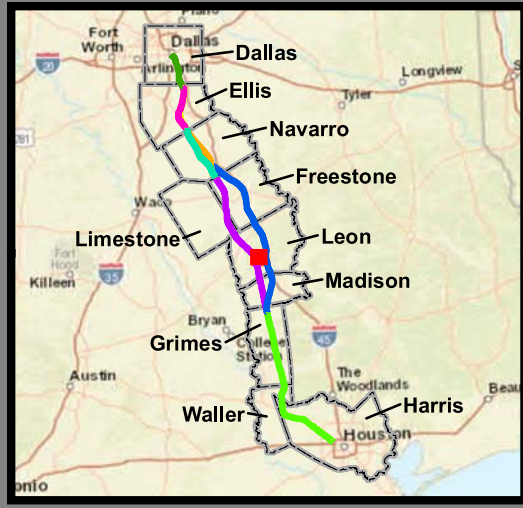
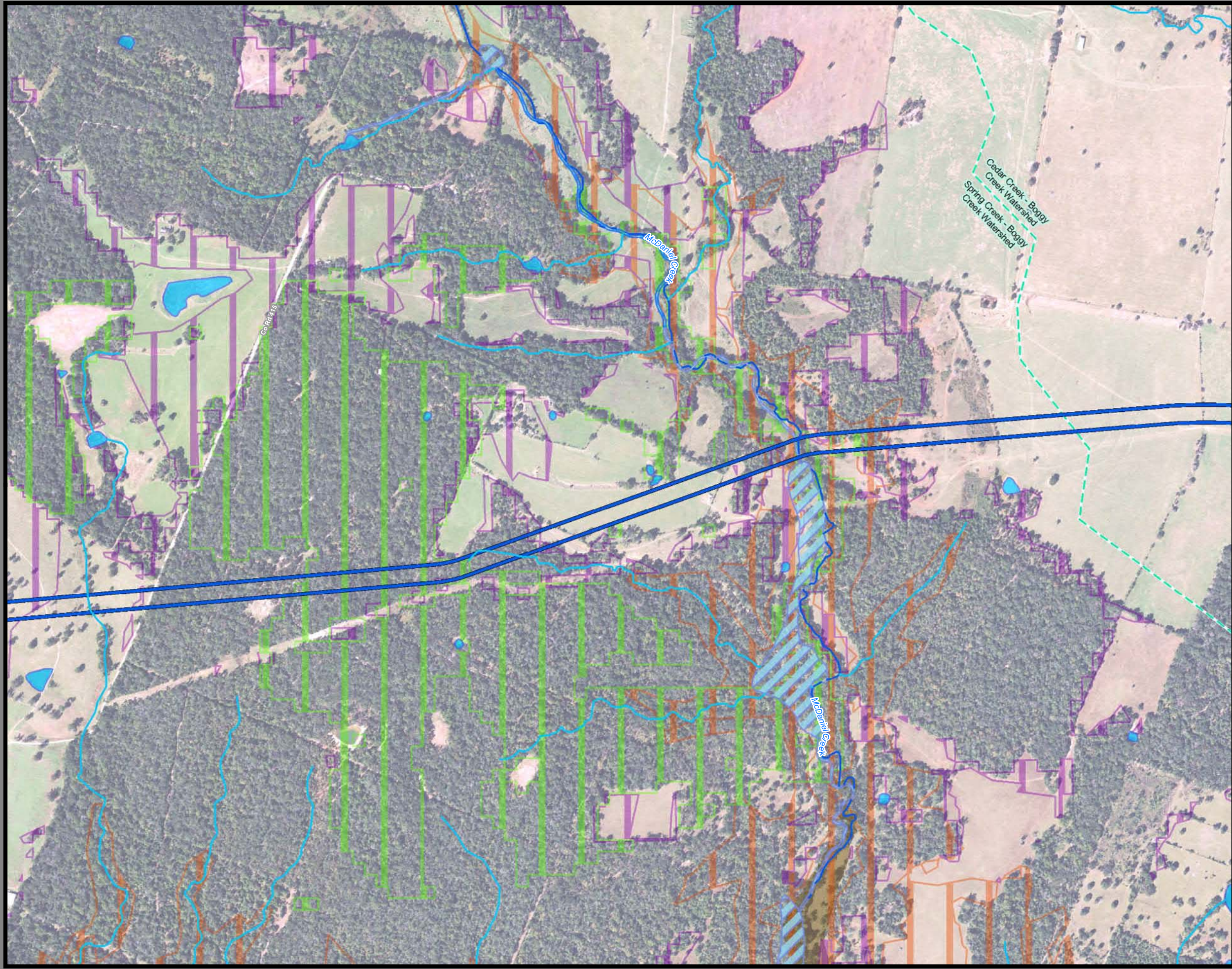


**Dallas to Houston High-Speed Rail
Draft Environmental Impact Statement**

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



**Federal Railroad
Administration**



**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 130 of 257**

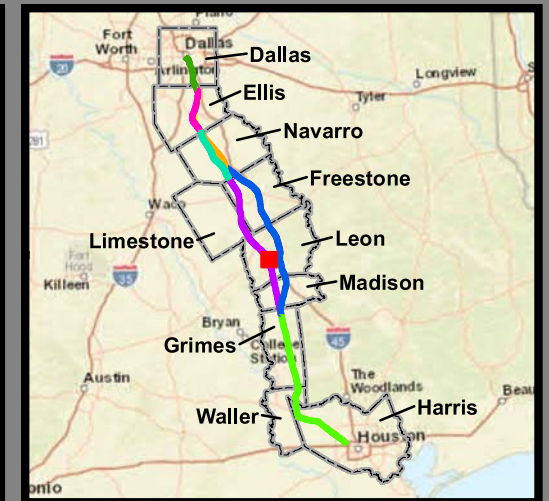
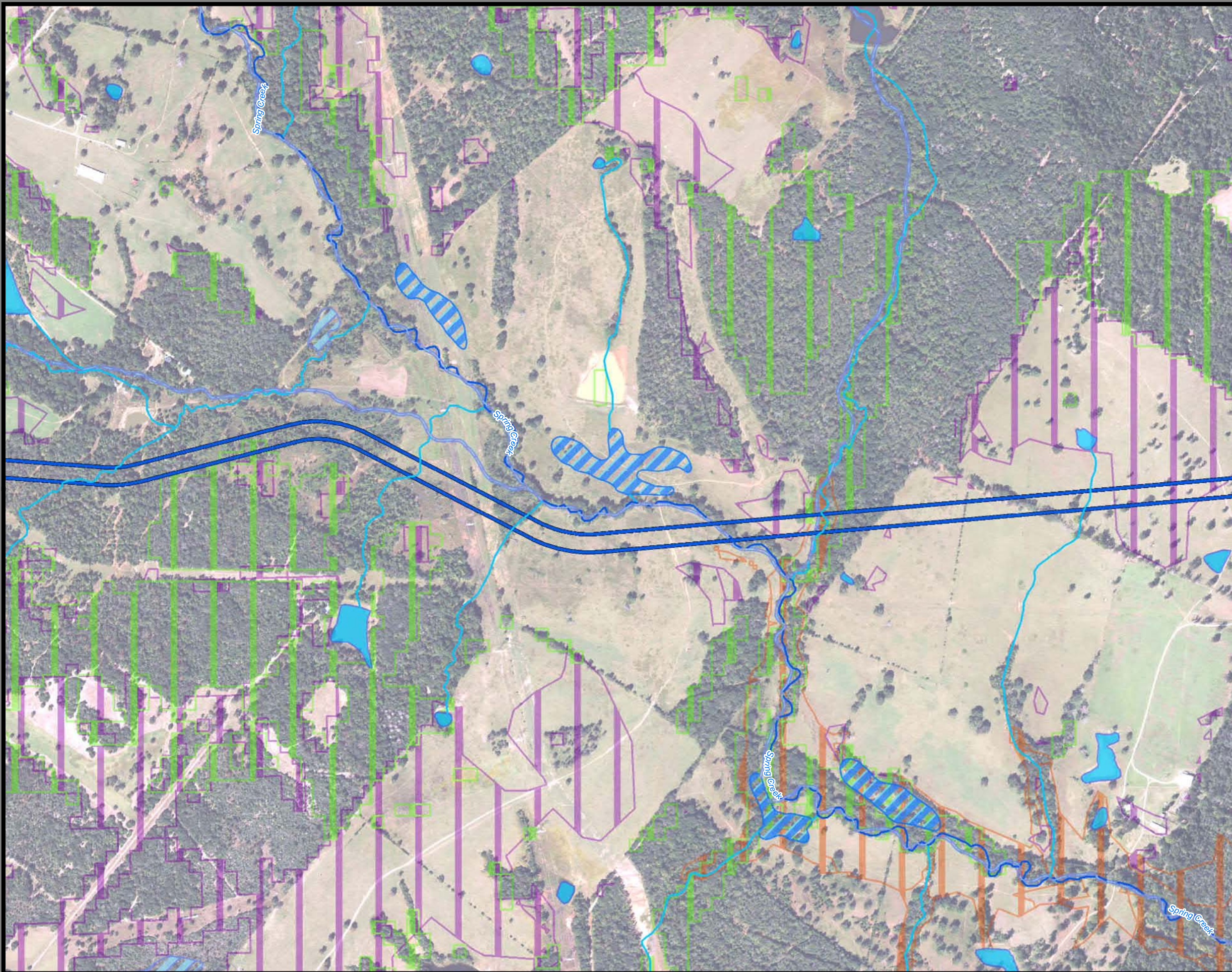
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 131 of 257**

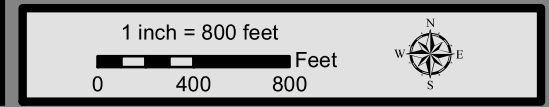
Legend

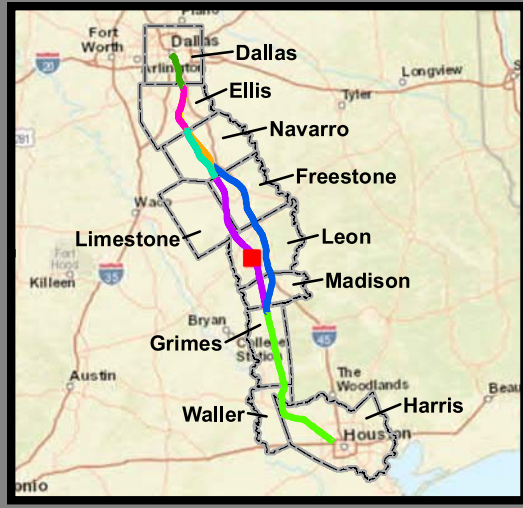
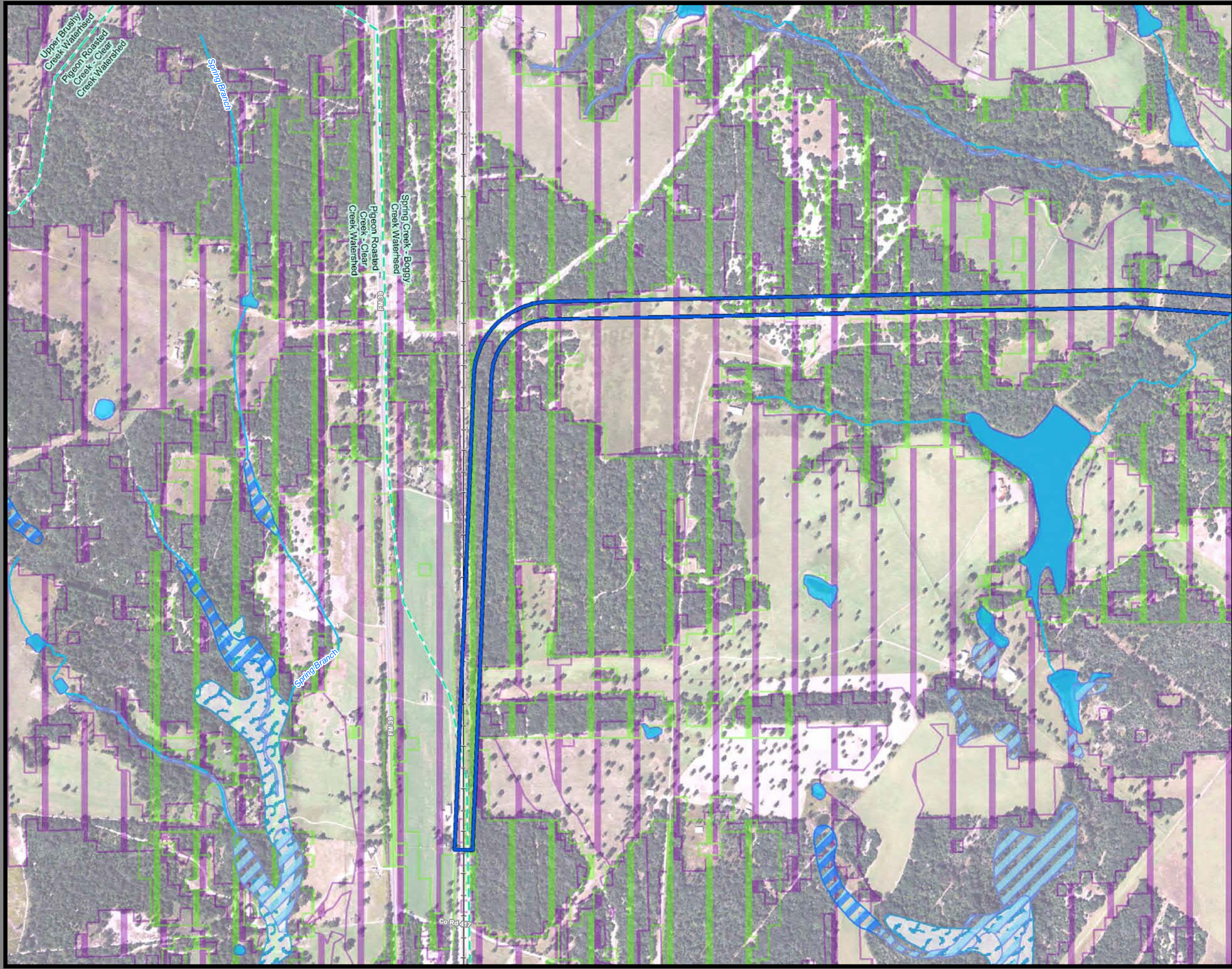
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Buffer City Boundary County Boundary Railroad Municipal Setting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

This Sheet only depicts Segment 3C; Segment 4 is also located in this same area and can be referenced on Sheet 182.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 132 of 257**

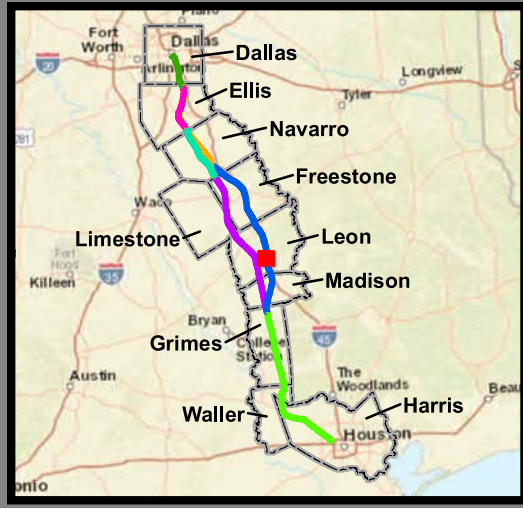
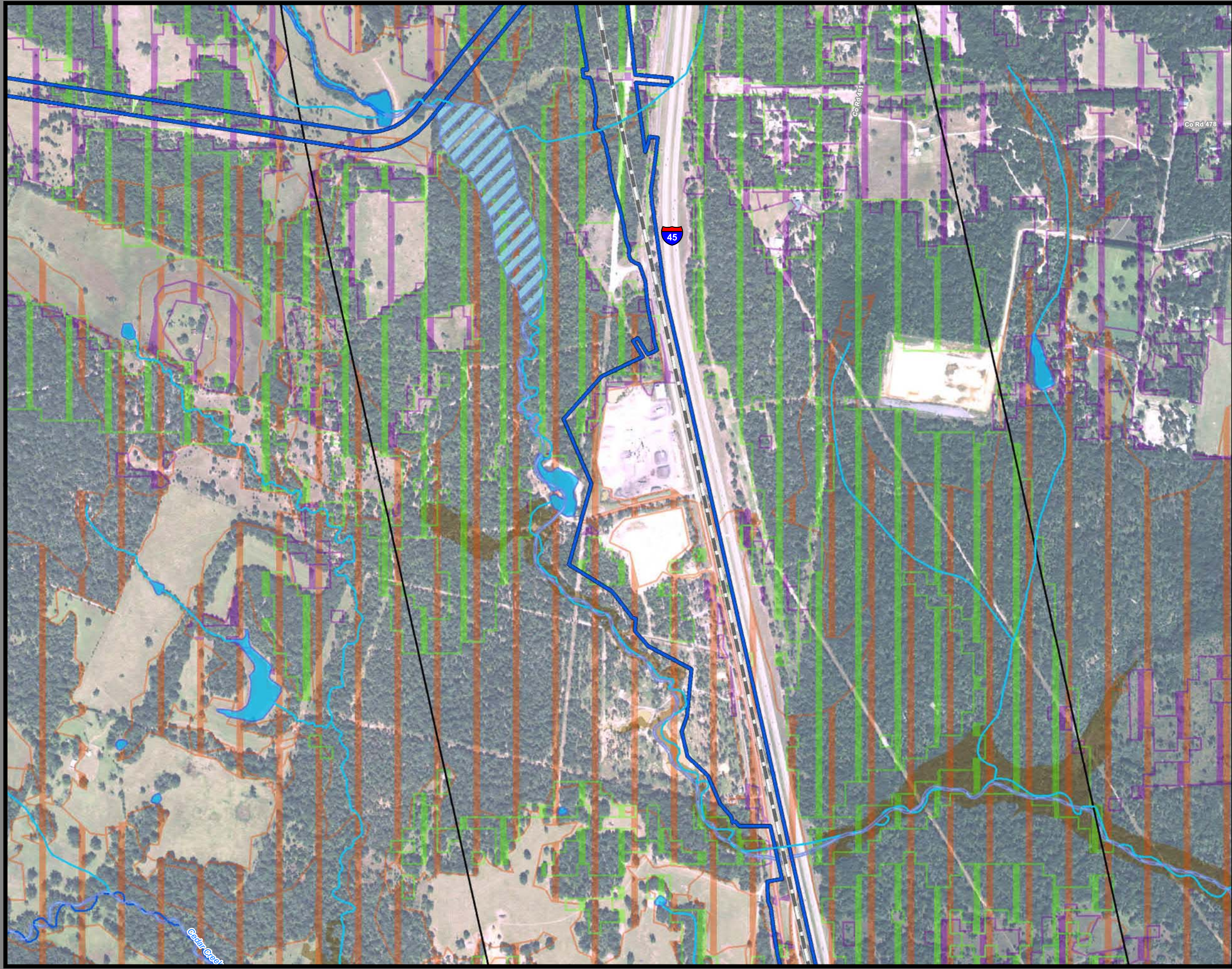
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 133 of 257**

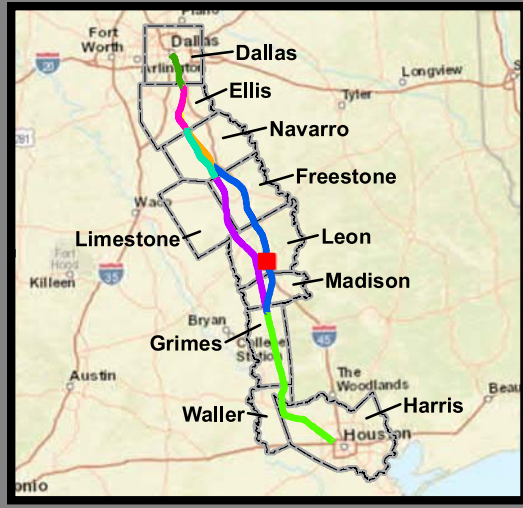
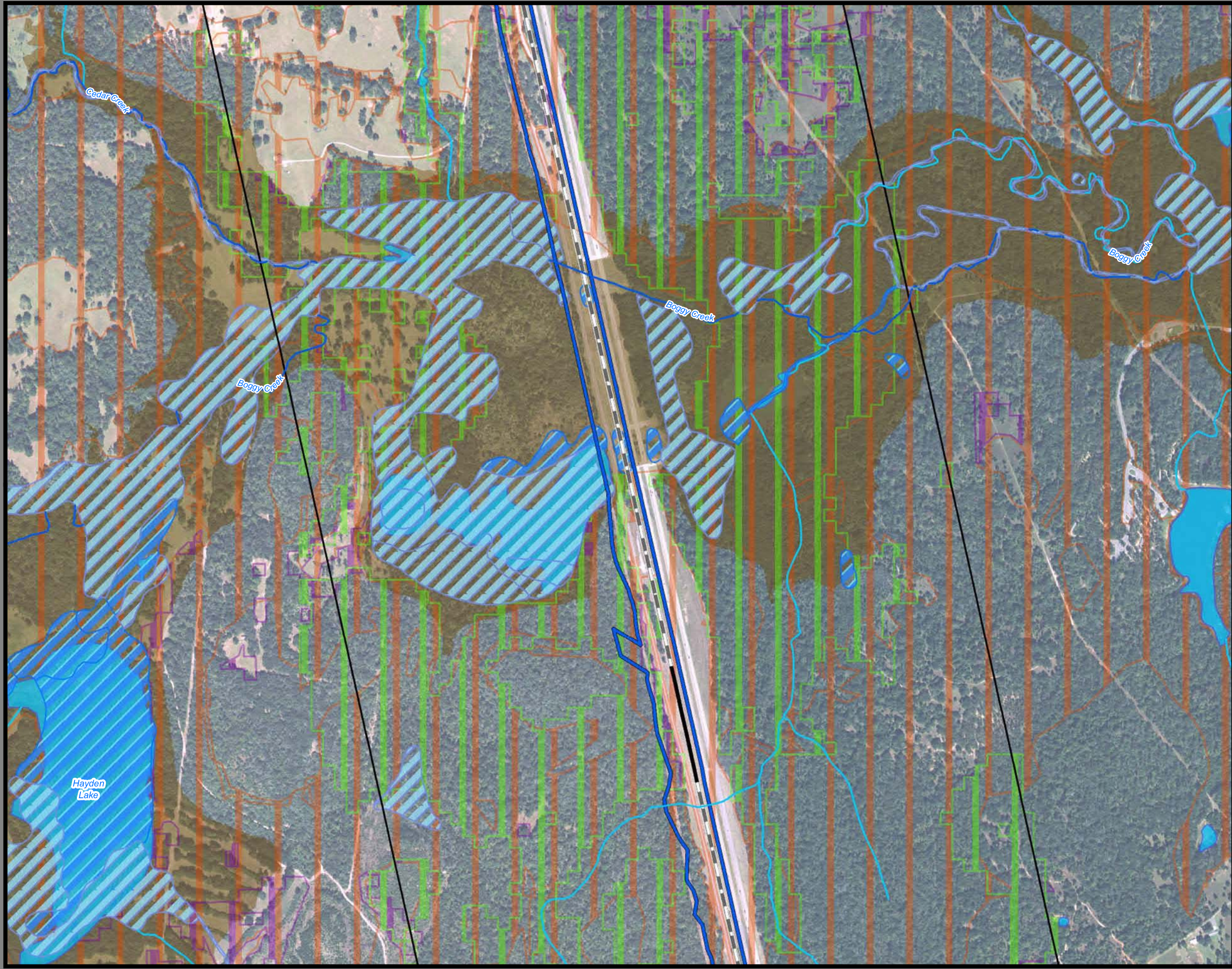
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 134 of 257**

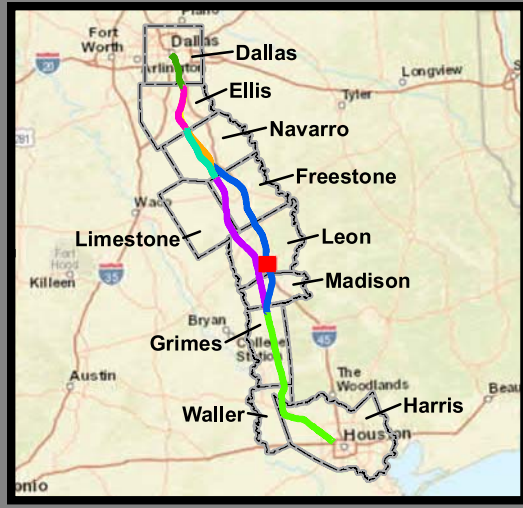
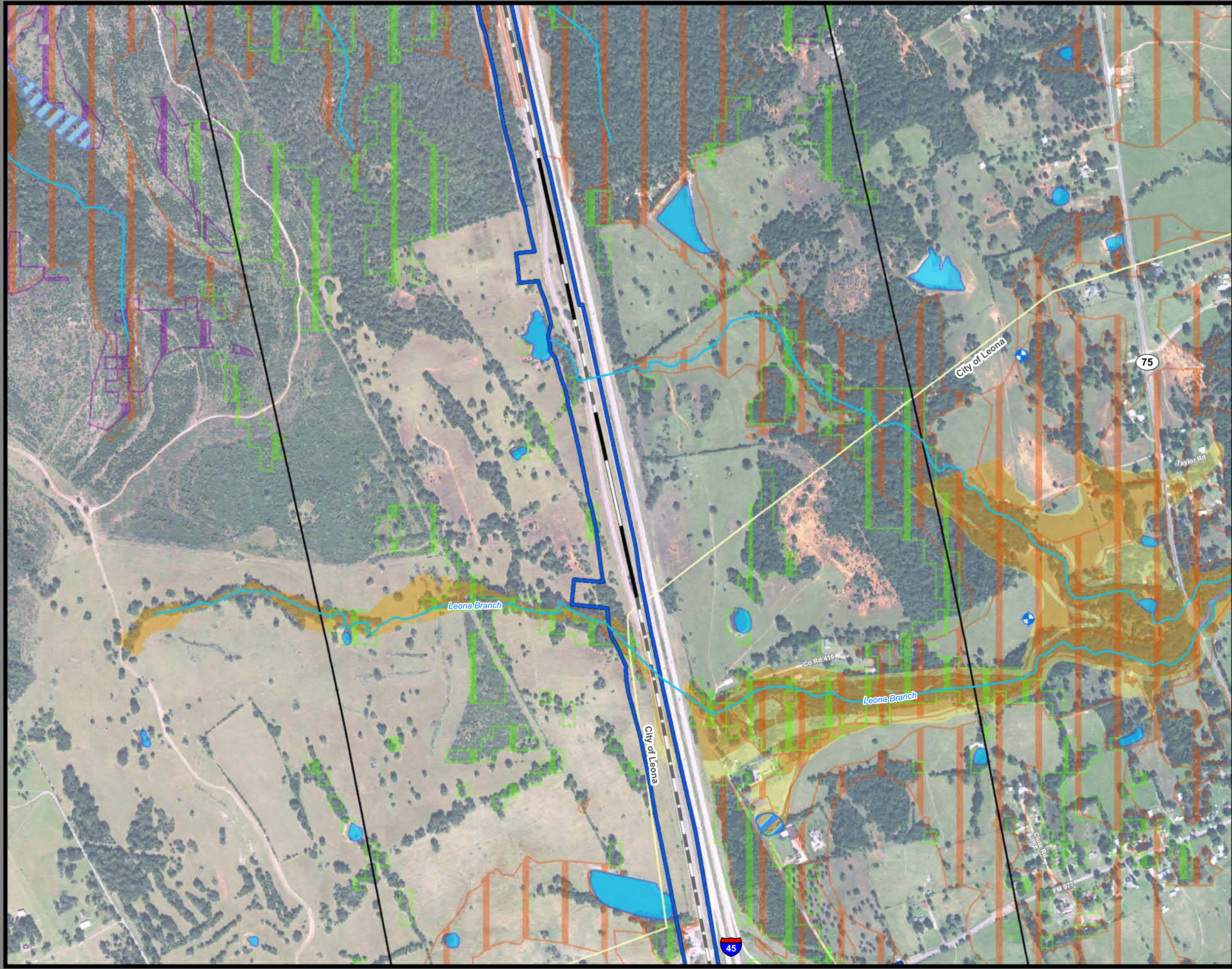
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 135 of 257**

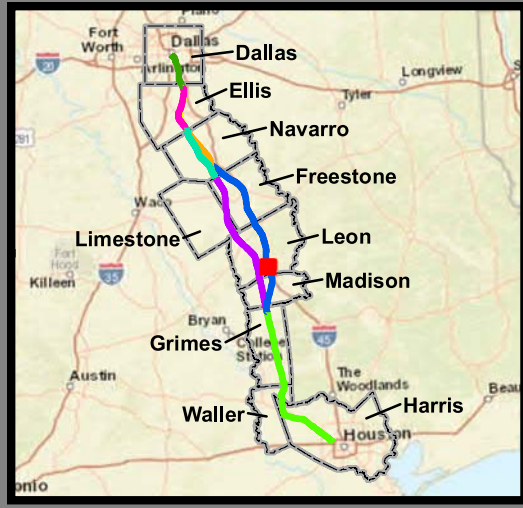
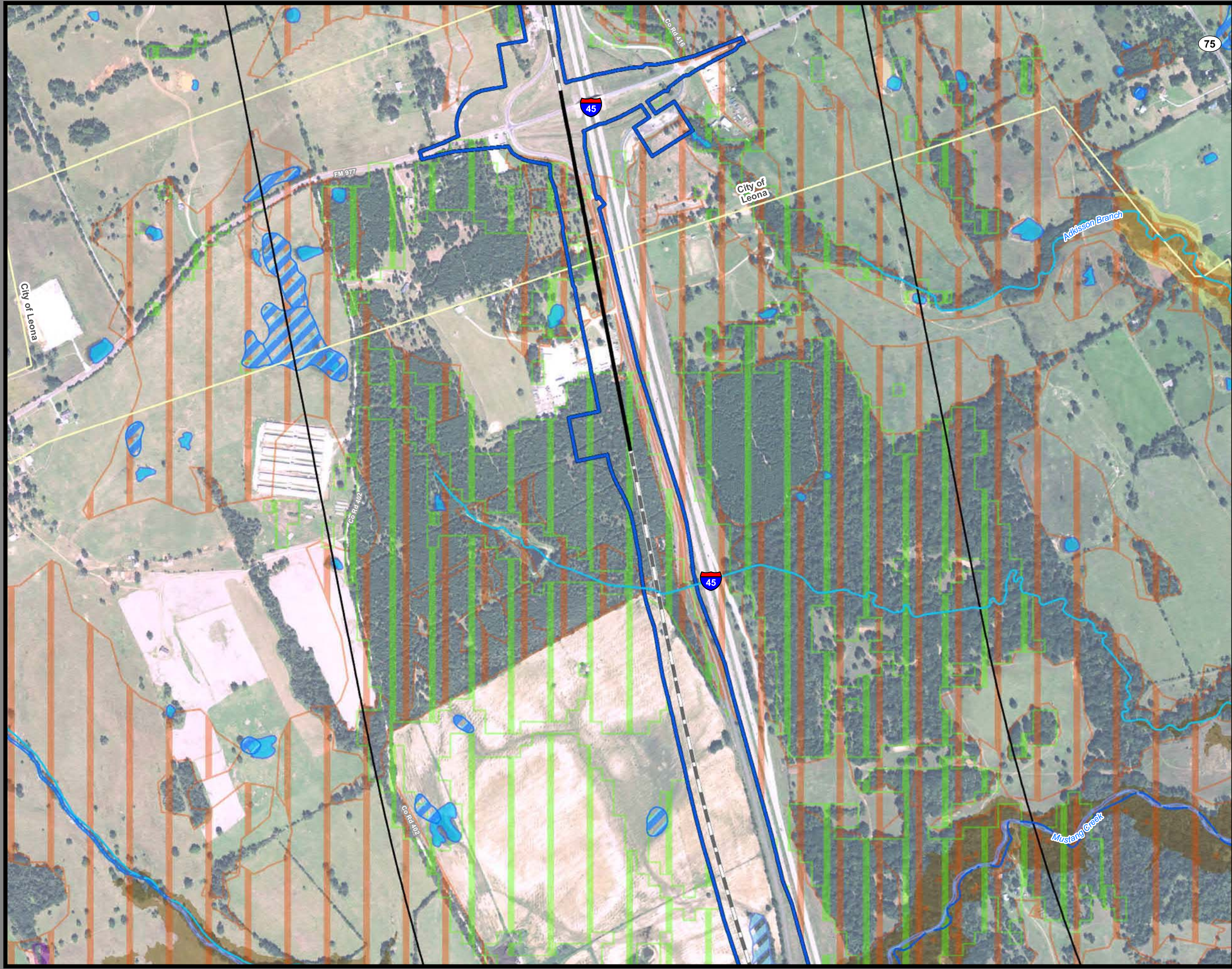
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 136 of 257**

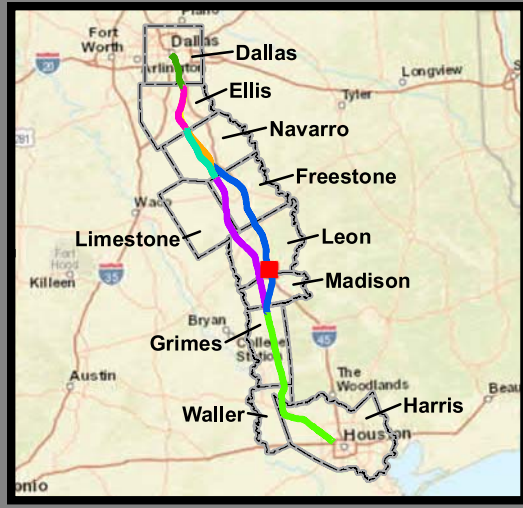
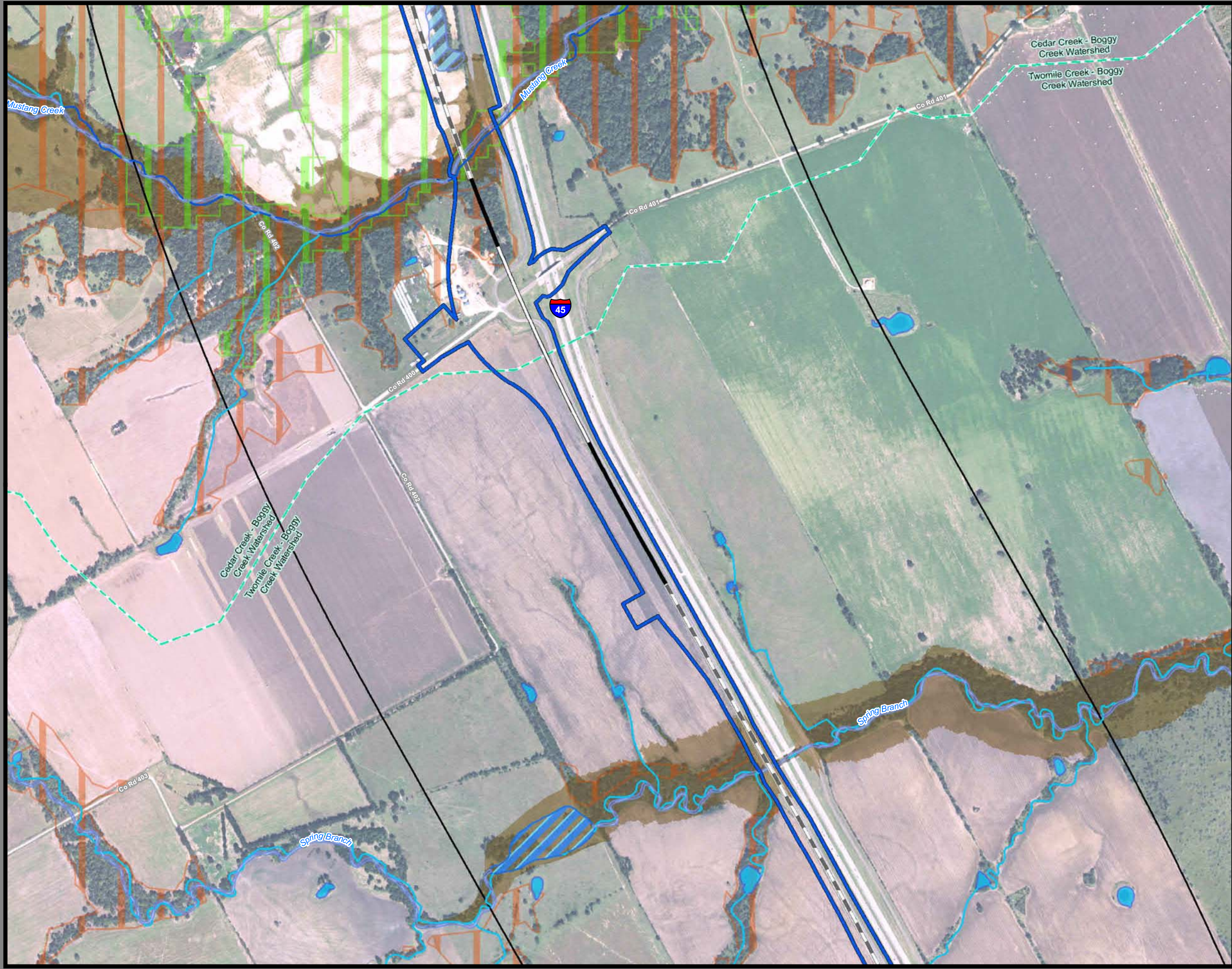
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 137 of 257**

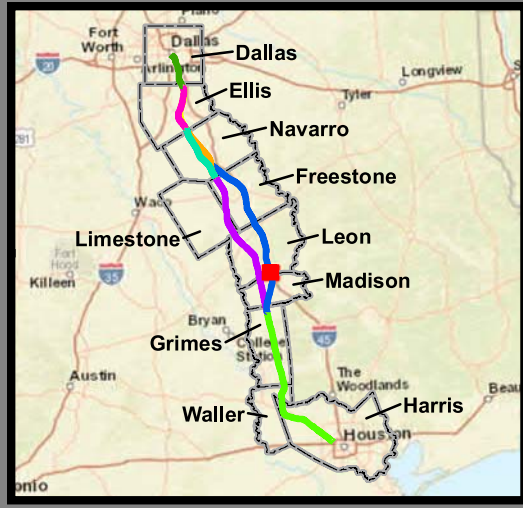
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 138 of 257**

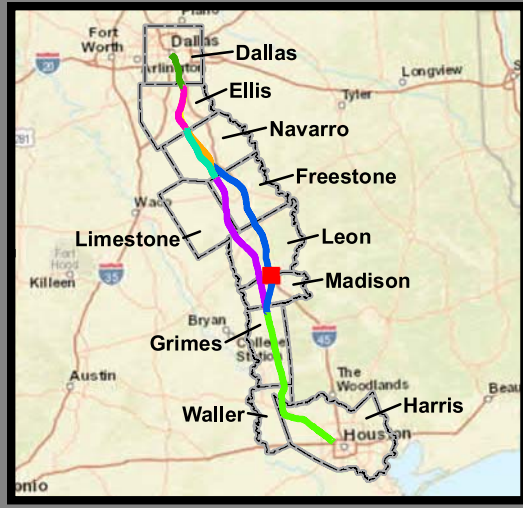
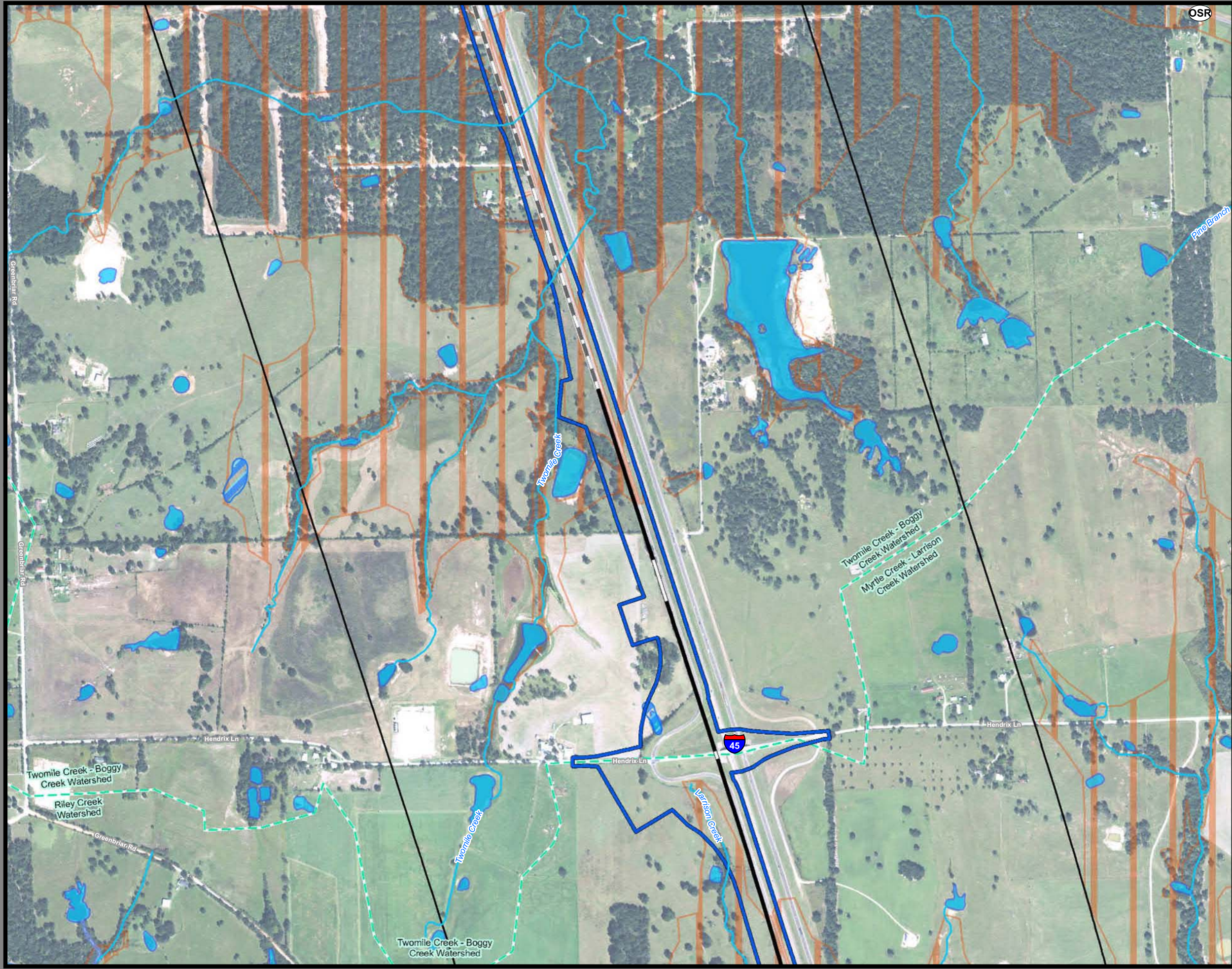
Legend

Limits of Disturbance	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	Field-Collected Data
Segment 5	Perennial Stream/River
Track Configuration	Intermittent Stream/River
Viaduct	Ephemeral Stream/River
Embankment	Other Stream/River
Cut	Lake/Pond
Half Mile Buffer	Emergent Wetland
City Boundary	Forested Wetland
County Boundary	Scrub/Shrub Wetland
Railroad	National Hydrography Dataset (NHD)
Municipal Setting Designation (MSD)	Perennial Stream/River
Potential Habitat	Intermittent Stream/River
Houston Toad	Artificial Stream/Canal
Large-fruited Sand Verbena	Lake/Pond
Navasota Ladies'-tresses	Reservoir
Endangered Species	Swamp/Marsh
Threatened Species	National Wetlands Inventory (NWI)
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 Well	

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 139 of 257**

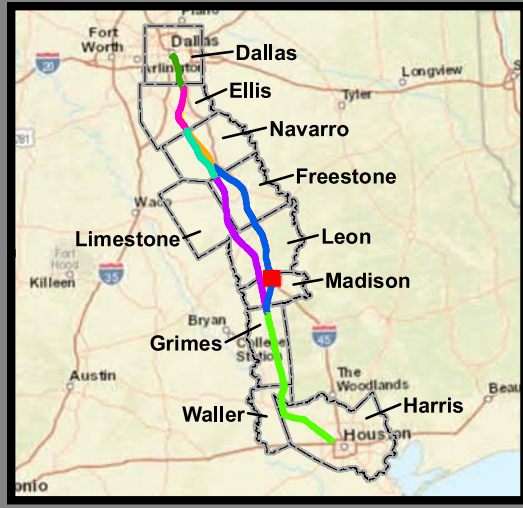
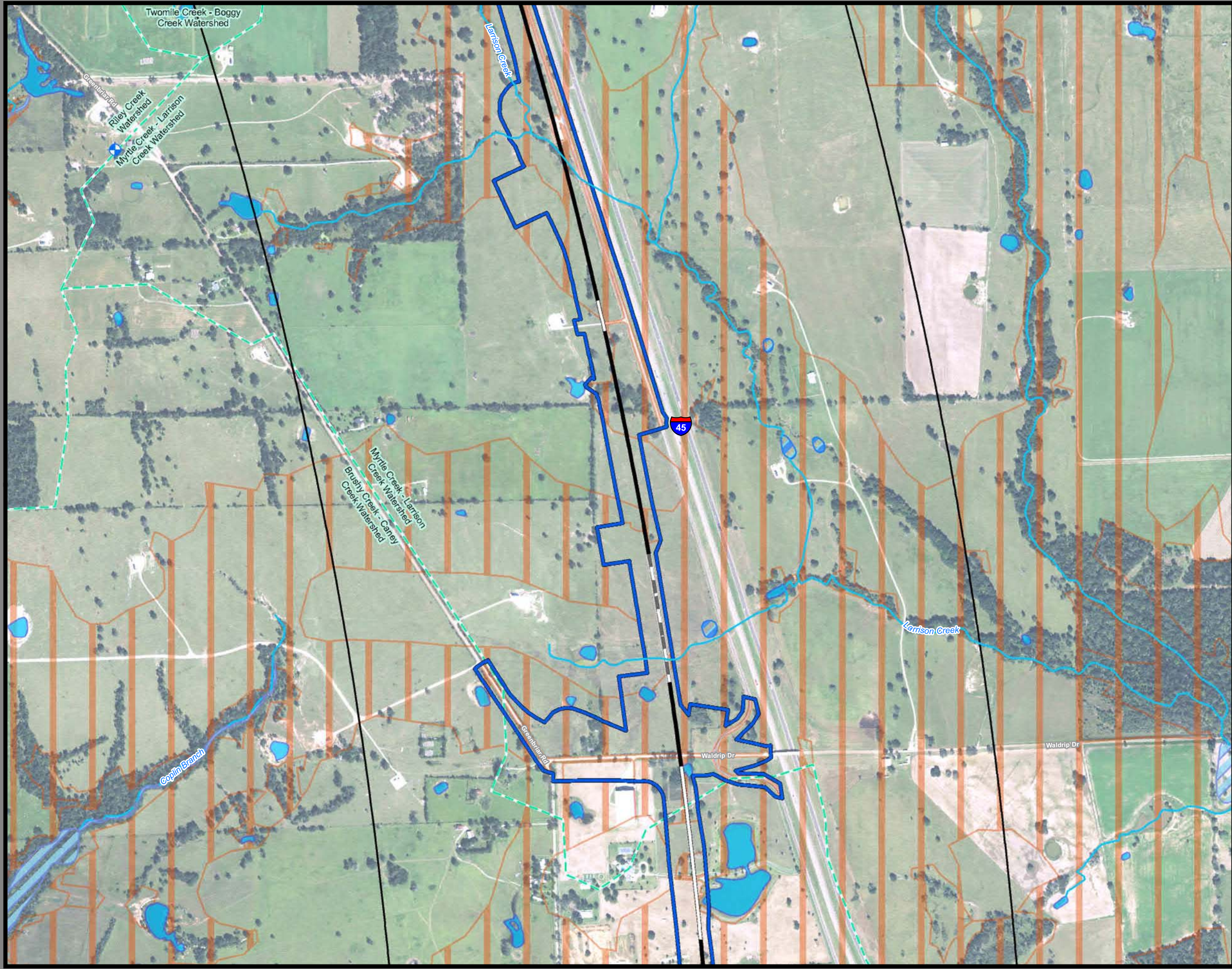
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 140 of 257**

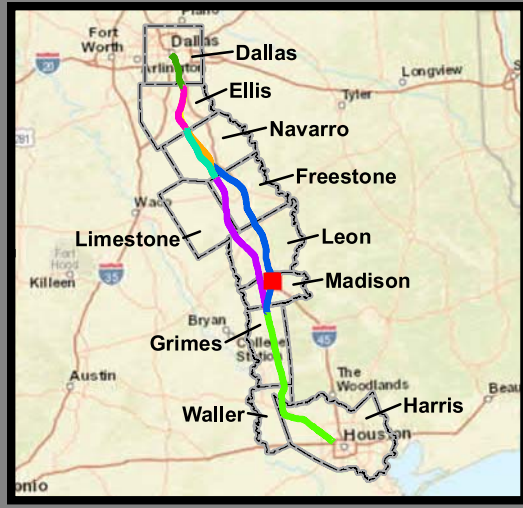
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 141 of 257**

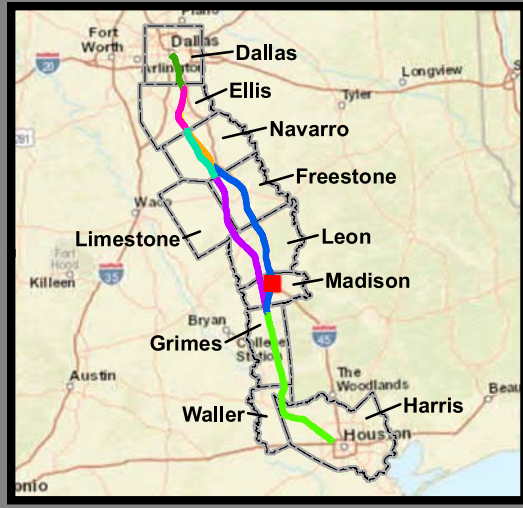
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 142 of 257**

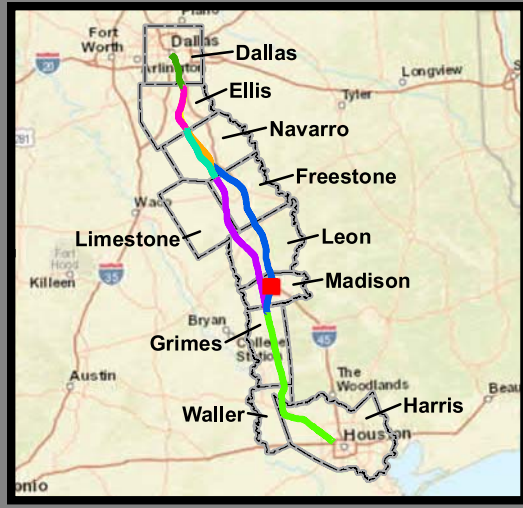
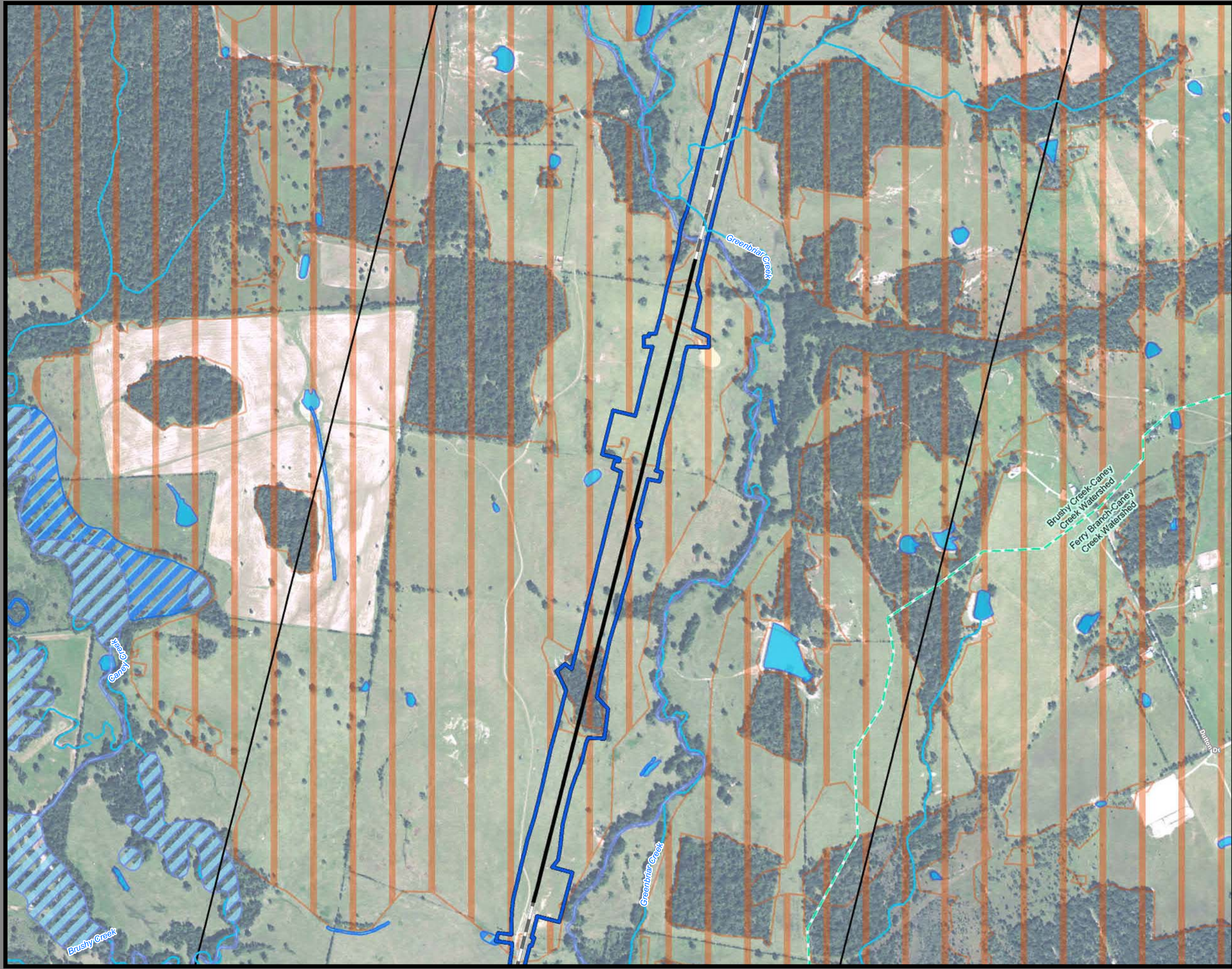
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 143 of 257**

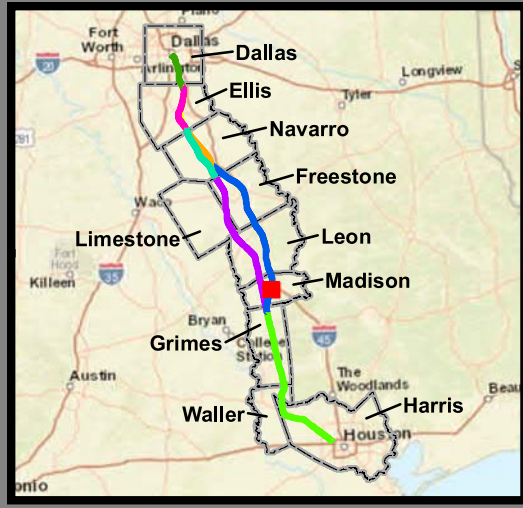
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 144 of 257**

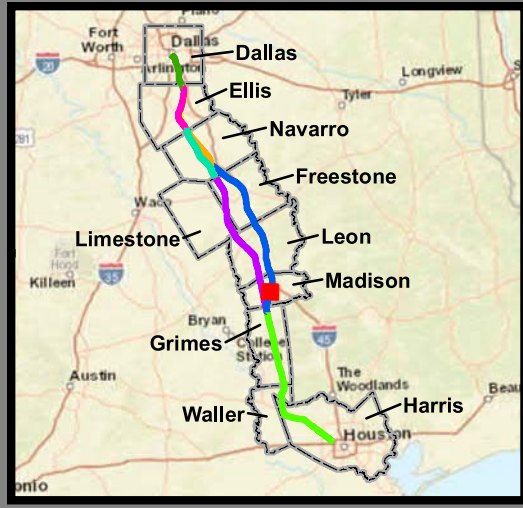
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 145 of 257**

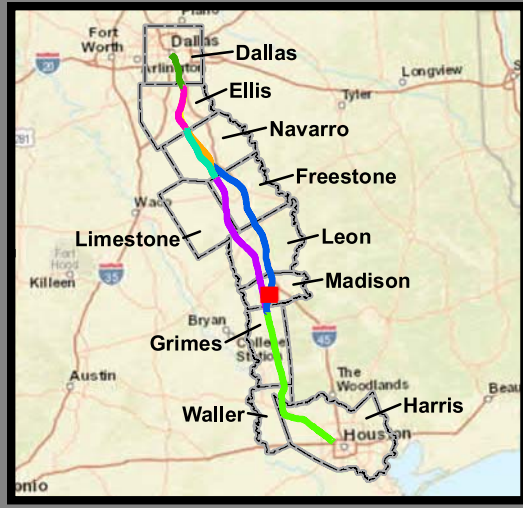
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 146 of 257**

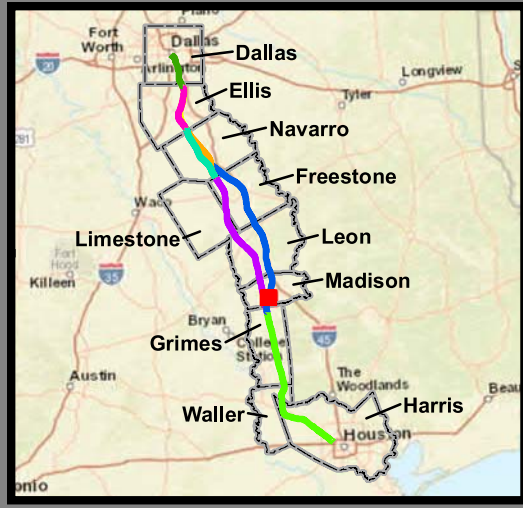
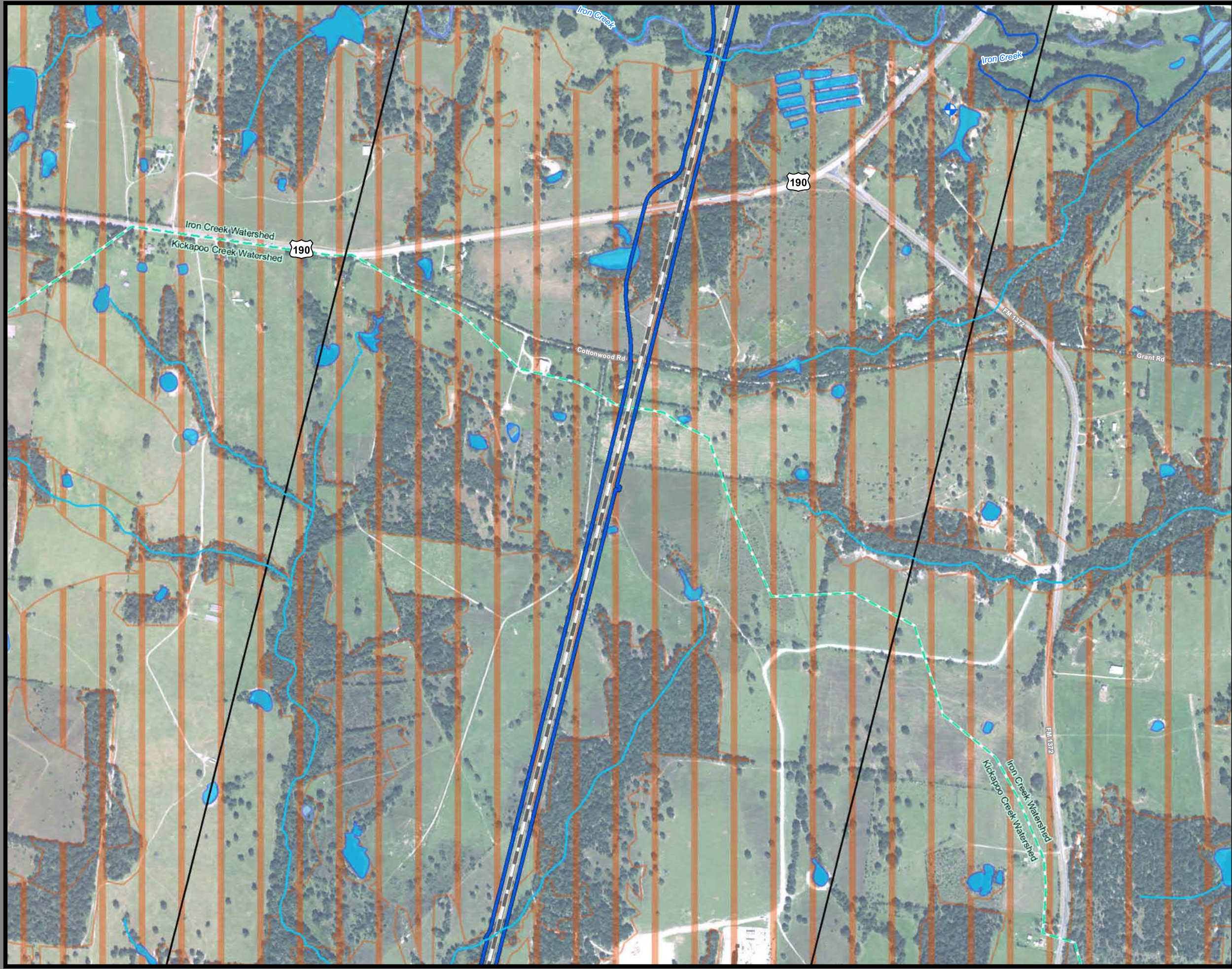
Legend

Limits of Disturbance	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	
Segment 5	
Track Configuration	Field-Collected Data
Viaduct	Perennial Stream/River
Embankment	Intermittent Stream/River
Cut	Ephemeral Stream/River
Half Mile Buffer	Other Stream/River
City Boundary	Lake/Pond
County Boundary	Emergent Wetland
Railroad	Forested Wetland
Municipal Setting Designation (MSD)	Scrub/Shrub Wetland
Potential Habitat	National Hydrography Dataset (NHD)
Houston Toad	Perennial Stream/River
Large-fruited Sand Verbena	Intermittent Stream/River
Navasota Ladies'-tresses	Artificial Stream/Canal
Endangered Species	Lake/Pond
Threatened Species	Reservoir
U.S. Army Corps of Engineers (USACE) Project Area	Swamp/Marsh
Watershed (HUC 12) Boundary	National Wetlands Inventory (NWI)
Public Water Supply	Freshwater Emergent Wetland
Groundwater Well	Freshwater Forested/Shrub Wetland
	Other

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 147 of 257**

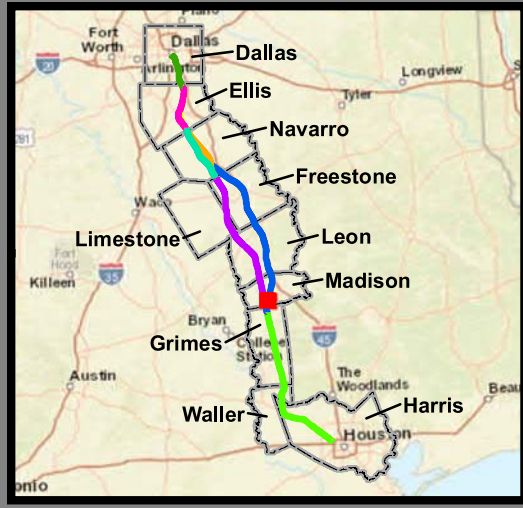
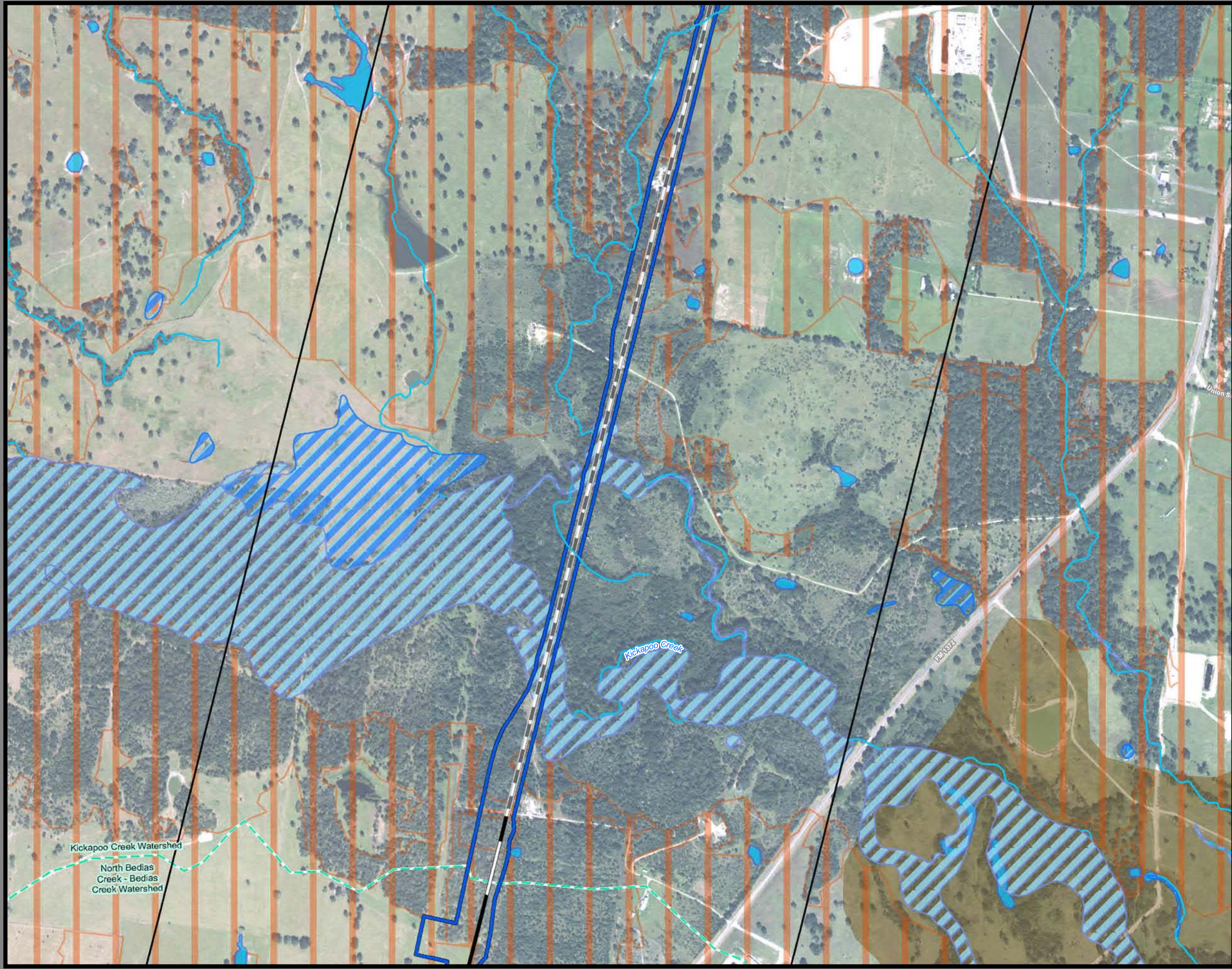
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 148 of 257**

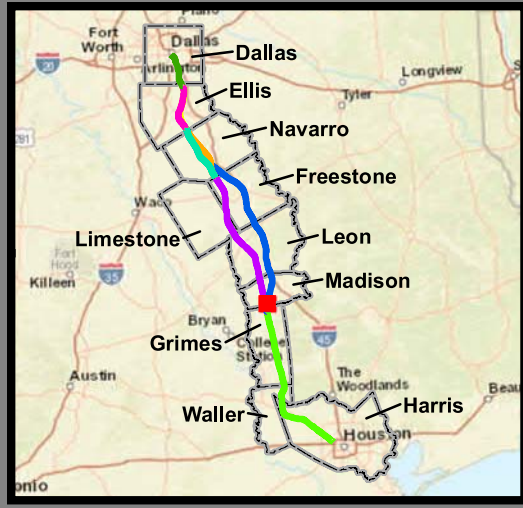
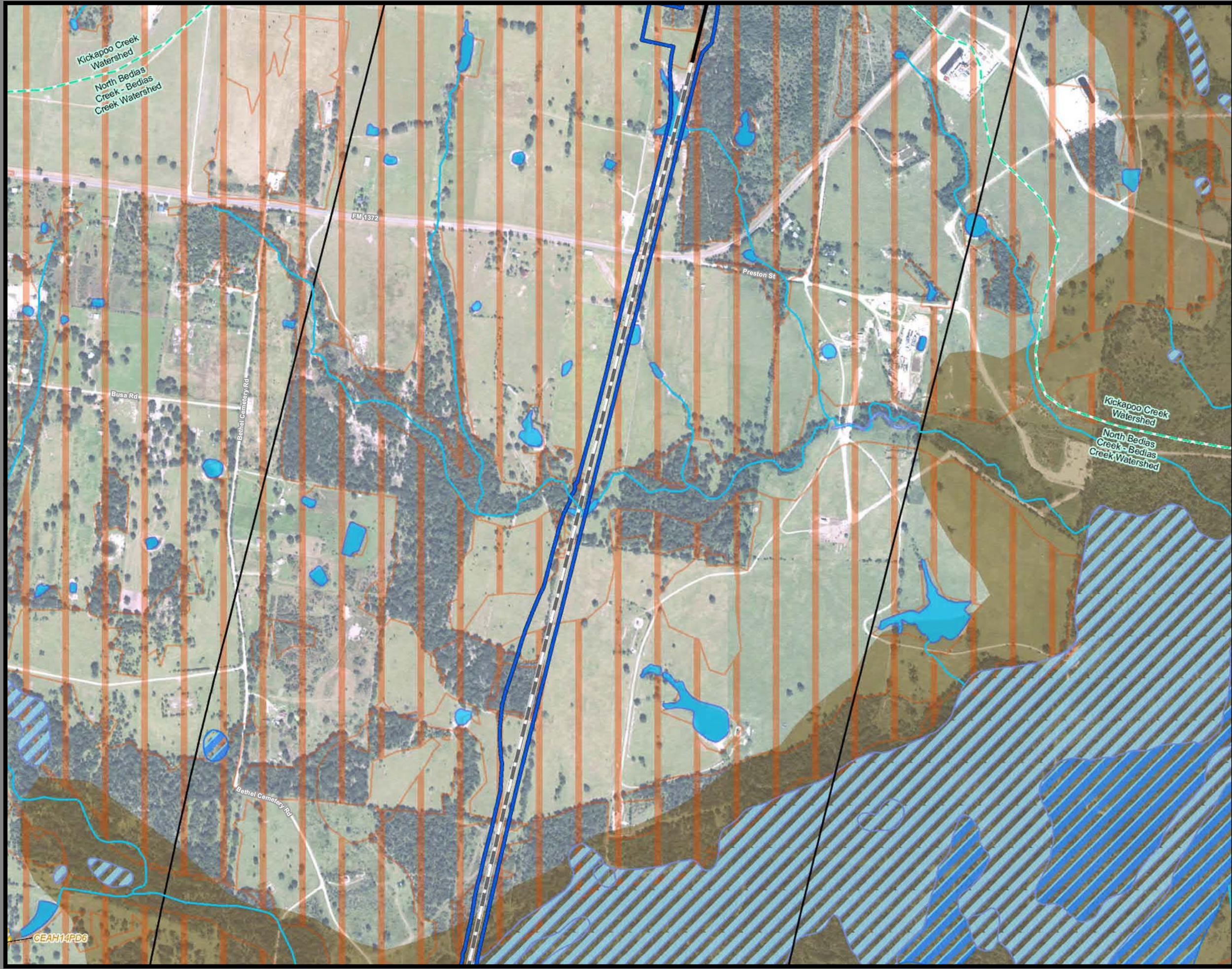
Legend

Limits of Disturbance	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	Field-Collected Data
Segment 5	Perennial Stream/River
Track Configuration	Intermittent Stream/River
Viaduct	Ephemeral Stream/River
Embankment	Other Stream/River
Cut	Lake/Pond
Half Mile Buffer	Emergent Wetland
City Boundary	Forested Wetland
County Boundary	Scrub/Shrub Wetland
Railroad	National Hydrography Dataset (NHD)
Municipal Setting Designation (MSD)	Perennial Stream/River
Potential Habitat	Intermittent Stream/River
Houston Toad	Artificial Stream/Canal
Large-fruited Sand Verbena	Lake/Pond
Navasota Ladies'-tresses	Reservoir
Endangered Species	Swamp/Marsh
Threatened Species	National Wetlands Inventory (NWI)
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 Well	

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 149 of 257**

Legend

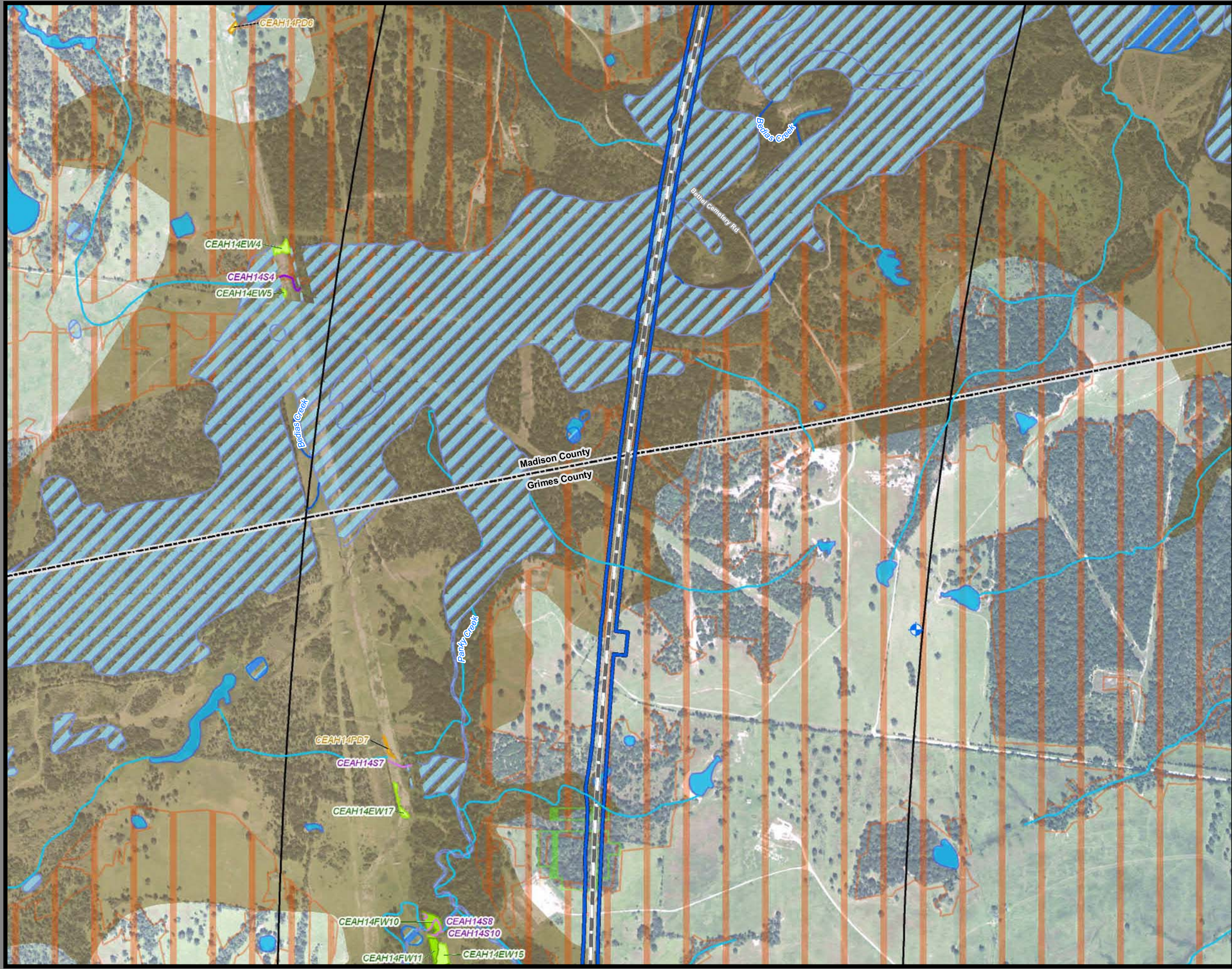
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Buffer City Boundary County Boundary Railroad Municipal Setting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

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

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



CEAH14PD6



**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 150 of 257**

Legend

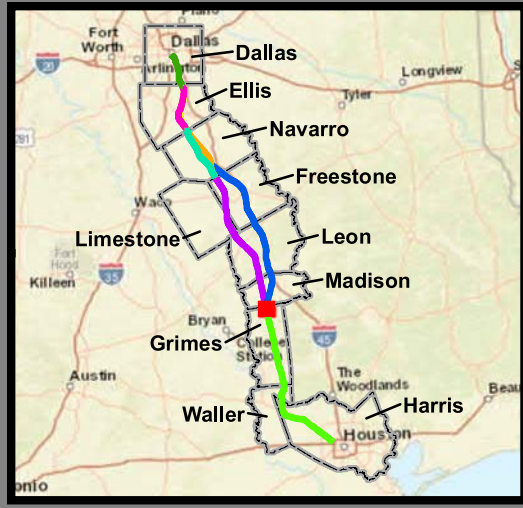
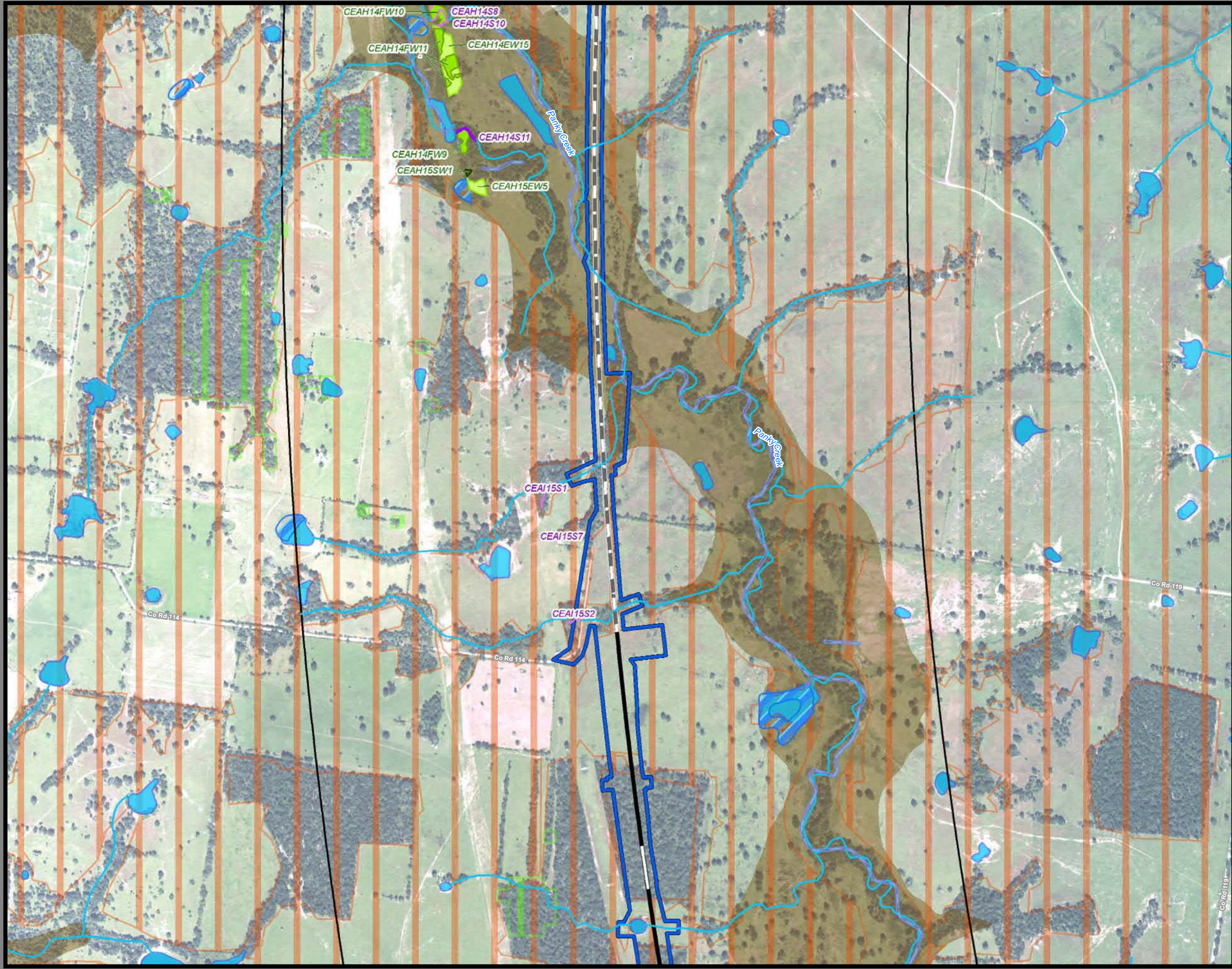
<ul style="list-style-type: none"> Limits of Disturbance <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 Track Configuration <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Buffer City Boundary County Boundary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

This Sheet only depicts Segment 3C; Segment 4 is also located in this same area and can be referenced on Sheet 199.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 151 of 257**

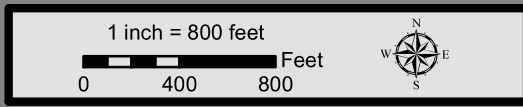
Legend

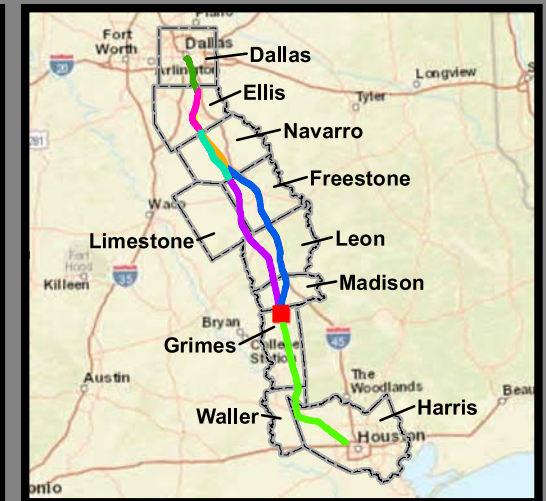
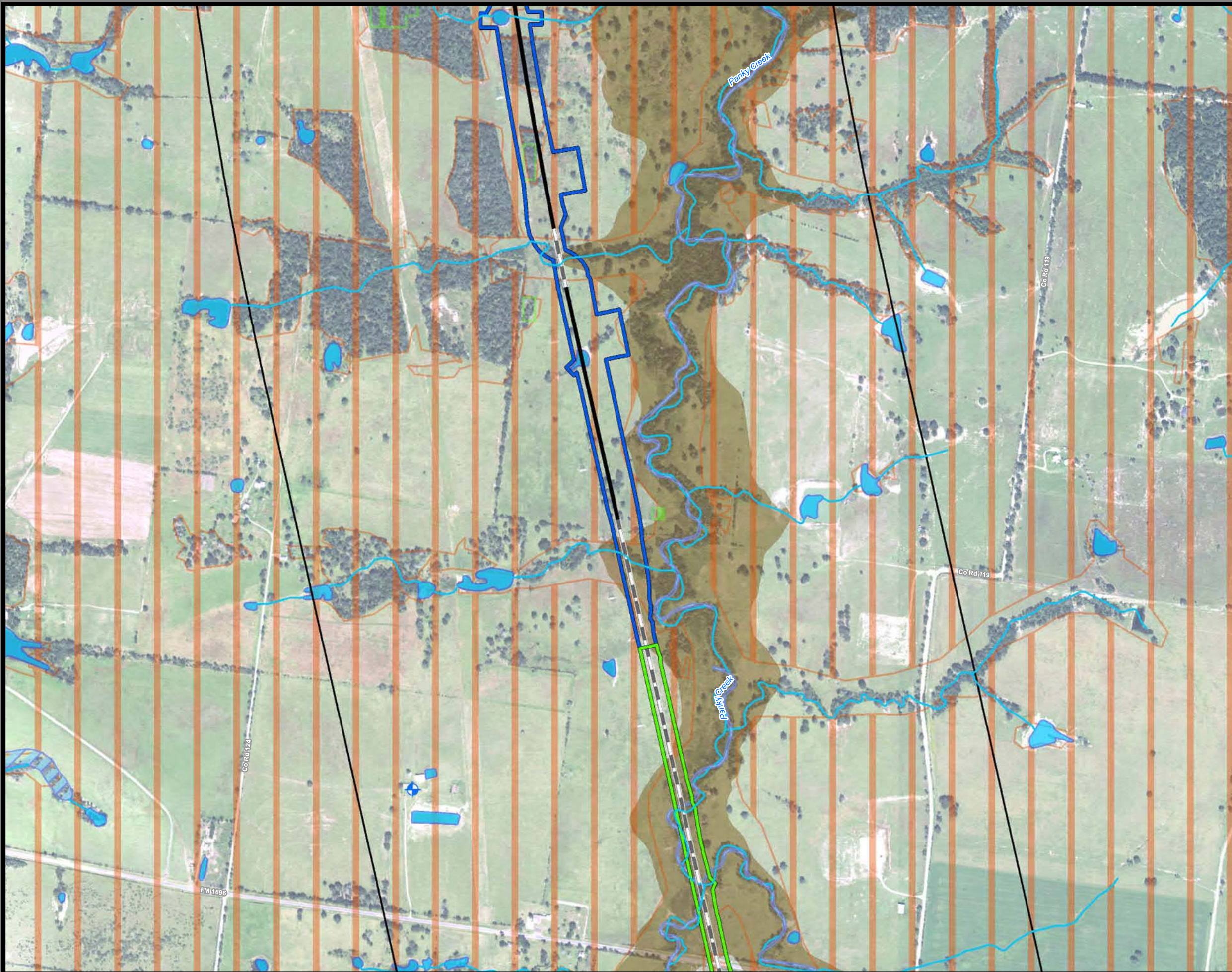
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Buffer City Boundary County Boundary Railroad Municipal Setting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

This Sheet only depicts Segment 3C; Segment 4 is also located in this same area and can be referenced on Sheet 200.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C, 5
Sheet 152 of 257**

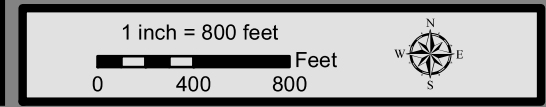
Legend

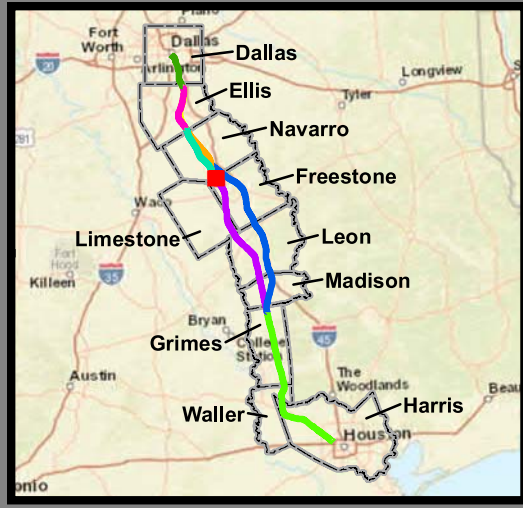
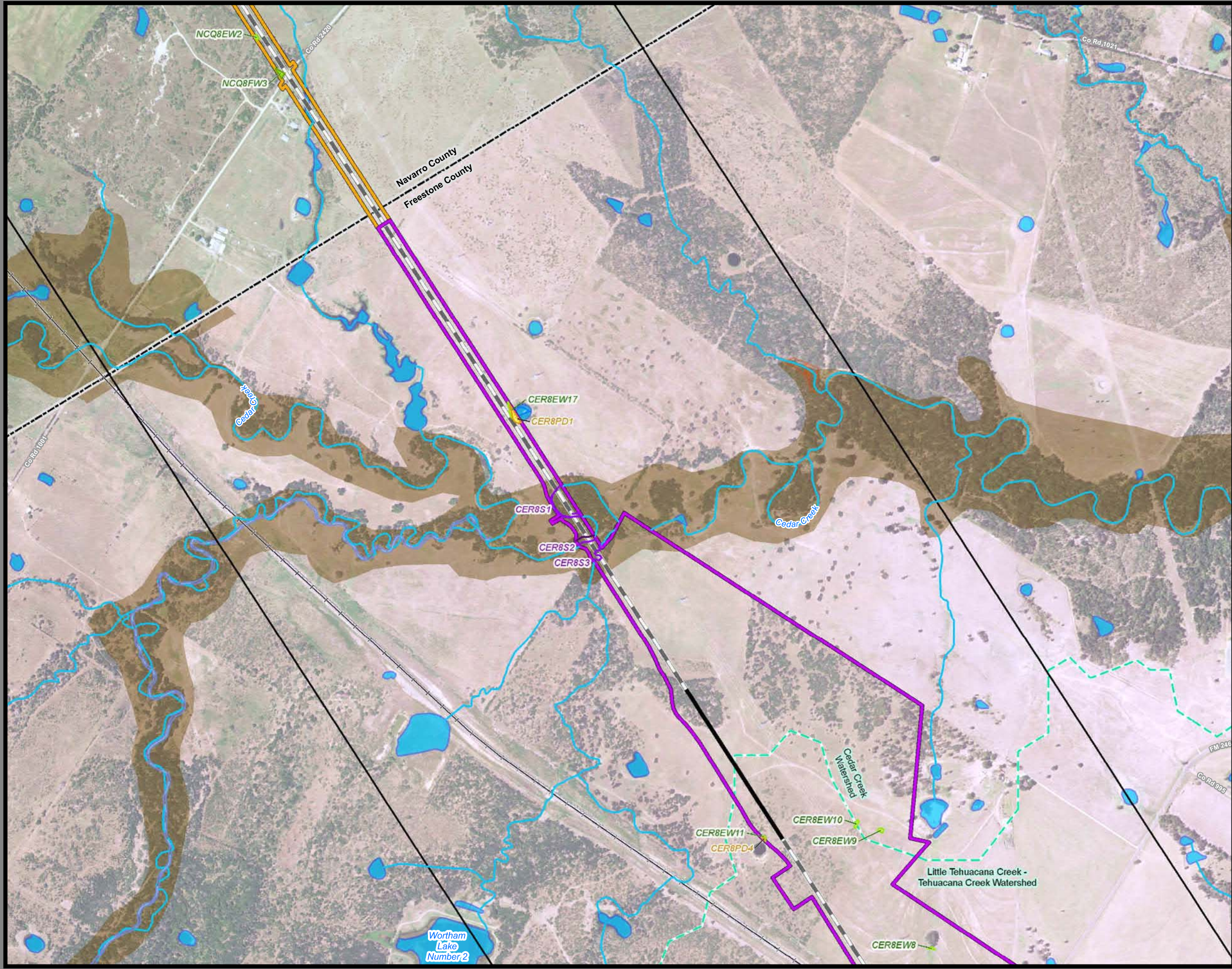
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Buffer City Boundary County Boundary Railroad Municipal Setting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

This Sheet only depicts Segments 3C & 5; Segment 4 is also located in this same area and can be referenced on Sheet 201.

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

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





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

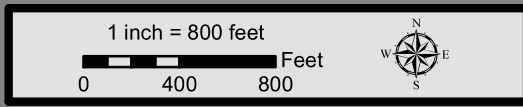
Legend

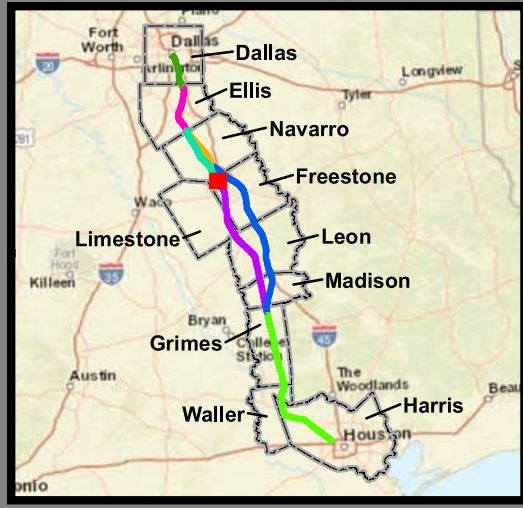
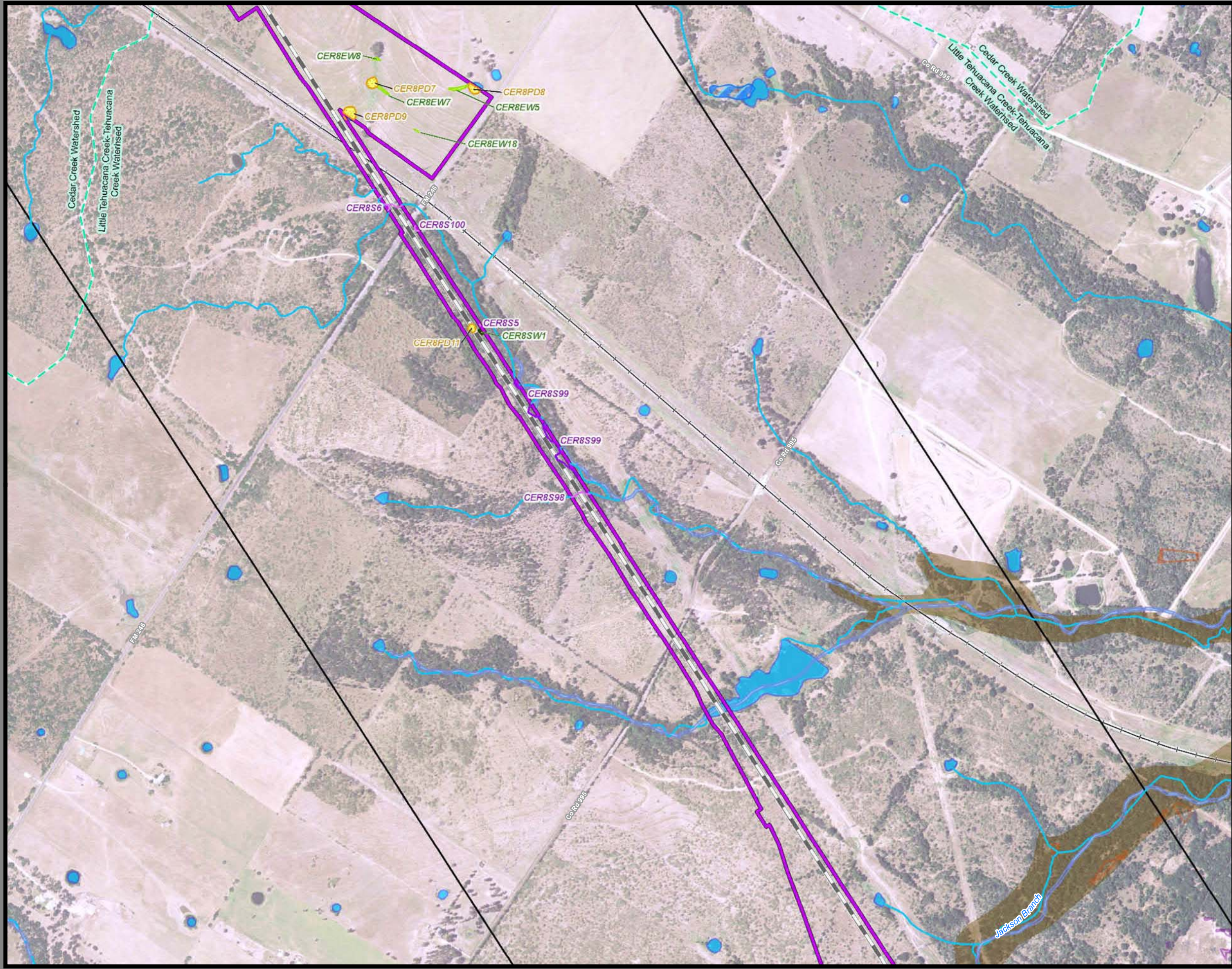
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Buffer City Boundary County Boundary Railroad Municipal Setting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

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

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





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

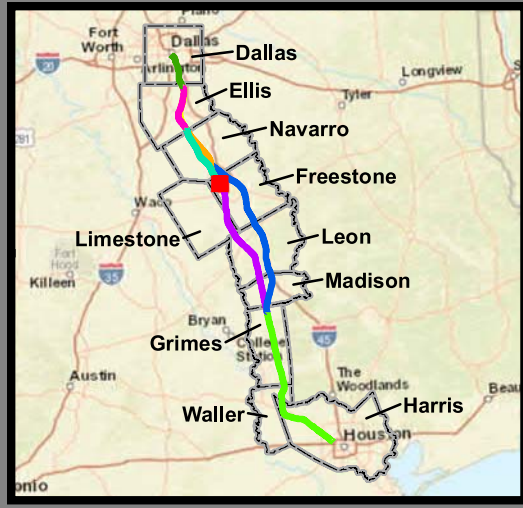
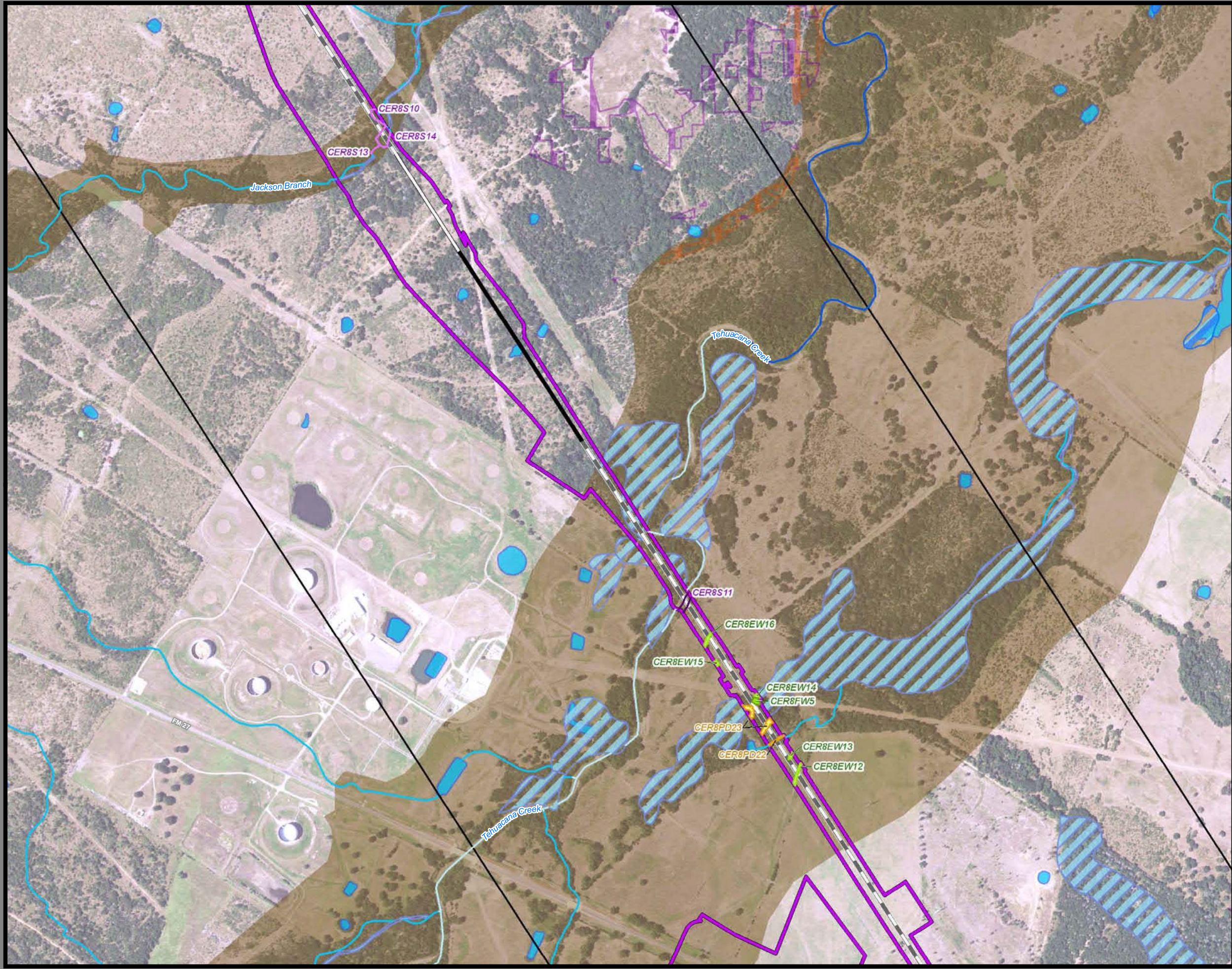
Legend

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

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

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





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

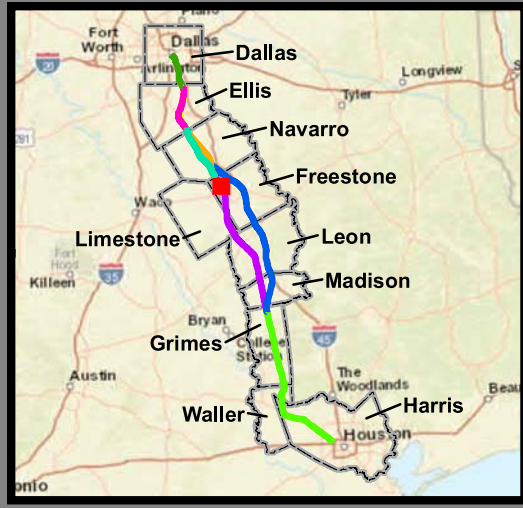
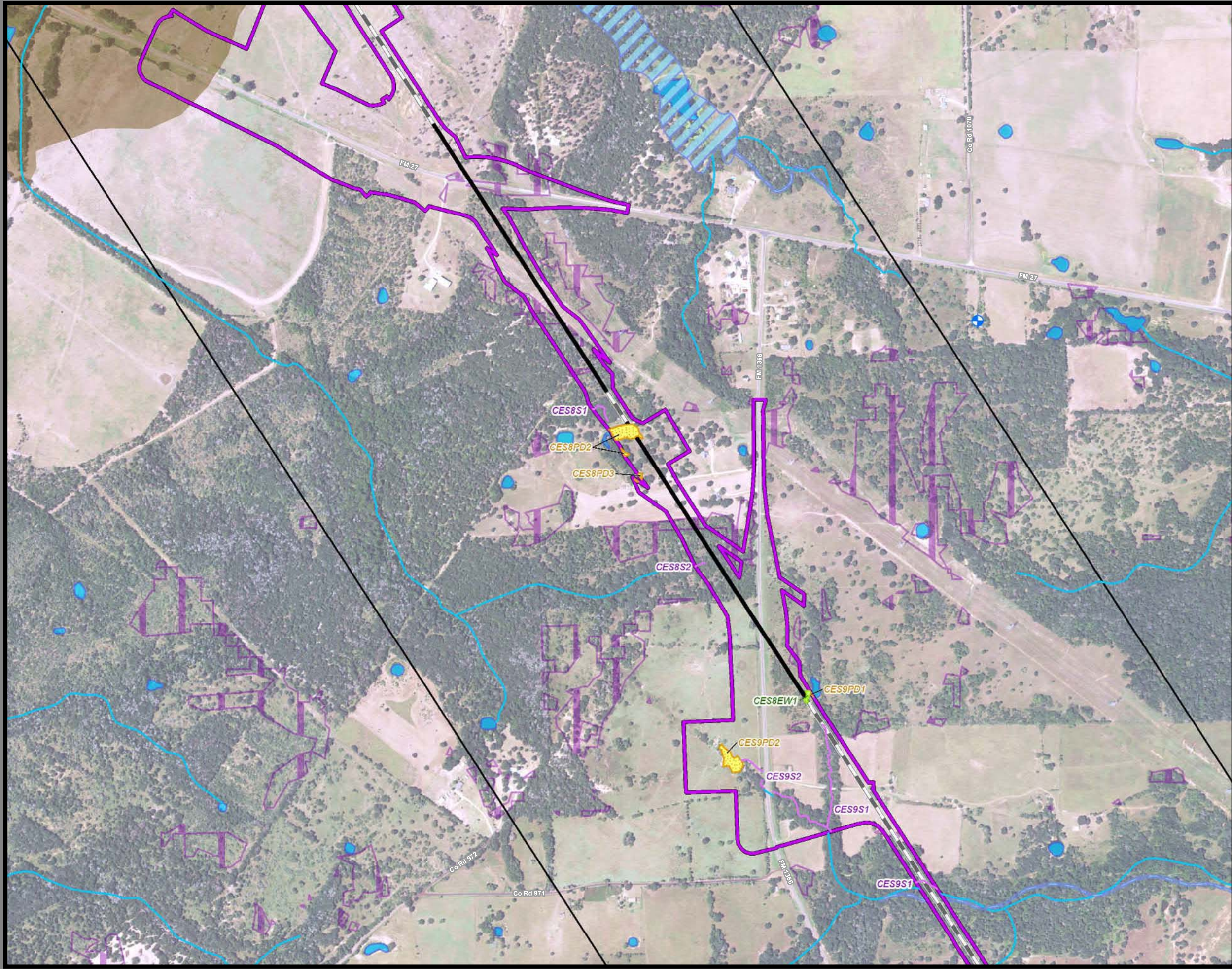
Legend

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

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

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





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

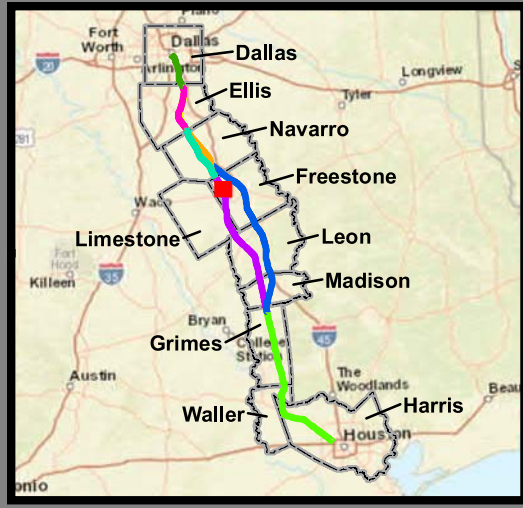
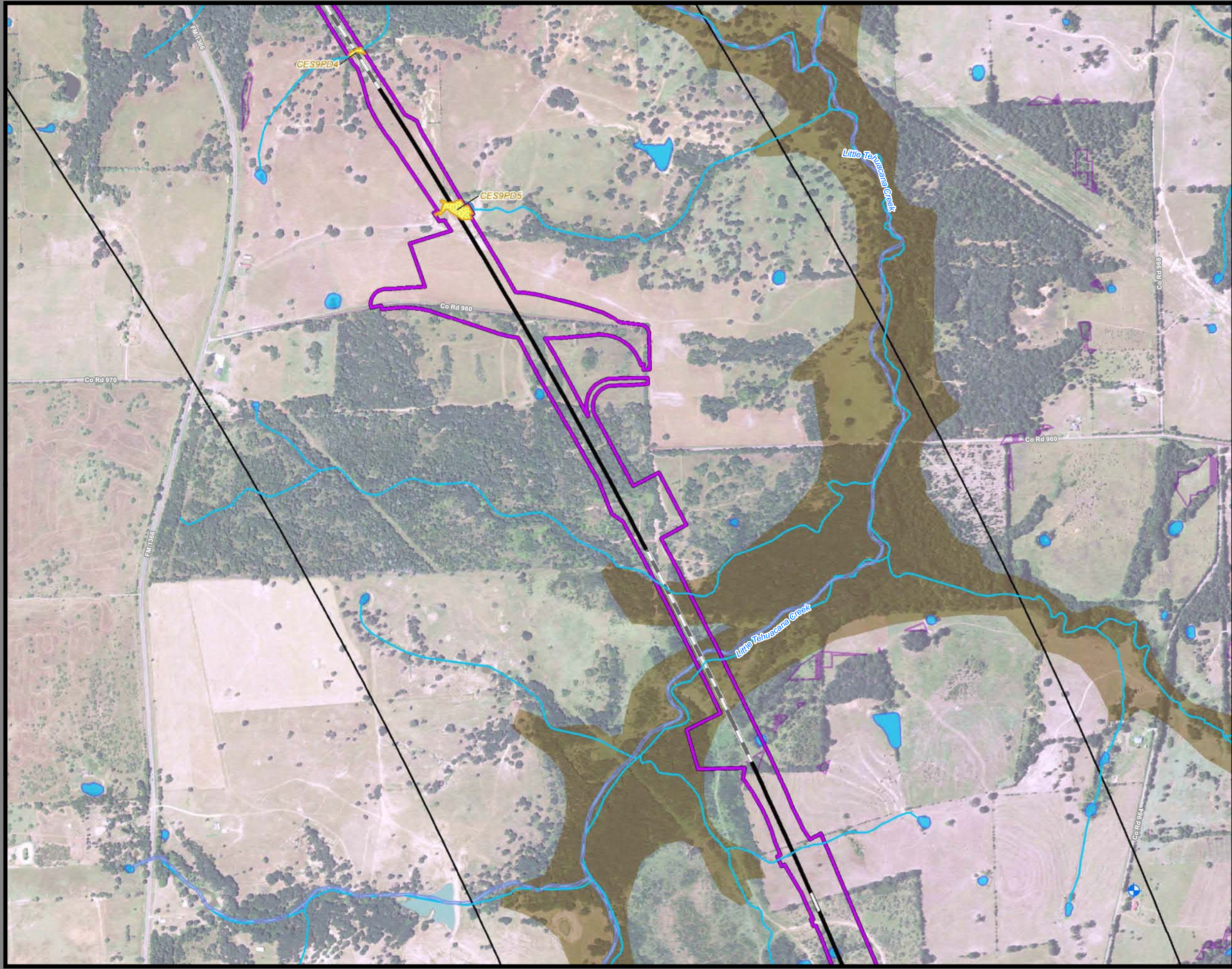
Legend

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

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

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





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

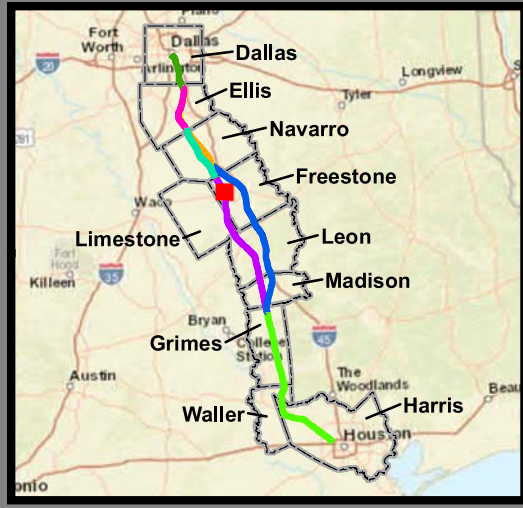
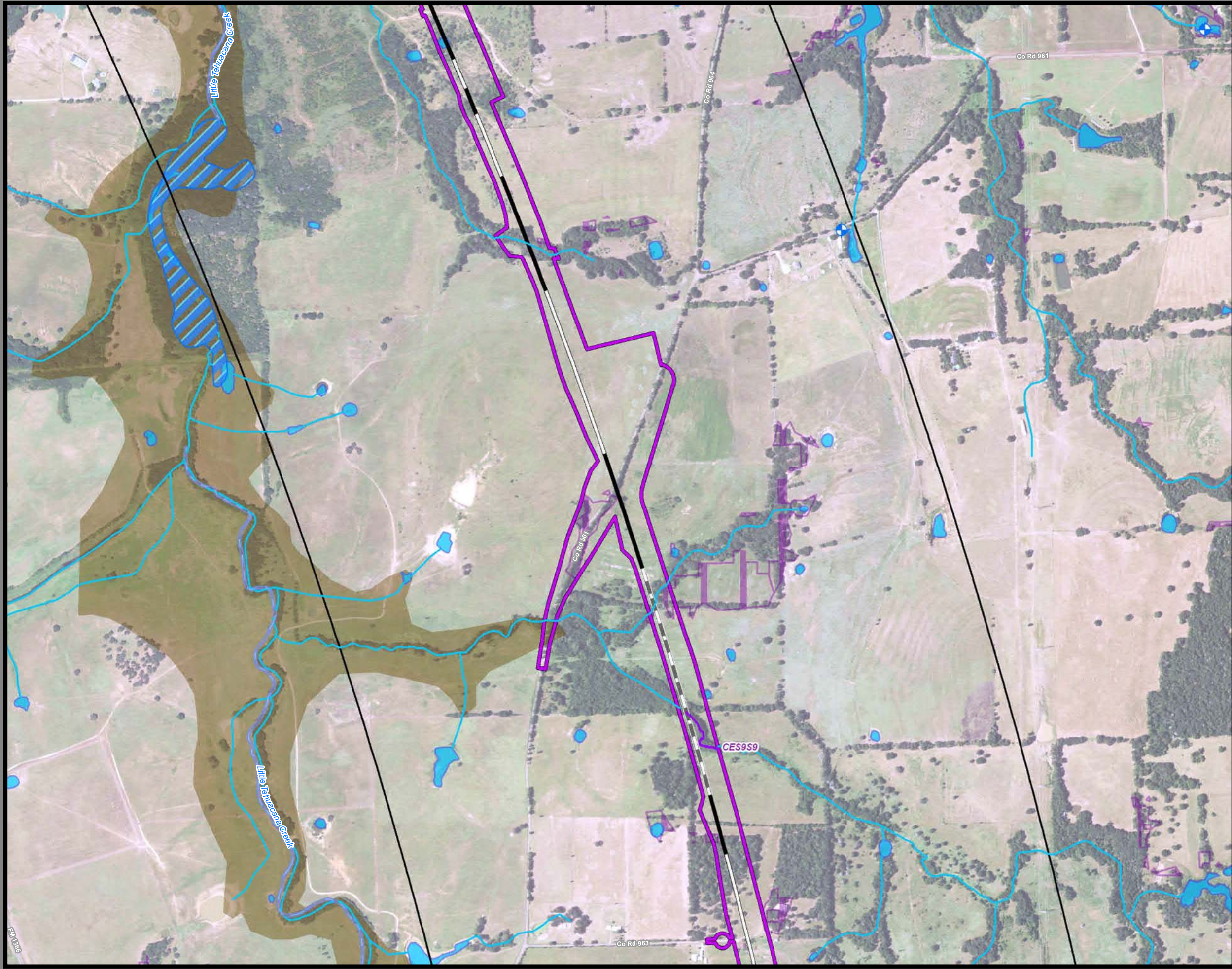
Legend

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

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

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





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

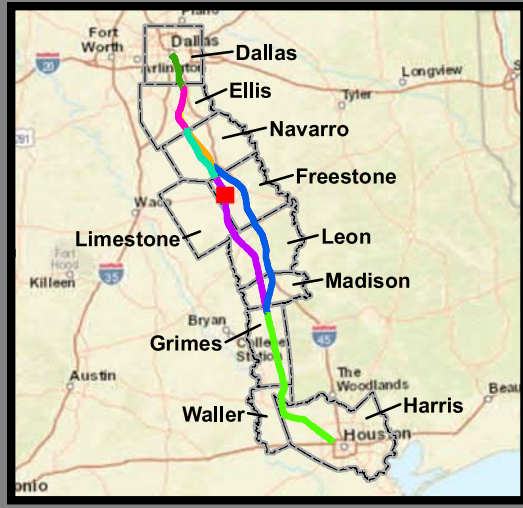
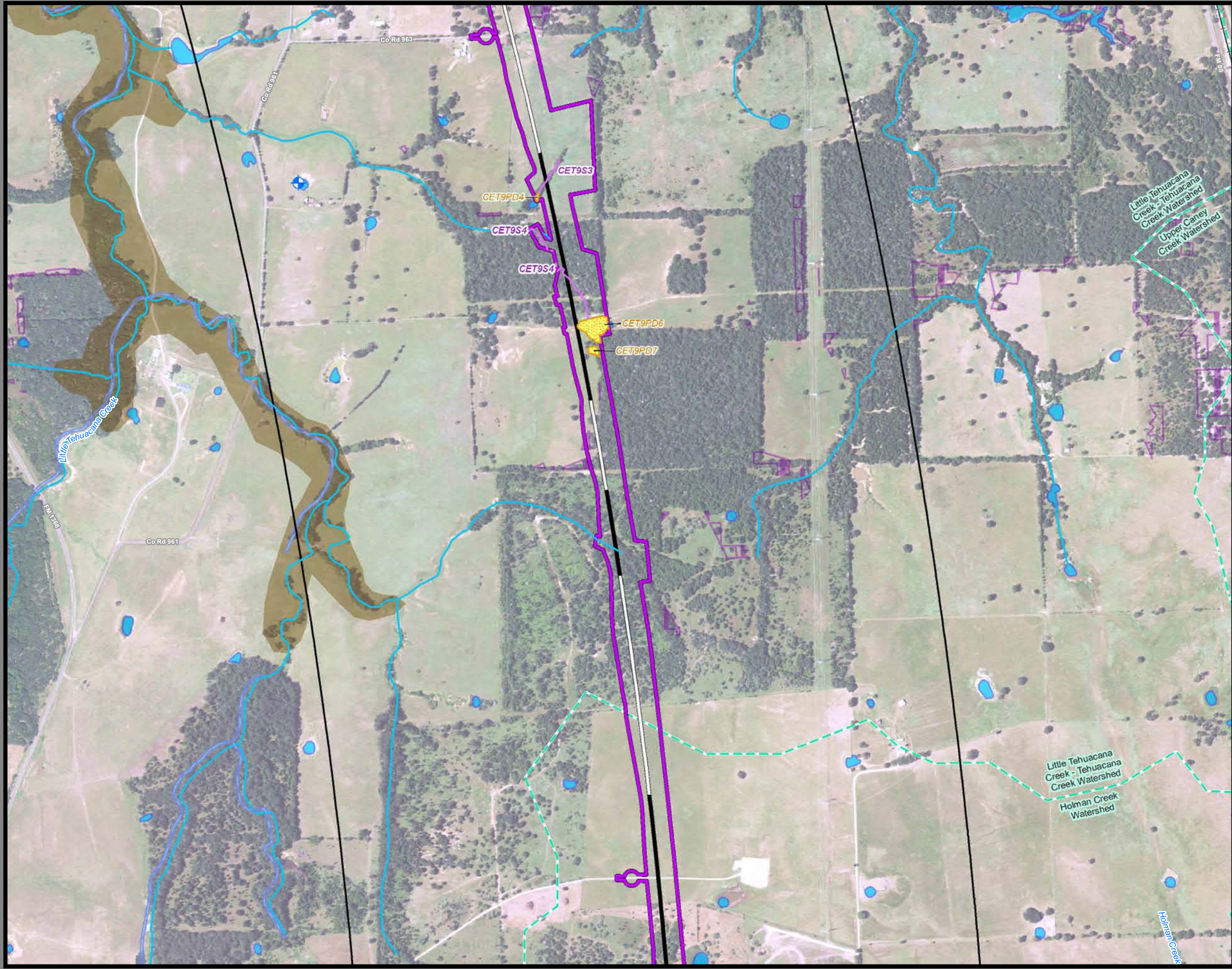
Legend

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

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

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





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

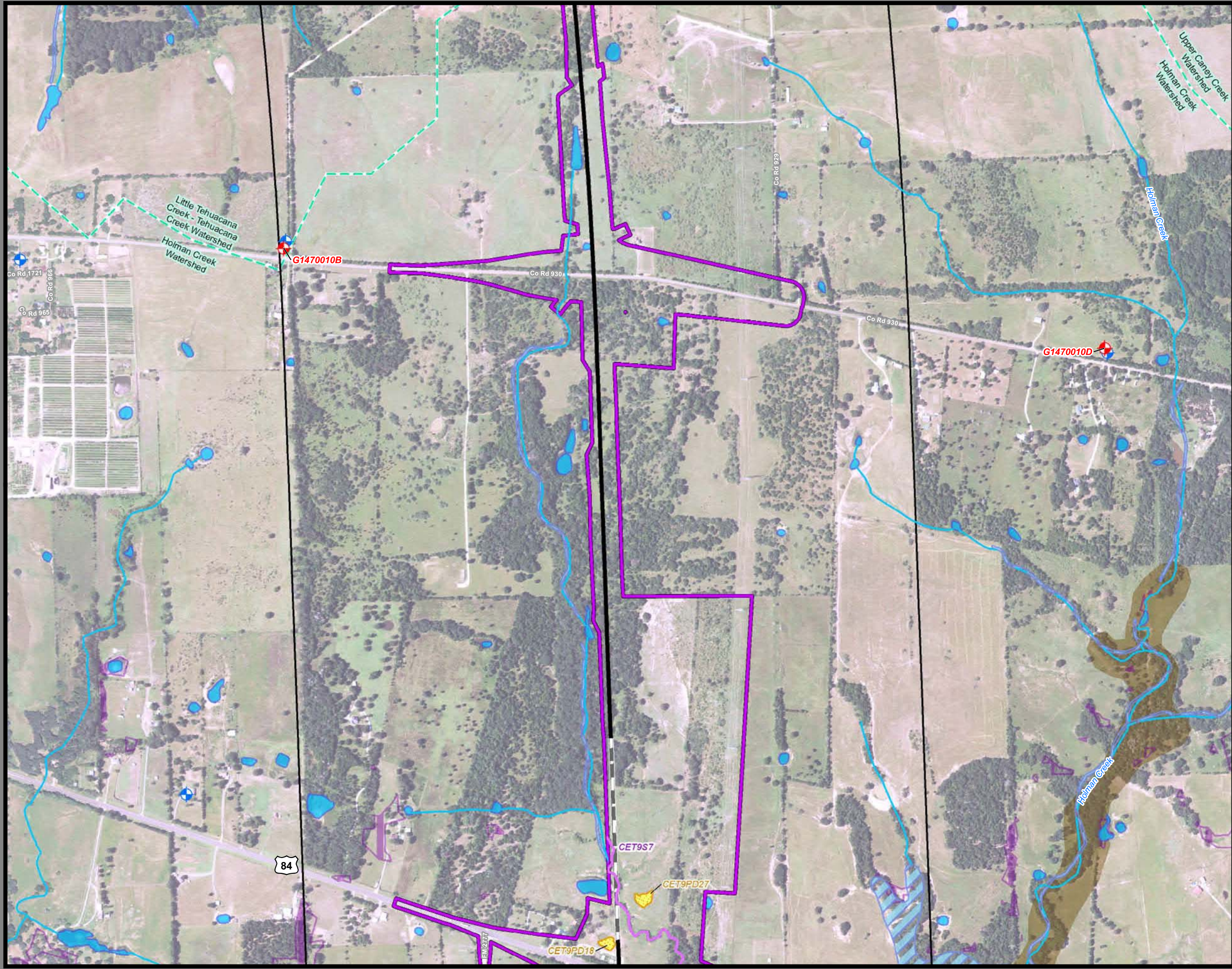
Legend

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

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

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





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

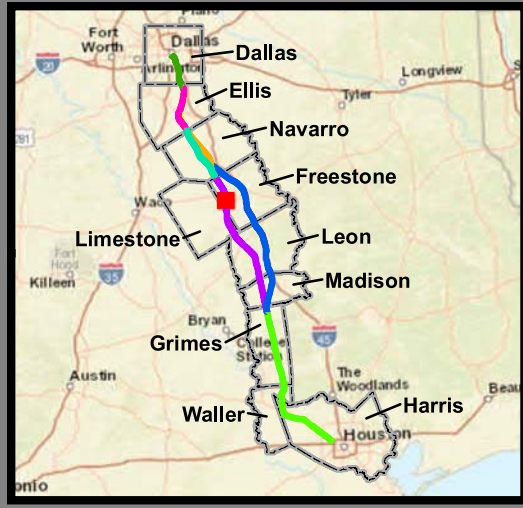
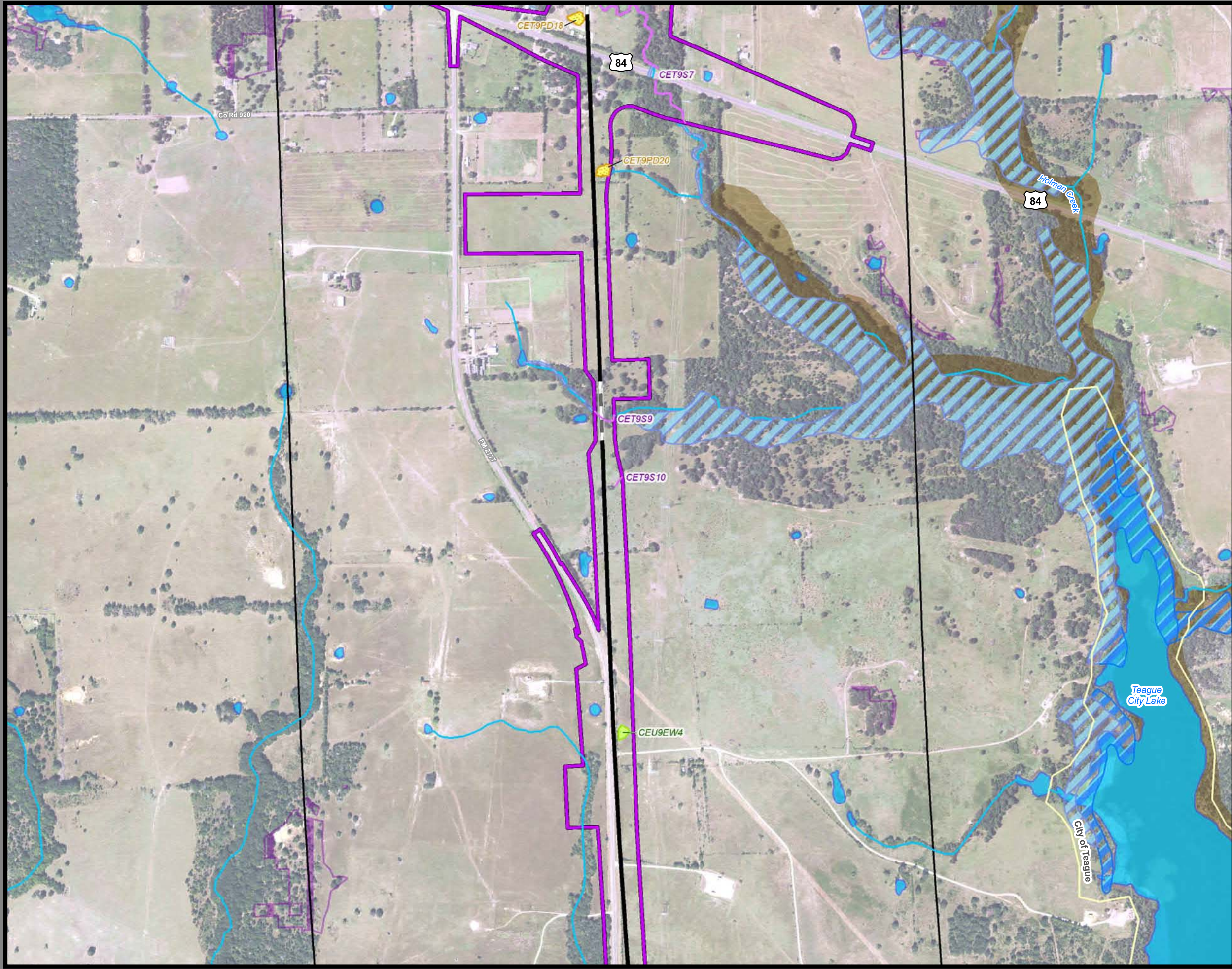
Legend

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

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

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





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

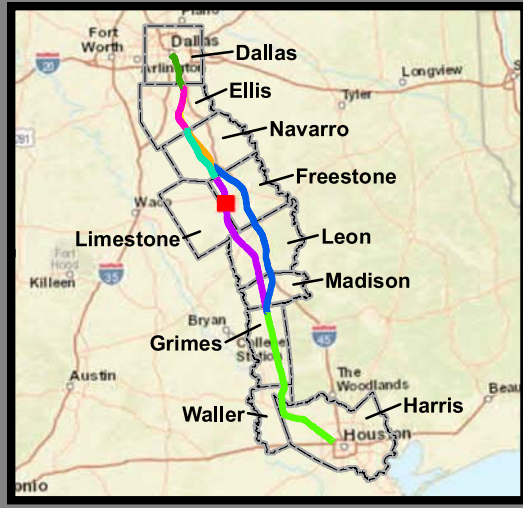
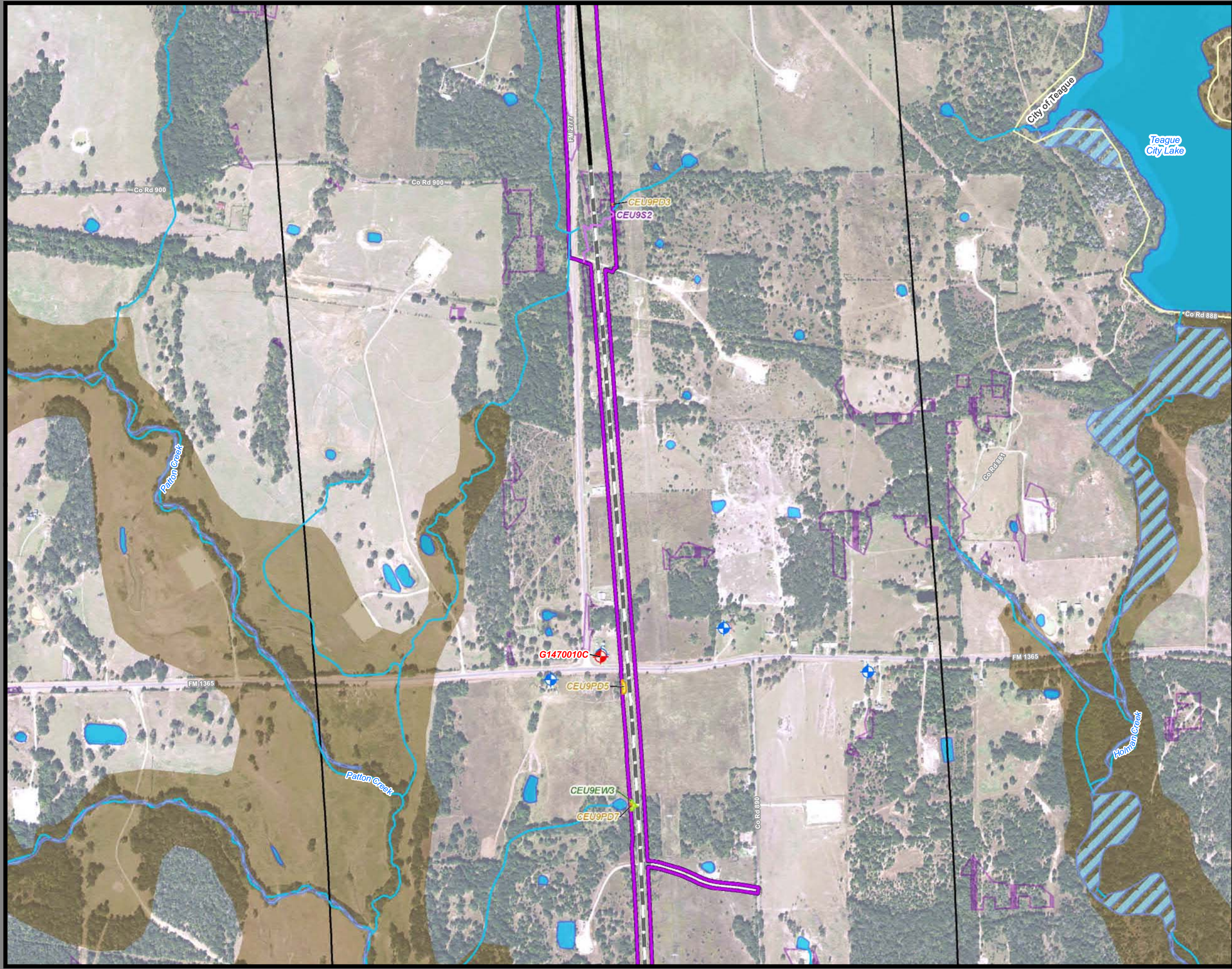
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 162 of 257**

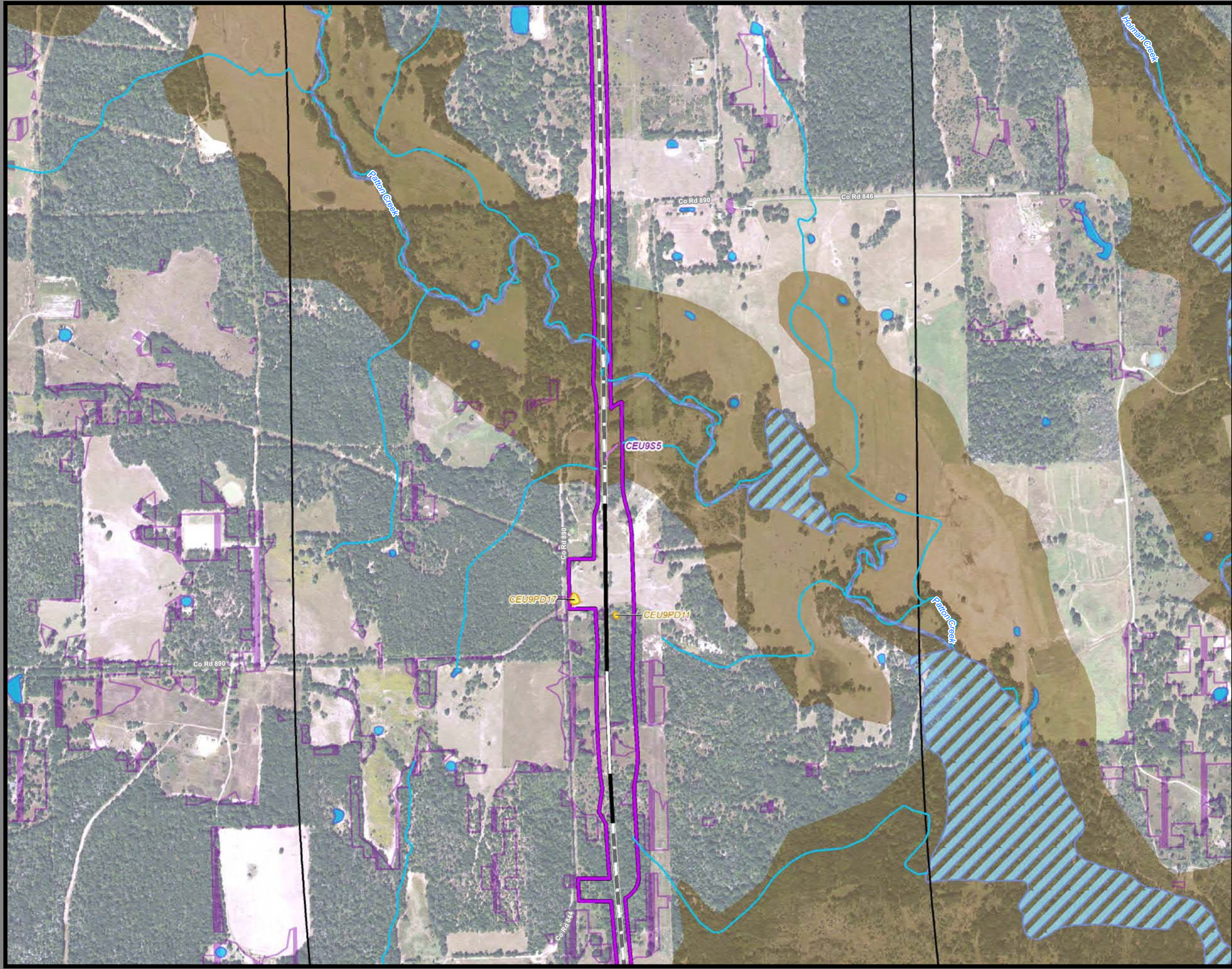
Legend

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

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

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





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

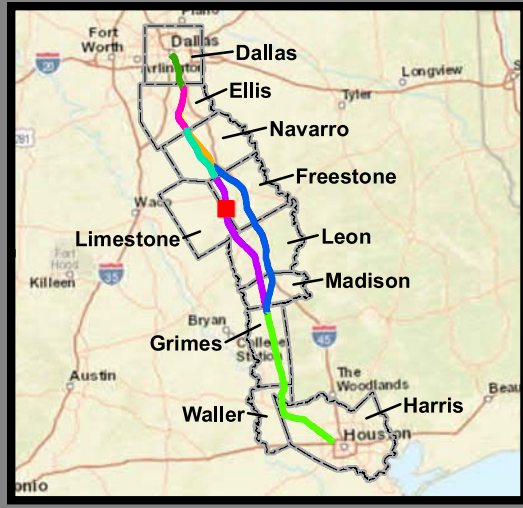
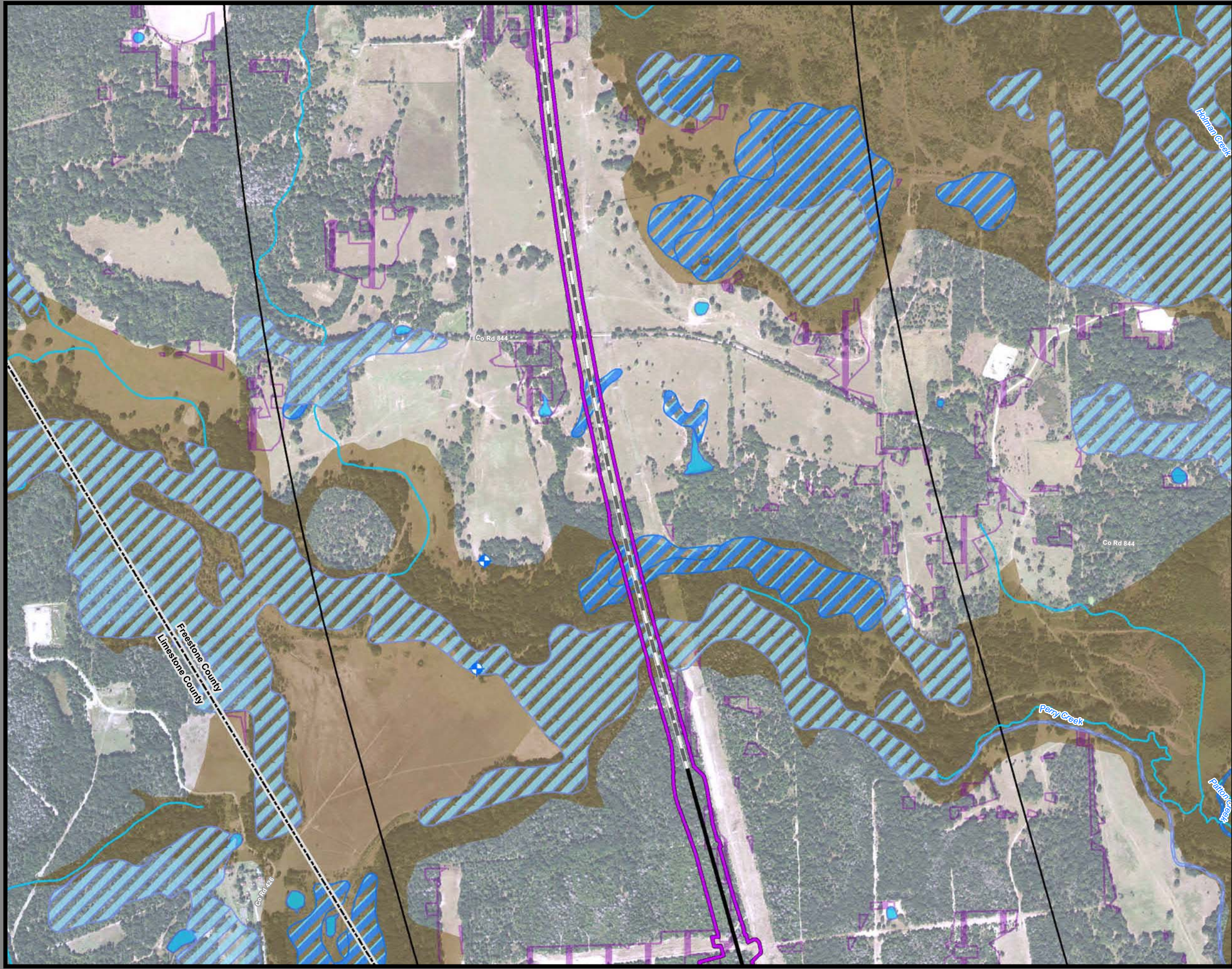
Legend

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

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

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





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

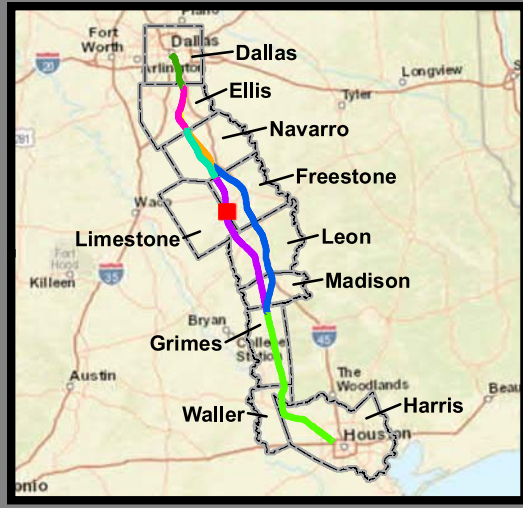
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 165 of 257**

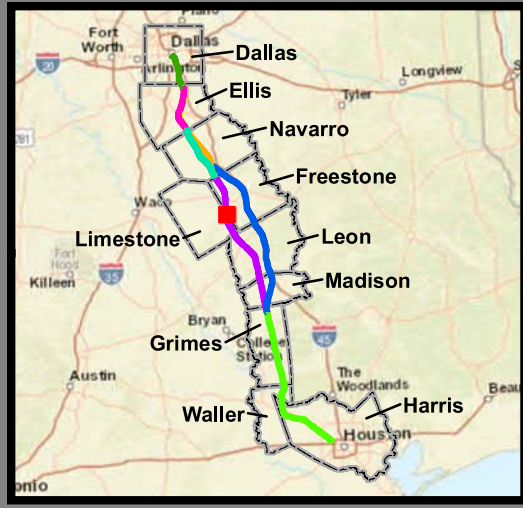
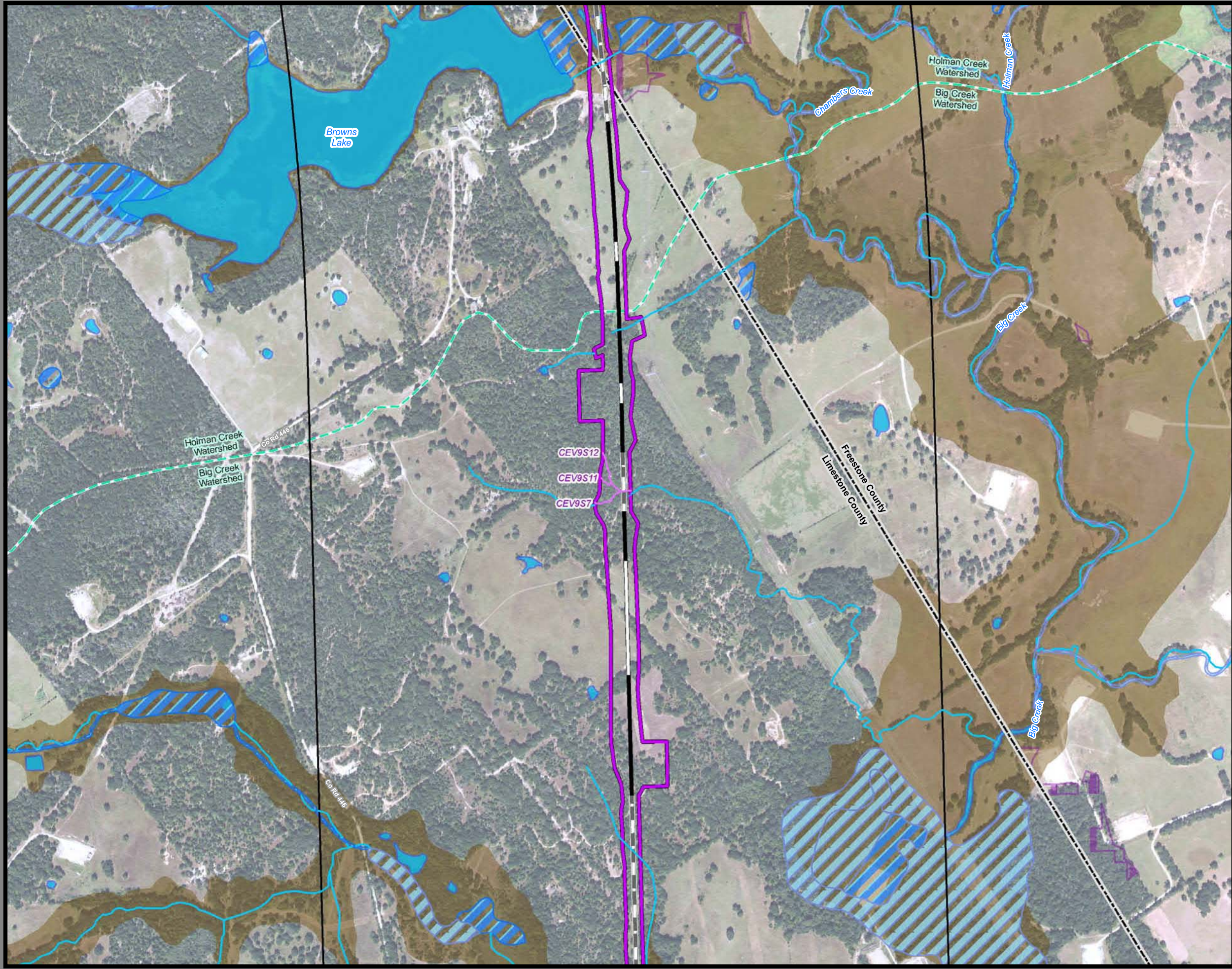
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 166 of 257**

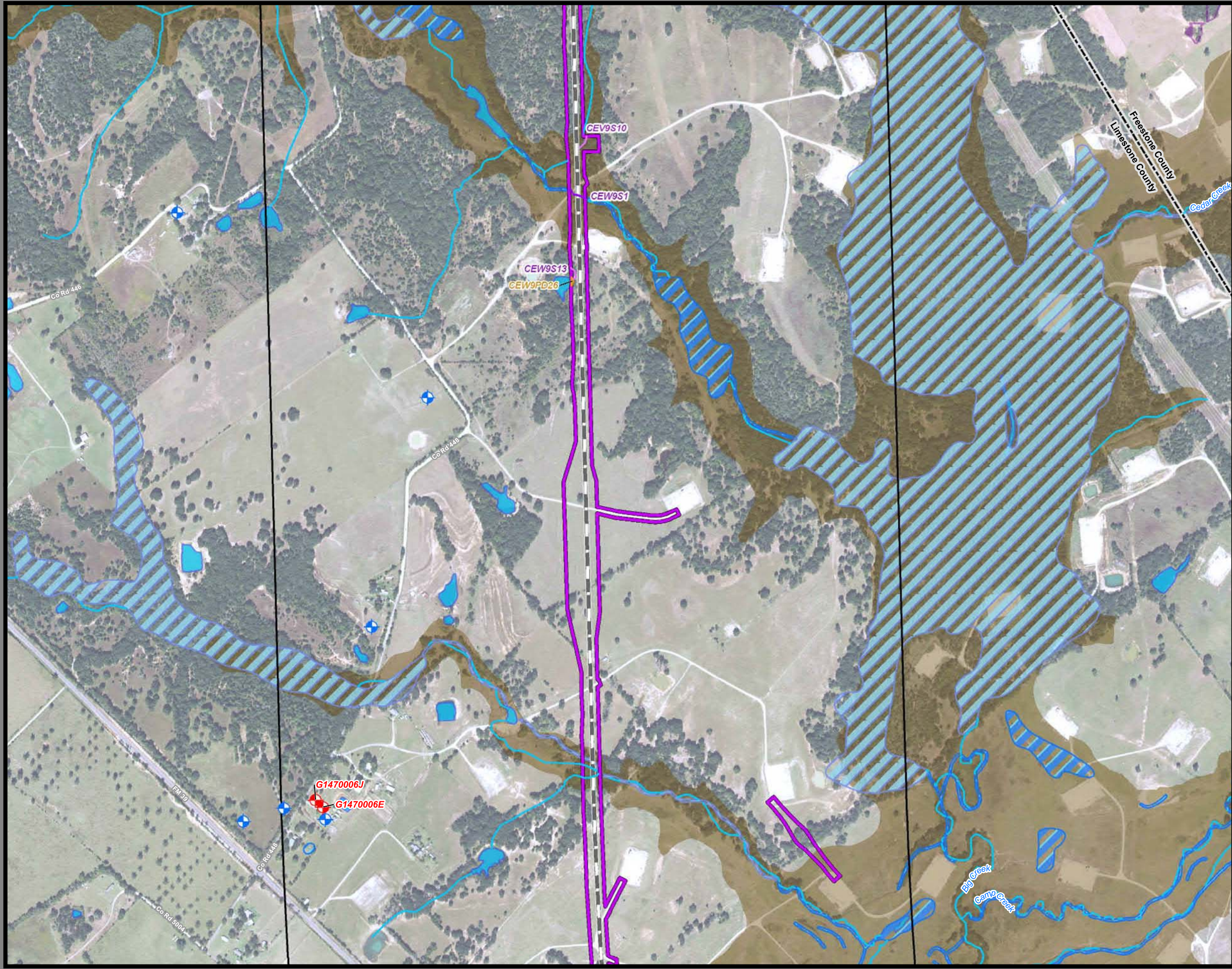
Legend

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

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

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





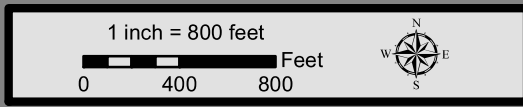
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 167 of 257**

Legend

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

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

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





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

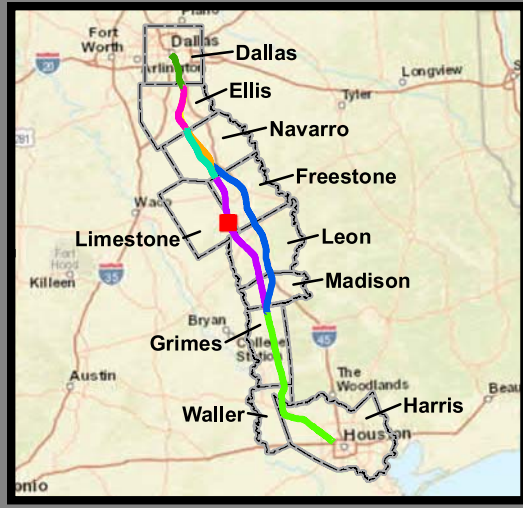
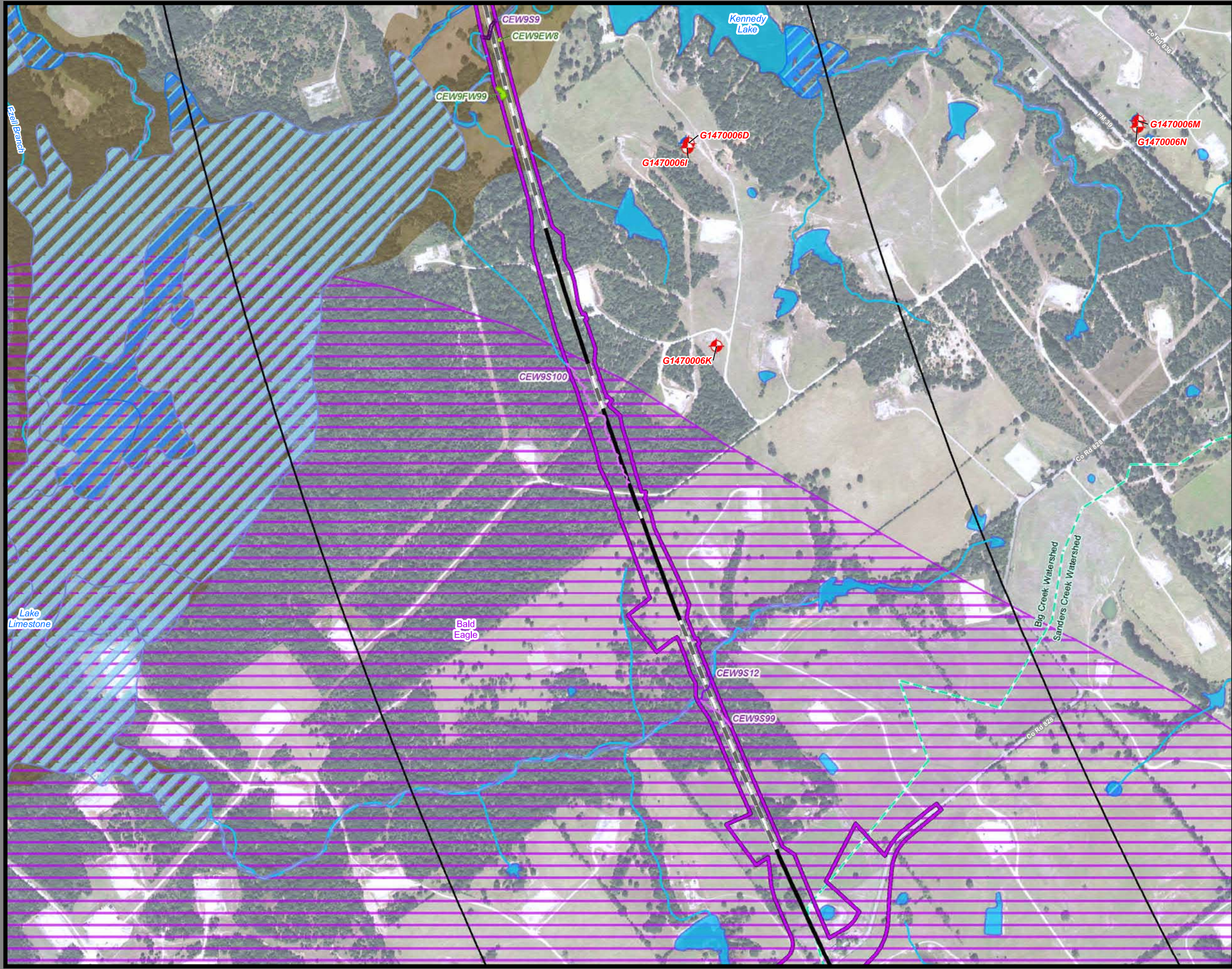
Legend

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

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

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





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

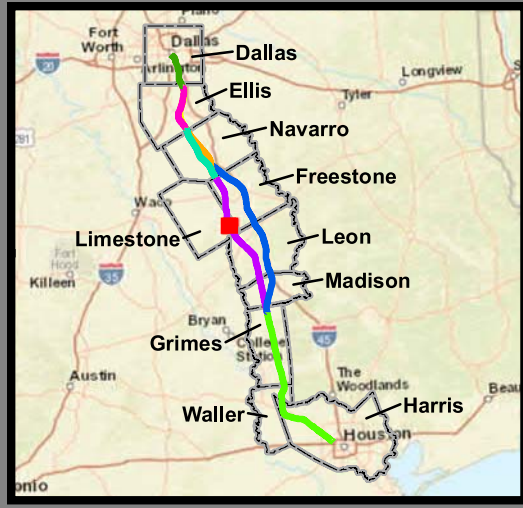
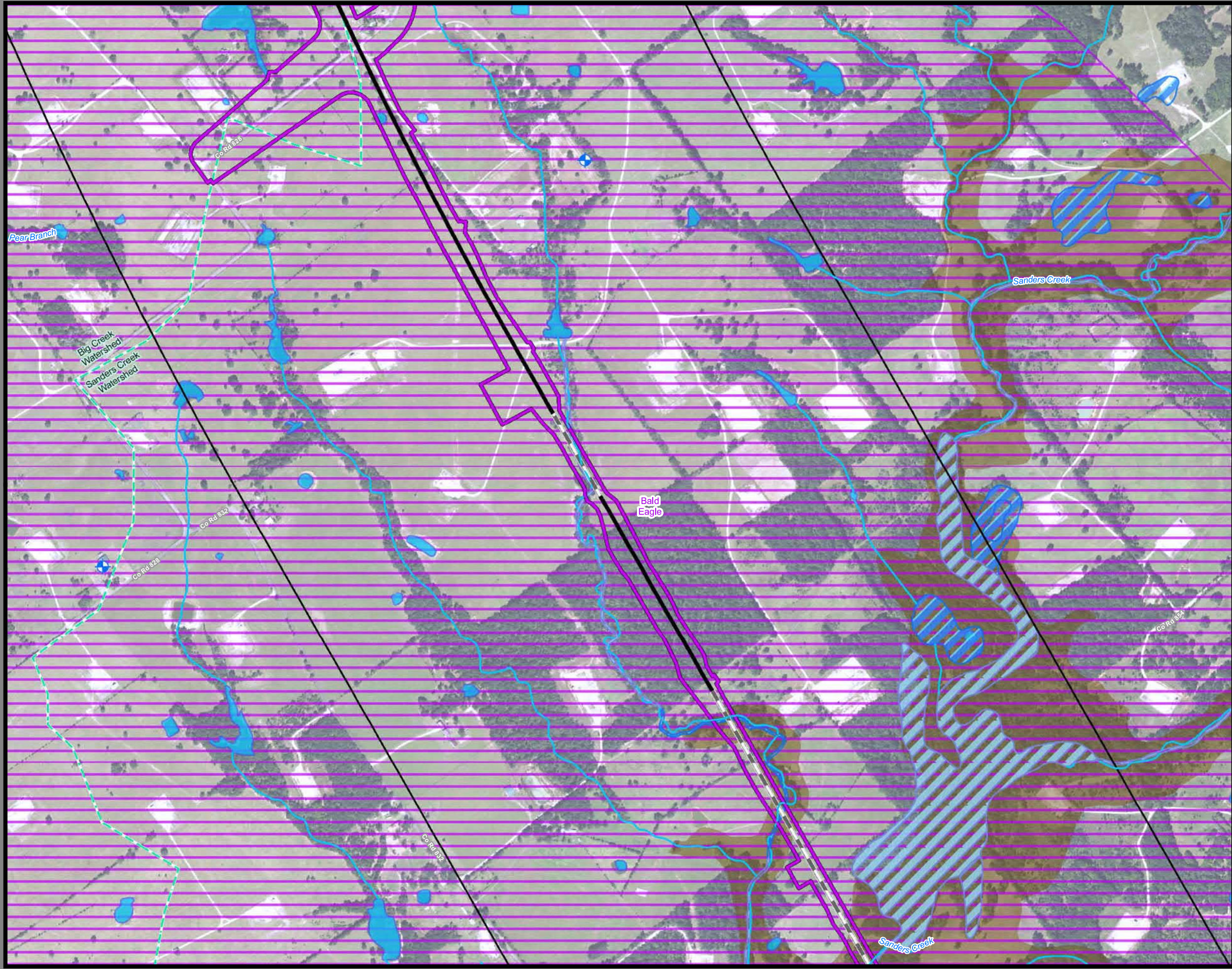
Legend

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

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

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





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

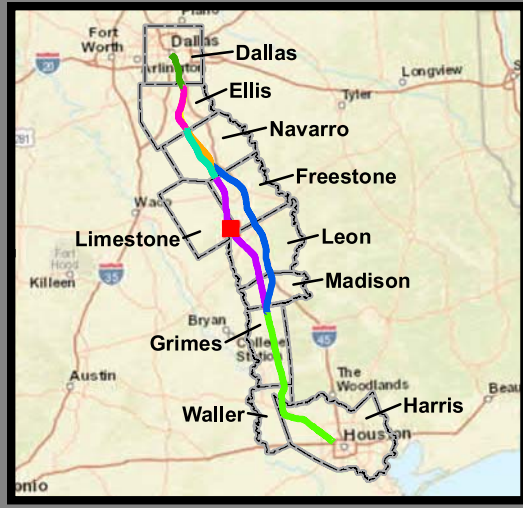
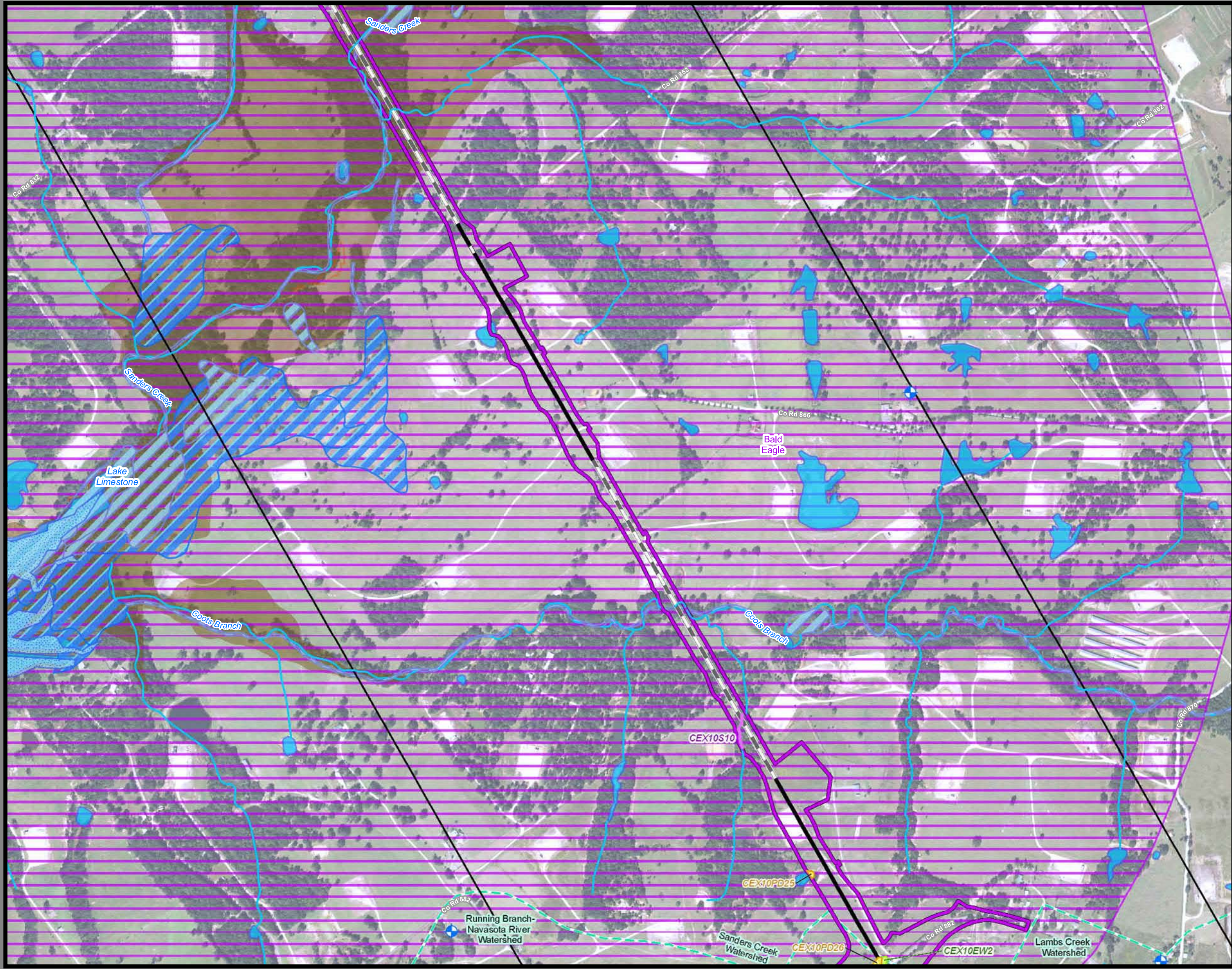
Legend

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

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

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





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

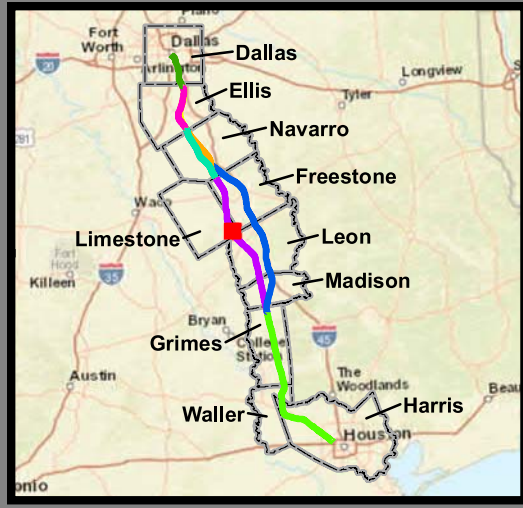
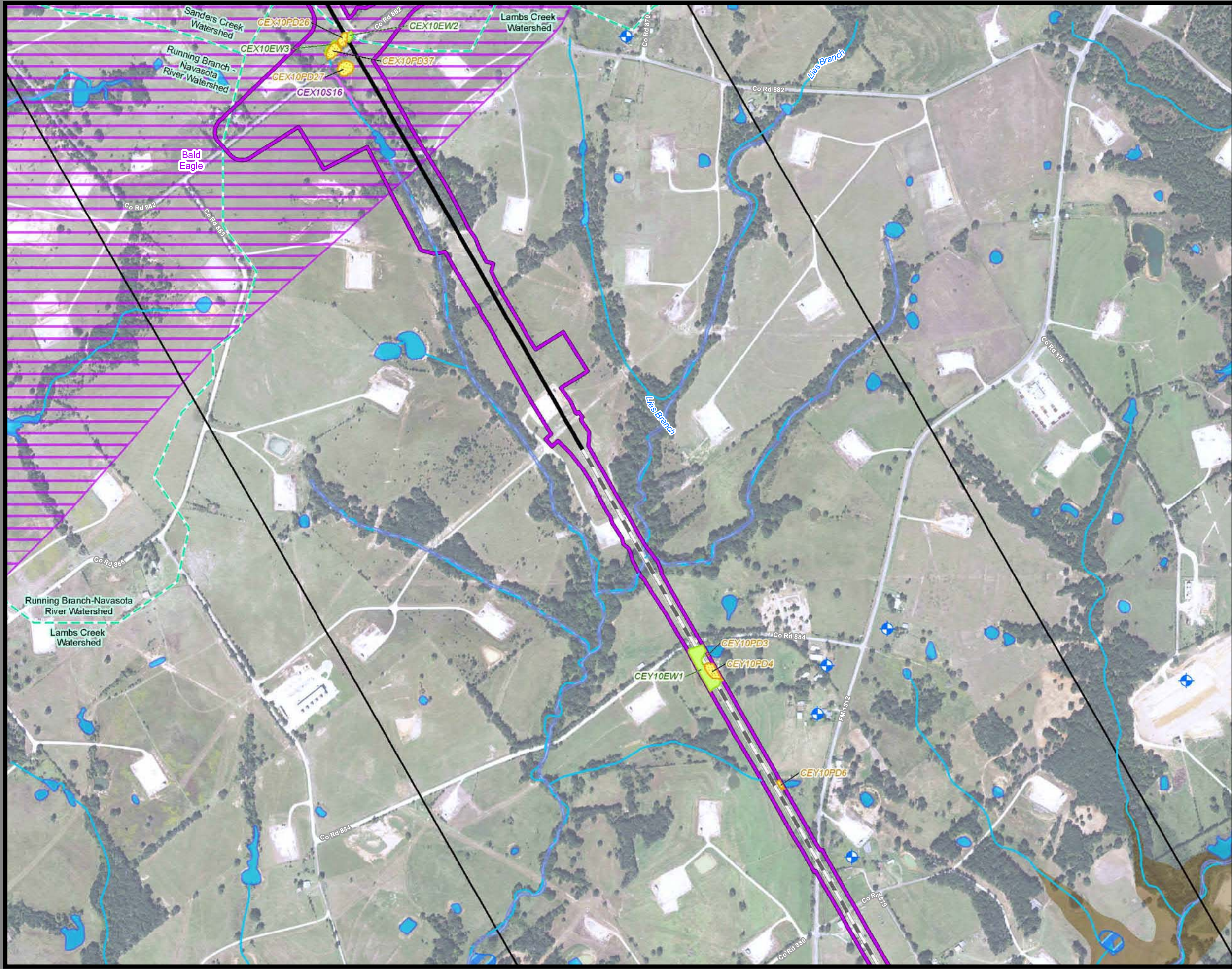
Legend

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

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 4
Sheet 172 of 257**

Legend

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

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

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

