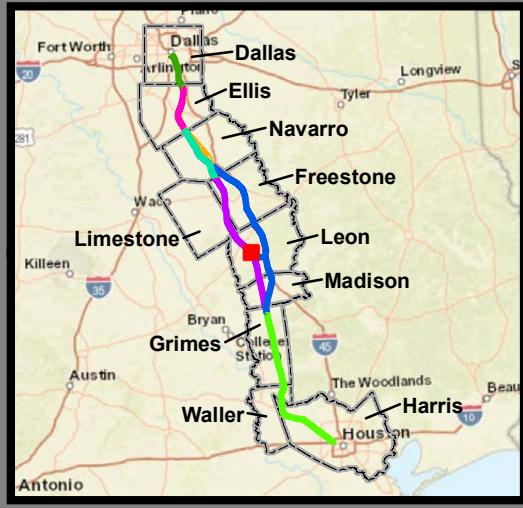
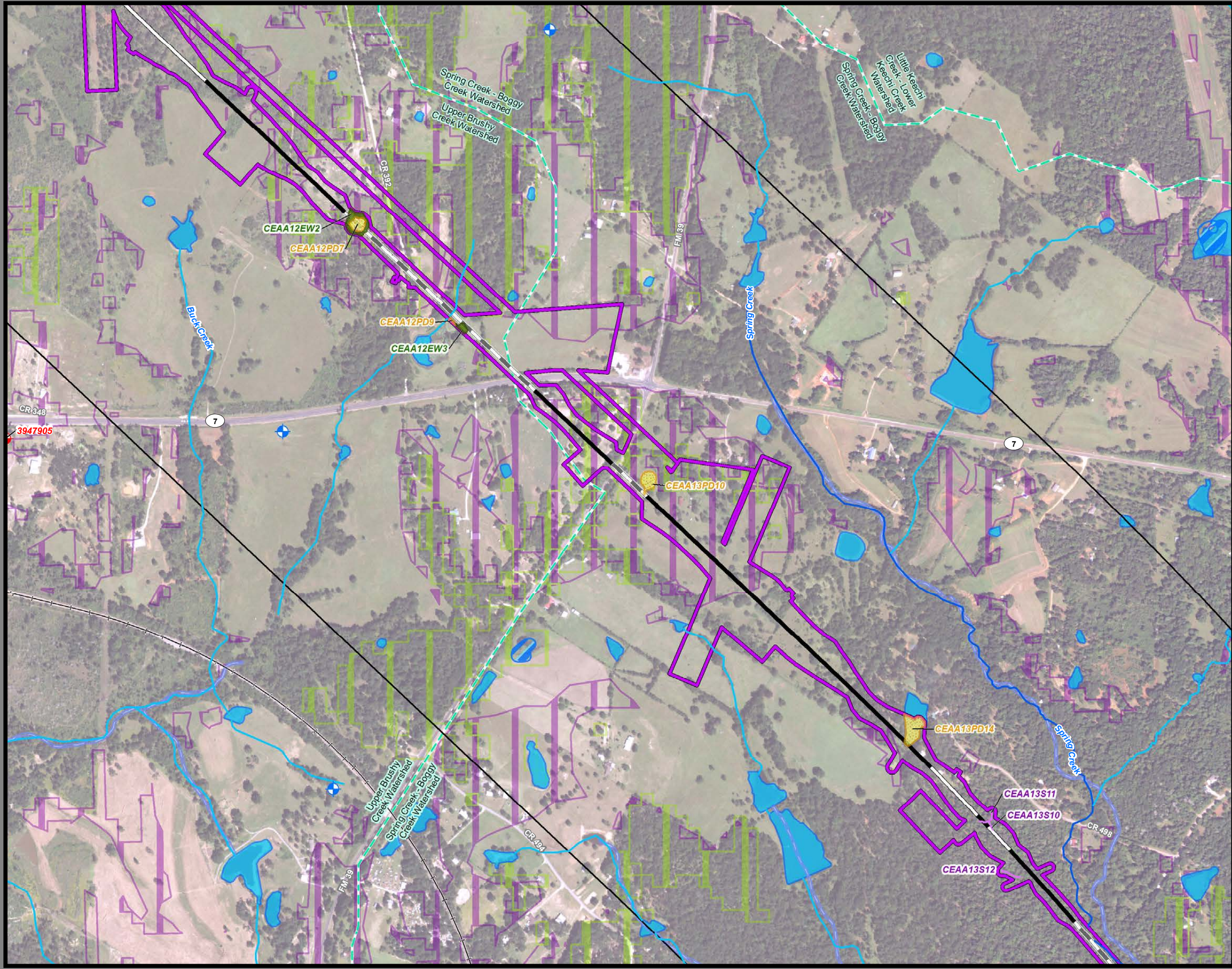
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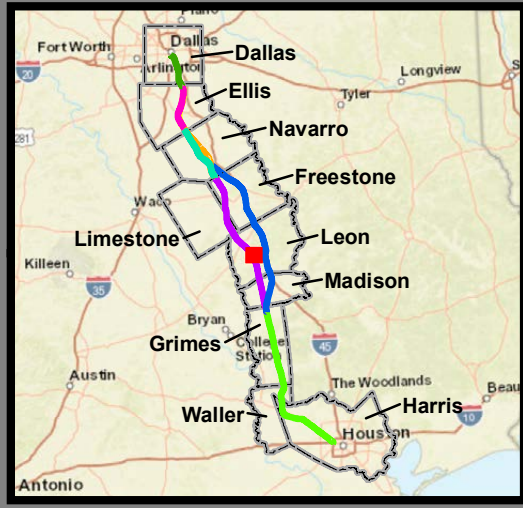
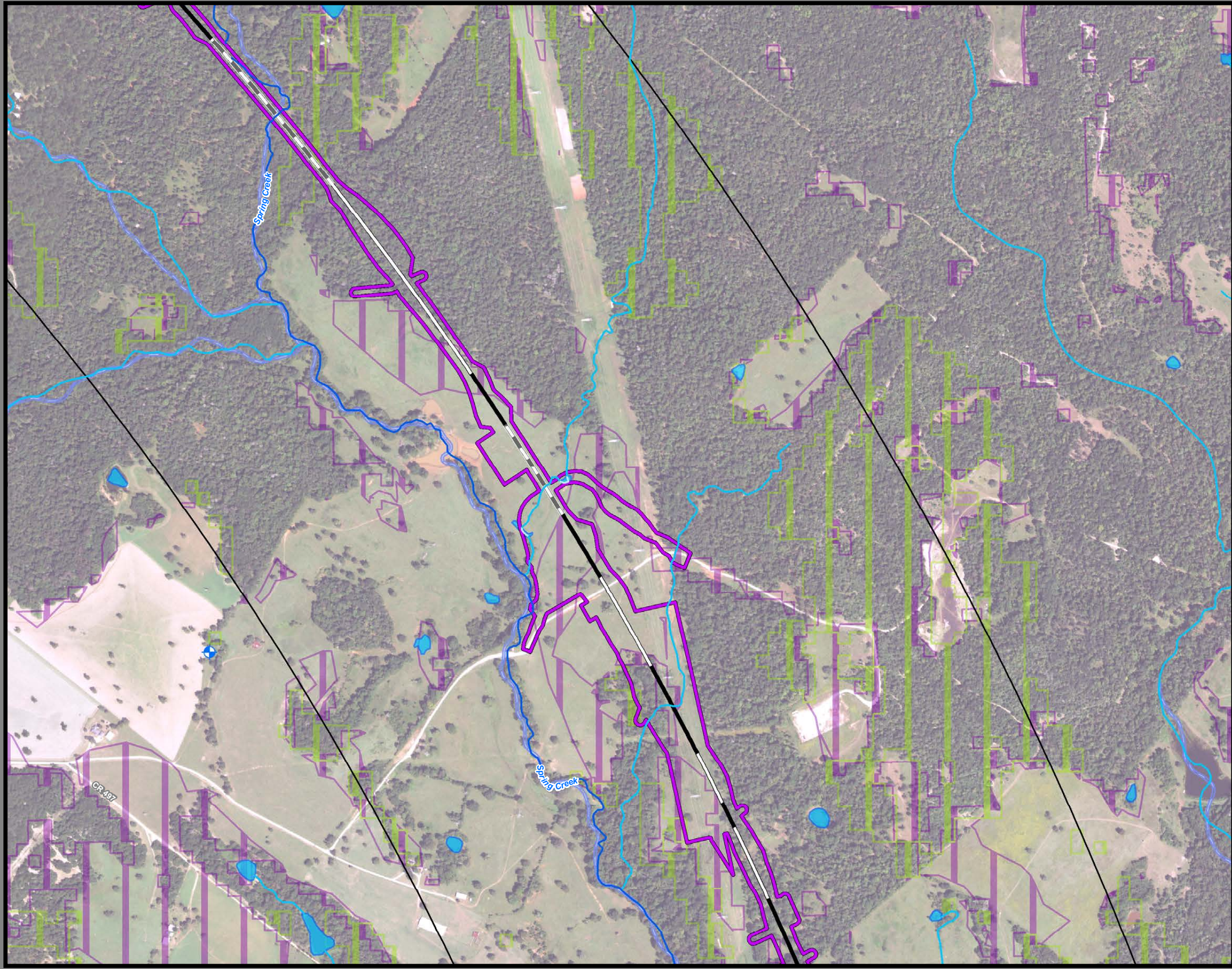
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**Legend**

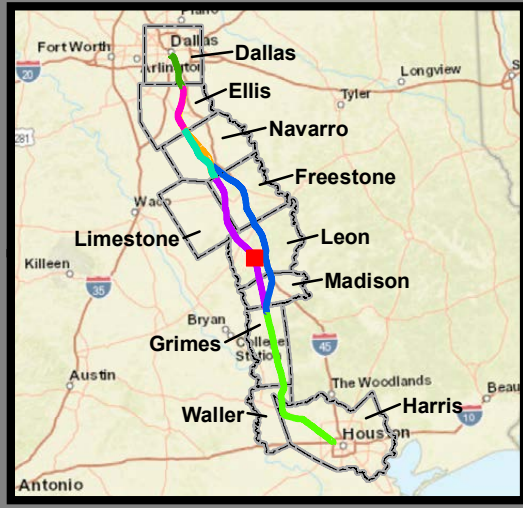
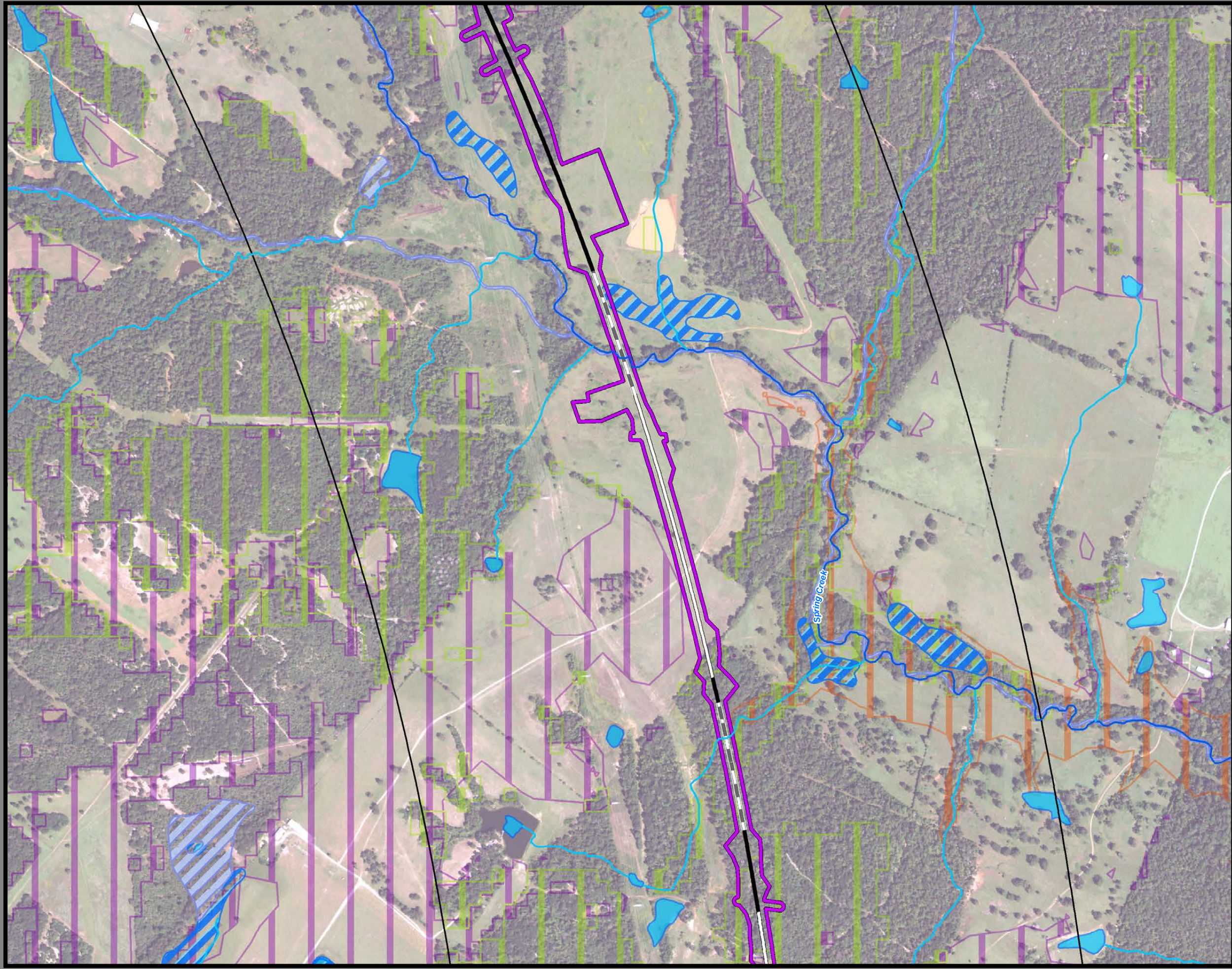
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 182 of 257**

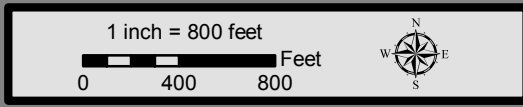
**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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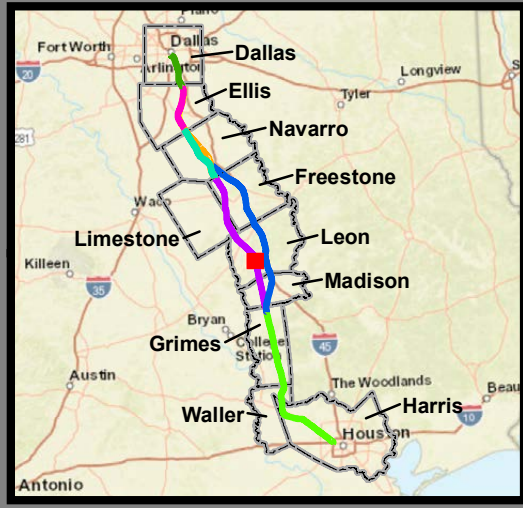
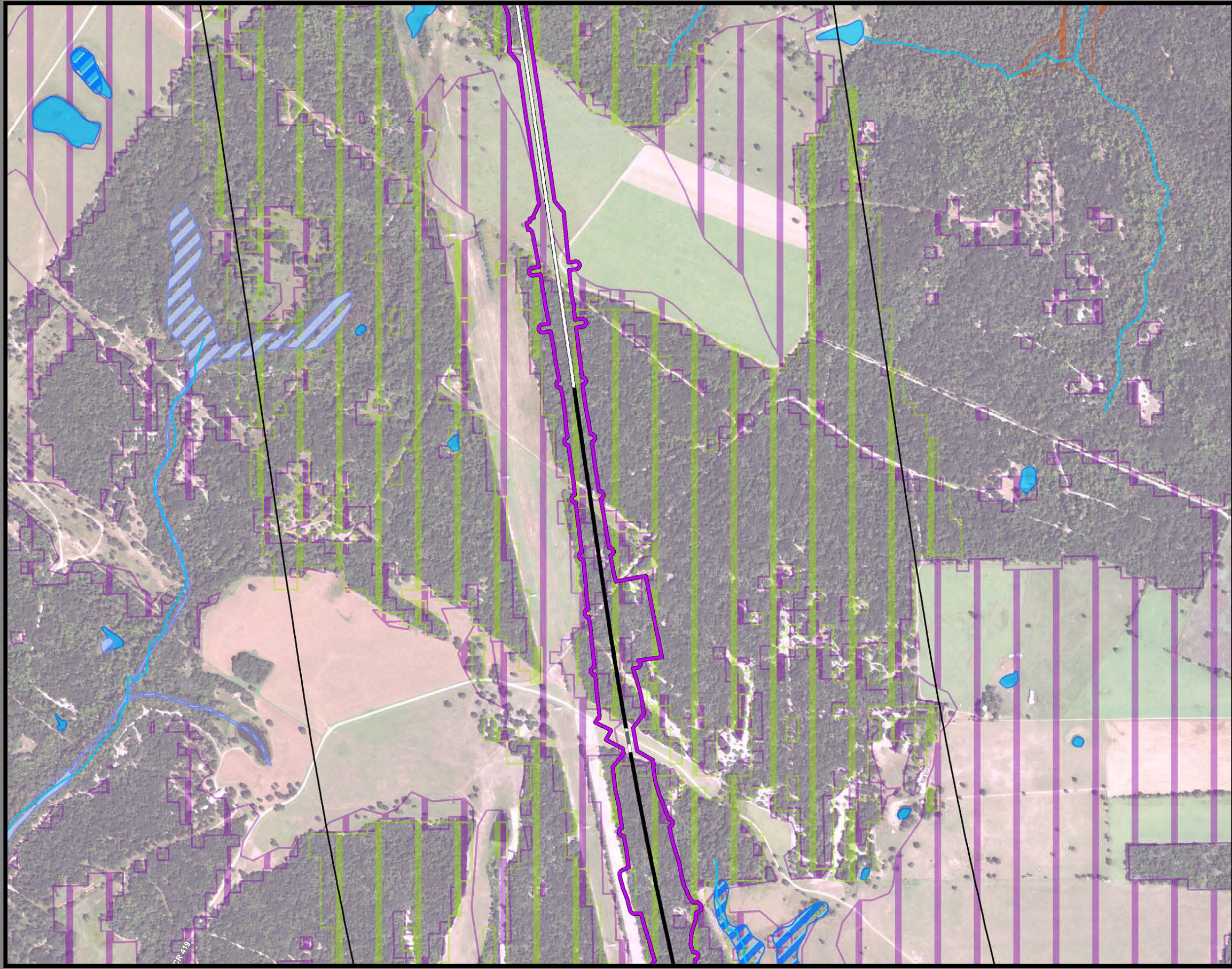
\*\*\*This Sheet only depicts Segment 4; Segment 3C is also located in this same area and can be referenced on Sheet 131.\*\*\*

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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 183 of 257**

**Legend**

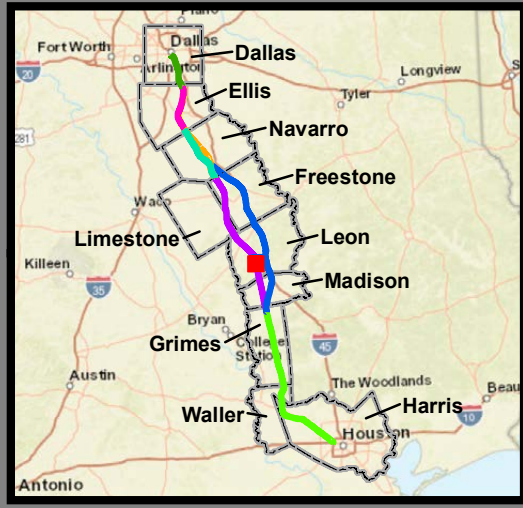
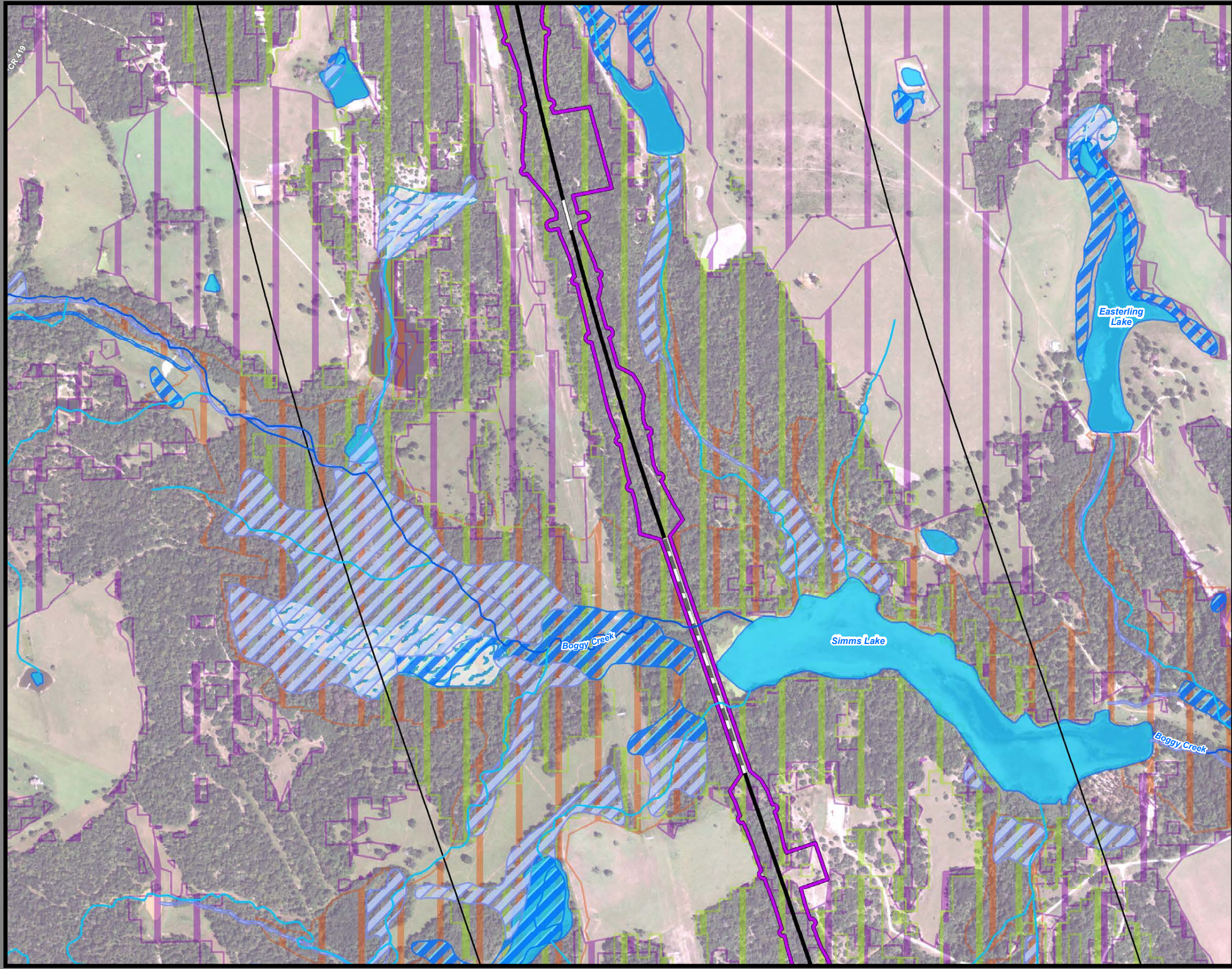
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 184 of 257**

**Legend**

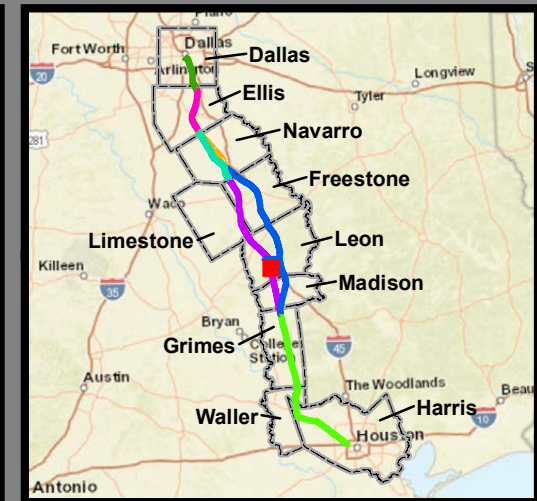
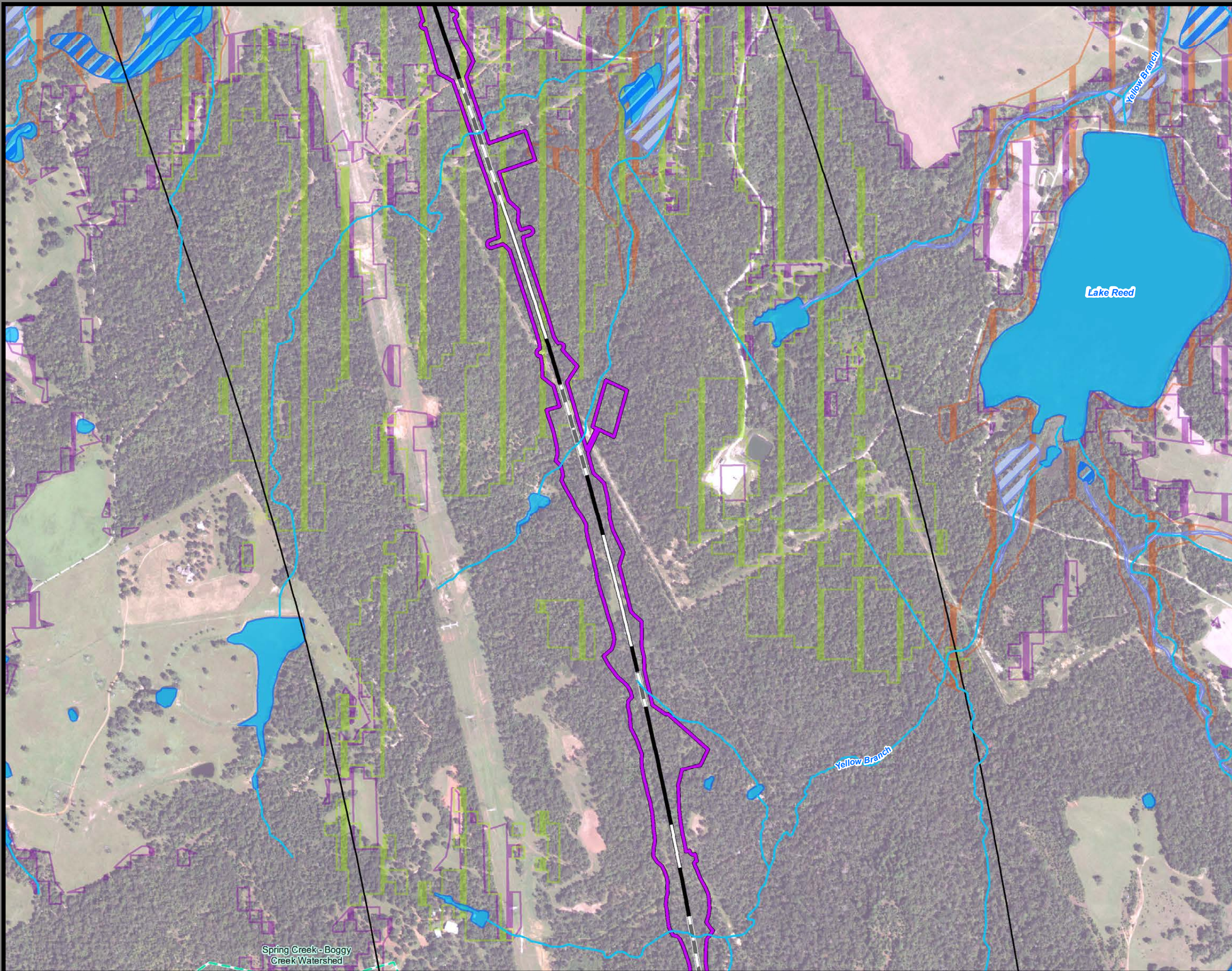
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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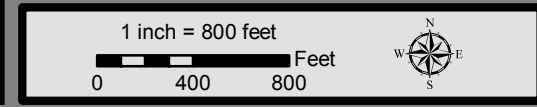
**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 185 of 257**

**Legend**

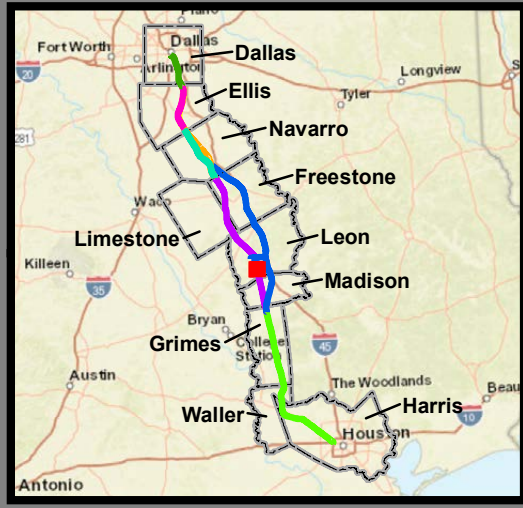
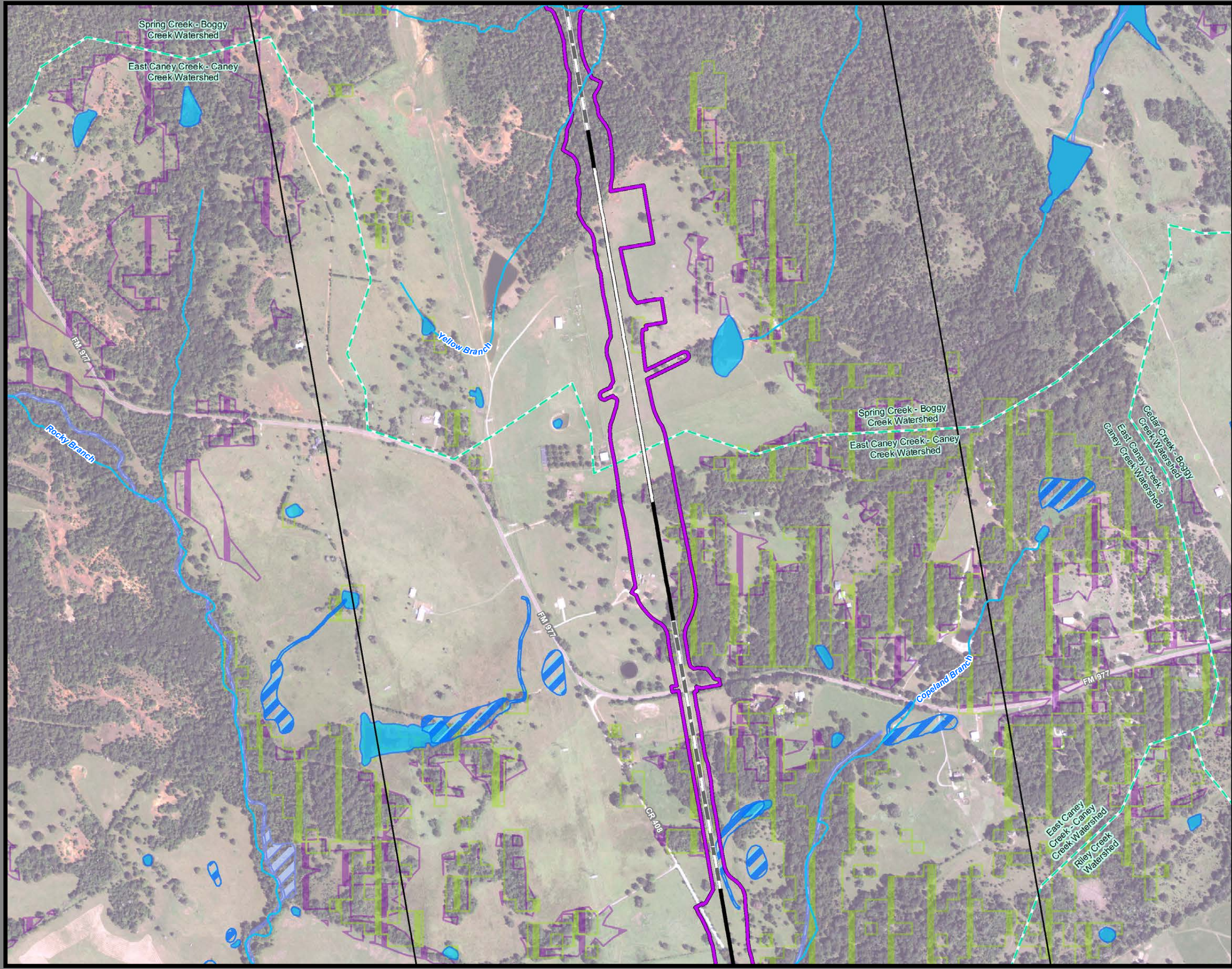
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 186 of 257**

**Legend**

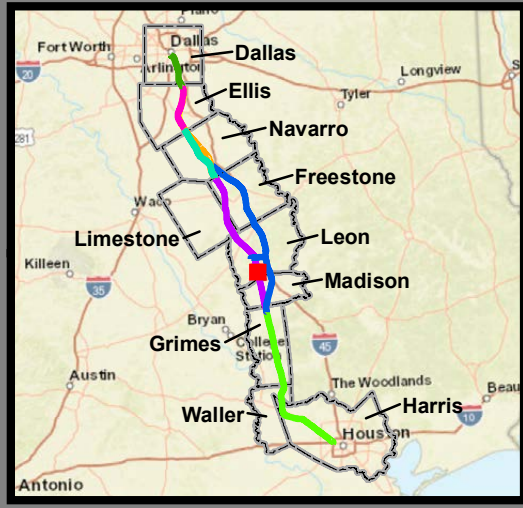
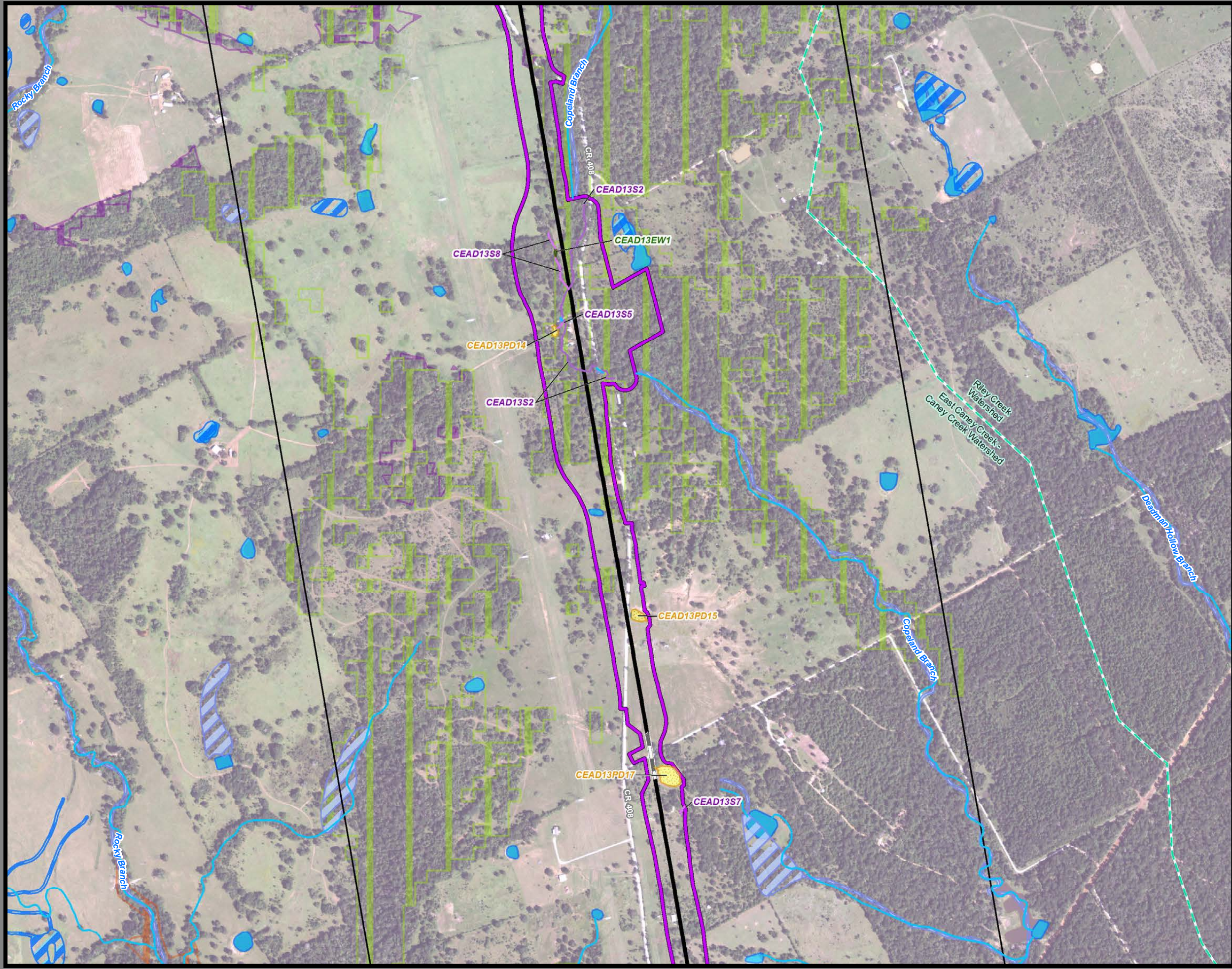
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 187 of 257**

**Legend**

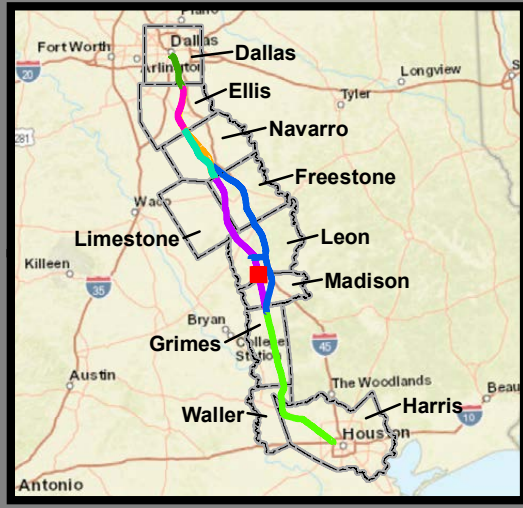
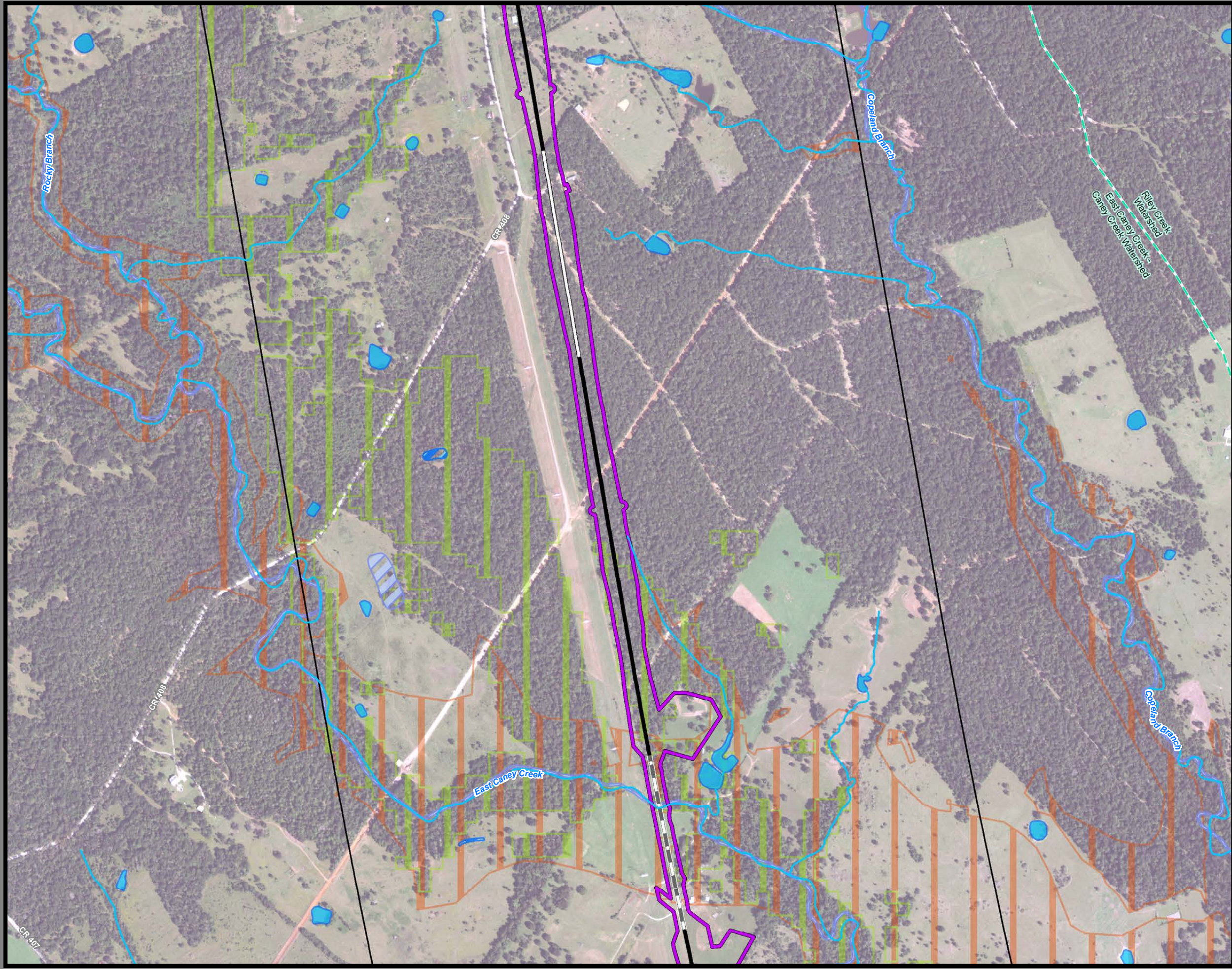
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
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**Legend**

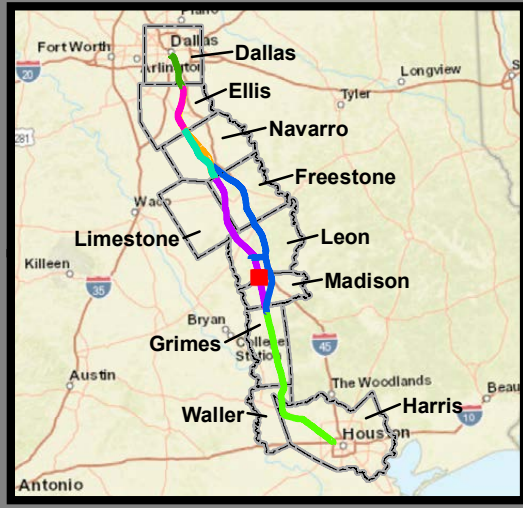
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 189 of 257**

**Legend**

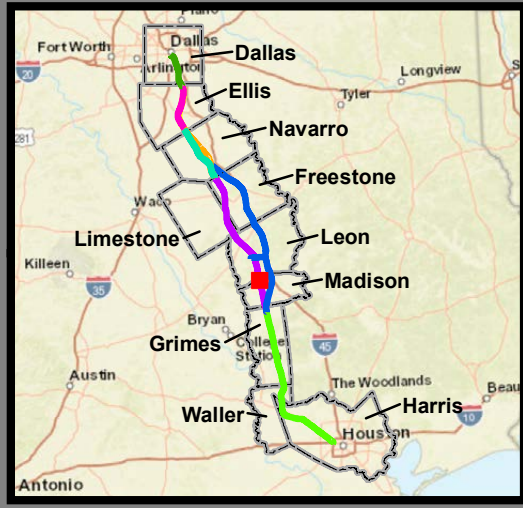
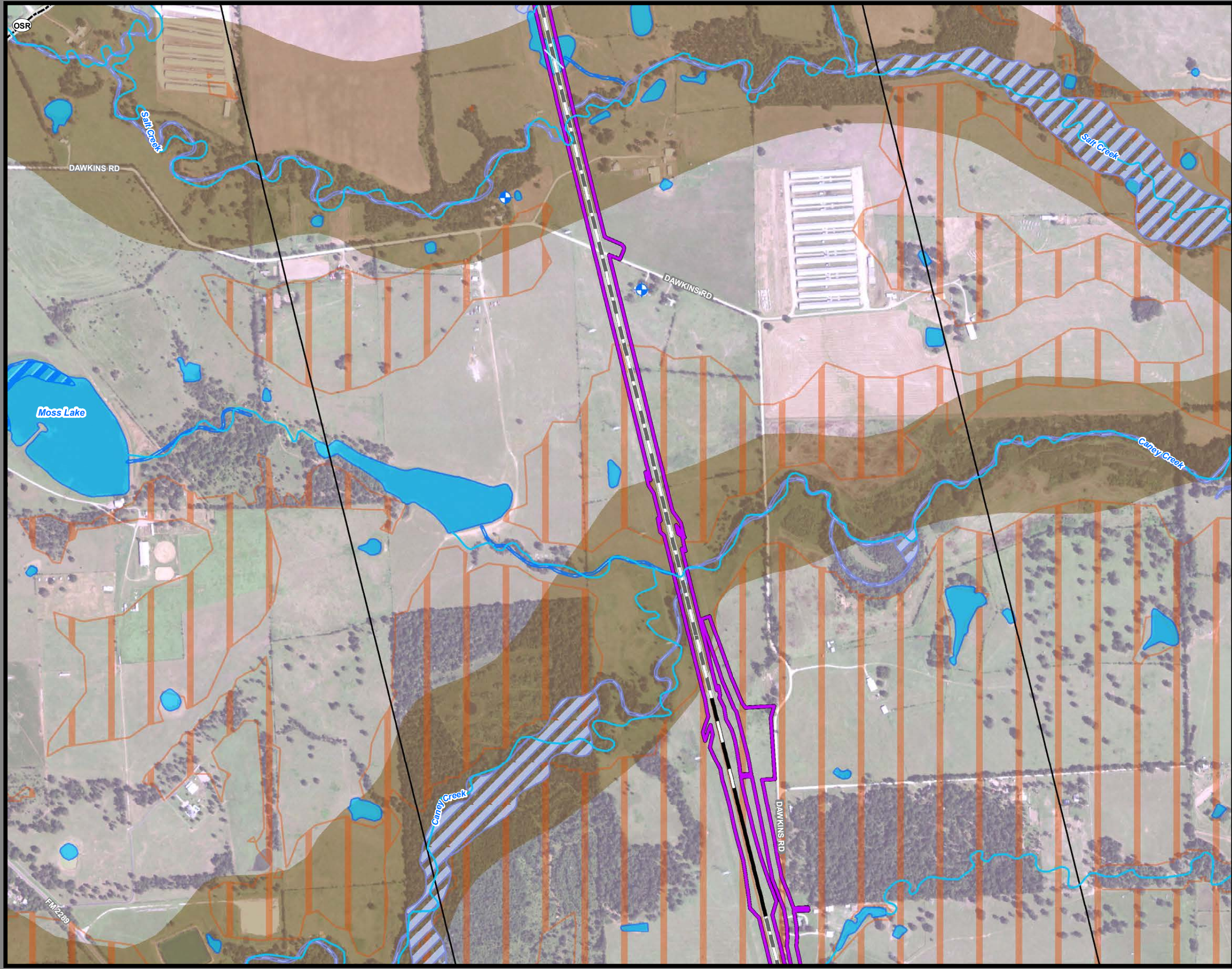
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 190 of 257**

**Legend**

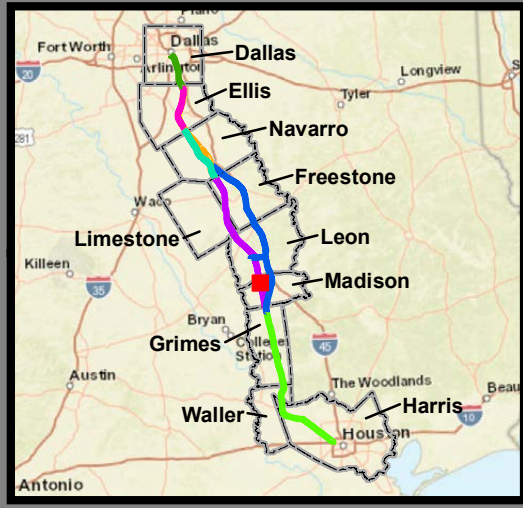
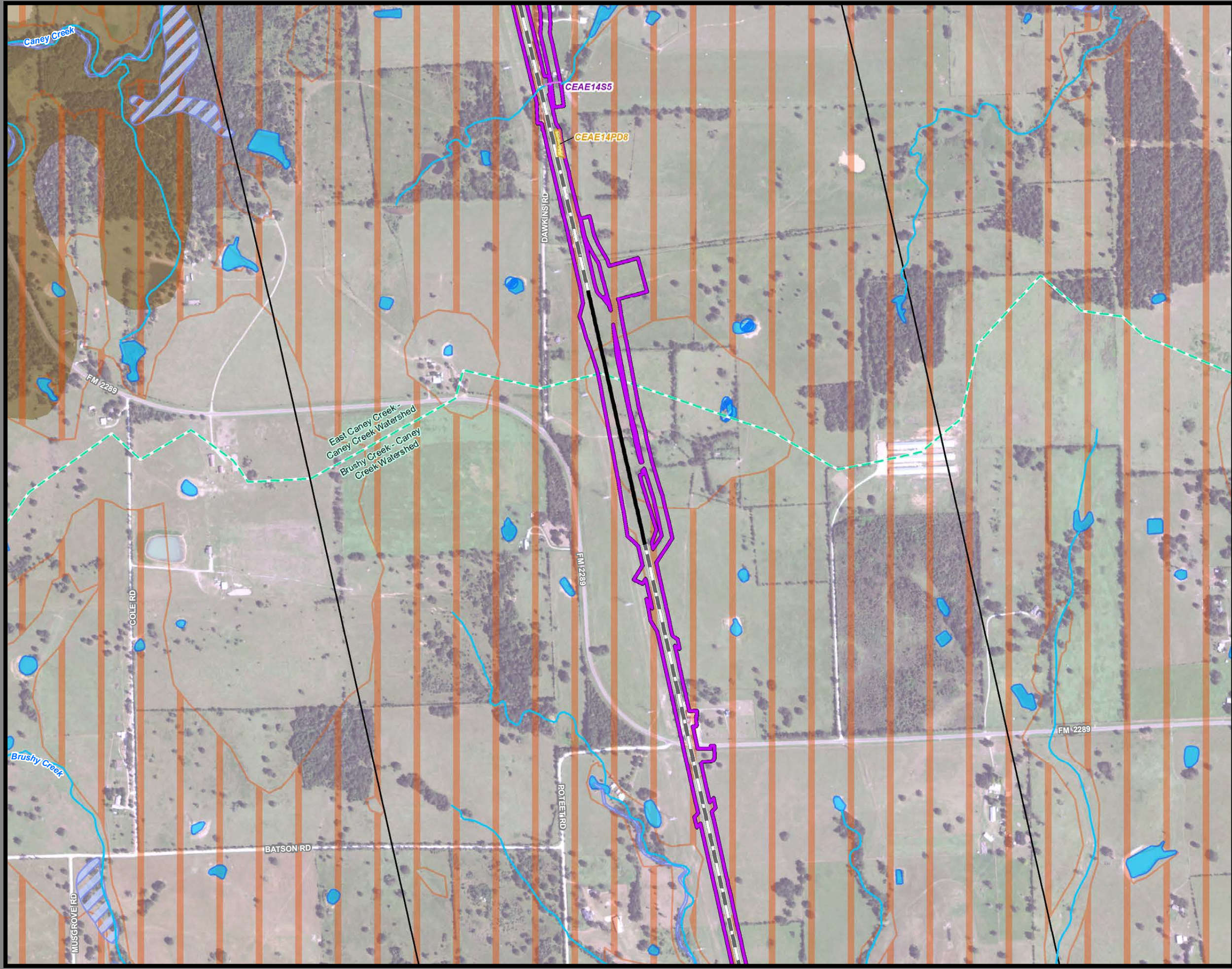
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 191 of 257**

**Legend**

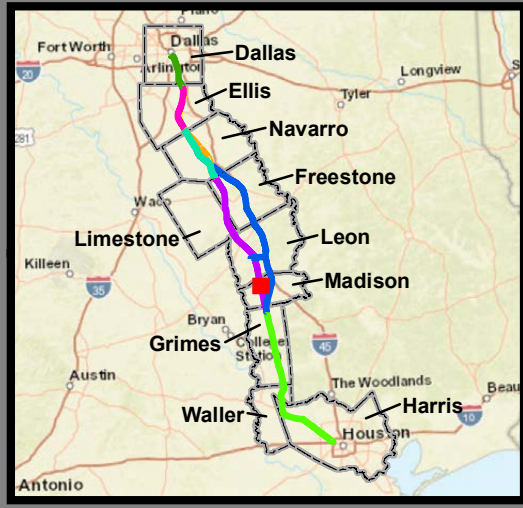
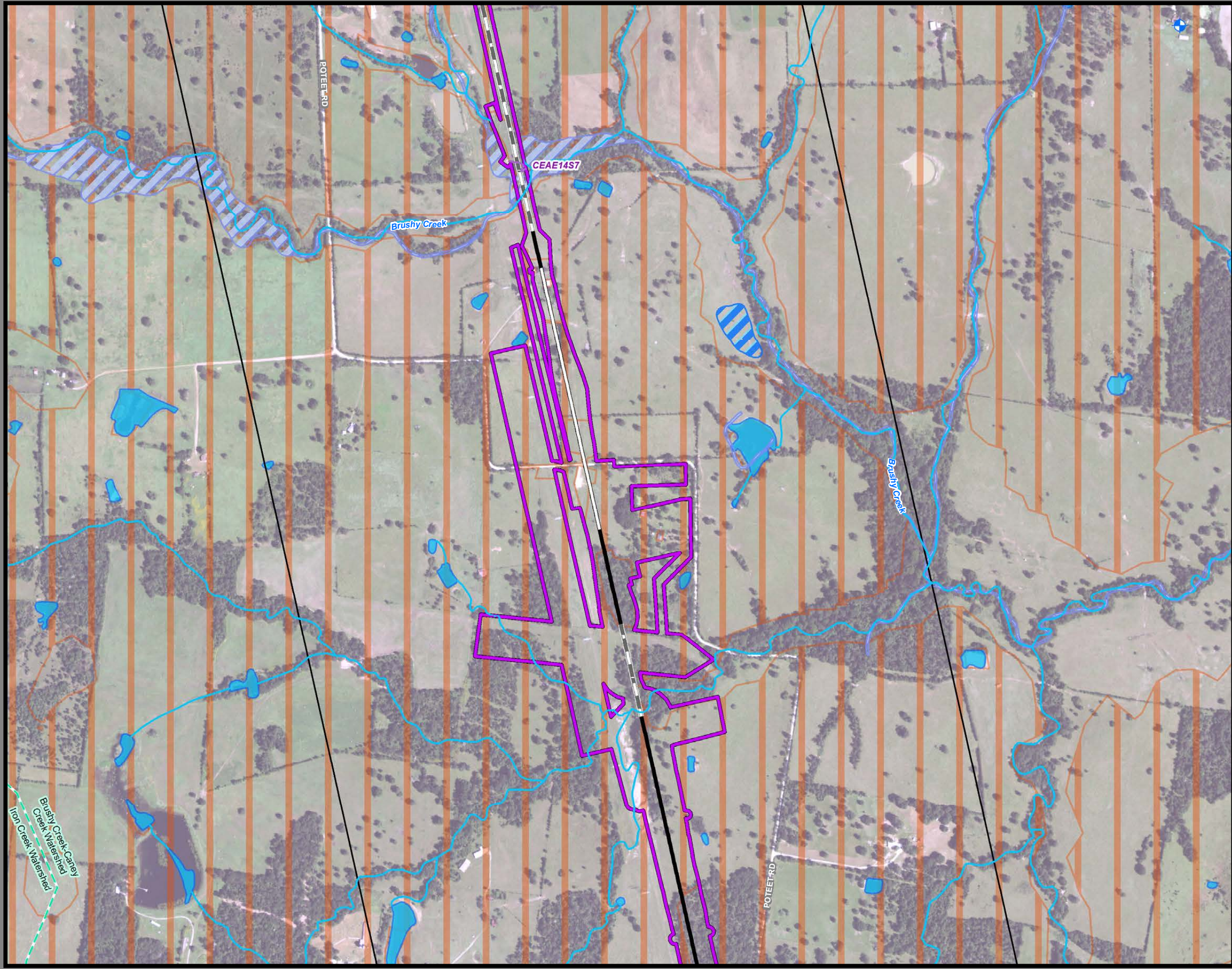
<b>Limits of Disturbance</b>	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	<b>Federal Emergency Management Agency (FEMA) Flood Zone</b>
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	<b>Field-Collected Data</b>
Segment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

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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 192 of 257**

**Legend**

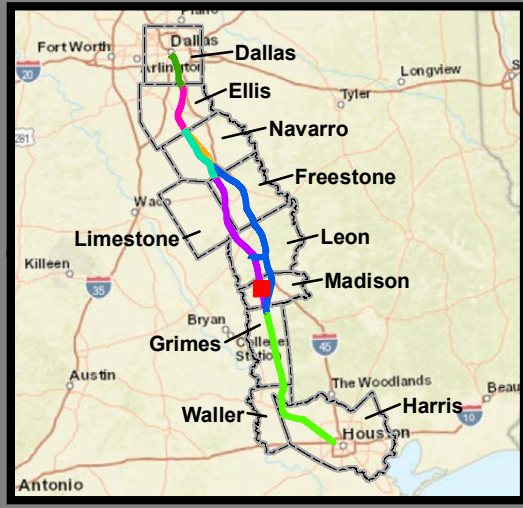
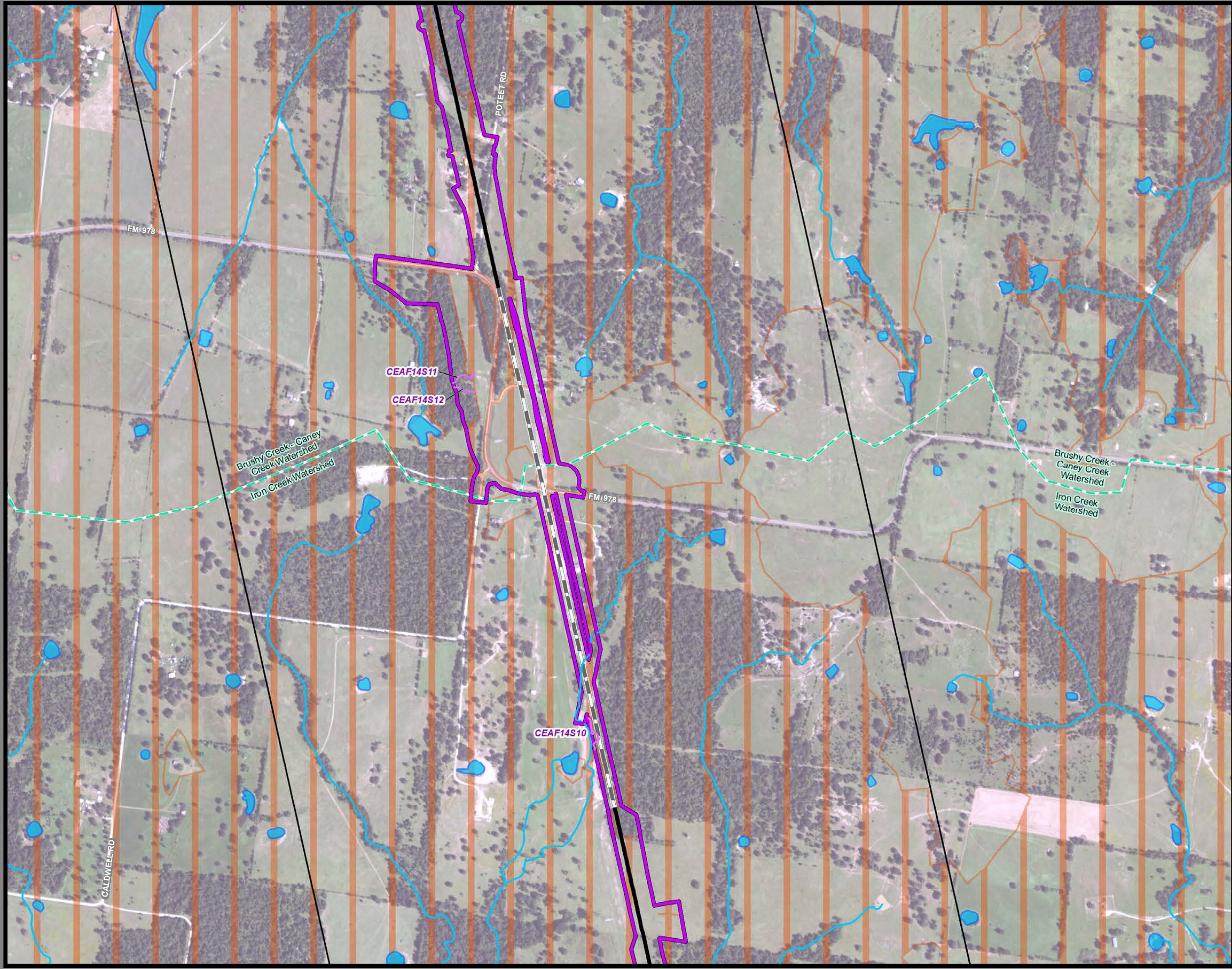
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 4  
Sheet 193 of 257**

**Legend**

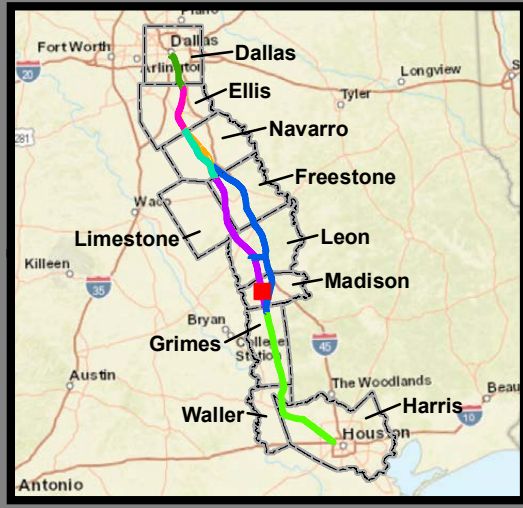
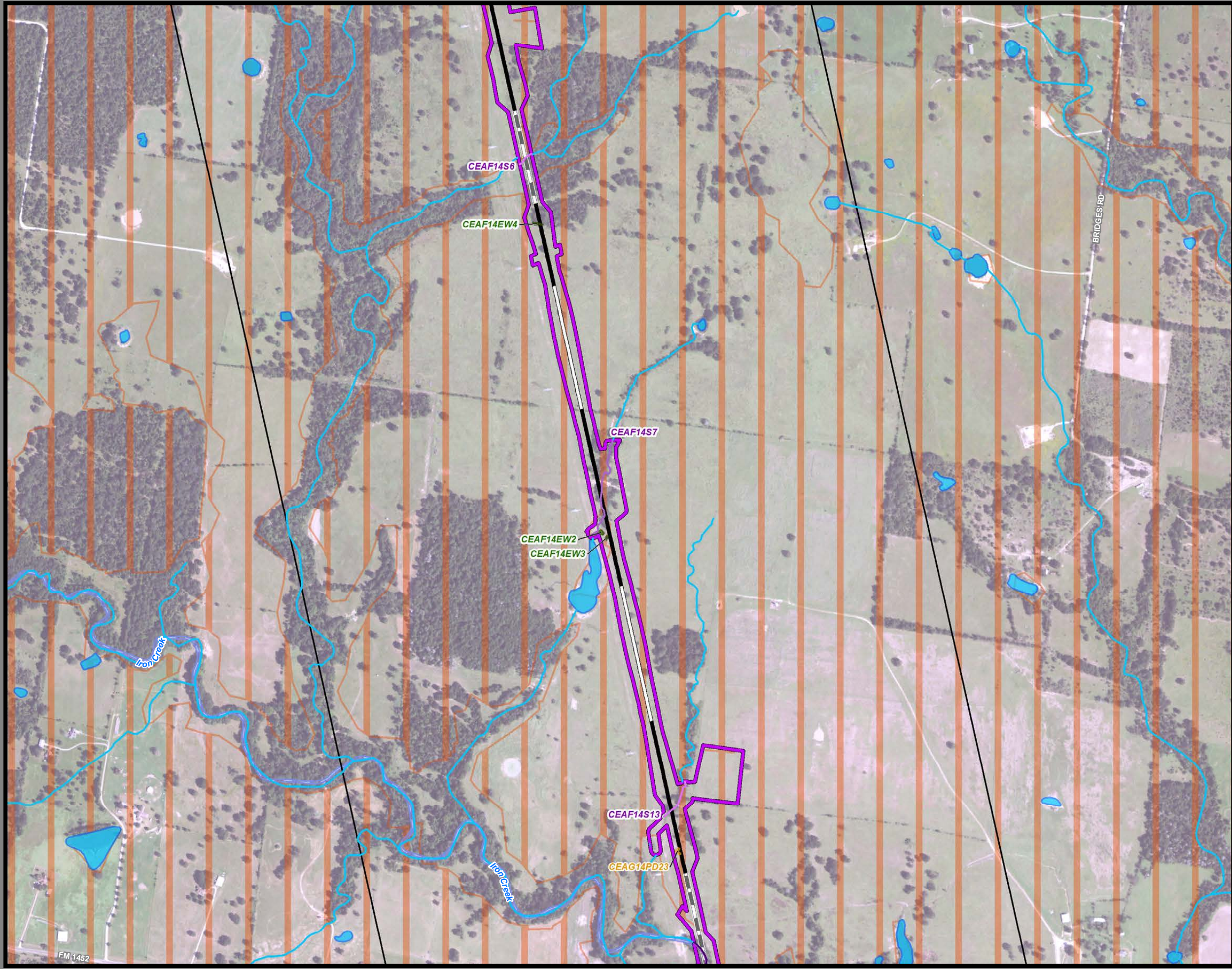
<b>Limits of Disturbance</b>	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	<b>Federal Emergency Management Agency (FEMA) Flood Zone</b>
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	<b>Field-Collected Data</b>
Segment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

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Sheet 194 of 257**

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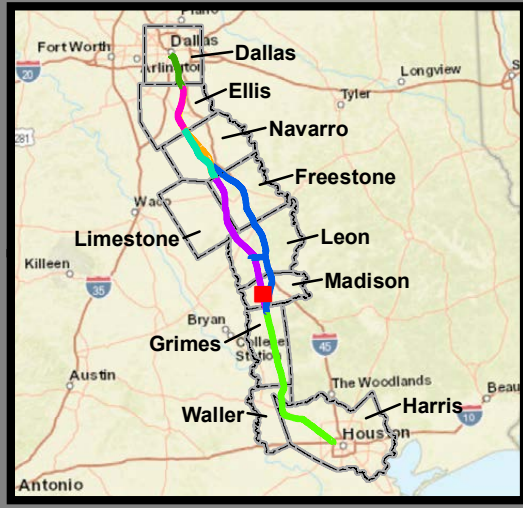
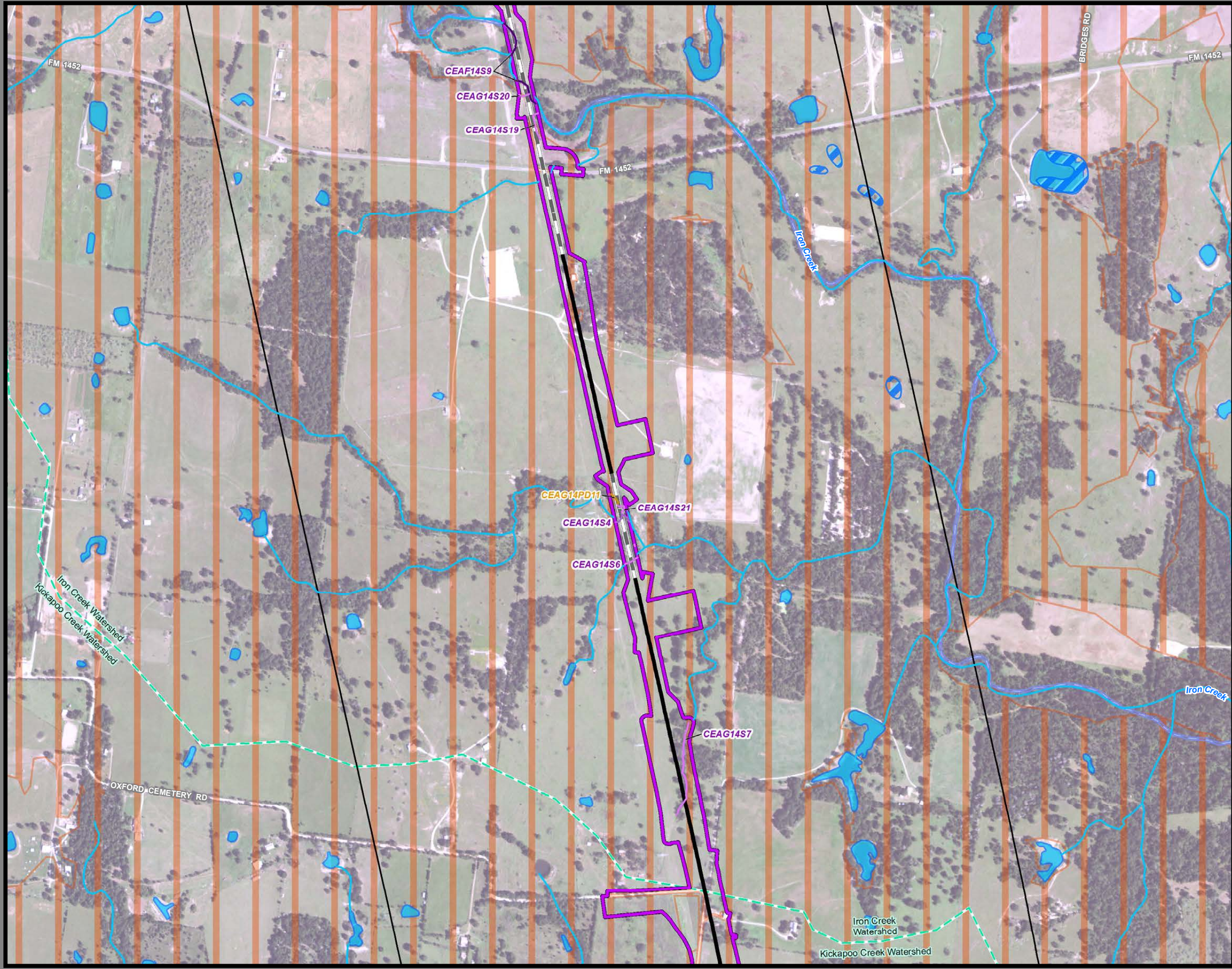
<b>Limits of Disturbance</b>	Impaired Waters with Total Maximum Daily Load (TMDL)
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Segment 5	Perennial Stream/River
<b>Track Configuration</b>	Intermittent Stream/River
Viaduct	Ephemeral Stream/River
Embankment	Other Stream/River
Cut	Lake/Pond
Half Mile Centerline Buffer	Emergent Wetland
City Boundary	Forested Wetland
County Boundary	Scrub/Shrub Wetland
Railroad	<b>National Hydrography Dataset (NHD)</b>
Municipal Setting Designation (MSD)	Perennial Stream/River
<b>Potential Habitat</b>	Intermittent Stream/River
Houston Toad	Artificial Stream/Canal
Large-fruited Sand Verbena	Lake/Pond
Navasota Ladies'-tresses	Reservoir
Element of Occurrence	Swamp/Marsh
Record for Federally Protected Species	<b>National Wetlands Inventory (NWI)</b>
U.S. Army Corps of Engineers (USACE) Project Area	Freshwater Emergent Wetland
Watershed (HUC 12) Boundary	Freshwater Forested/Shrub Wetland
Public Water Supply	Other
Groundwater Wells	

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Sheet 195 of 257**

**Legend**

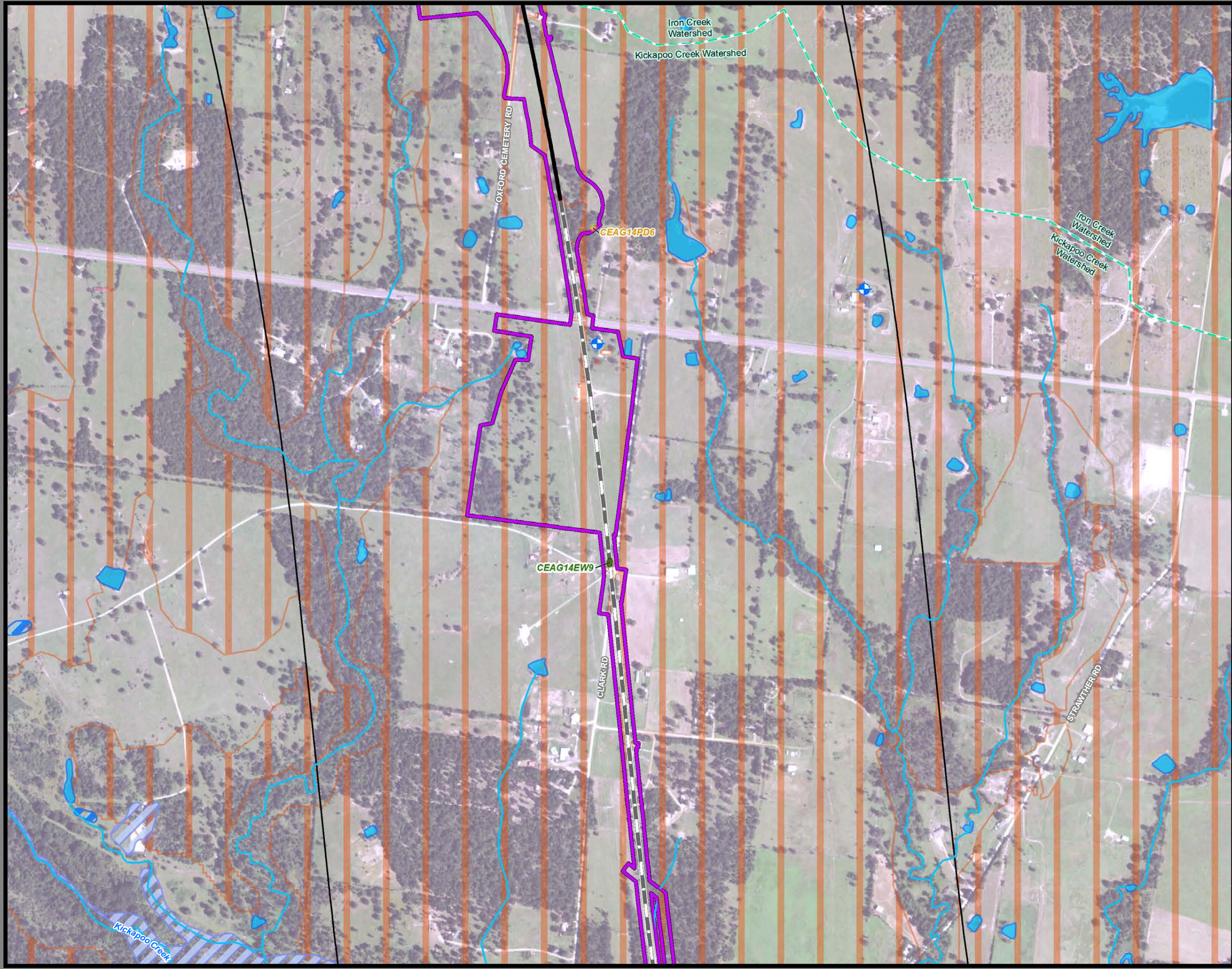
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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\*Floodplains in Freestone and Madison Counties were digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to absence of digitally mapped FEMA floodplains.

**Data Sources:** County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2018; MSD - TCEQ 2018; USACE Project Areas - USACE 2018; Public Water Supply - EPA 2016; Impaired Waters - TCEQ 2016; Groundwater Wells - TWDB 2018; NHD/HUC12 - USGS 2018; Reservoirs - TWDB 2014; NWI - USFWS 2018; Floodplains - FEMA 2018; EOR - TPWD TXNDD 2019; ESRI World Street Map  
**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

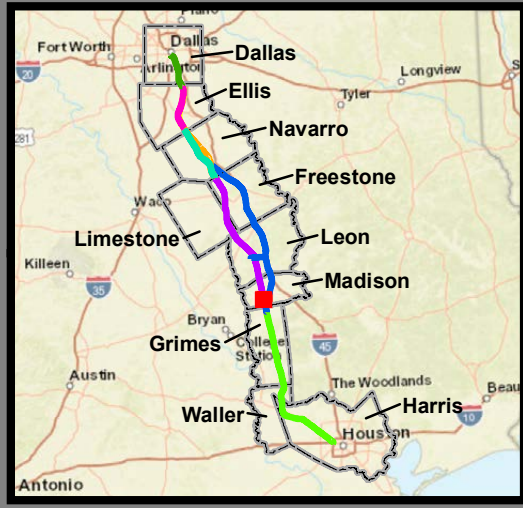
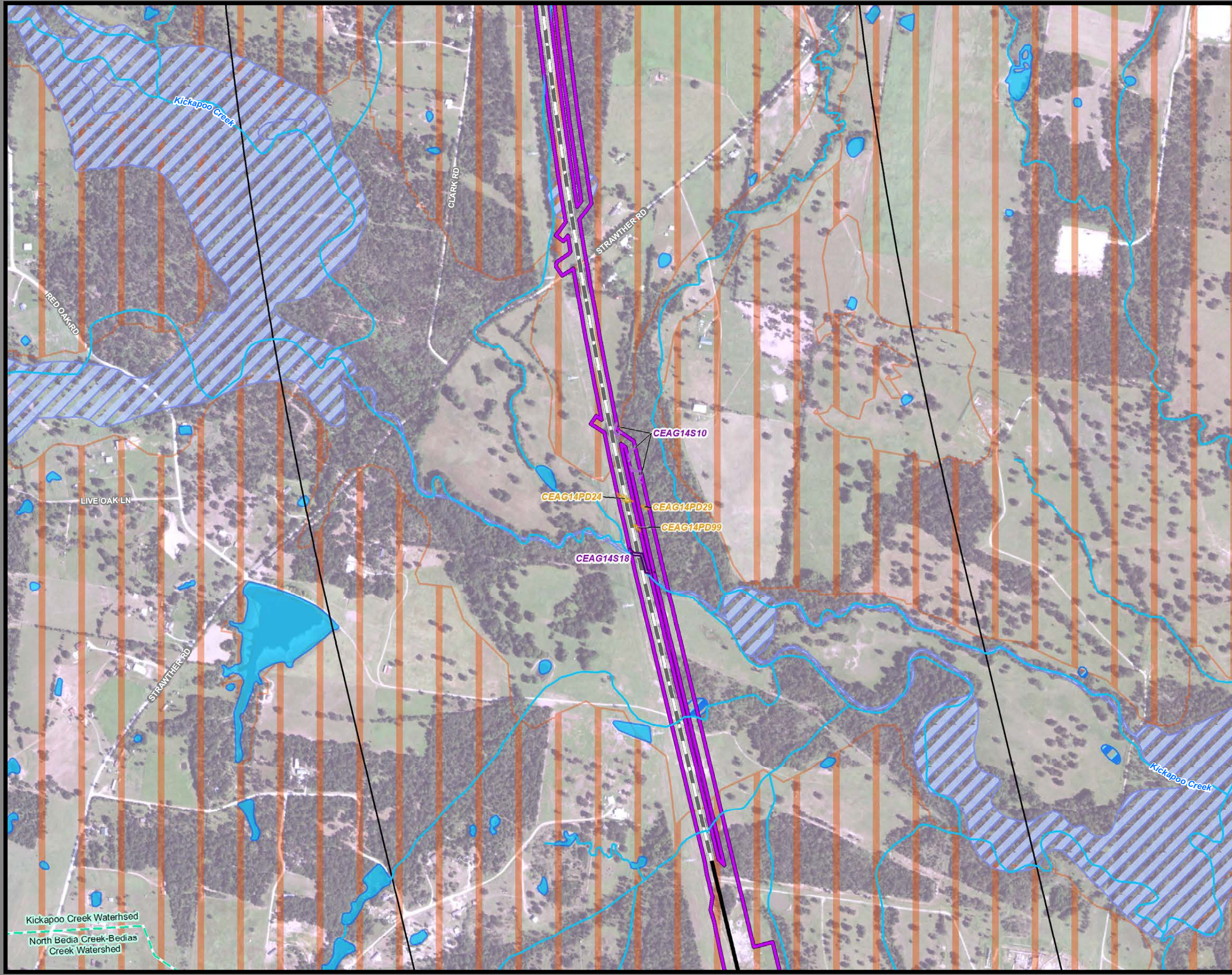
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<p>Impaired Waters with Total Maximum Daily Load (TMDL)</p> <p>Impaired Waters</p> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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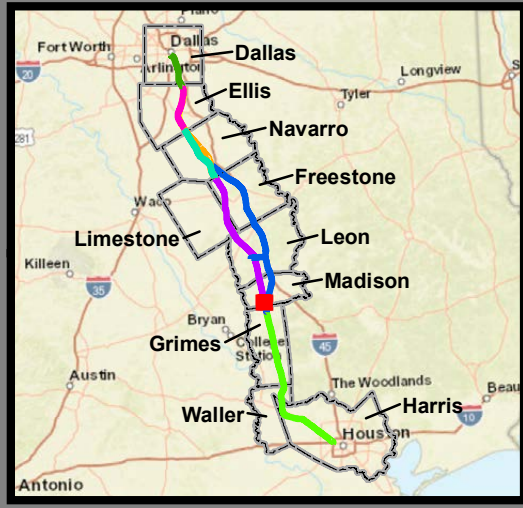
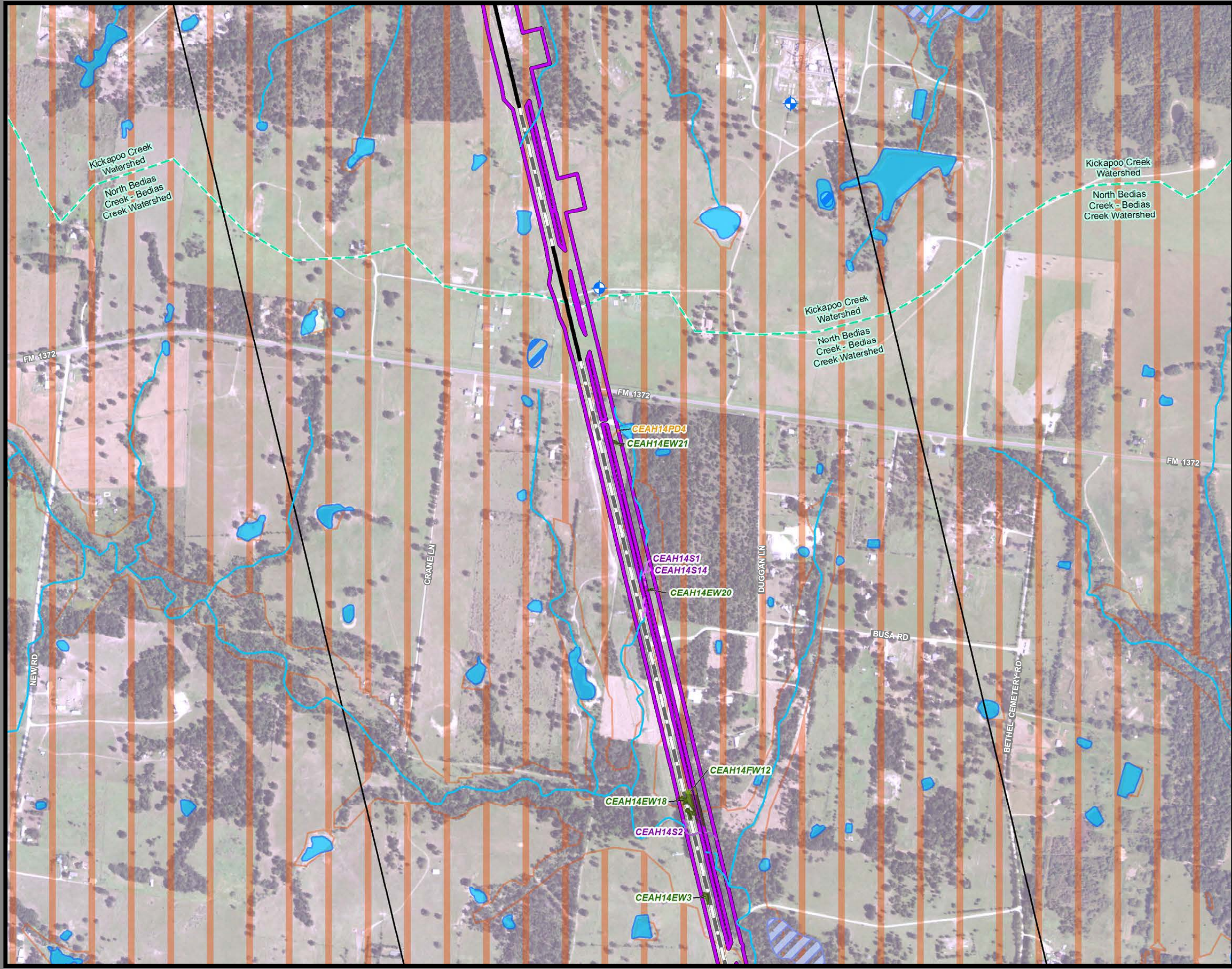
\*Floodplains in Freestone and Madison Counties were digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to absence of digitally mapped FEMA floodplains.

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**Aerial Imagery:** USDA NAIP 2016



Kickapoo Creek Watershed  
North Bedia Creek-Bedias  
Creek Watershed





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

**Legend**

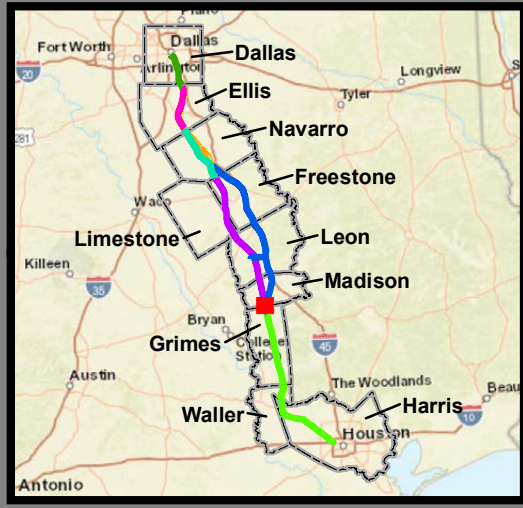
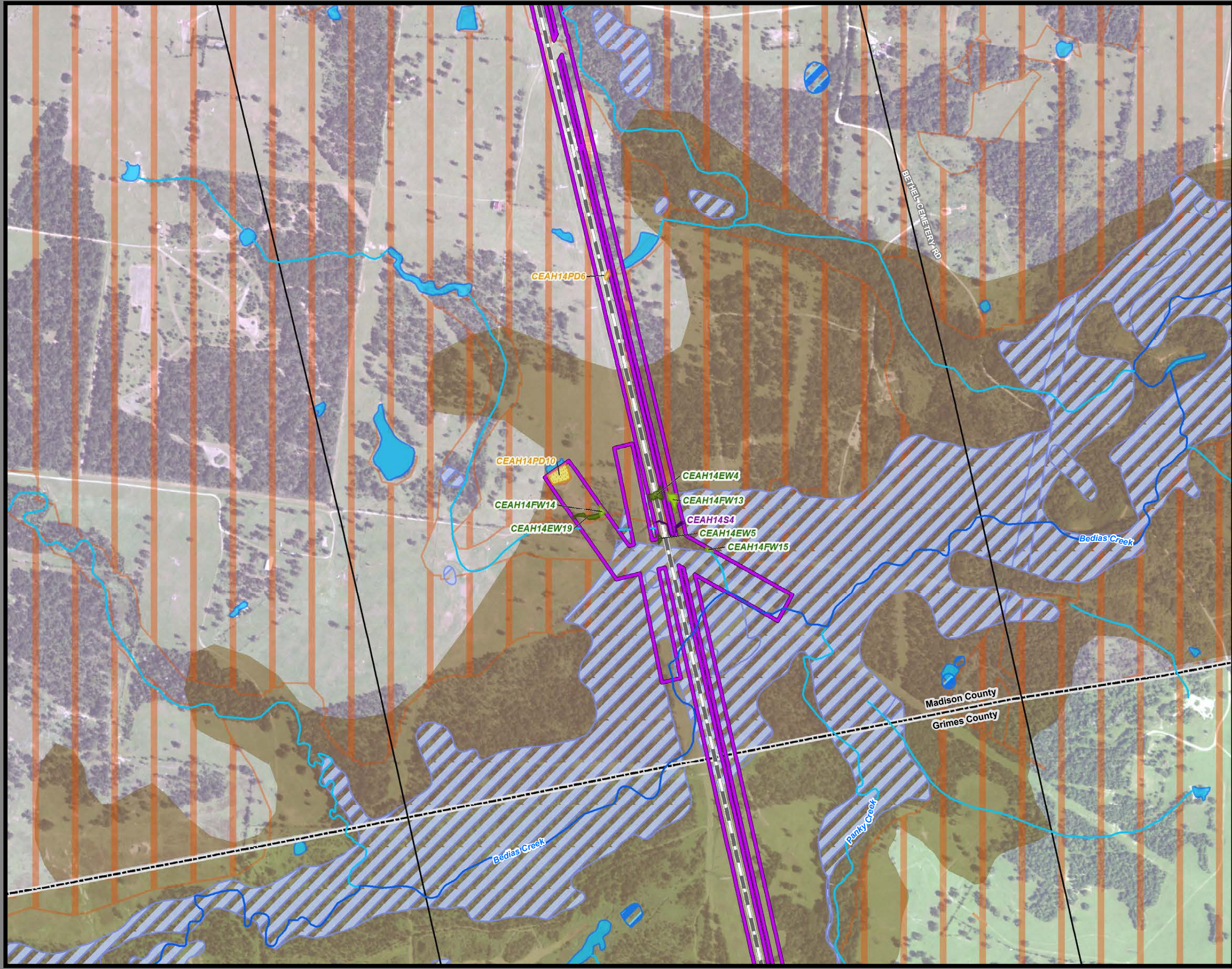
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







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

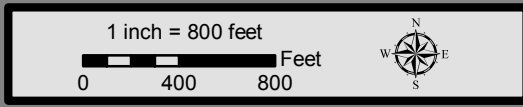
**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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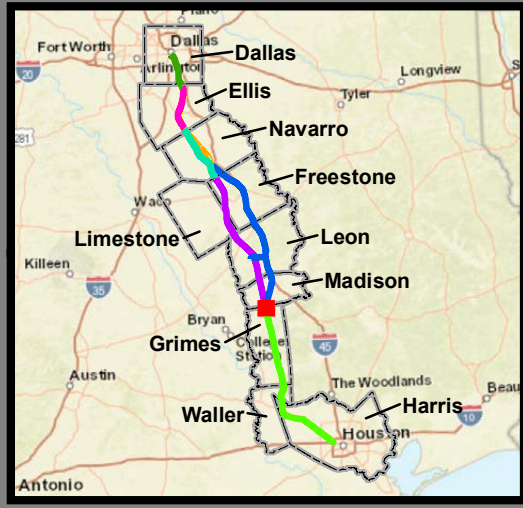
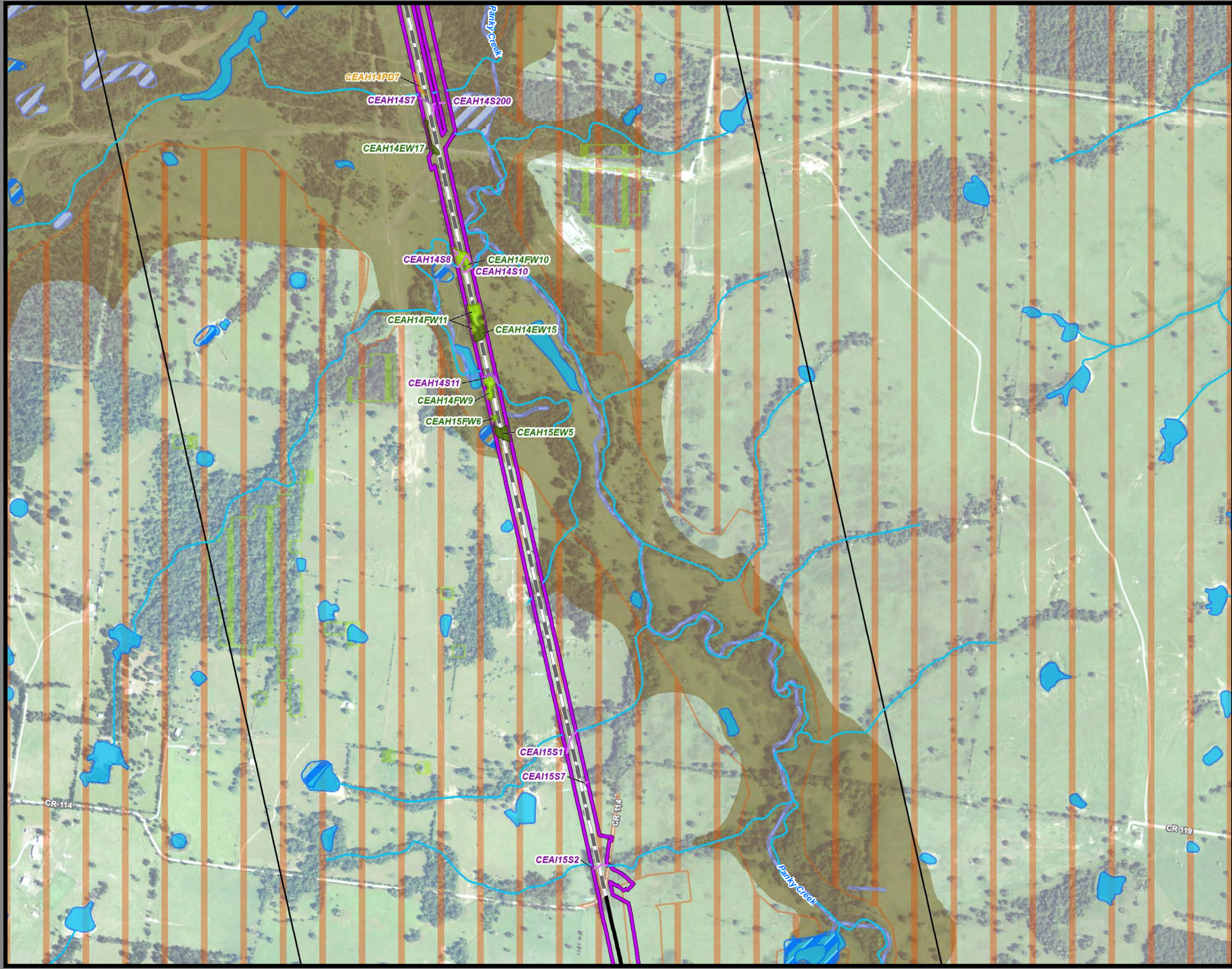
\*\*\*This Sheet only depicts Segment 4; Segment 3C is also located in this same area and can be referenced on Sheet 150.\*\*\*

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

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**Aerial Imagery:** USDA NAIP 2016







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

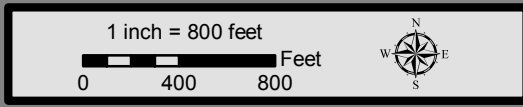
**Legend**

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

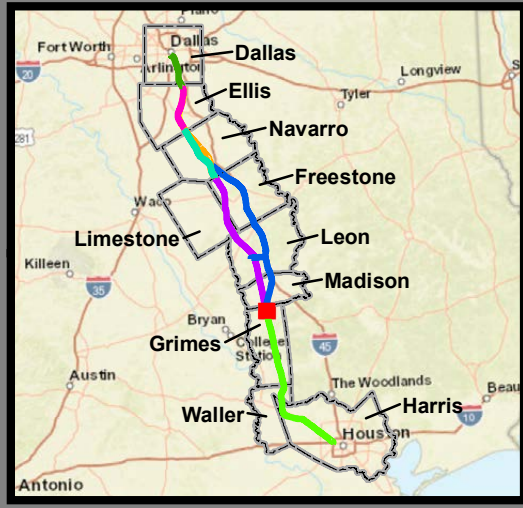
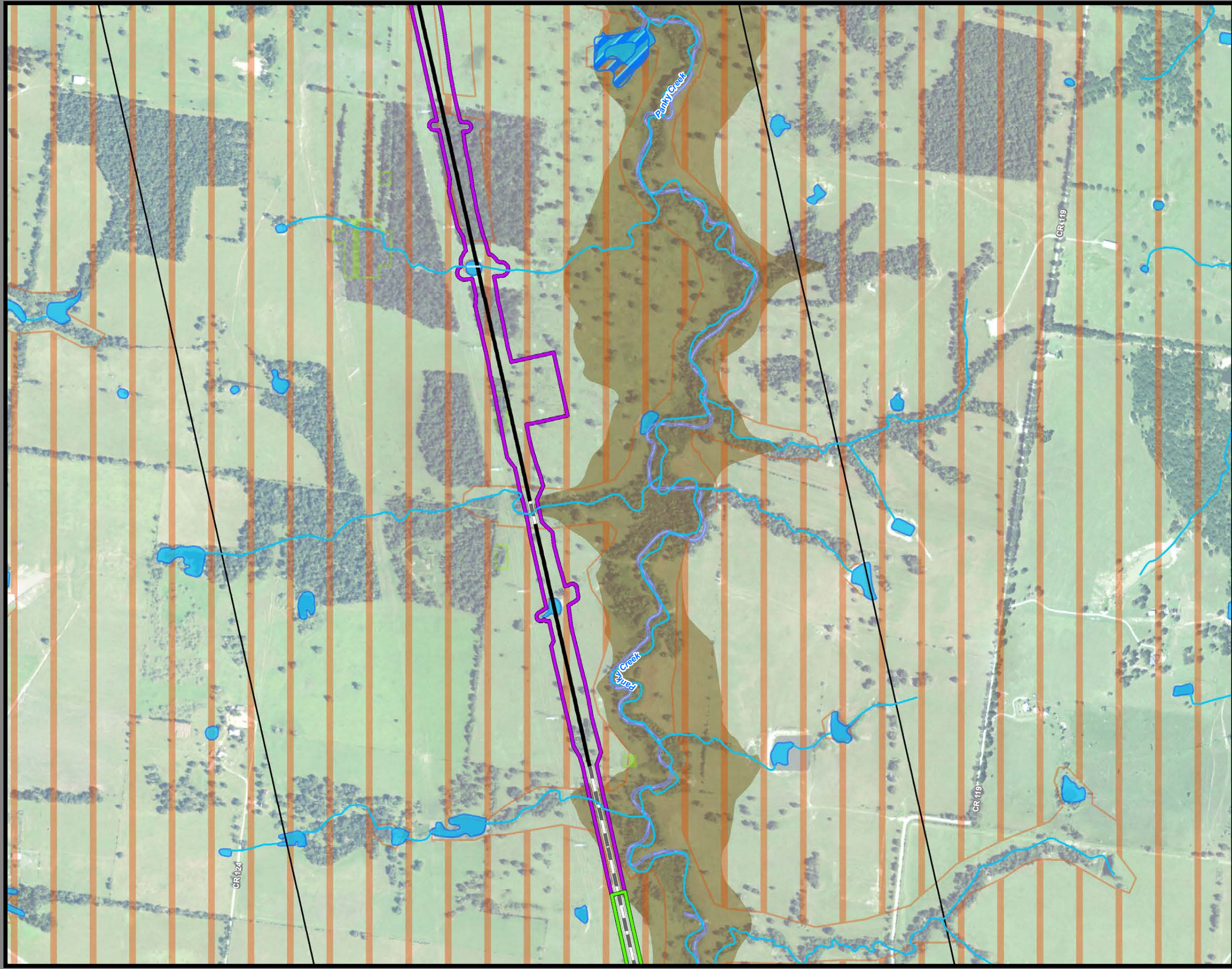
\*\*\*This Sheet only depicts Segment 4; Segment 3C is also located in this same area and can be referenced on Sheet 151.\*\*\*

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**Aerial Imagery:** USDA NAIP 2016







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

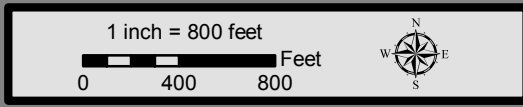
**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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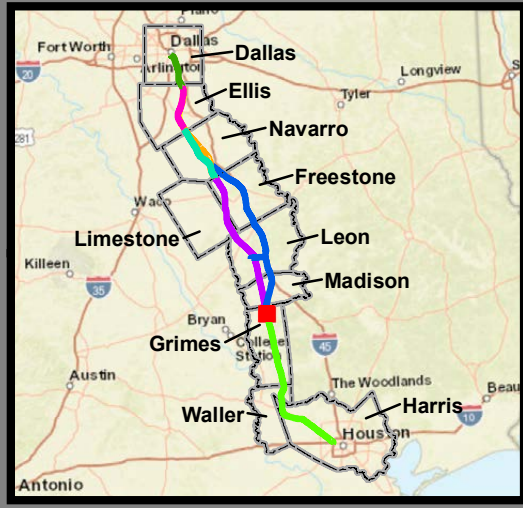
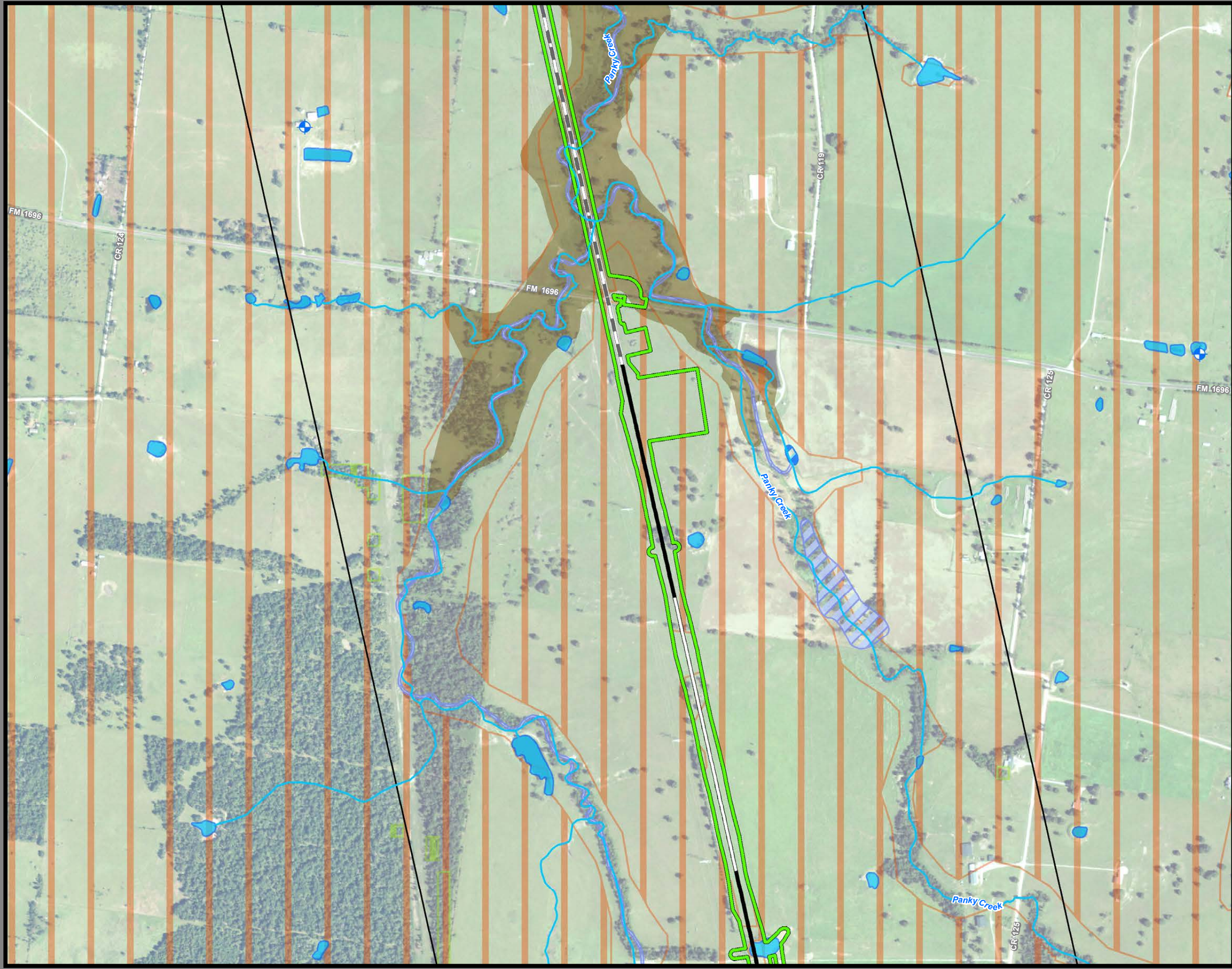
\*\*\*This Sheet only depicts Segments 4 & 5; Segment 3C is also located in this same area and can be referenced on Sheet 152.\*\*\*

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**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

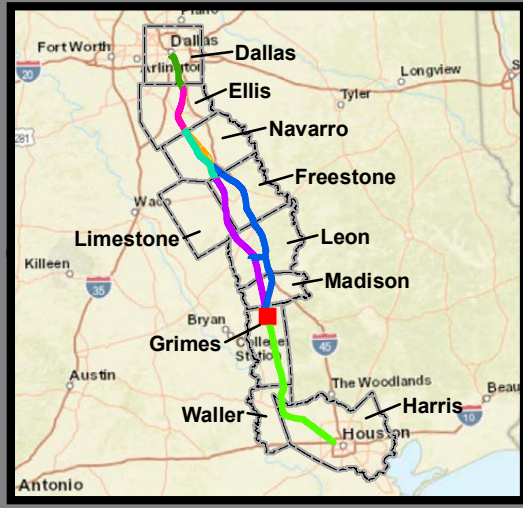
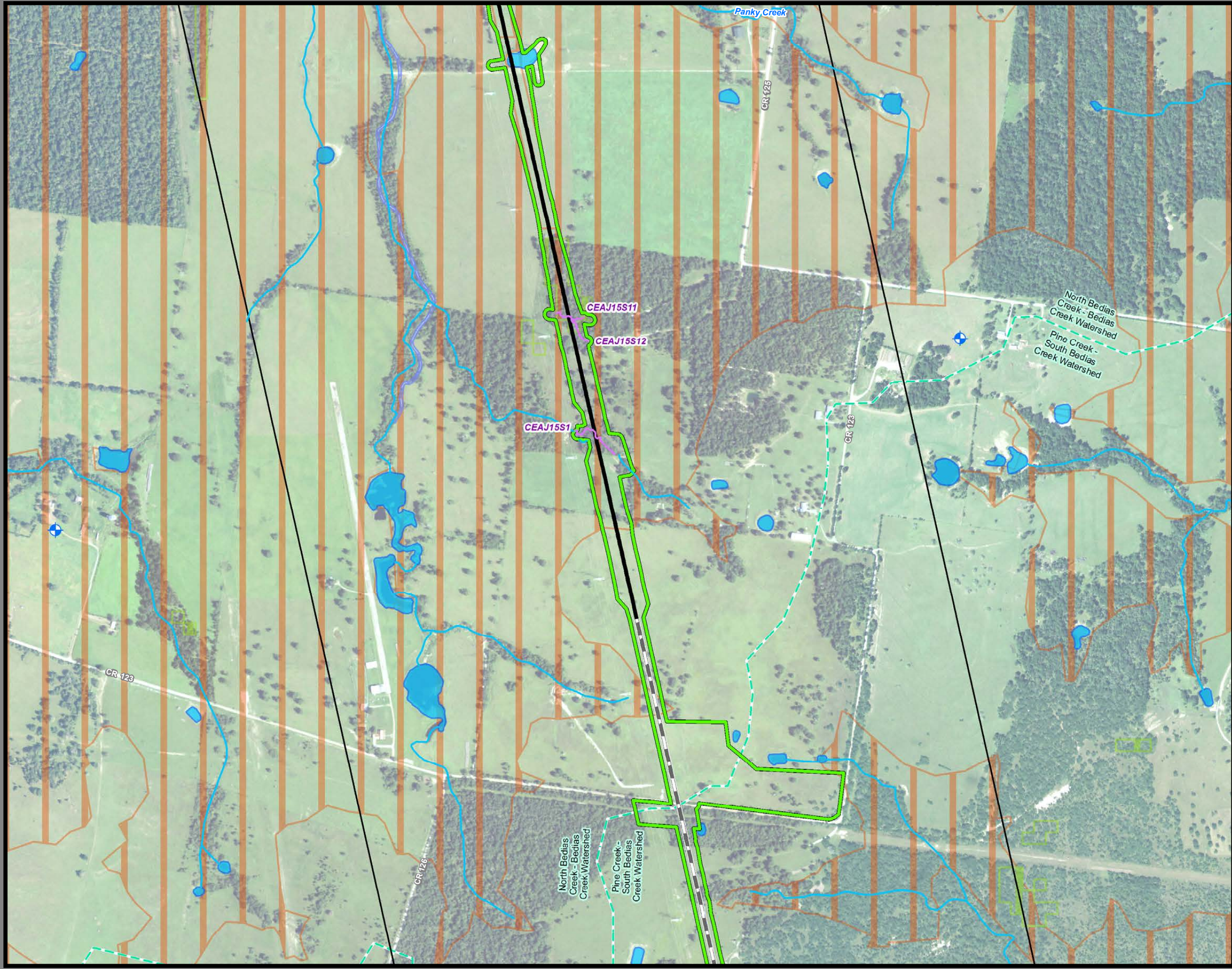
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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\*Floodplains in Freestone and Madison Counties were digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to absence of digitally mapped FEMA floodplains.

**Data Sources:** County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2018; MSD - TCEQ 2018; USACE Project Areas - USACE 2018; Public Water Supply - EPA 2016; Impaired Waters - TCEQ 2016; Groundwater Wells - TWDB 2018; NHD/HUC12 - USGS 2018; Reservoirs - TWDB 2014; NWI - USFWS 2018; Floodplains - FEMA 2018; EOR - TPWD TXNDD 2019; ESRI World Street Map  
**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

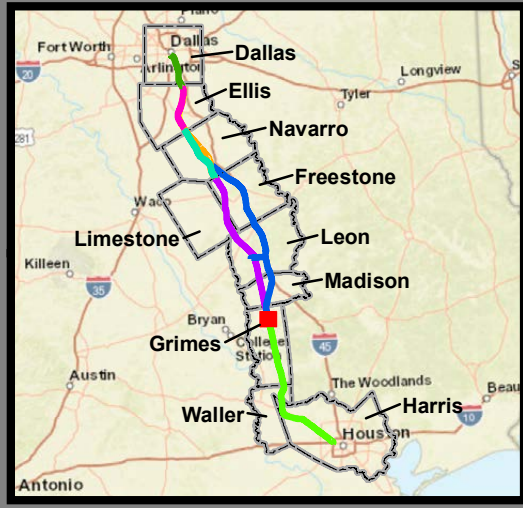
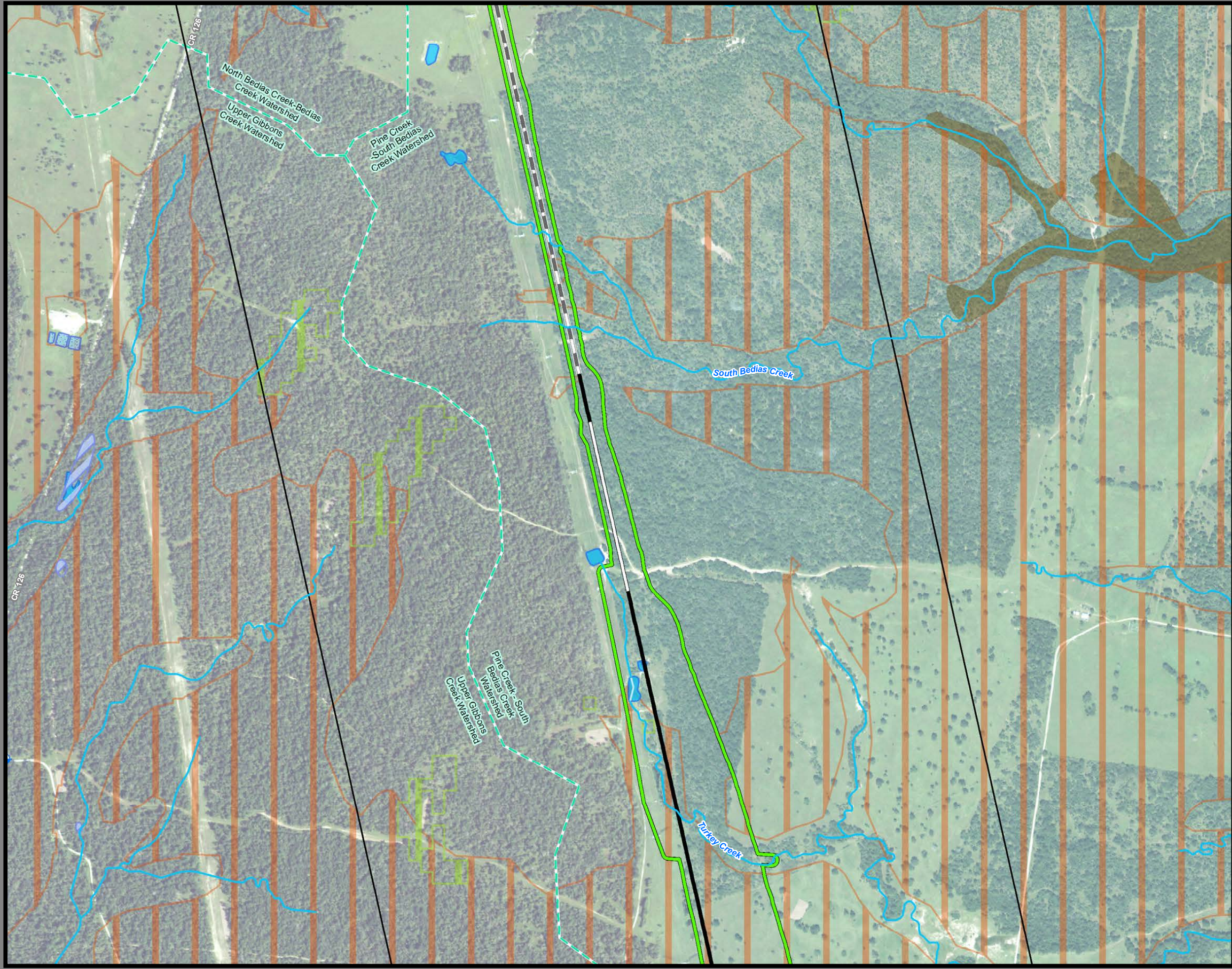
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

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width: 10px; display: inline-block; margin-right: 5px;"></span> Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li><span style="border-bottom: 1px dashed red; width: 10px; display: inline-block; margin-right: 5px;"></span> Impaired Waters</li> <li><span style="background-color: #d3d3d3; width: 10px; height: 10px; margin-right: 5px;"></span> Federal Emergency Management Agency (FEMA) Flood Zone <ul style="list-style-type: none"> <li><span style="background-color: #d3d3d3; width: 5px; height: 5px; margin-right: 2px;"></span> A - 1%</li> <li><span style="background-color: #f5deb3; width: 5px; height: 5px; margin-right: 2px;"></span> AE - 1%</li> <li><span style="background-color: #fff2cc; width: 5px; height: 5px; margin-right: 2px;"></span> AO - 1%</li> <li><span style="background-color: #ffffcc; width: 5px; height: 5px; margin-right: 2px;"></span> X - 0.2%</li> </ul> </li> <li><span style="border-bottom: 1px solid purple; width: 10px; display: inline-block; margin-right: 5px;"></span> Perennial Stream/River</li> <li><span style="border-bottom: 1px solid magenta; width: 10px; display: inline-block; margin-right: 5px;"></span> Intermittent Stream/River</li> <li><span style="border-bottom: 1px solid cyan; width: 10px; display: inline-block; margin-right: 5px;"></span> Ephemeral Stream/River</li> <li><span style="border-bottom: 1px solid pink; width: 10px; display: inline-block; margin-right: 5px;"></span> Other Stream/River</li> <li><span style="background-color: #ffffcc; width: 10px; height: 10px; margin-right: 5px;"></span> Lake/Pond</li> <li><span style="background-color: #90ee90; width: 10px; height: 10px; margin-right: 5px;"></span> Emergent Wetland</li> <li><span style="background-color: #90ee90; width: 10px; height: 10px; margin-right: 5px;"></span> Forested Wetland</li> <li><span style="background-color: #800000; width: 10px; height: 10px; margin-right: 5px;"></span> Scrub/Shrub Wetland</li> <li><span style="border-bottom: 1px solid blue; width: 10px; display: inline-block; margin-right: 5px;"></span> Perennial Stream/River</li> <li><span style="border-bottom: 1px solid cyan; width: 10px; display: inline-block; margin-right: 5px;"></span> Intermittent Stream/River</li> <li><span style="border-bottom: 1px solid lightblue; width: 10px; display: inline-block; margin-right: 5px;"></span> Artificial Stream/Canal</li> <li><span style="background-color: #add8e6; width: 10px; height: 10px; margin-right: 5px;"></span> Lake/Pond</li> <li><span style="background-color: #add8e6; width: 10px; height: 10px; margin-right: 5px;"></span> Reservoir</li> <li><span style="background-color: #add8e6; width: 10px; height: 10px; margin-right: 5px;"></span> Swamp/Marsh</li> <li><span style="border: 1px solid blue; width: 10px; height: 10px; margin-right: 5px;"></span> Freshwater Emergent Wetland</li> <li><span style="border: 1px solid blue; width: 10px; height: 10px; margin-right: 5px;"></span> Freshwater Forested/Shrub Wetland</li> <li><span style="border: 1px solid blue; width: 10px; height: 10px; margin-right: 5px;"></span> Other</li> </ul>
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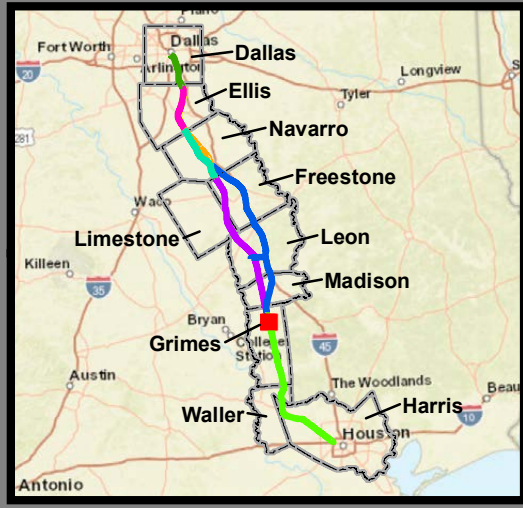
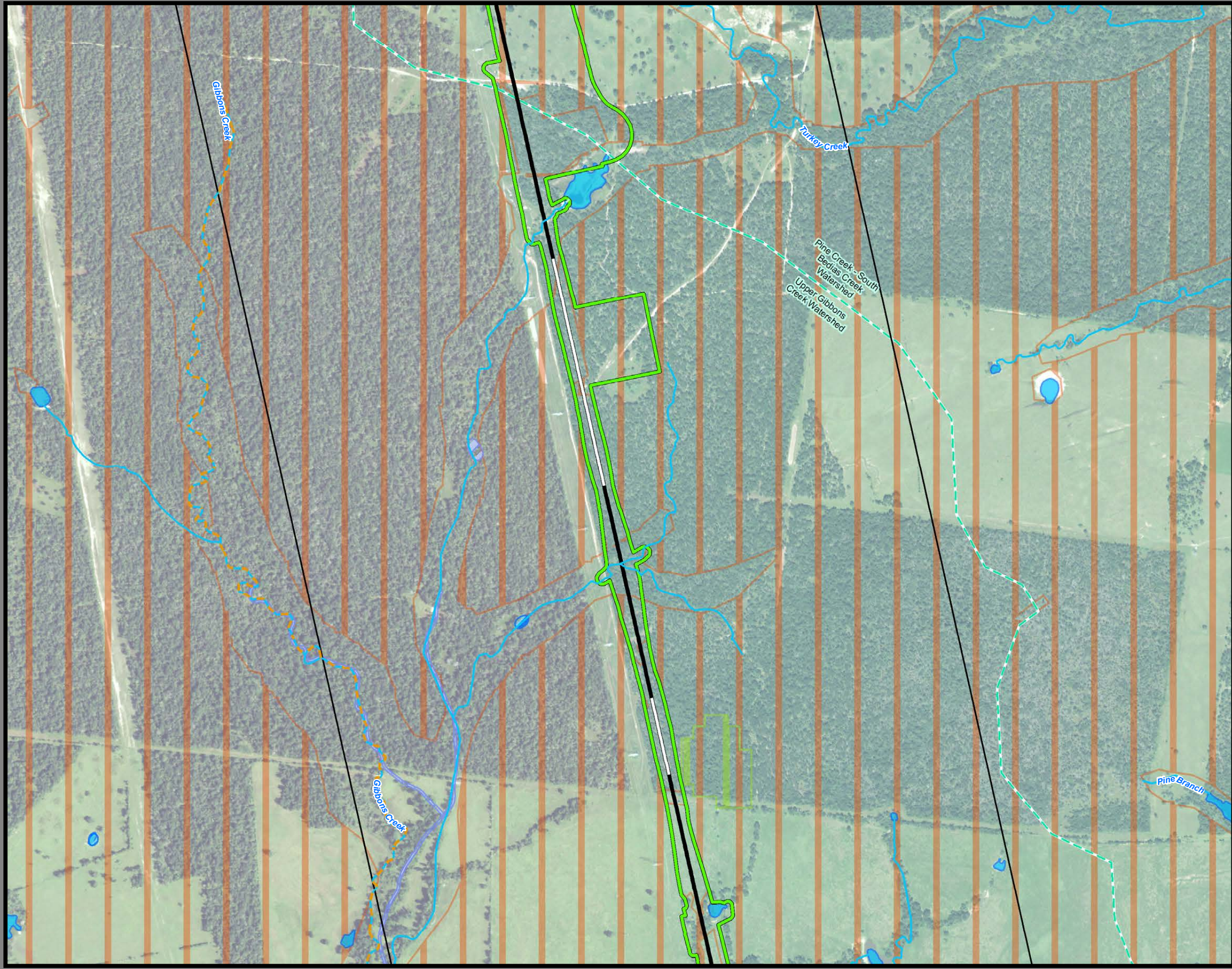
\*Floodplains in Freestone and Madison Counties were digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to absence of digitally mapped FEMA floodplains.

**Data Sources:** County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2018; MSD - TCEQ 2018; USACE Project Areas - USACE 2018; Public Water Supply - EPA 2016; Impaired Waters - TCEQ 2016; Groundwater Wells - TWDB 2018; NHD/HUC12 - USGS 2018; Reservoirs - TWDB 2014; NWI - USFWS 2018; Floodplains - FEMA 2018; EOR - TPWD TXNDD 2019; ESRI World Street Map

**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 205 of 257**

**Legend**

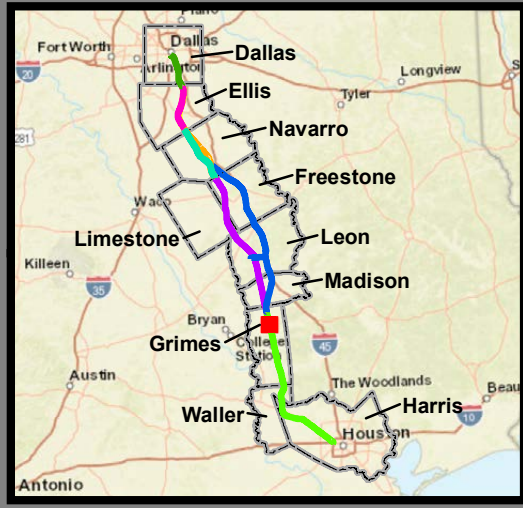
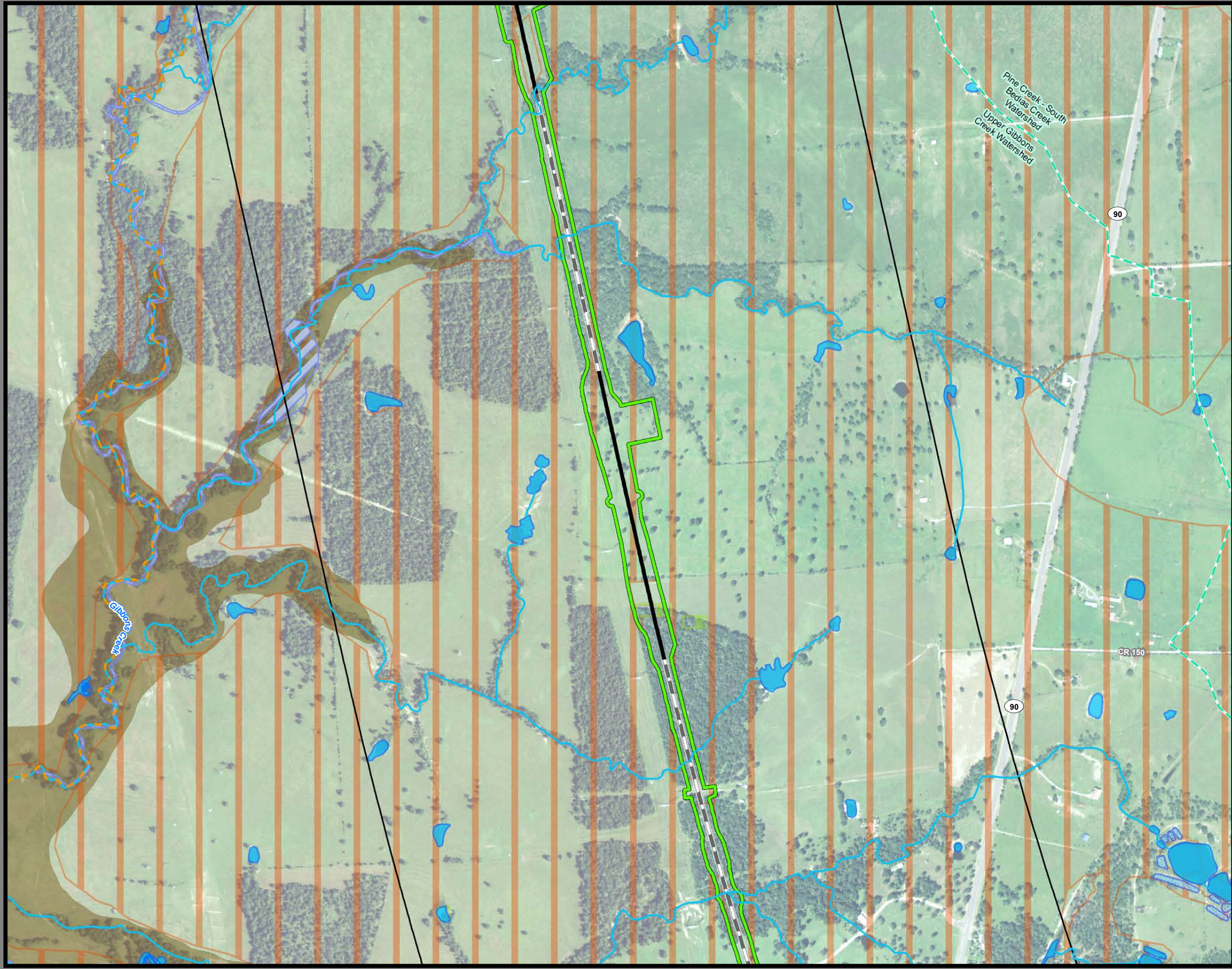
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 206 of 257**

**Legend**

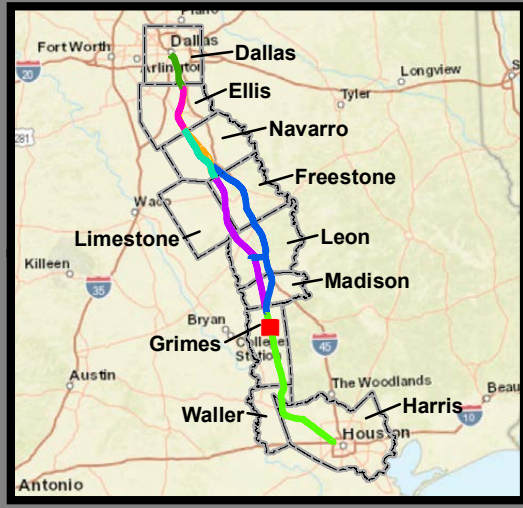
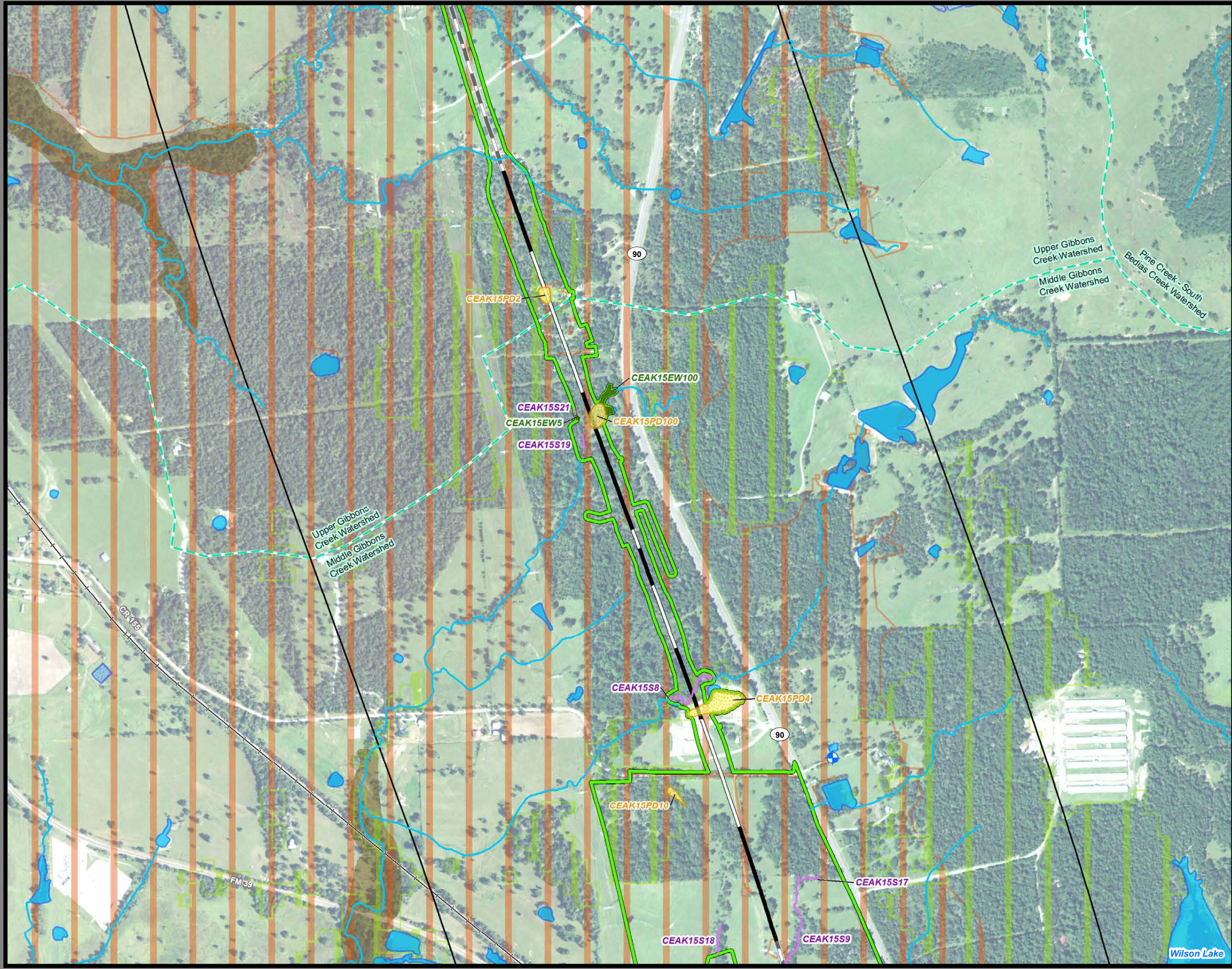
<b>Limits of Disturbance</b>	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	<b>Federal Emergency Management Agency (FEMA) Flood Zone</b>
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	<b>Field-Collected Data</b>
Segment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

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

**Legend**

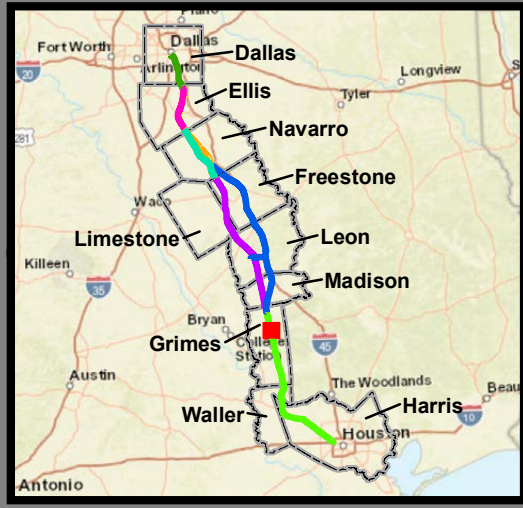
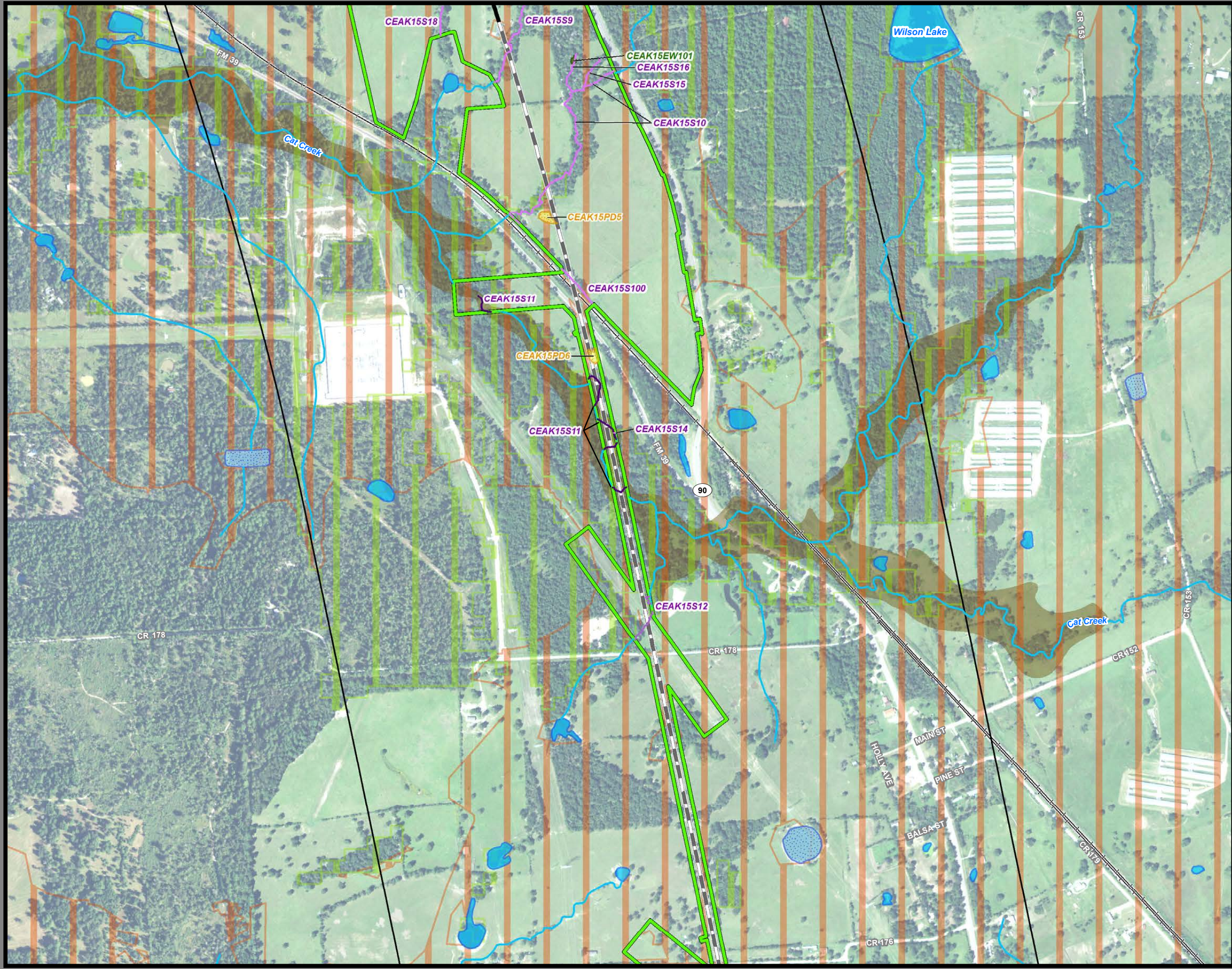
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 208 of 257**

**Legend**

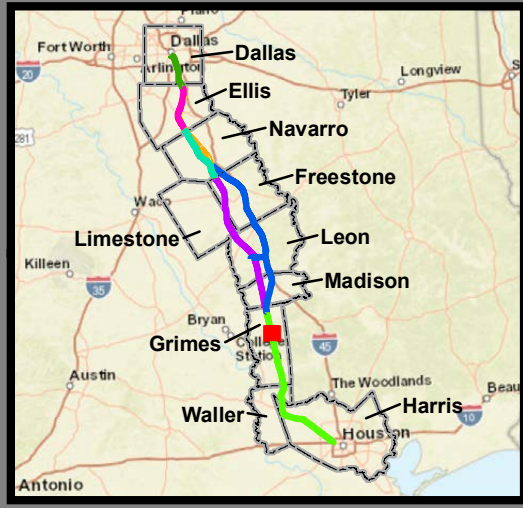
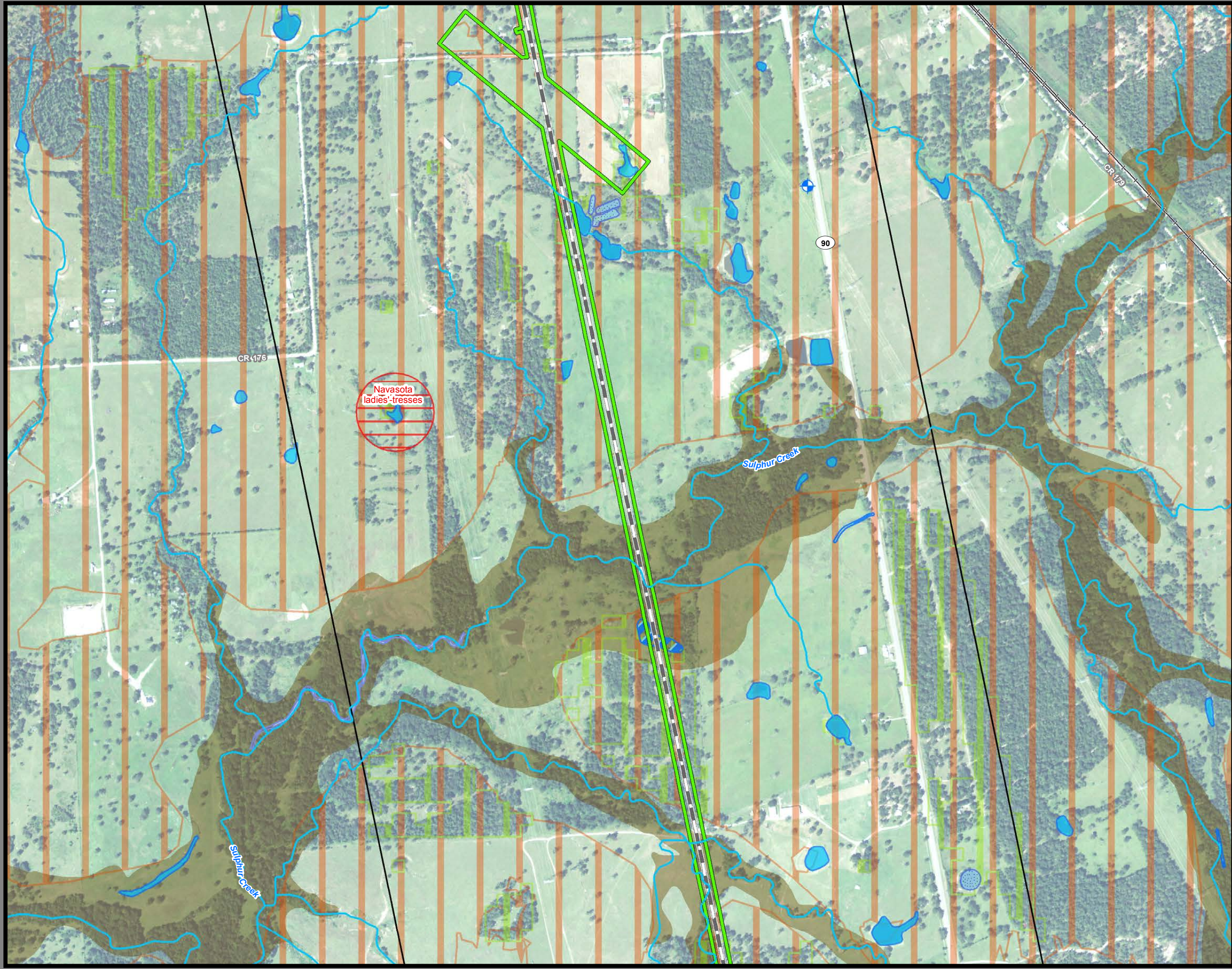
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 209 of 257**

**Legend**

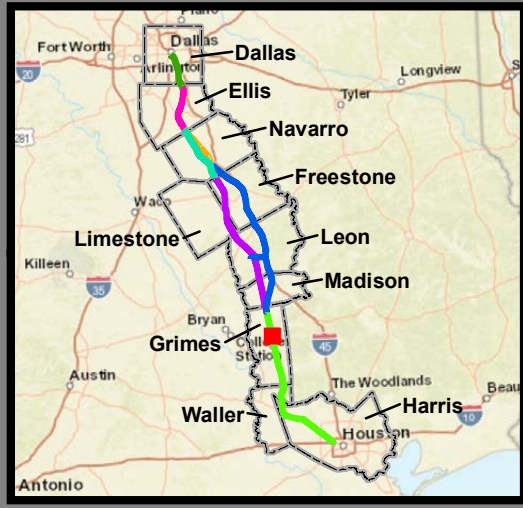
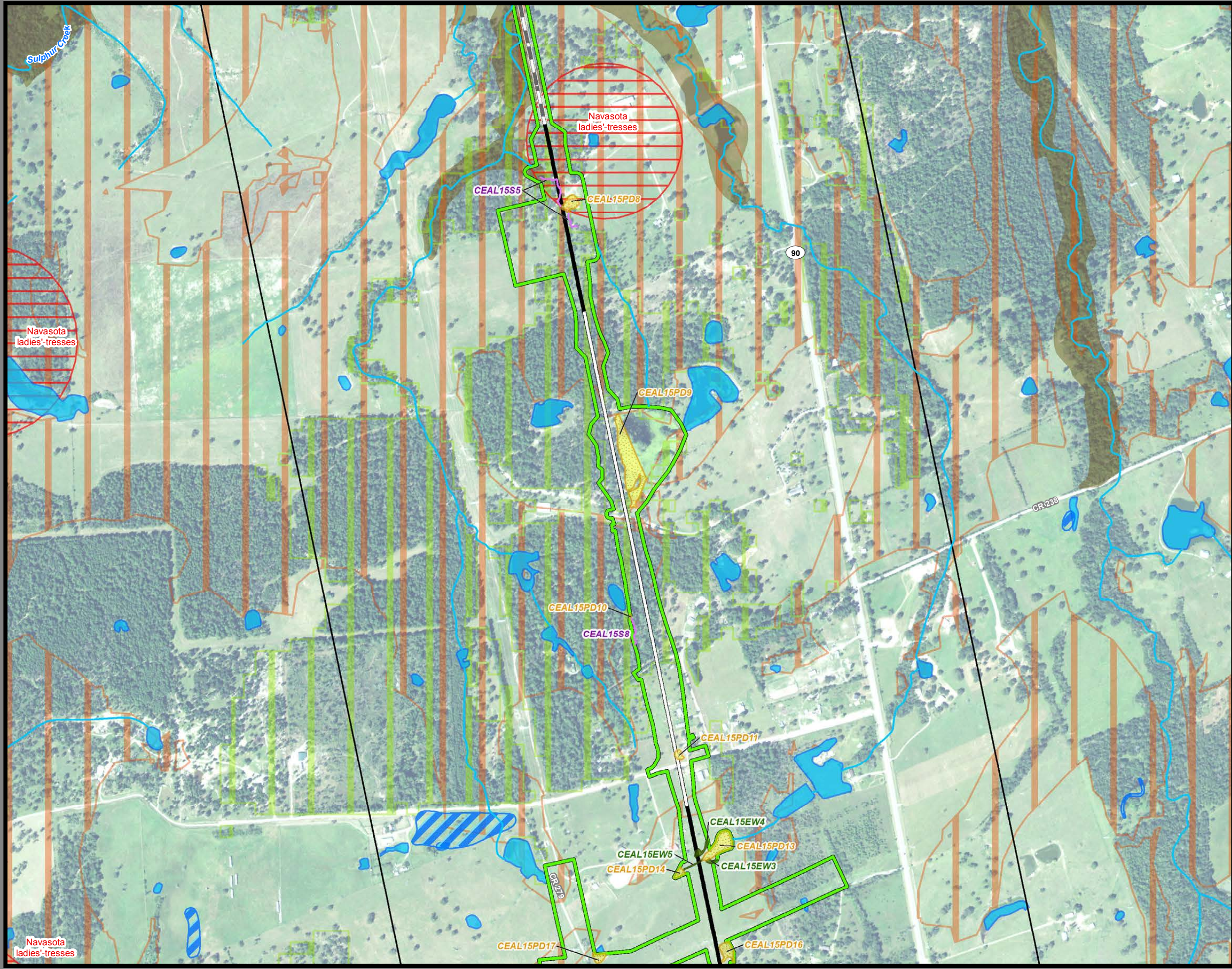
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

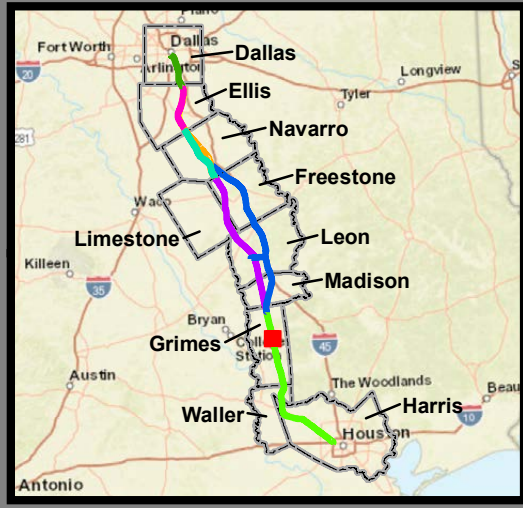
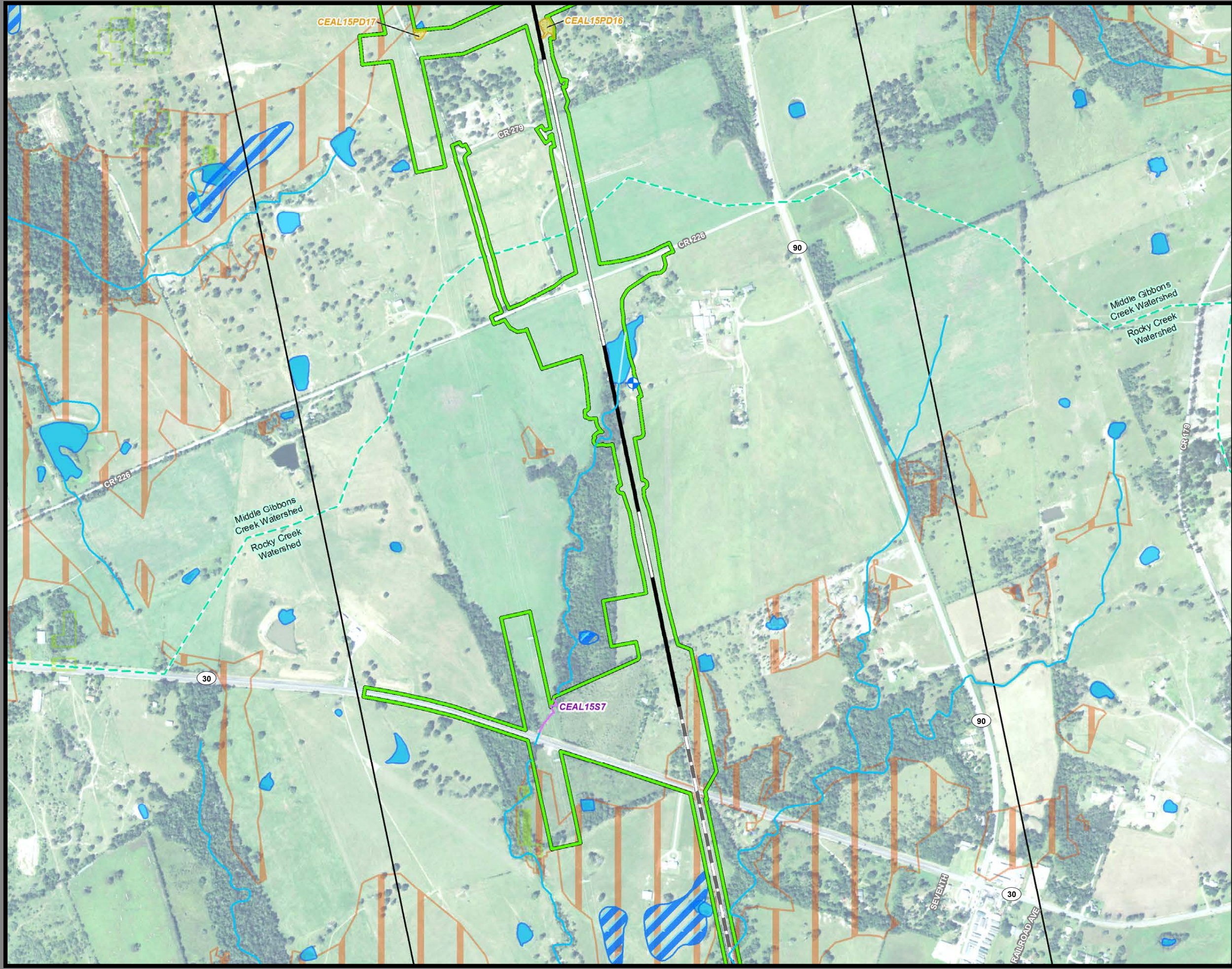
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







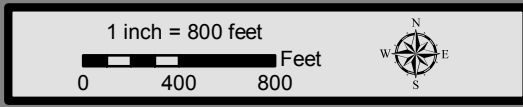
**Dallas to Houston  
High-Speed Rail Project  
Natural Resources**  
Segment 5, Brazos Valley Intermediate Station  
Sheet 211 of 257

**Legend**

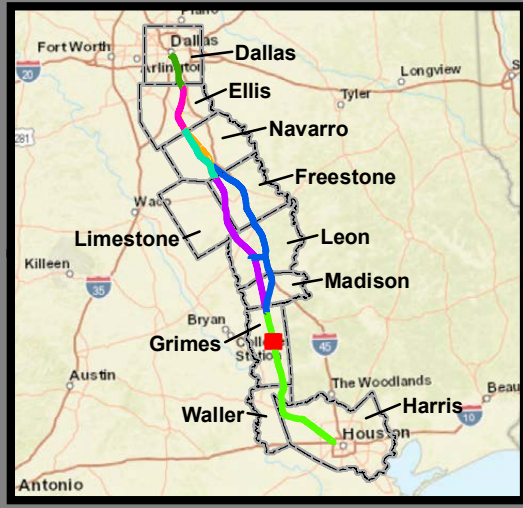
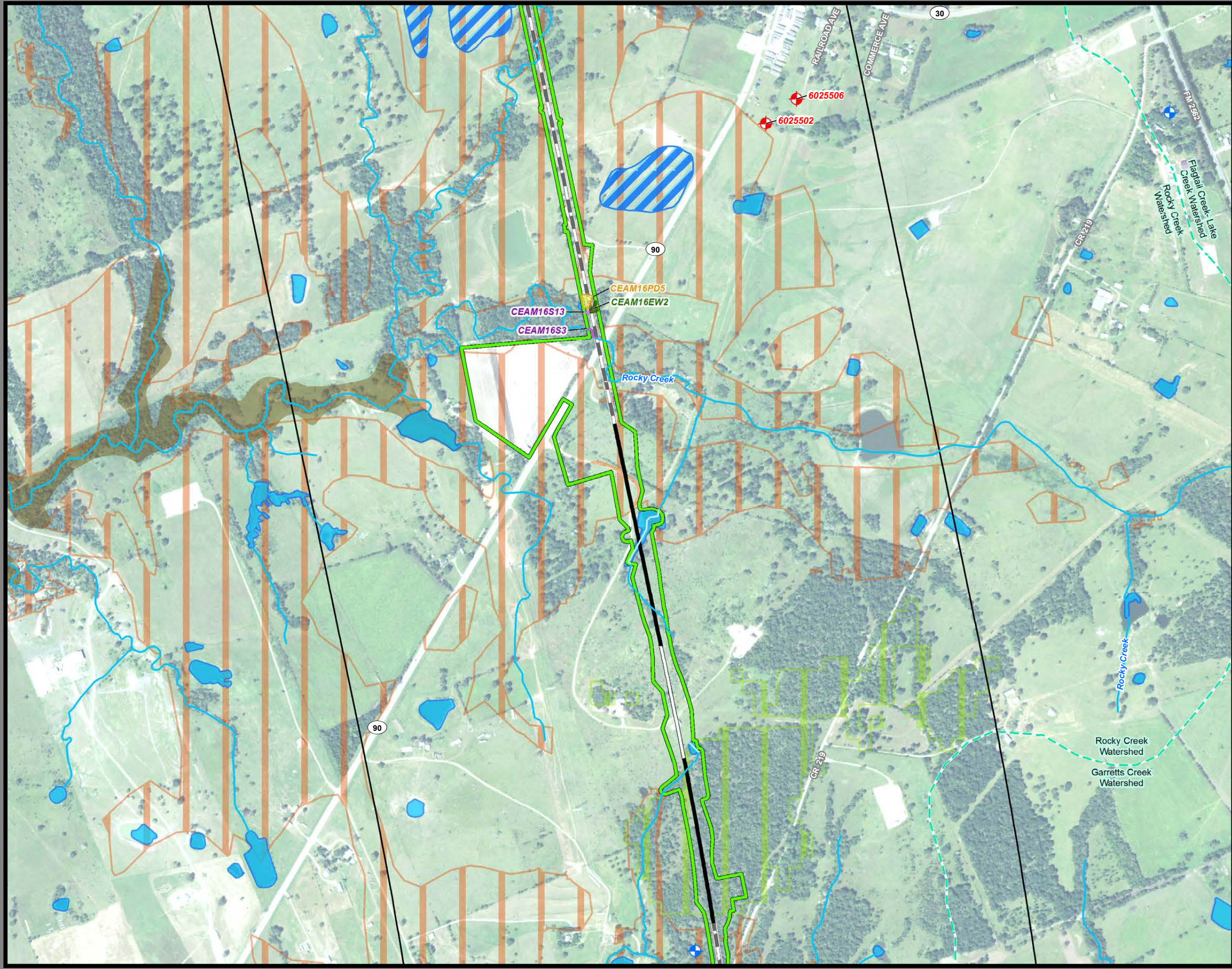
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







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

**Legend**

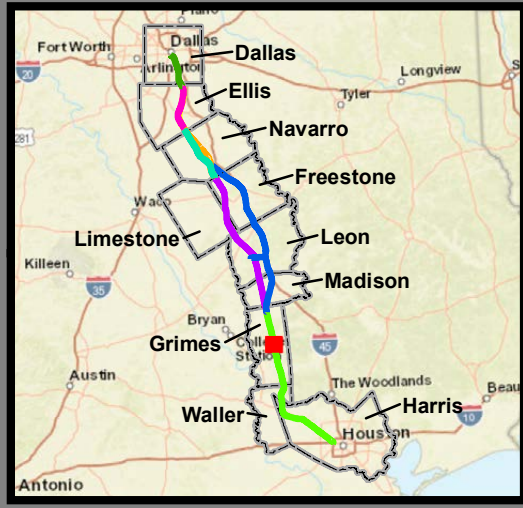
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 213 of 257**

**Legend**

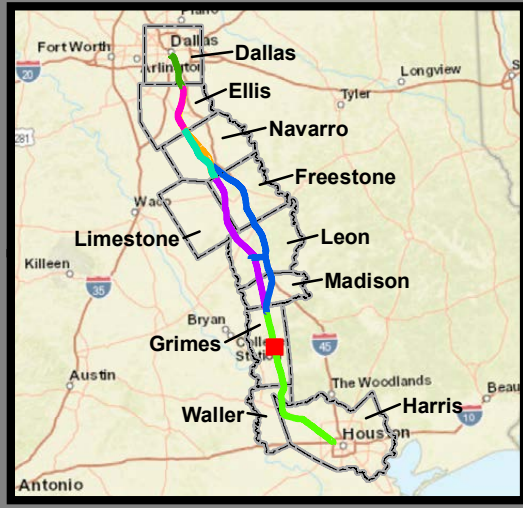
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 214 of 257**

**Legend**

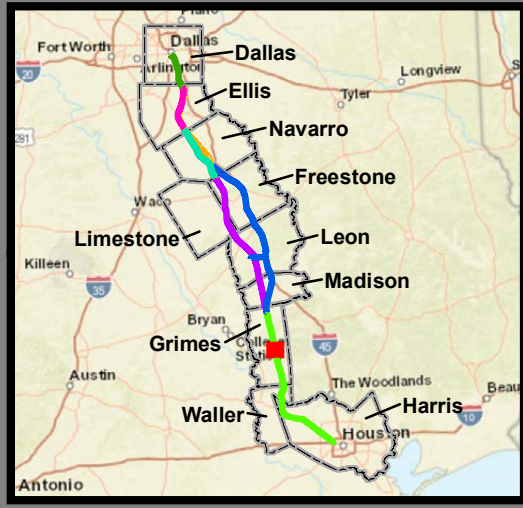
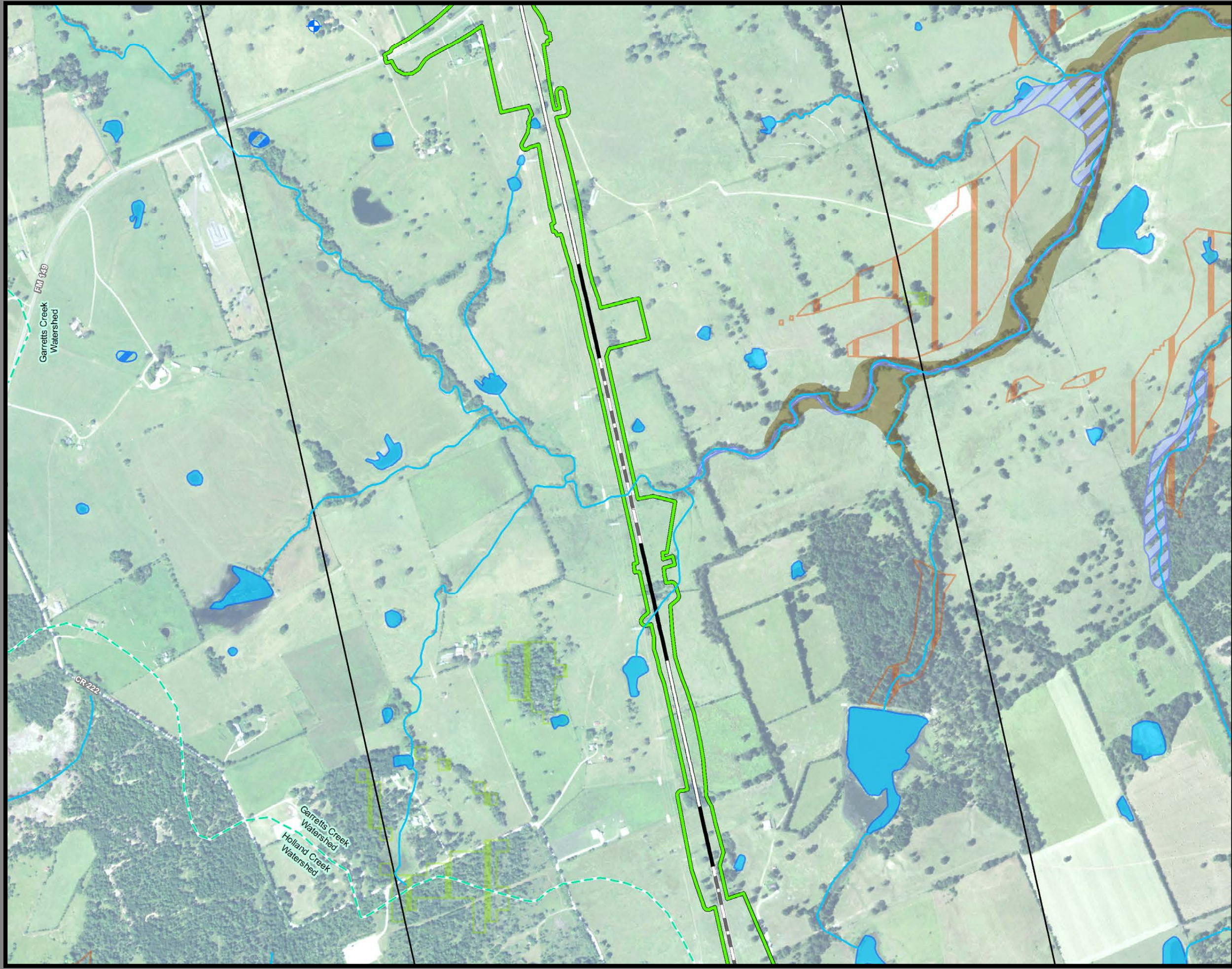
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**Dallas to Houston  
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Sheet 215 of 257**

**Legend**

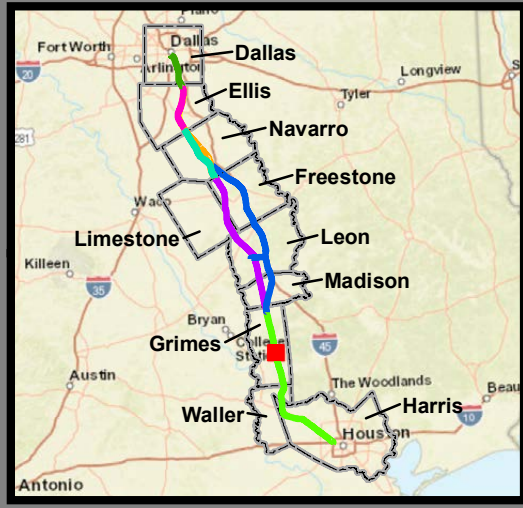
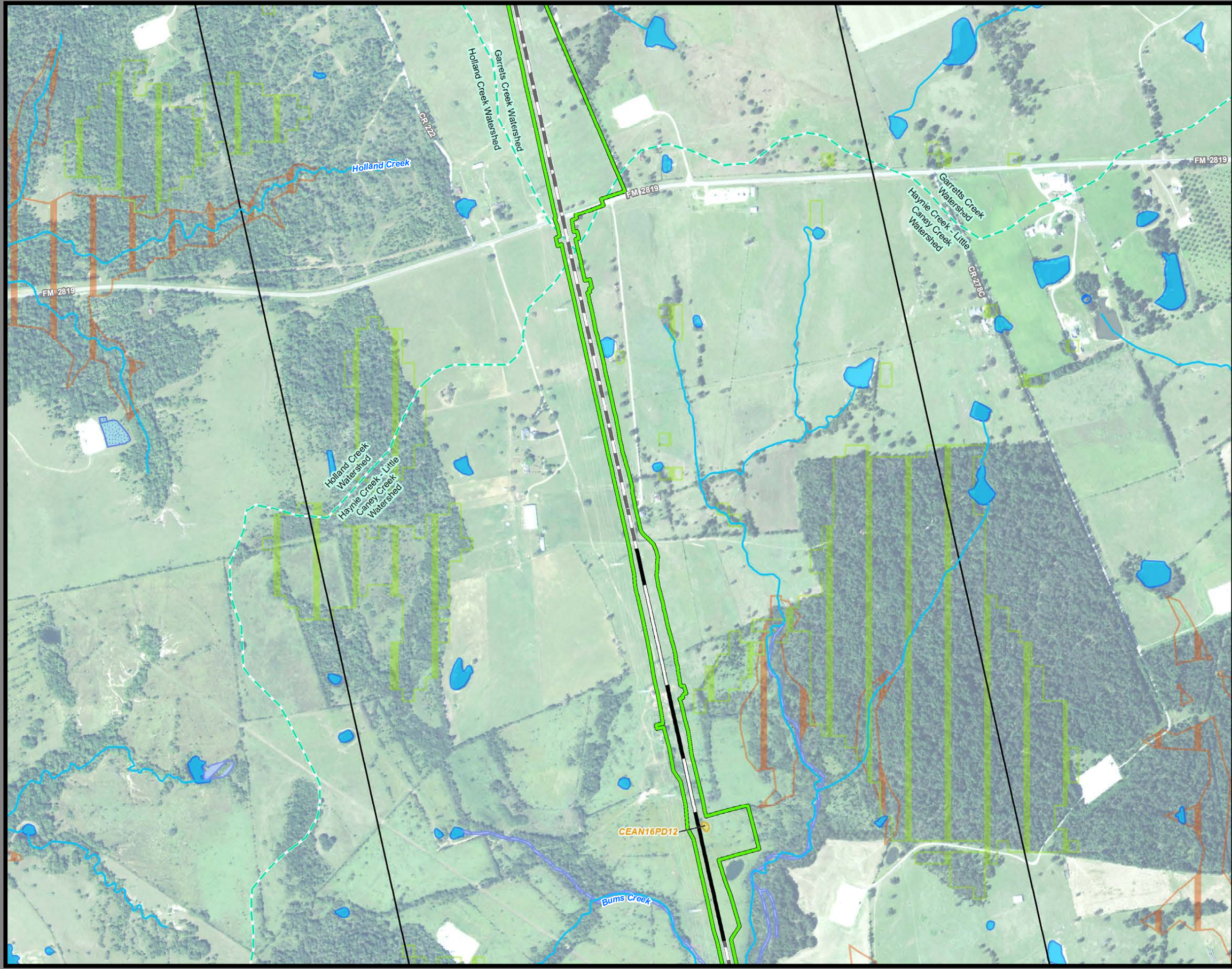
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 216 of 257**

**Legend**

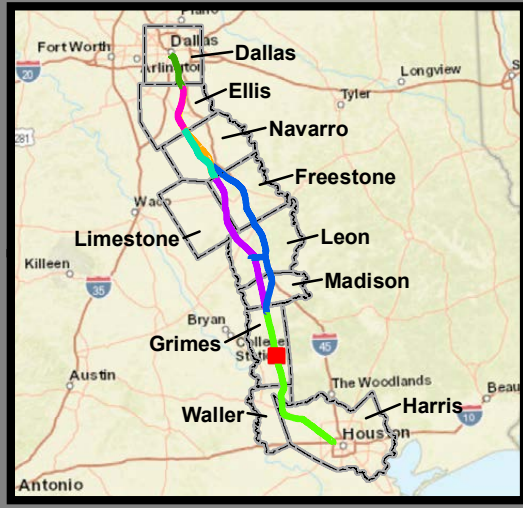
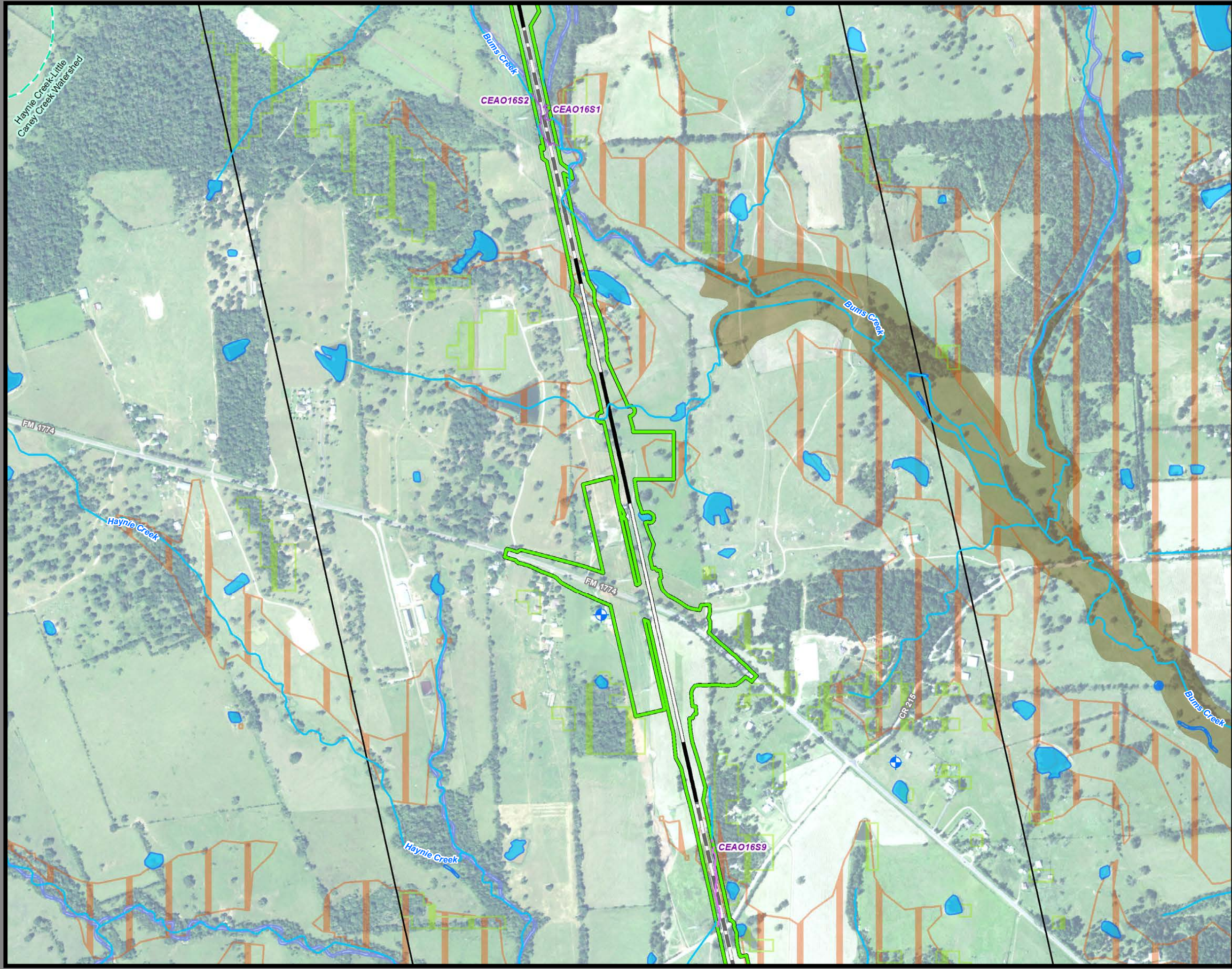
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 217 of 257**

**Legend**

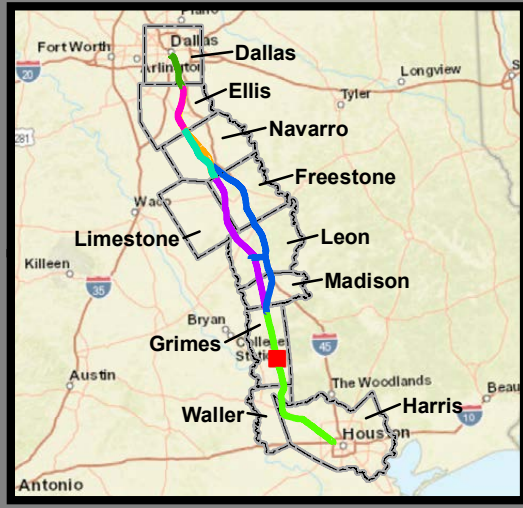
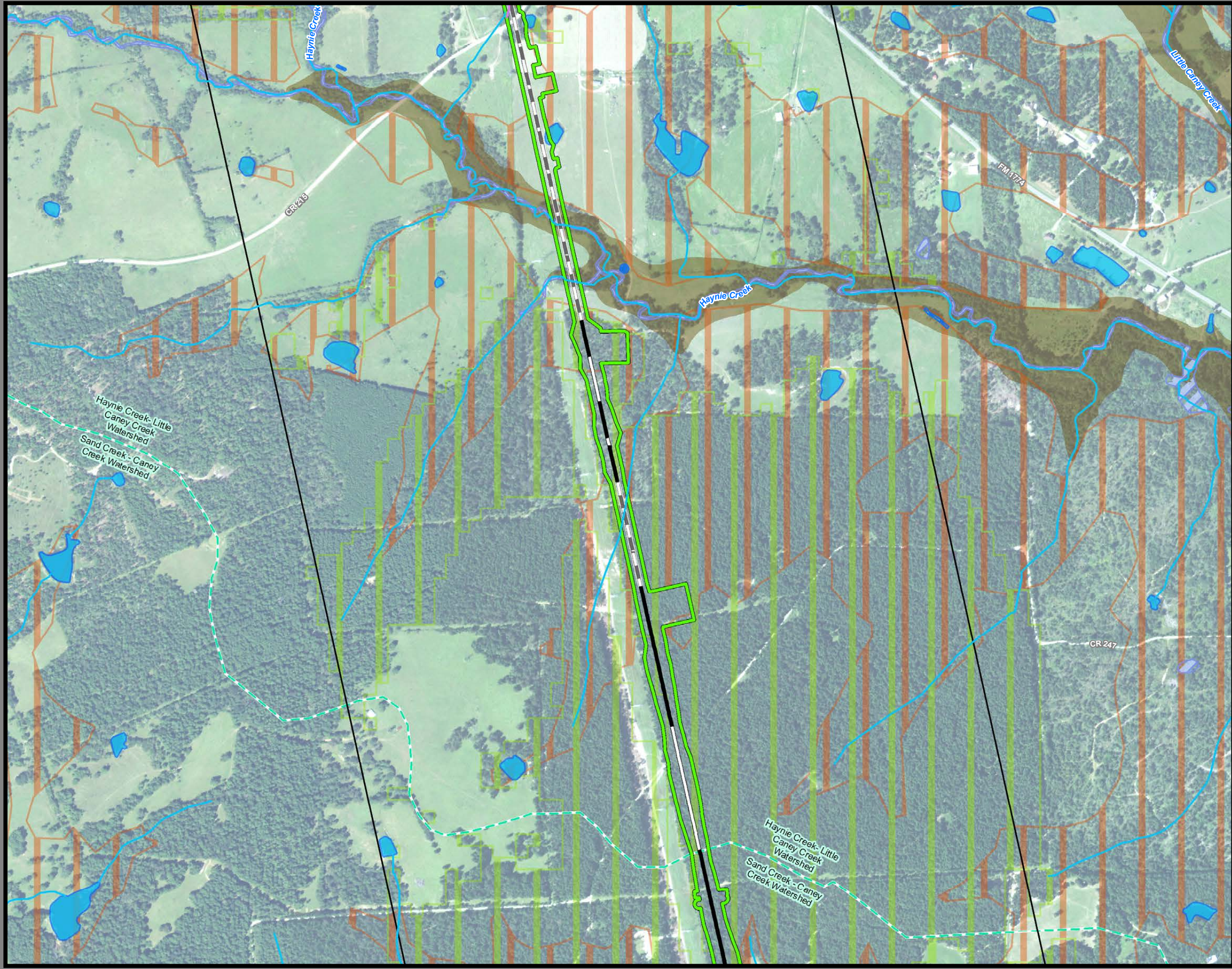
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 218 of 257**

**Legend**

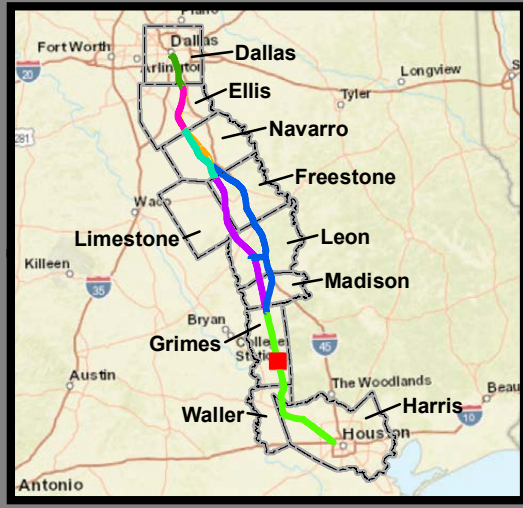
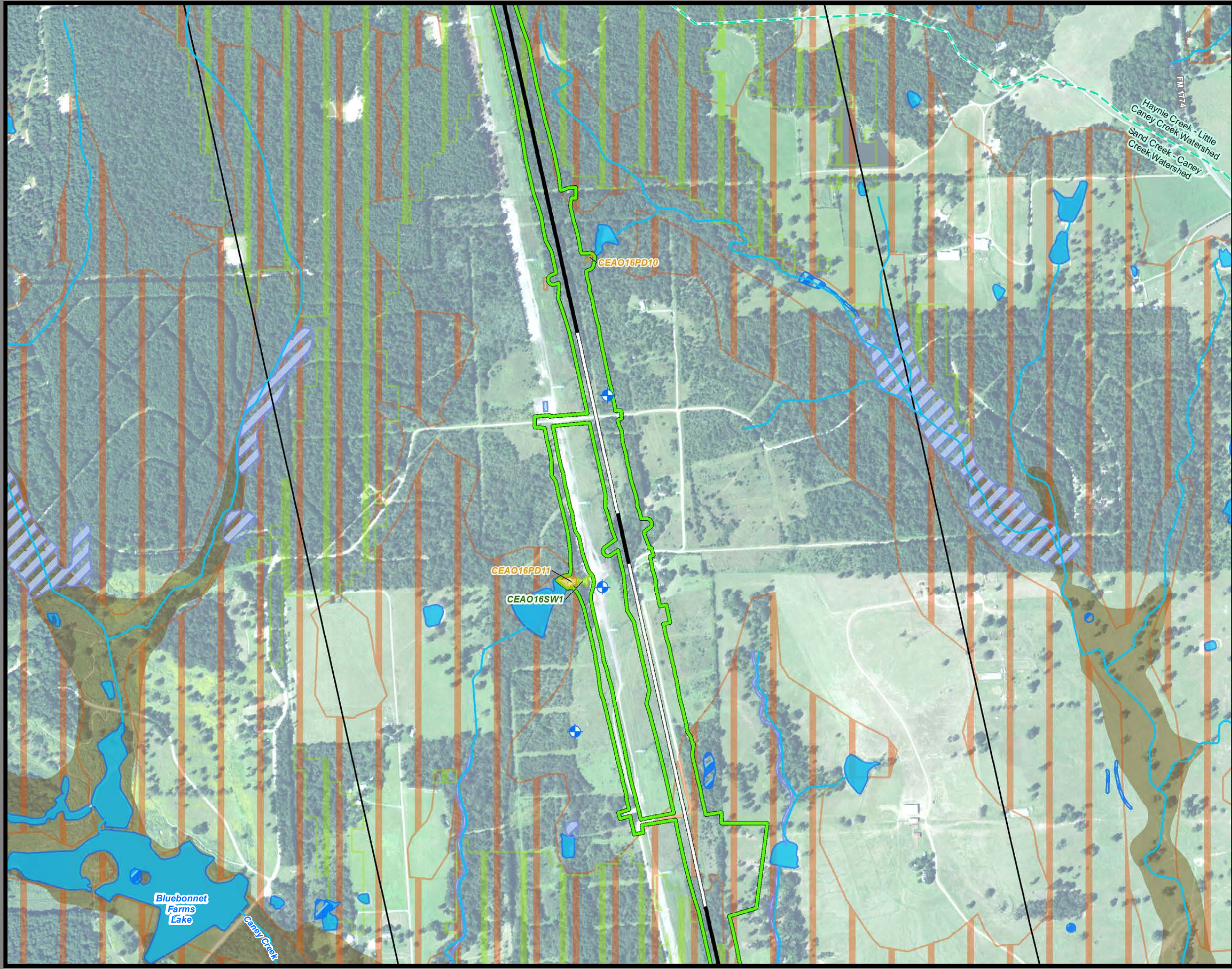
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 219 of 257**

**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 220 of 257**

**Legend**

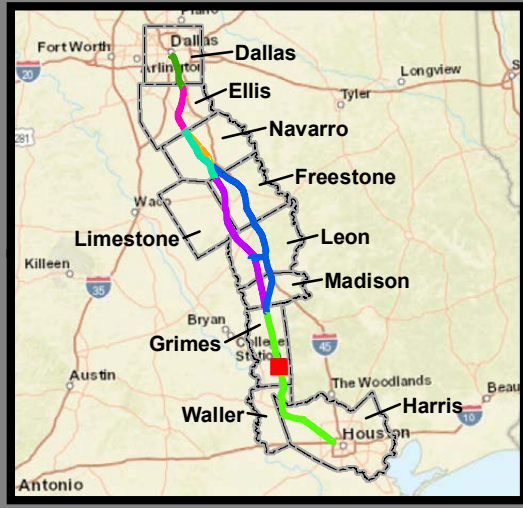
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 221 of 257**

**Legend**

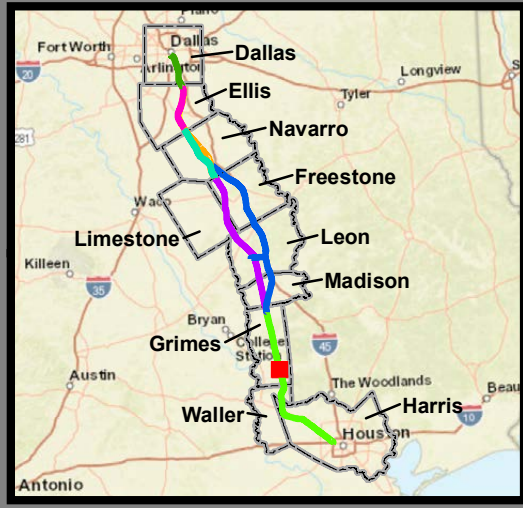
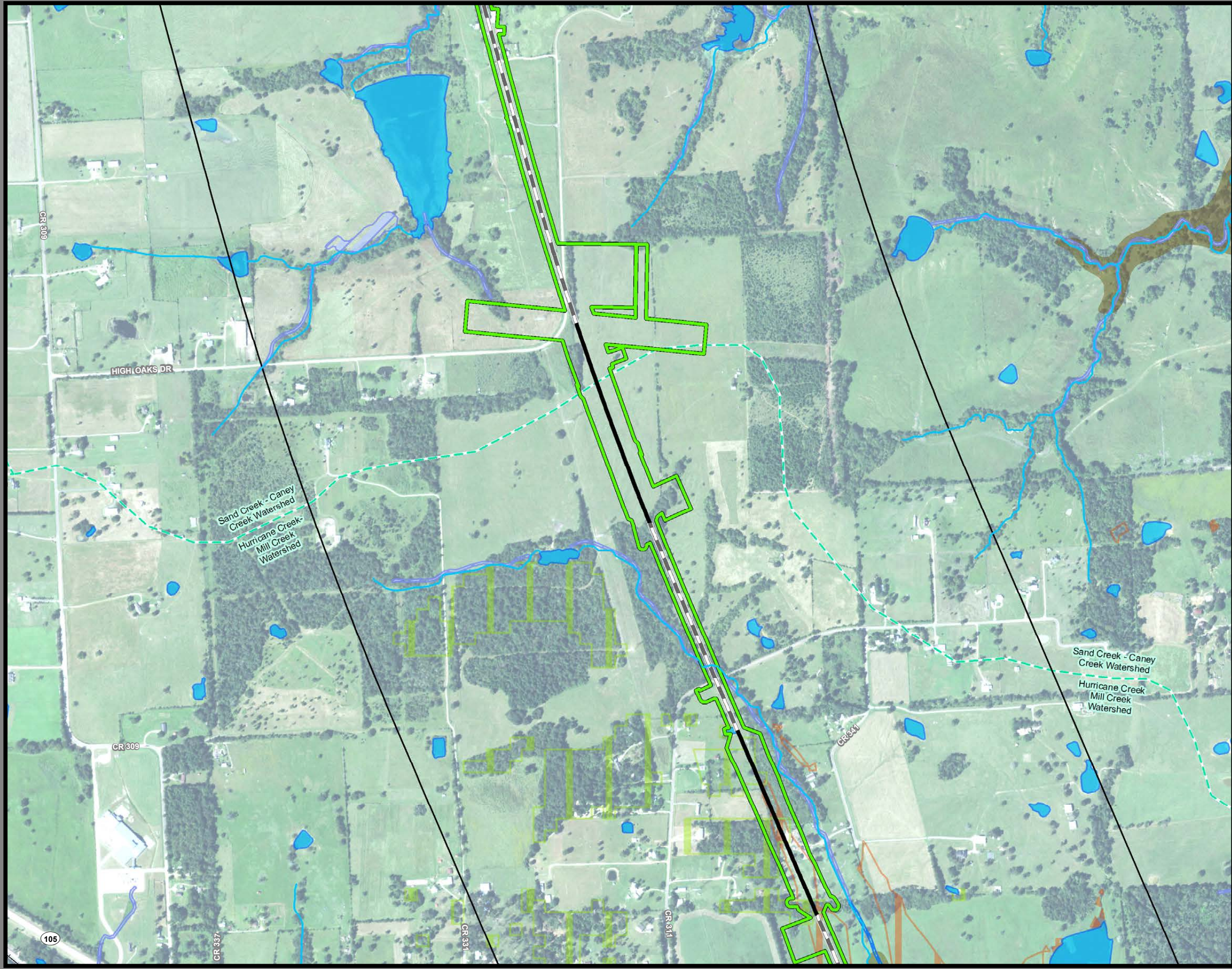
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High-Speed Rail Project  
Natural Resources  
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Sheet 222 of 257**

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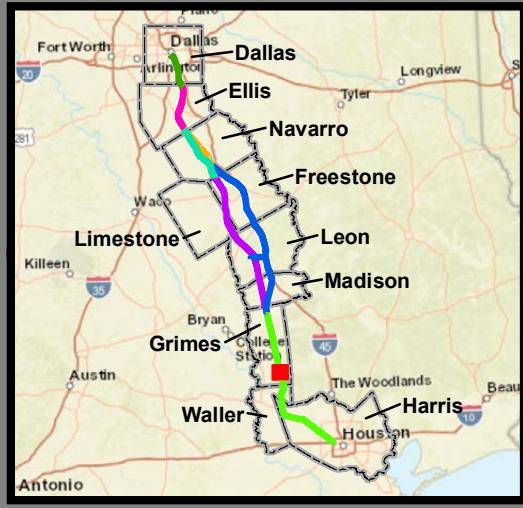
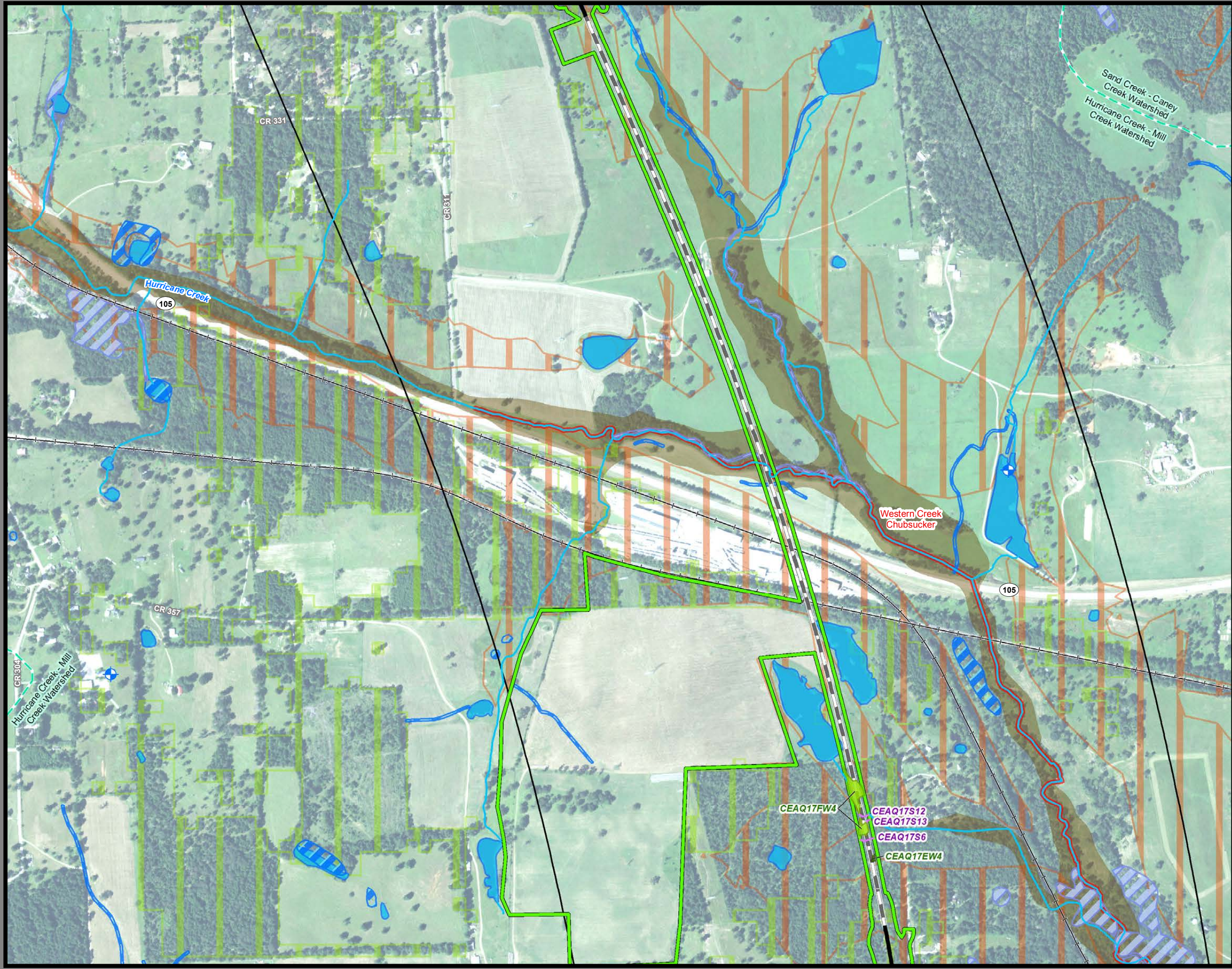
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 223 of 257**

**Legend**

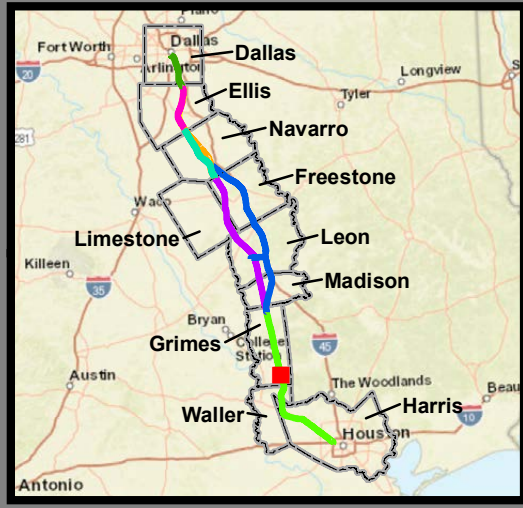
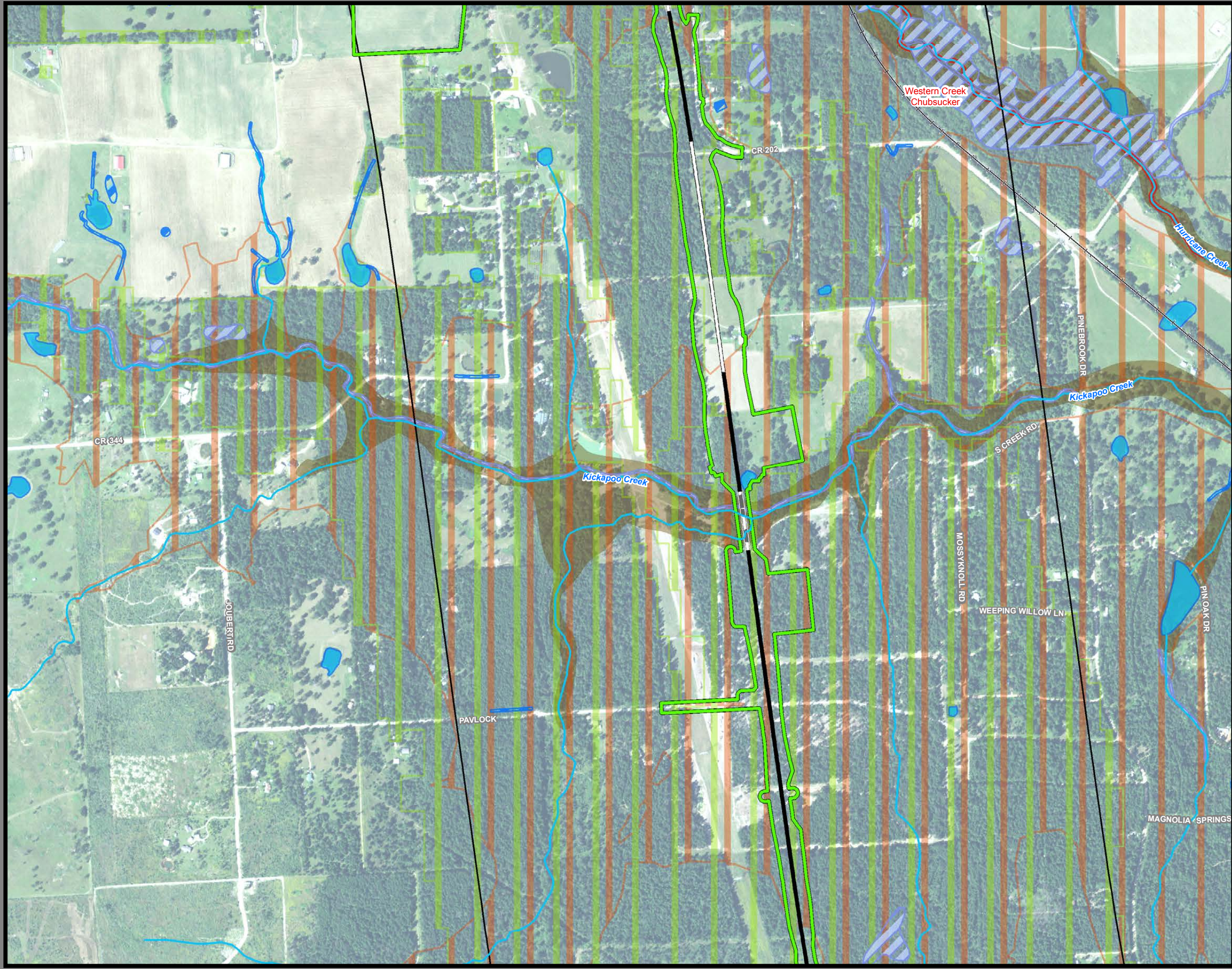
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
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Sheet 224 of 257**

**Legend**

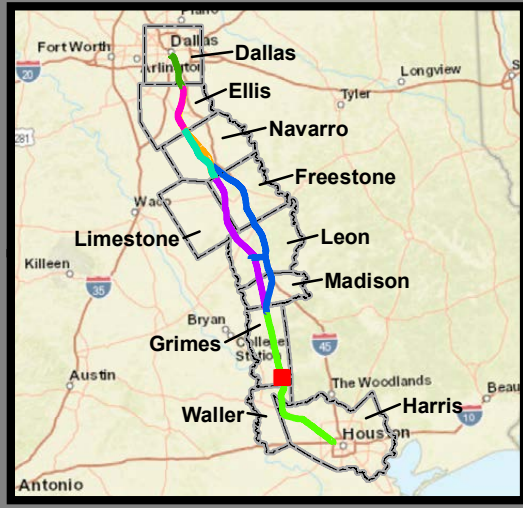
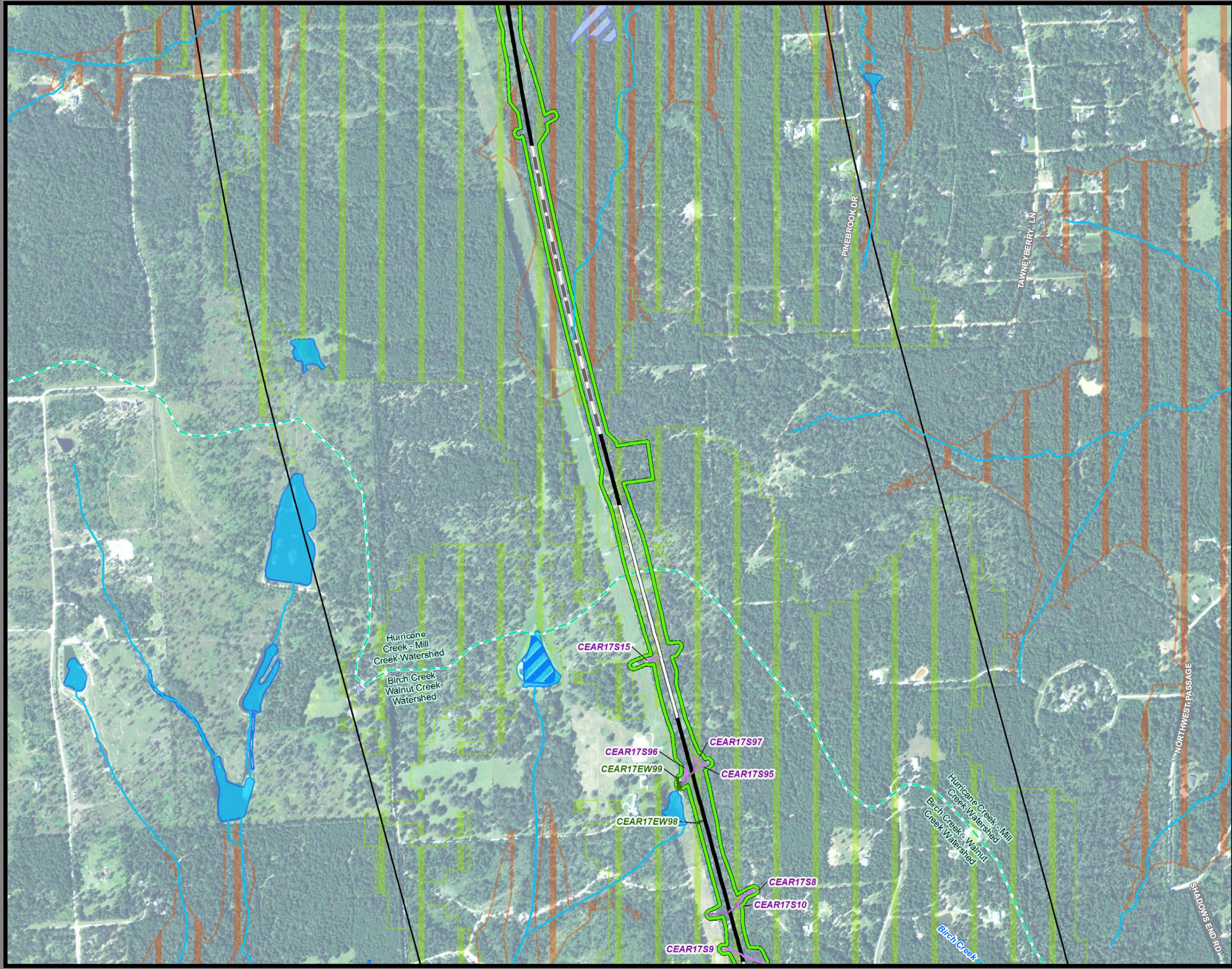
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> </ul> <p><b>Element of Occurrence</b></p> <ul style="list-style-type: none"> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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Aerial Imagery: USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 225 of 257**

**Legend**

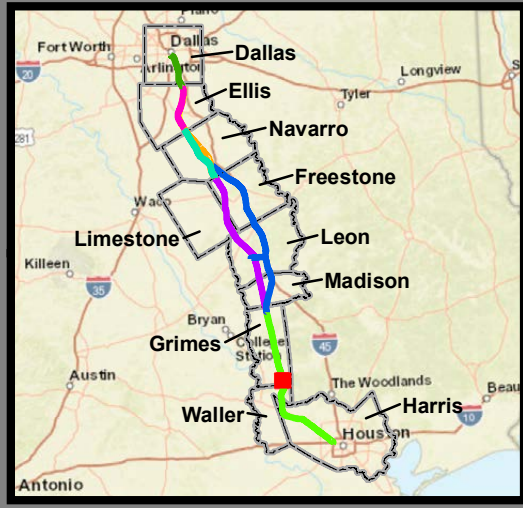
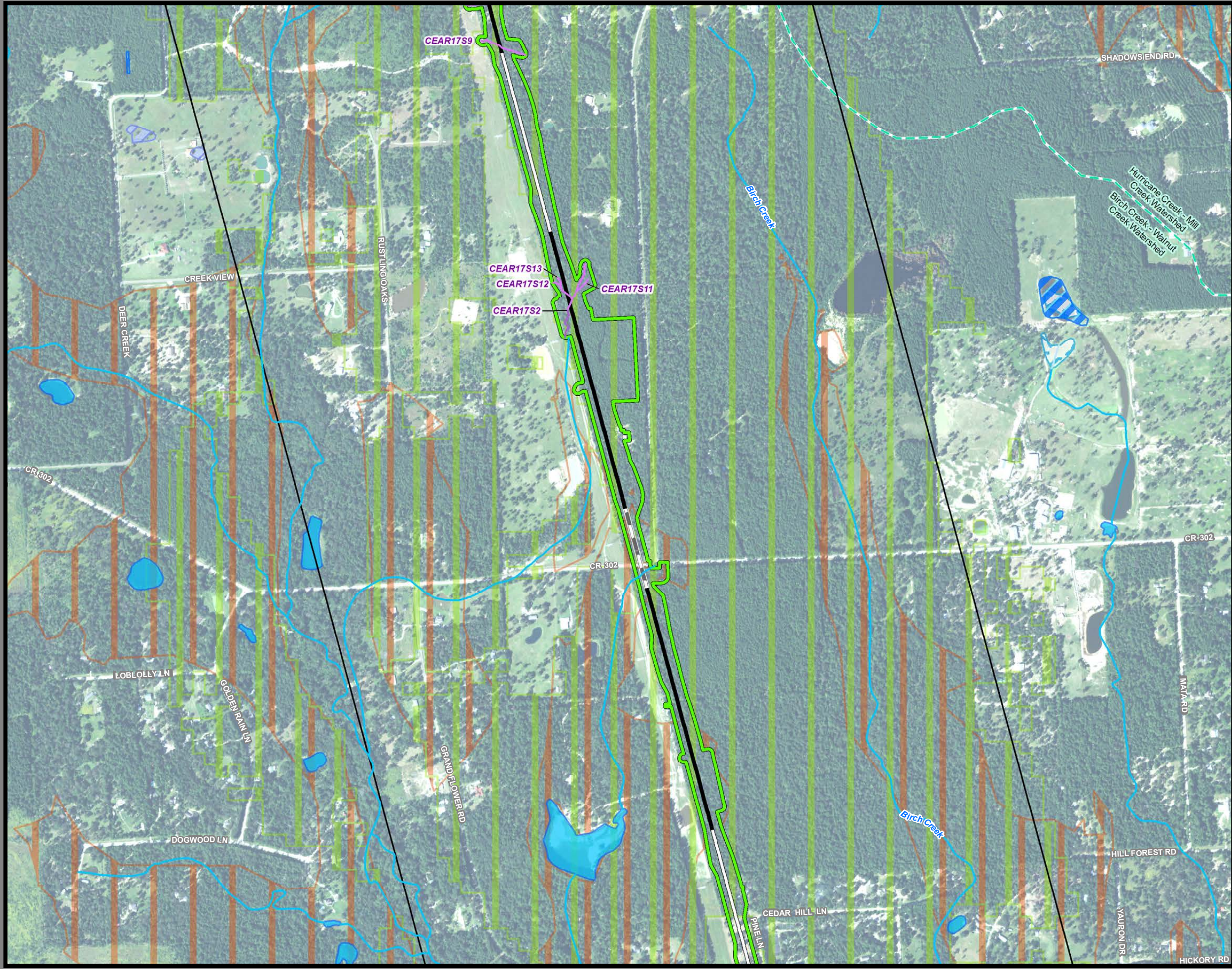
<b>Limits of Disturbance</b>	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	<b>Federal Emergency Management Agency (FEMA) Flood Zone</b>
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	<b>Field-Collected Data</b>
Segment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

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**Aerial Imagery:** USDA NAIP 2016







**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 226 of 257**

**Legend**

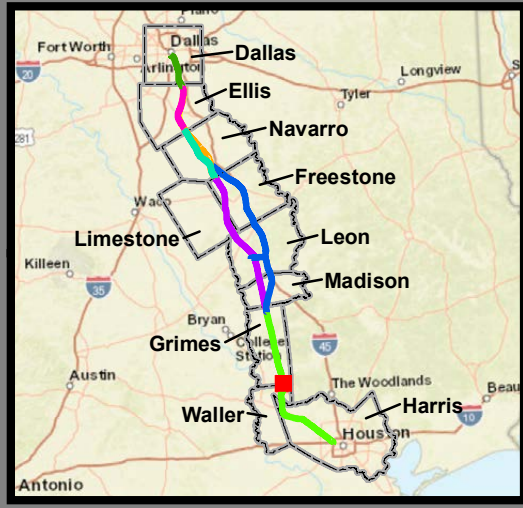
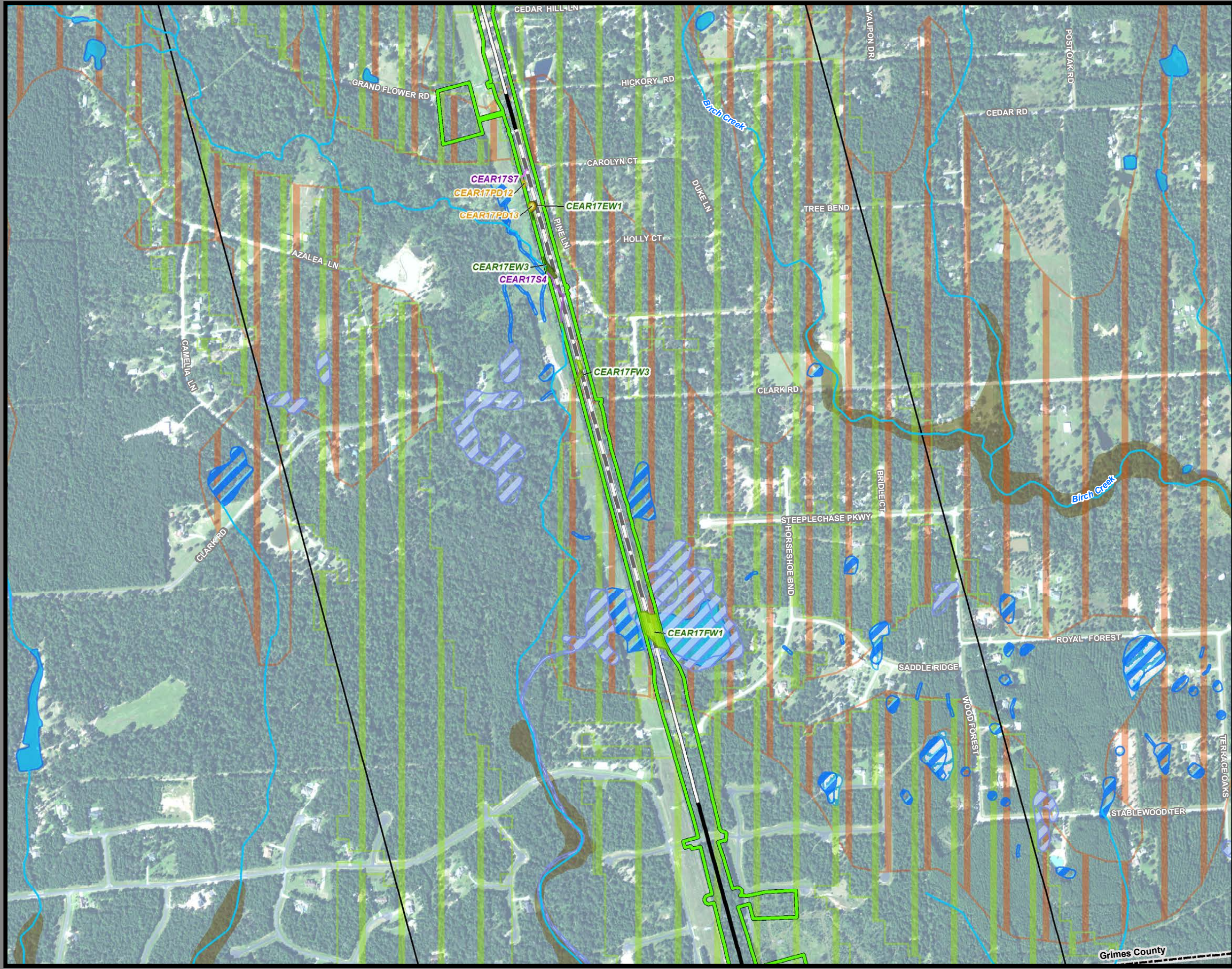
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 227 of 257**

**Legend**

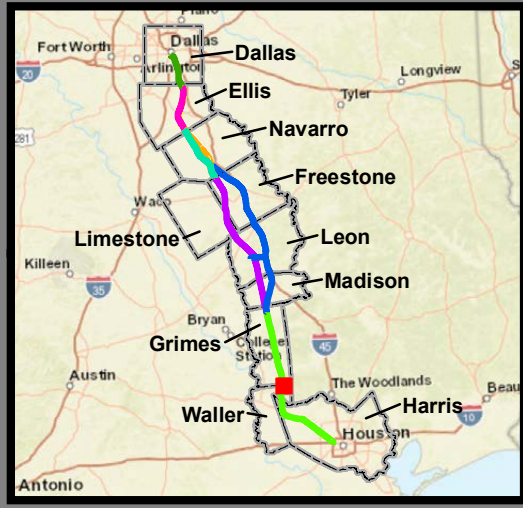
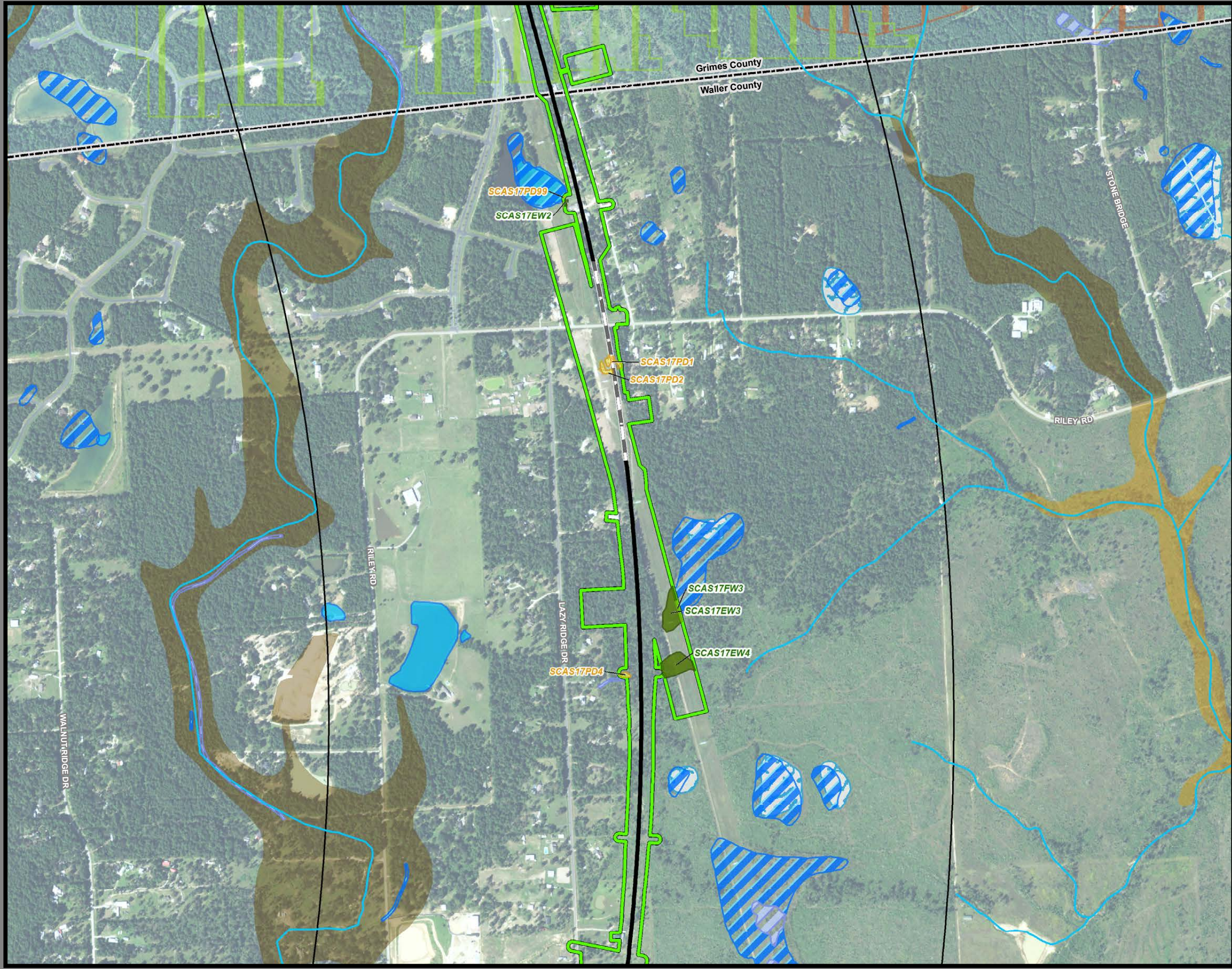
<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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**Dallas to Houston  
High-Speed Rail Project  
Natural Resources  
Segment 5  
Sheet 228 of 257**

**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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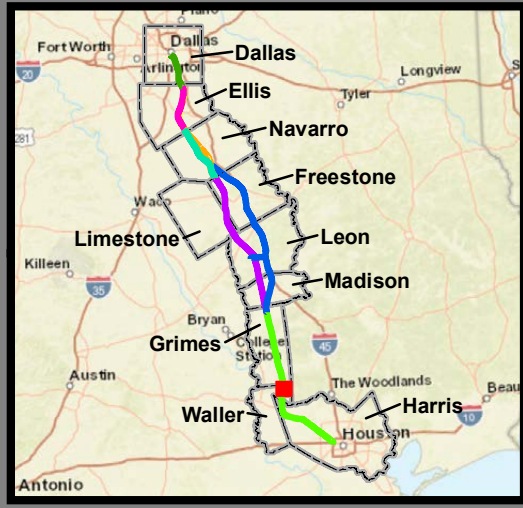
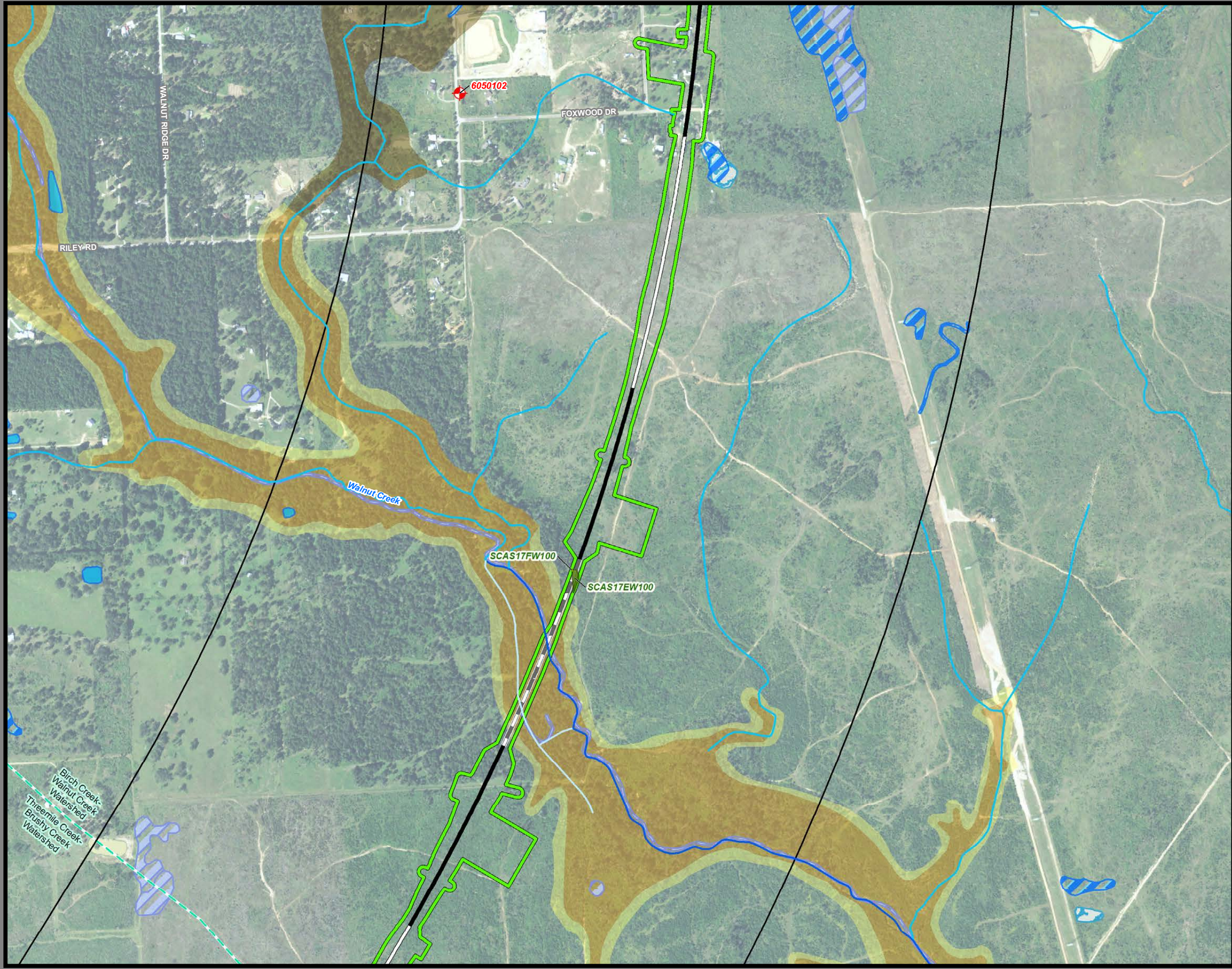
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**Legend**

<p><b>Limits of Disturbance</b></p> <ul style="list-style-type: none"> <li>Segment 1</li> <li>Segment 2A</li> <li>Segment 2B</li> <li>Segment 3A</li> <li>Segment 3B</li> <li>Segment 3C</li> <li>Segment 4</li> <li>Segment 5</li> </ul> <p><b>Track Configuration</b></p> <ul style="list-style-type: none"> <li>Viaduct</li> <li>Embankment</li> <li>Cut</li> <li>Half Mile Centerline Buffer</li> <li>City Boundary</li> <li>County Boundary</li> <li>Railroad</li> <li>Municipal Setting Designation (MSD)</li> </ul> <p><b>Potential Habitat</b></p> <ul style="list-style-type: none"> <li>Houston Toad</li> <li>Large-fruited Sand Verbena</li> <li>Navasota Ladies'-tresses</li> <li>Element of Occurrence</li> <li>Record for Federally Protected Species</li> <li>U.S. Army Corps of Engineers (USACE) Project Area</li> <li>Watershed (HUC 12) Boundary</li> <li>Public Water Supply</li> <li>Groundwater Wells</li> </ul>	<ul style="list-style-type: none"> <li>Impaired Waters with Total Maximum Daily Load (TMDL)</li> <li>Impaired Waters</li> </ul> <p><b>Federal Emergency Management Agency (FEMA) Flood Zone</b></p> <ul style="list-style-type: none"> <li>A - 1%</li> <li>AE - 1%</li> <li>AO - 1%</li> <li>X - 0.2%</li> </ul> <p><b>Field-Collected Data</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Ephemeral Stream/River</li> <li>Other Stream/River</li> <li>Lake/Pond</li> <li>Emergent Wetland</li> <li>Forested Wetland</li> <li>Scrub/Shrub Wetland</li> </ul> <p><b>National Hydrography Dataset (NHD)</b></p> <ul style="list-style-type: none"> <li>Perennial Stream/River</li> <li>Intermittent Stream/River</li> <li>Artificial Stream/Canal</li> <li>Lake/Pond</li> <li>Reservoir</li> <li>Swamp/Marsh</li> </ul> <p><b>National Wetlands Inventory (NWI)</b></p> <ul style="list-style-type: none"> <li>Freshwater Emergent Wetland</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Other</li> </ul>
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\*Floodplains in Freestone and Madison Counties were digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to absence of digitally mapped FEMA floodplains.

**Data Sources:** County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2018; MSD - TCEQ 2018; USACE Project Areas - USACE 2018; Public Water Supply - EPA 2016; Impaired Waters - TCEQ 2016; Groundwater Wells - TWDB 2018; NHD/HUC12 - USGS 2018; Reservoirs - TWDB 2014; NWI - USFWS 2018; Floodplains - FEMA 2018; EOR - TPWD TXNDD 2019; ESRI World Street Map  
**Aerial Imagery:** USDA NAIP 2016

