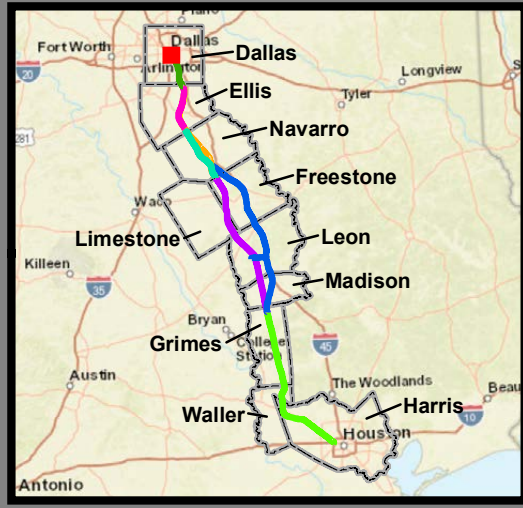
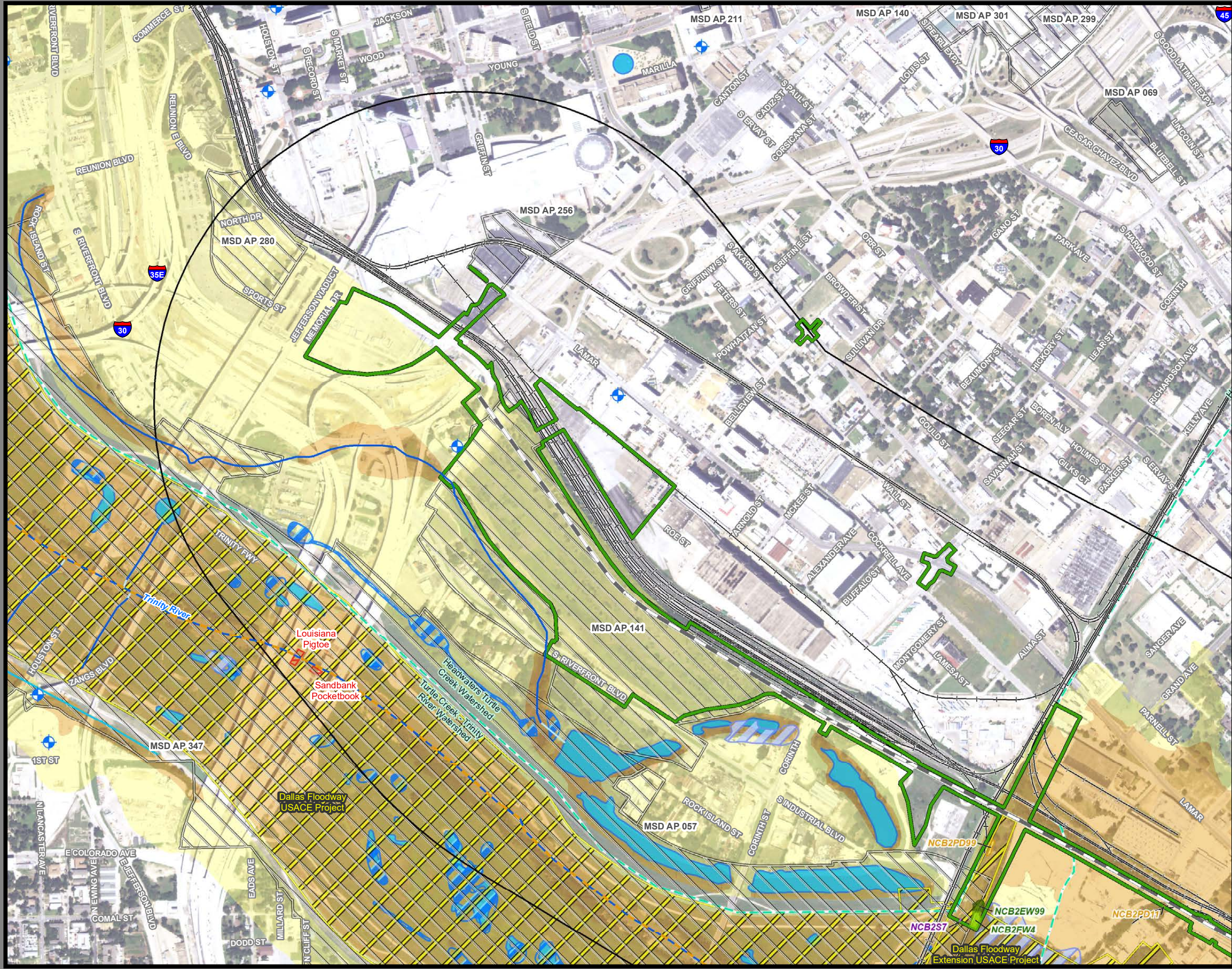


**Dallas to Houston High-Speed Rail
Final Environmental Impact Statement**

**Appendix D:
Natural Resources
Mapbook Set 1 of 4**



**Federal Railroad
Administration**

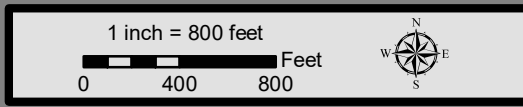


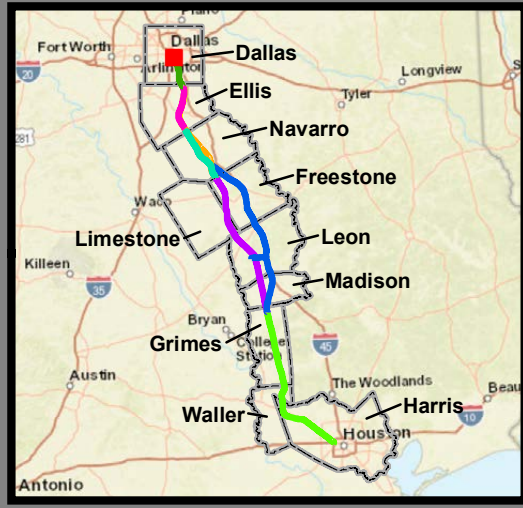
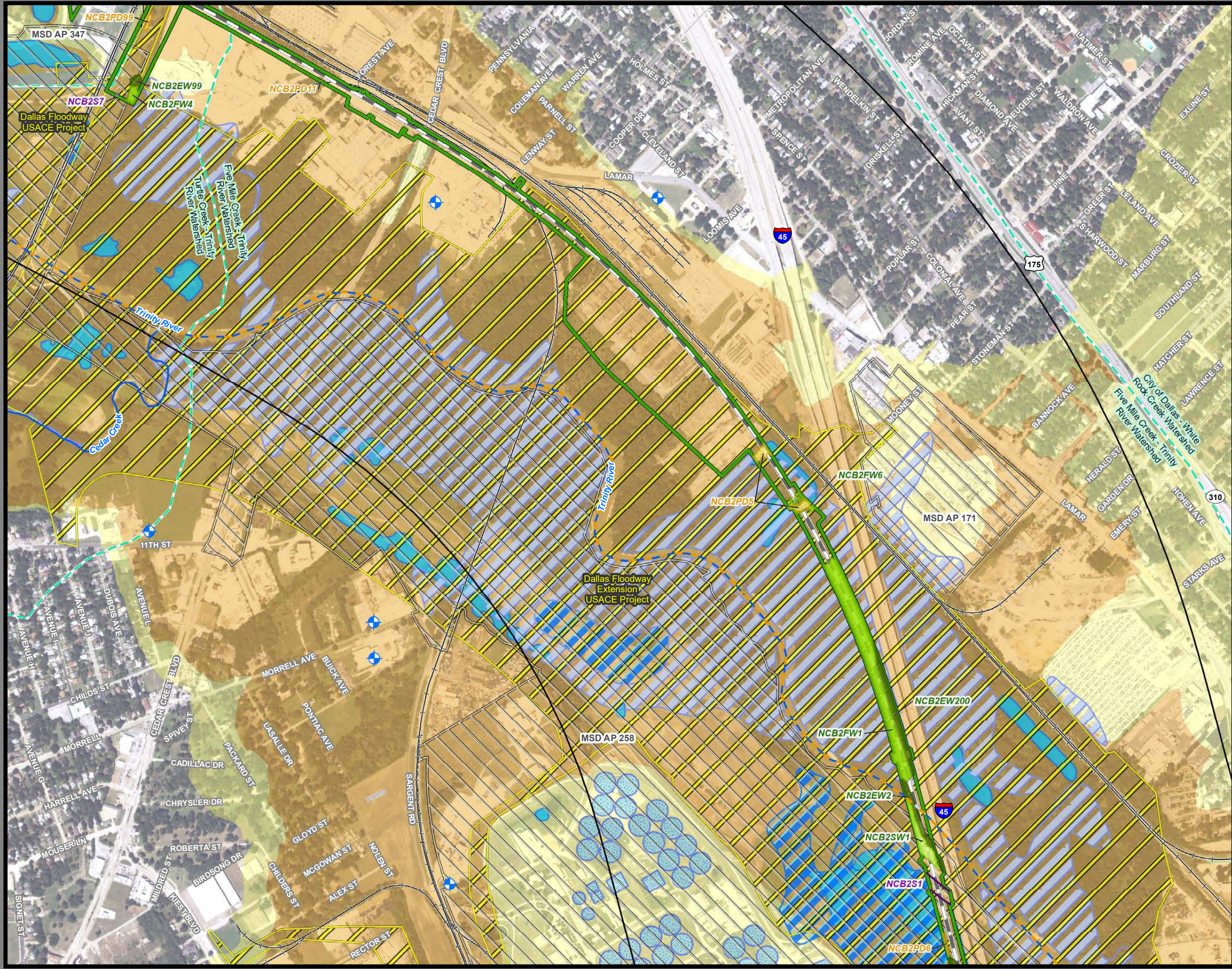
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1, Dallas Terminal
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Legend	
Limits of Disturbance	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	Federal Emergency Management Agency (FEMA) 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 Centerline 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
Element of Occurrence	Swamp/Marsh
Record for Federally Protected 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 Wells	

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Aerial Imagery: USDA NAIP 2016





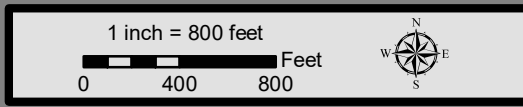
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 2 of 257**

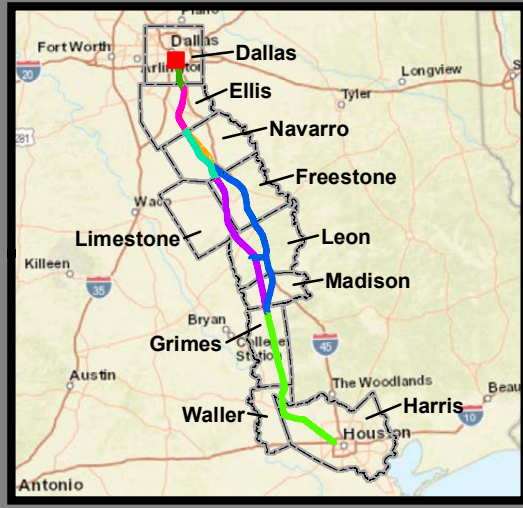
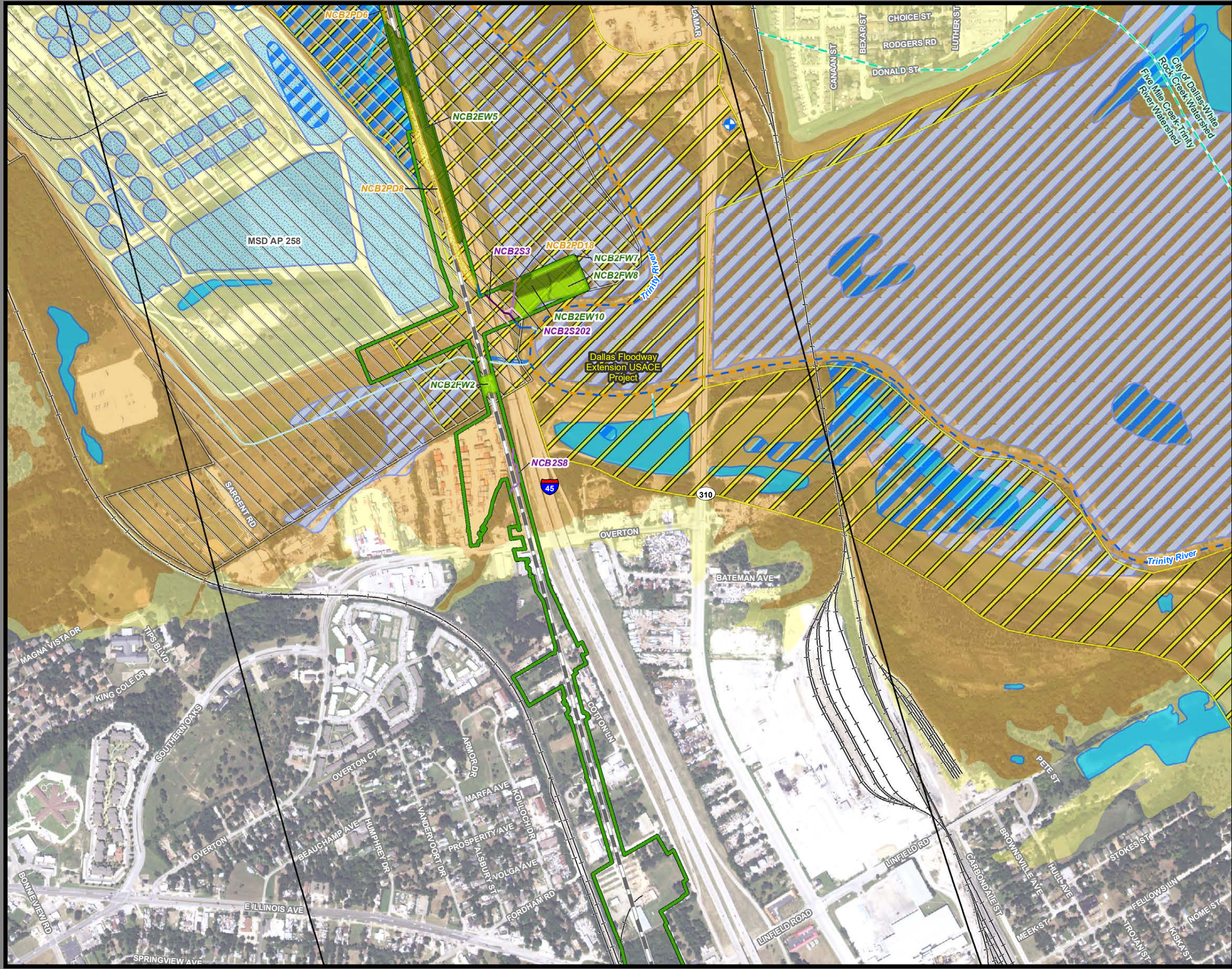
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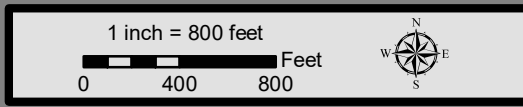
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 3 of 257**

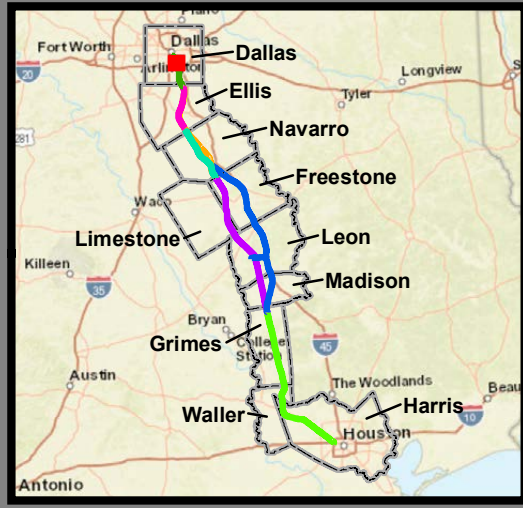
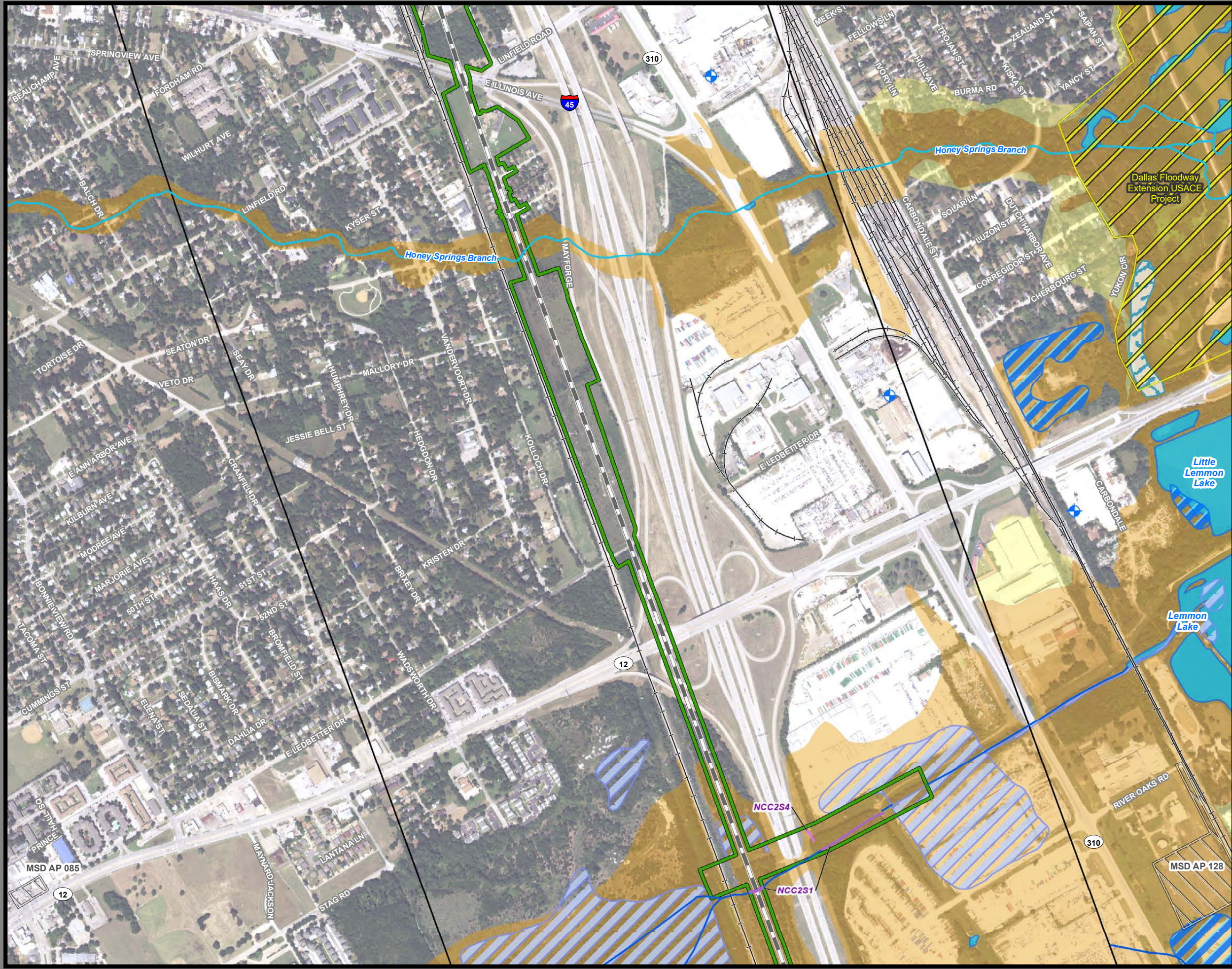
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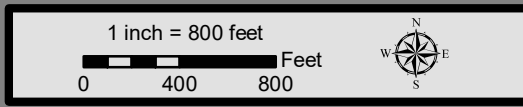
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 4 of 257**

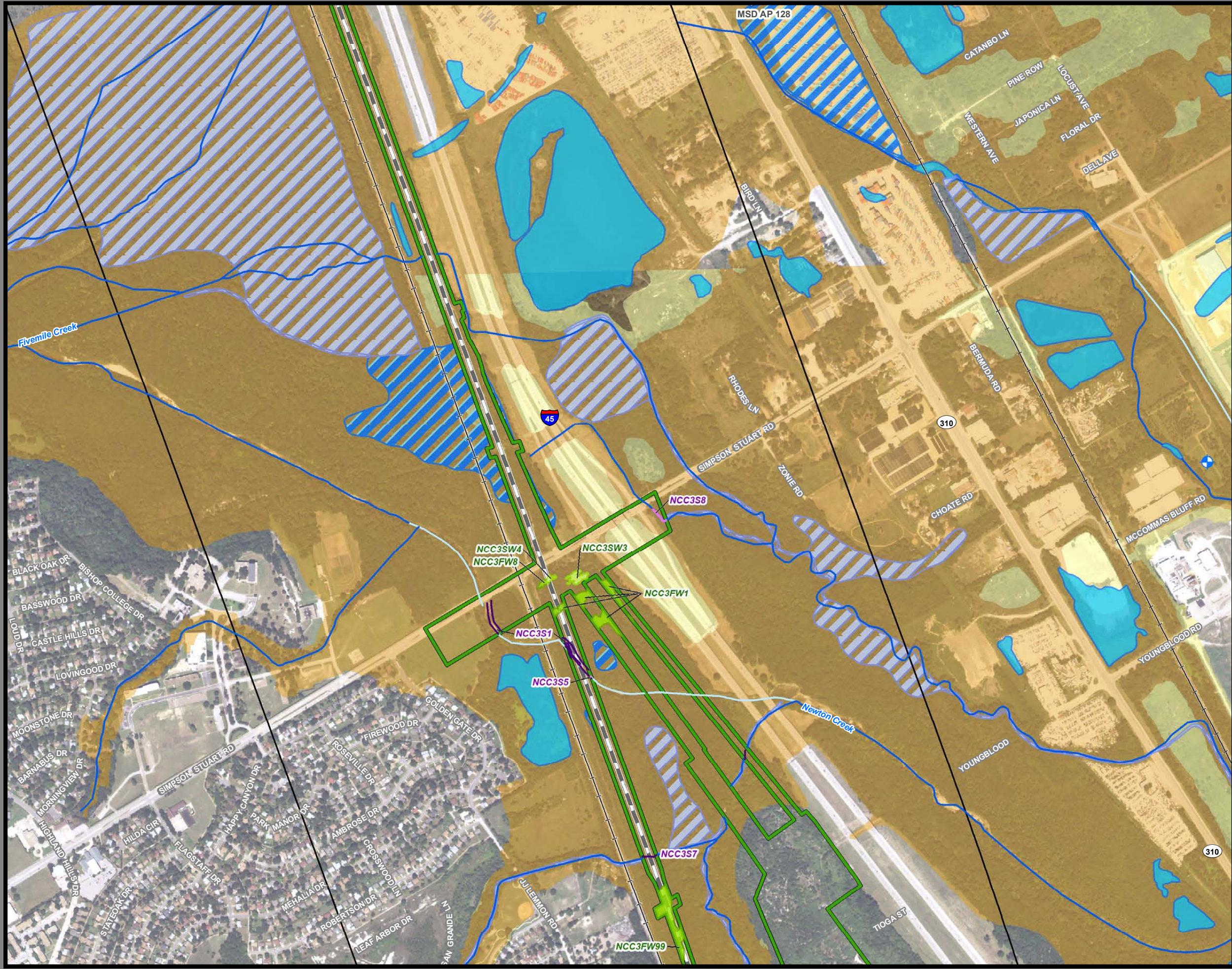
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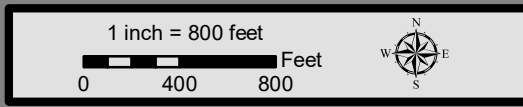
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 5 of 257**

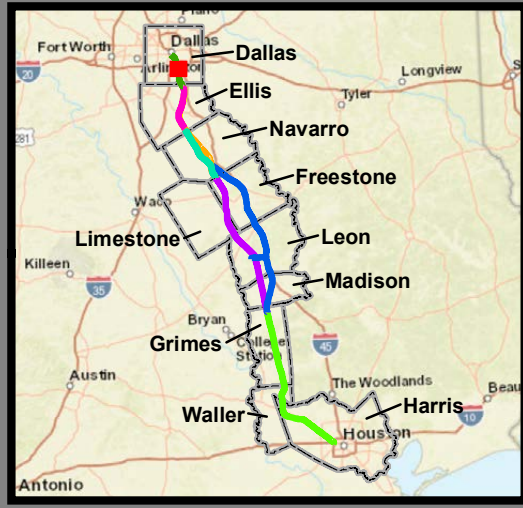
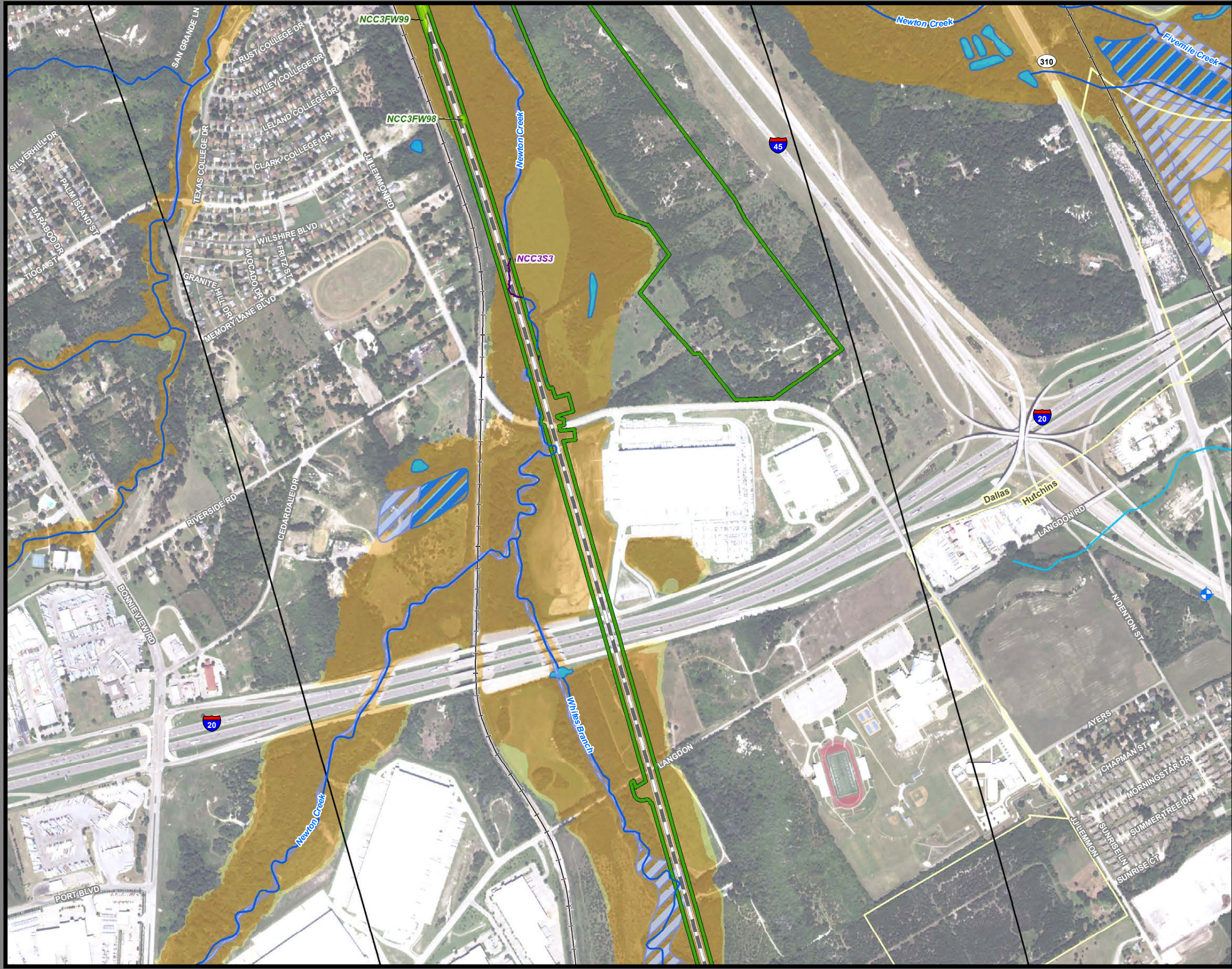
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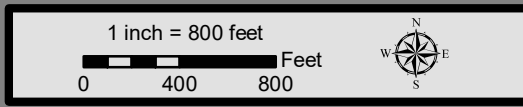
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 6 of 257**

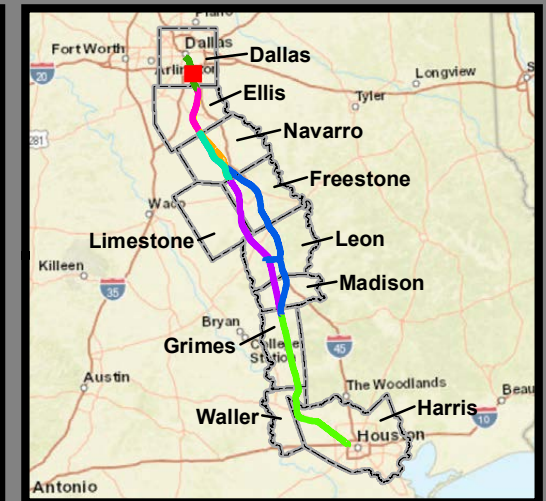
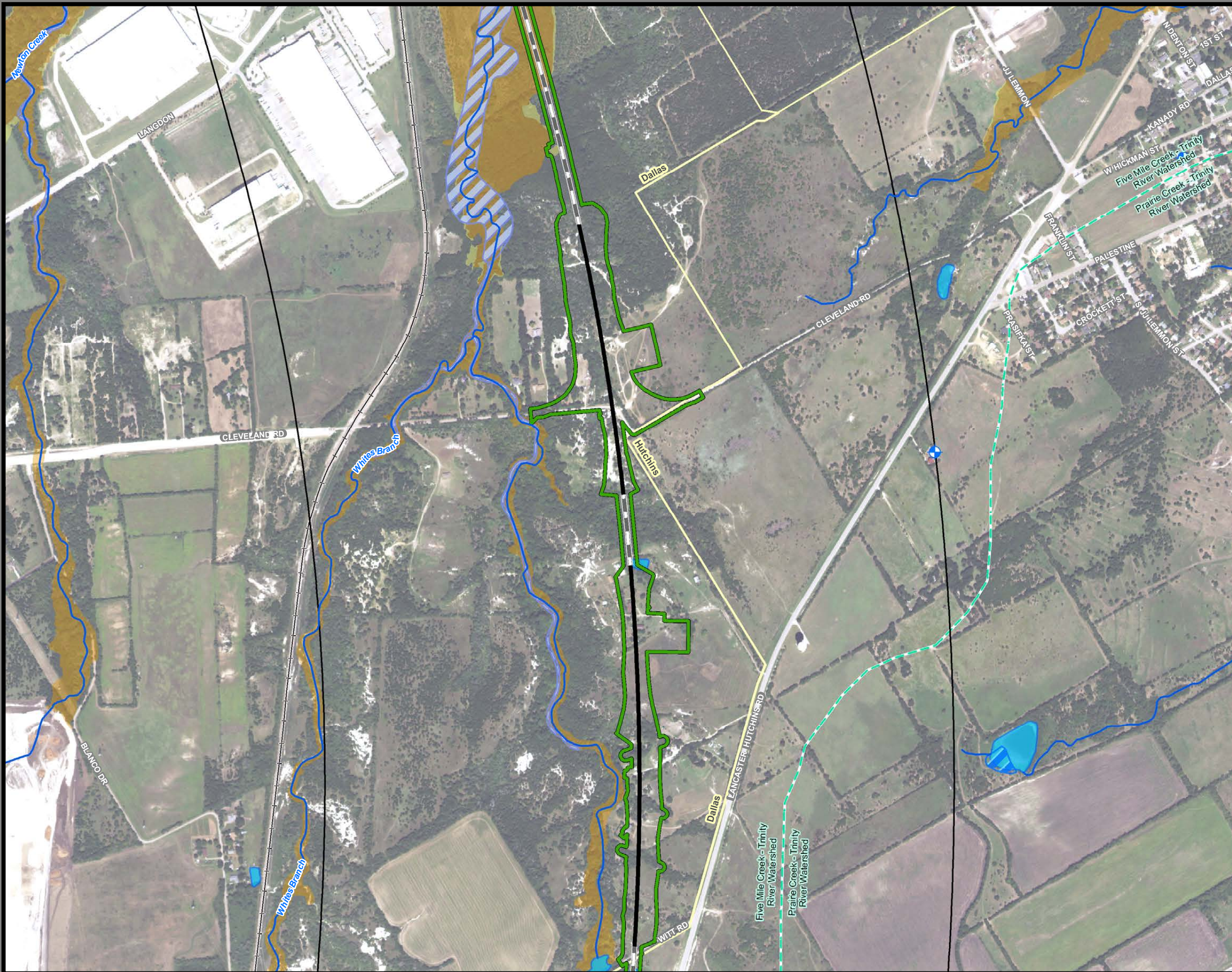
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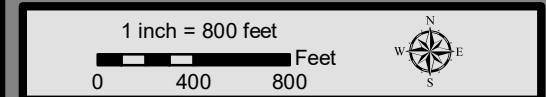
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 7 of 257**

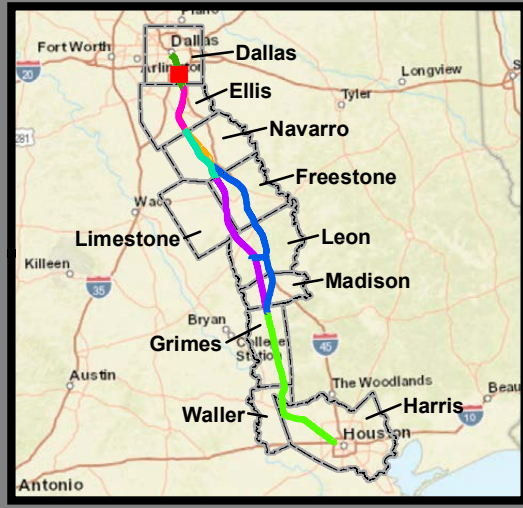
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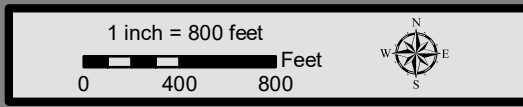
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 8 of 257**

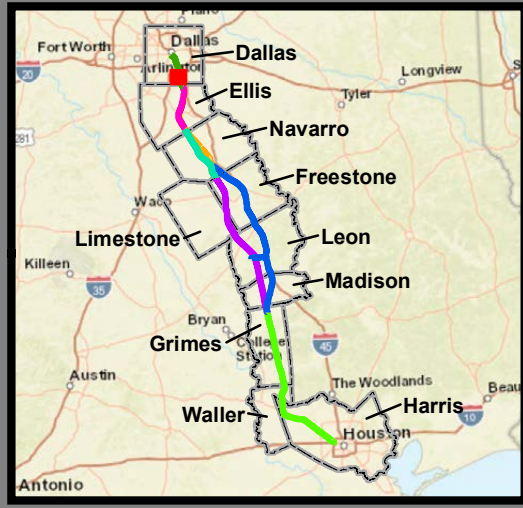
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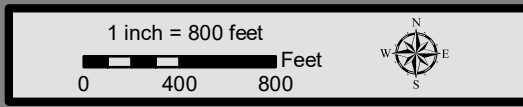
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
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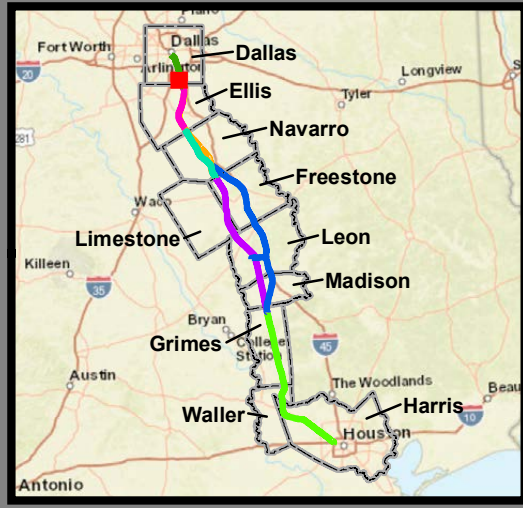
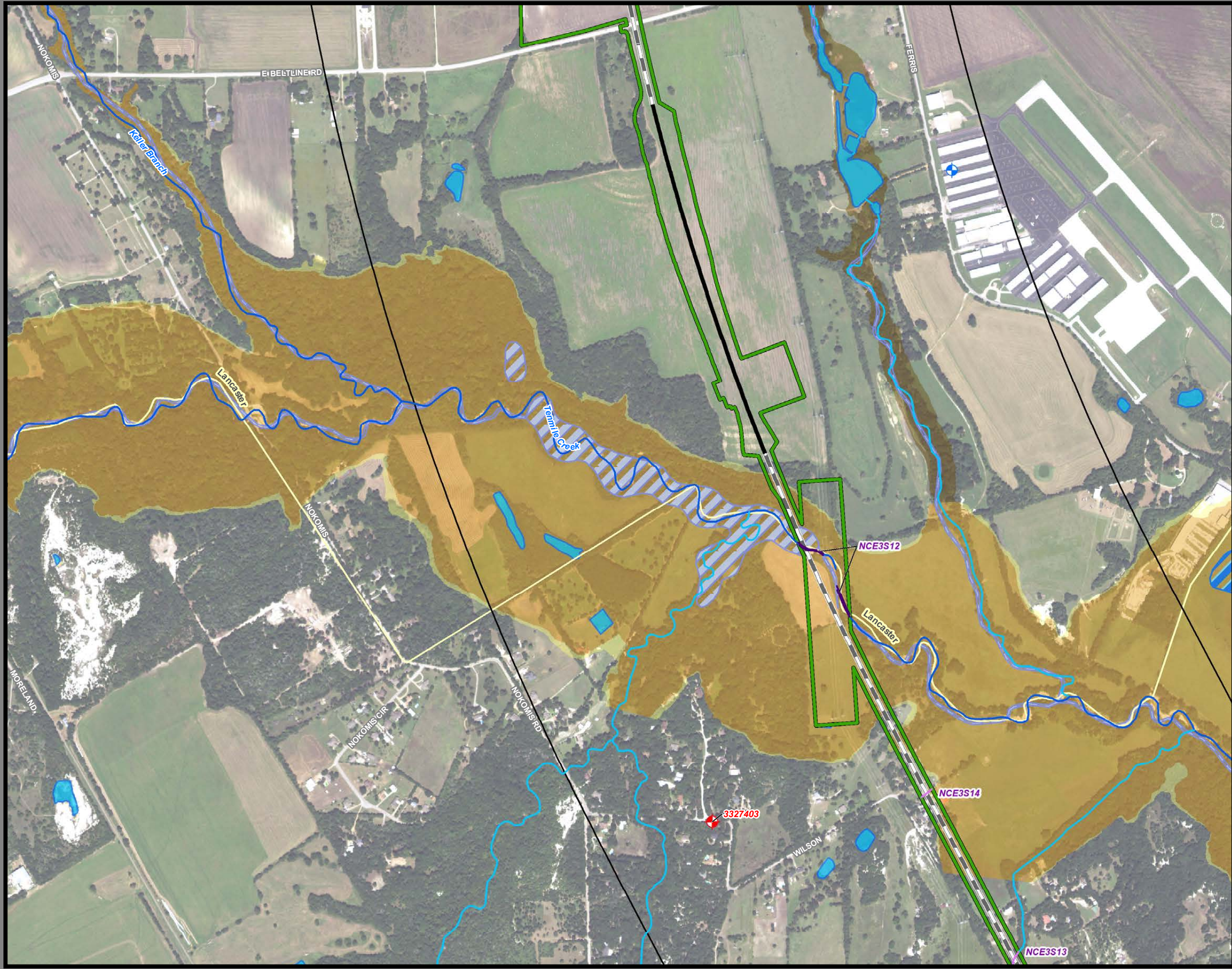
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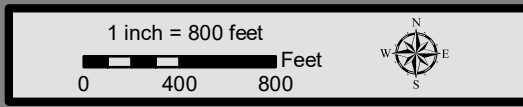
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 10 of 257**

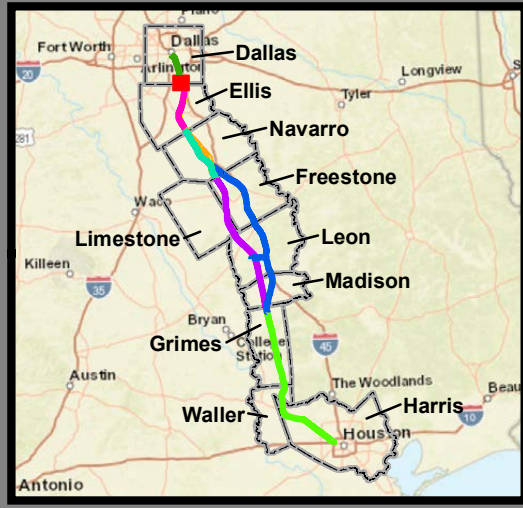
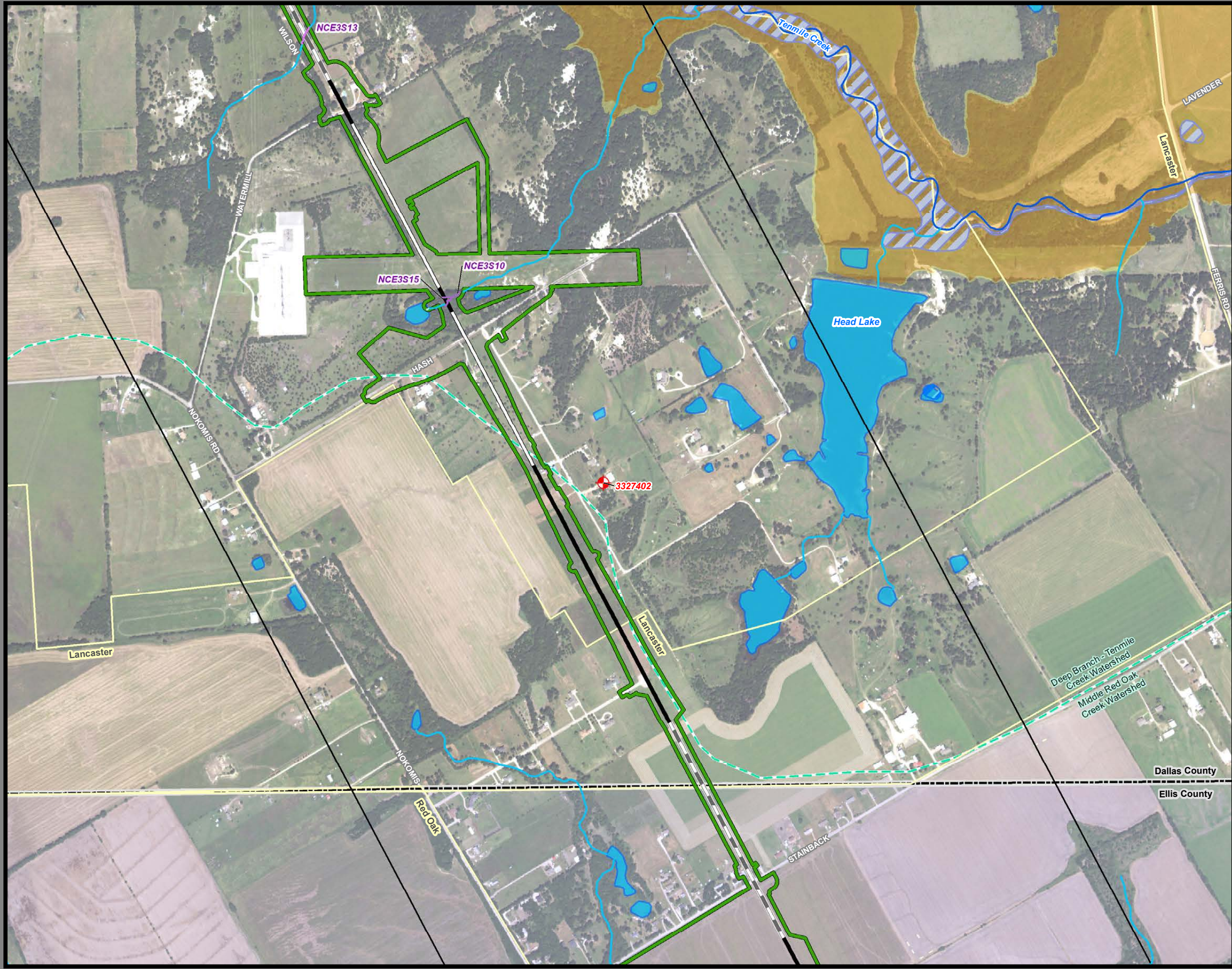
Legend

<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 Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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Data Sources: County Boundaries - U.S. Census TIGER 2015; City Boundaries - TxDOT 2018; MSD - TCEQ 2018; USACE Project Areas - USACE 2018; Public Water Supply - EPA 2016; Impaired Waters - TCEQ 2016; Groundwater Wells - TWDB 2018; NHD/HUC12 - USGS 2018; Reservoirs - TWDB 2014; NWI - USFWS 2018; Floodplains - FEMA 2018; EOR - TPWD TXNDD 2019; ESRI World Street Map
Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1
Sheet 11 of 257**

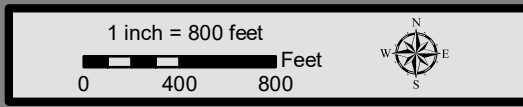
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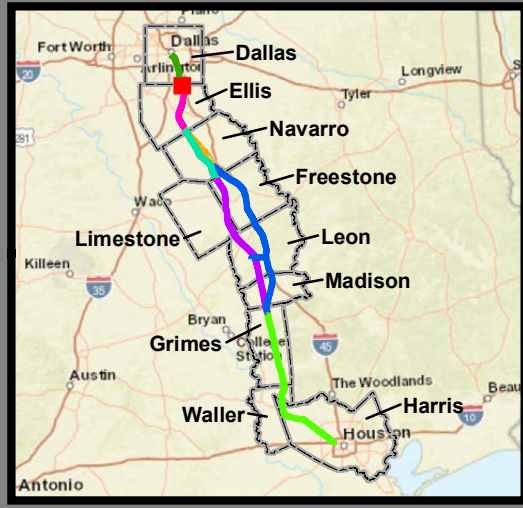
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Dallas County
Ellis County

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 1, 2A
Sheet 12 of 257**

Legend

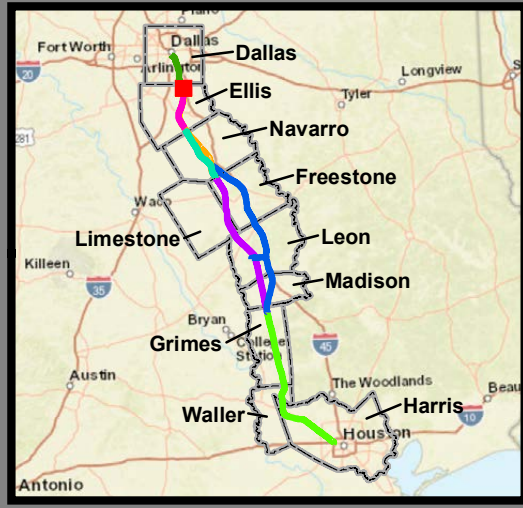
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<ul style="list-style-type: none"> Impaired Waters with Total Maximum Daily Load (TMDL) Impaired Waters Federal Emergency Management Agency (FEMA) Flood Zone A - 1% AE - 1% AO - 1% X - 0.2% <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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 28.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 13 of 257**

Legend

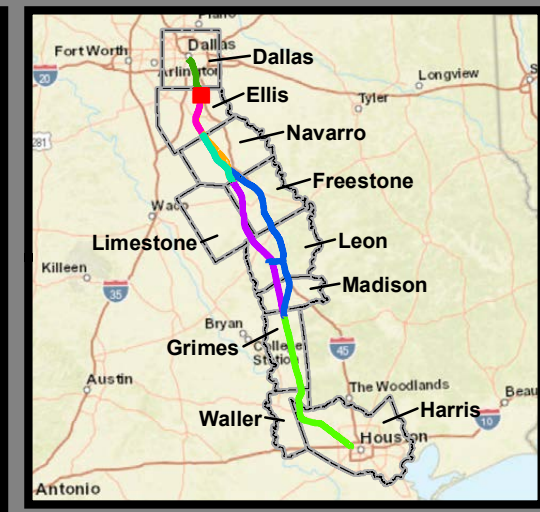
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 29.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 14 of 257**

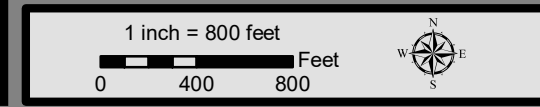
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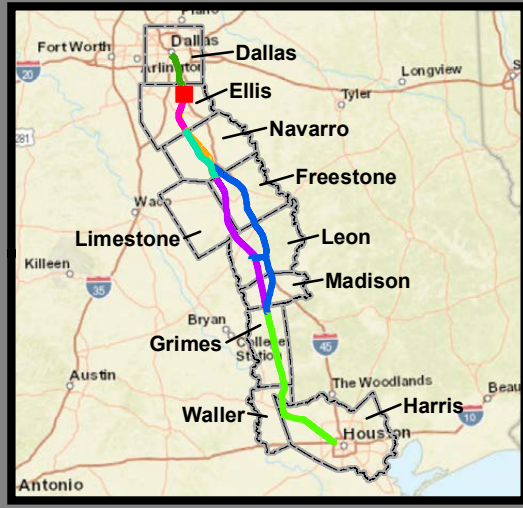
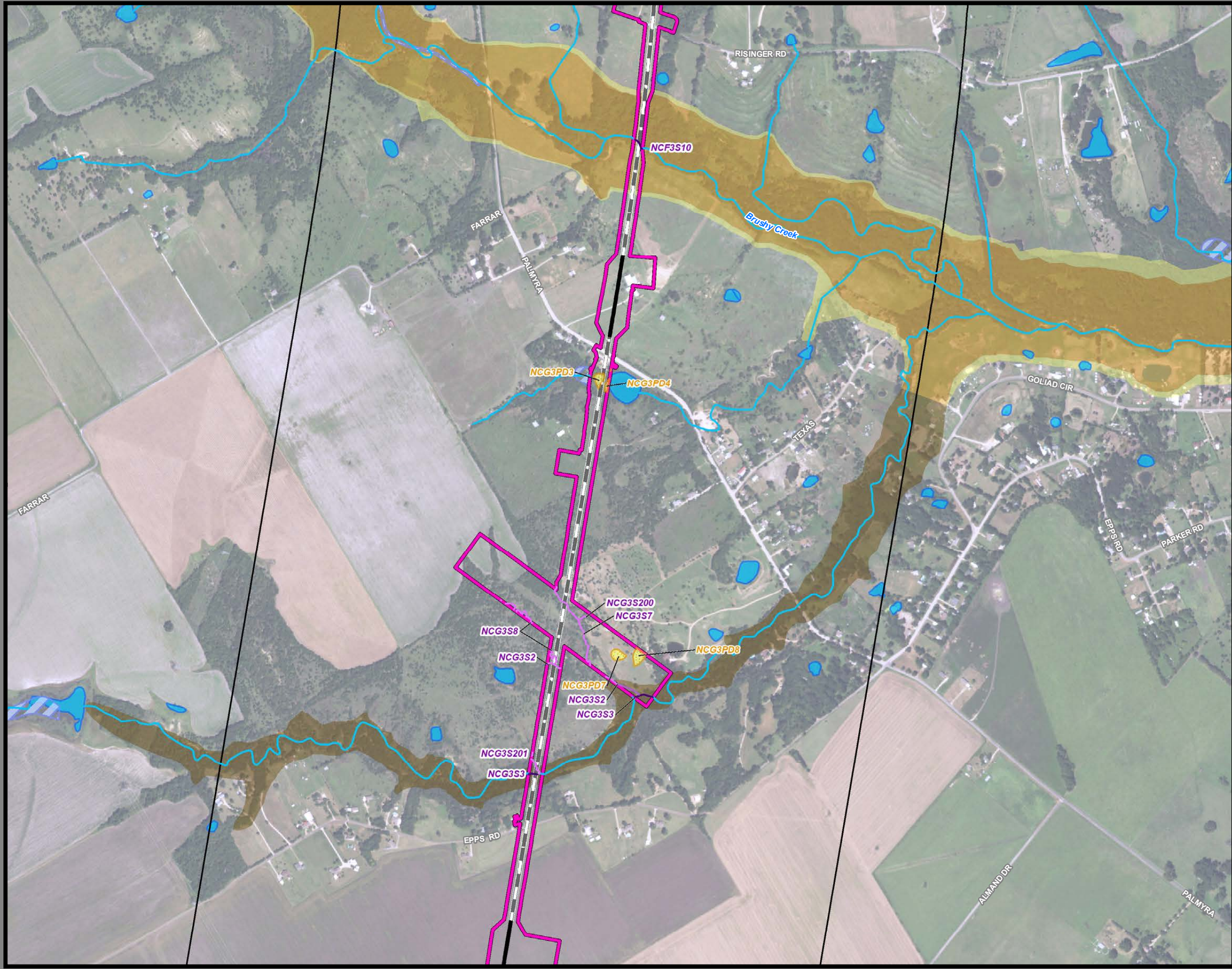
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 30.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 15 of 257**

Legend

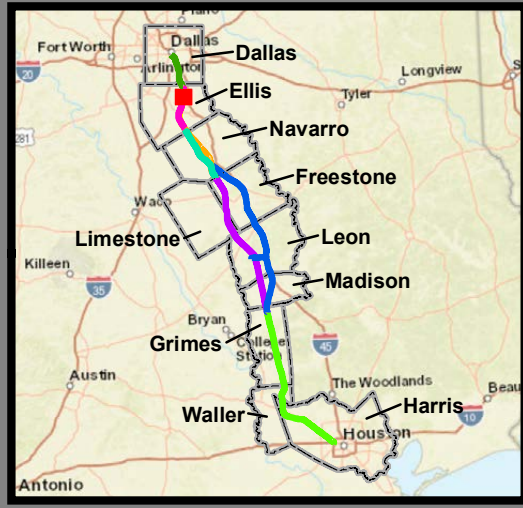
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Segment 1	Impaired Waters
Segment 2A	Federal Emergency Management Agency (FEMA) Flood Zone
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	Field-Collected Data
Segment 5	Perennial Stream/River
Track Configuration	Intermittent Stream/River
Viaduct	Ephemeral Stream/River
Embankment	Other Stream/River
Cut	Lake/Pond
Half Mile Centerline 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
Element of Occurrence	Swamp/Marsh
Record for Federally Protected 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 Wells	

This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 31.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 16 of 257**

Legend

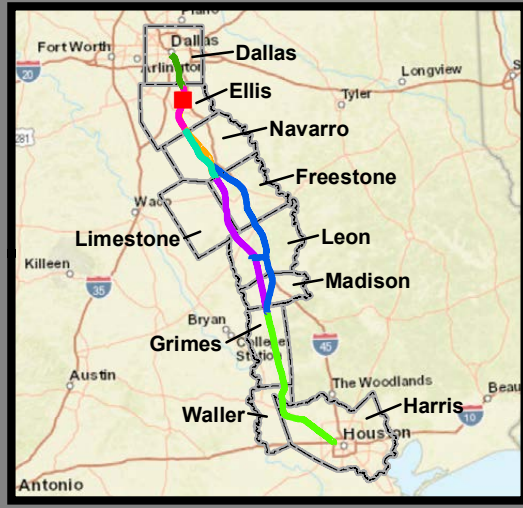
<ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 32.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 17 of 257**

Legend

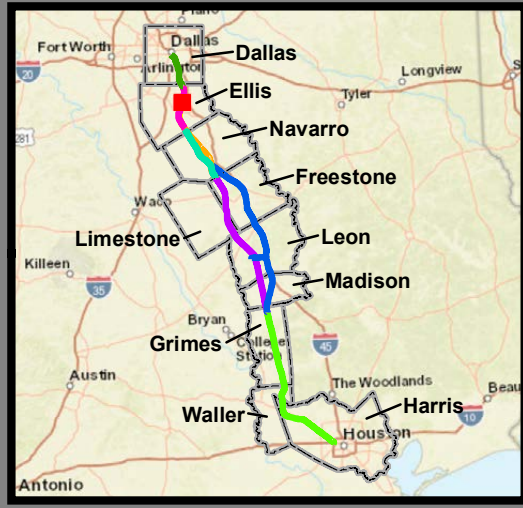
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 33.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 18 of 257**

Legend

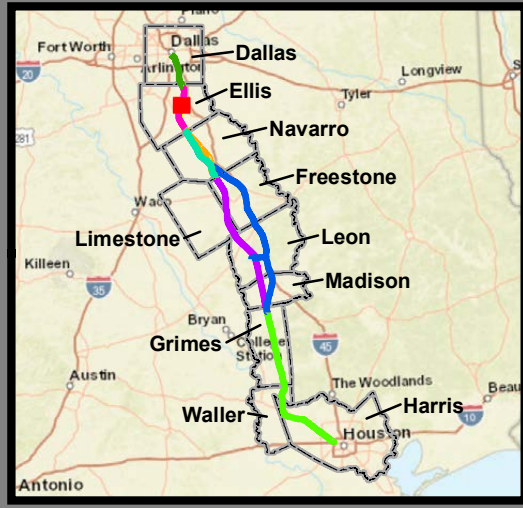
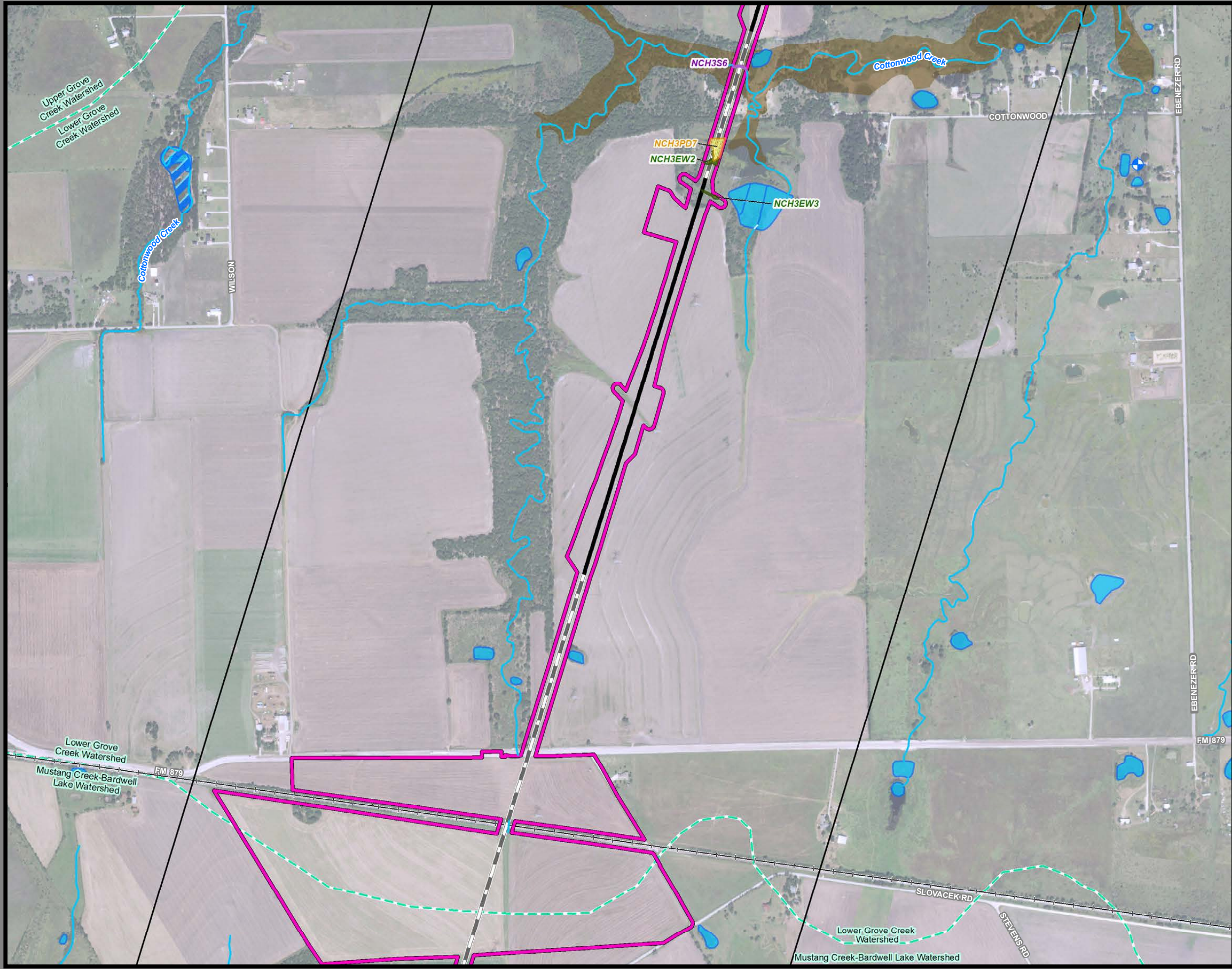
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 34.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 19 of 257**

Legend

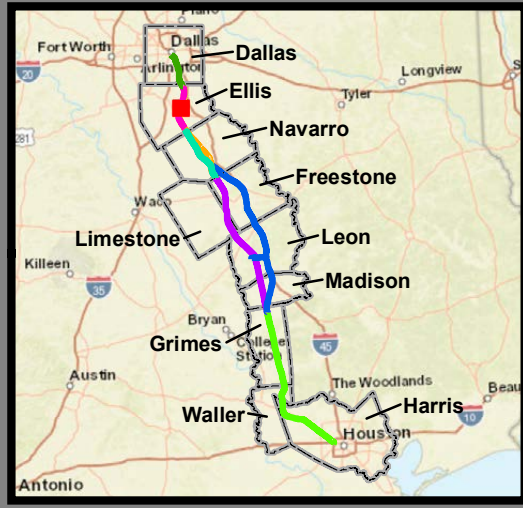
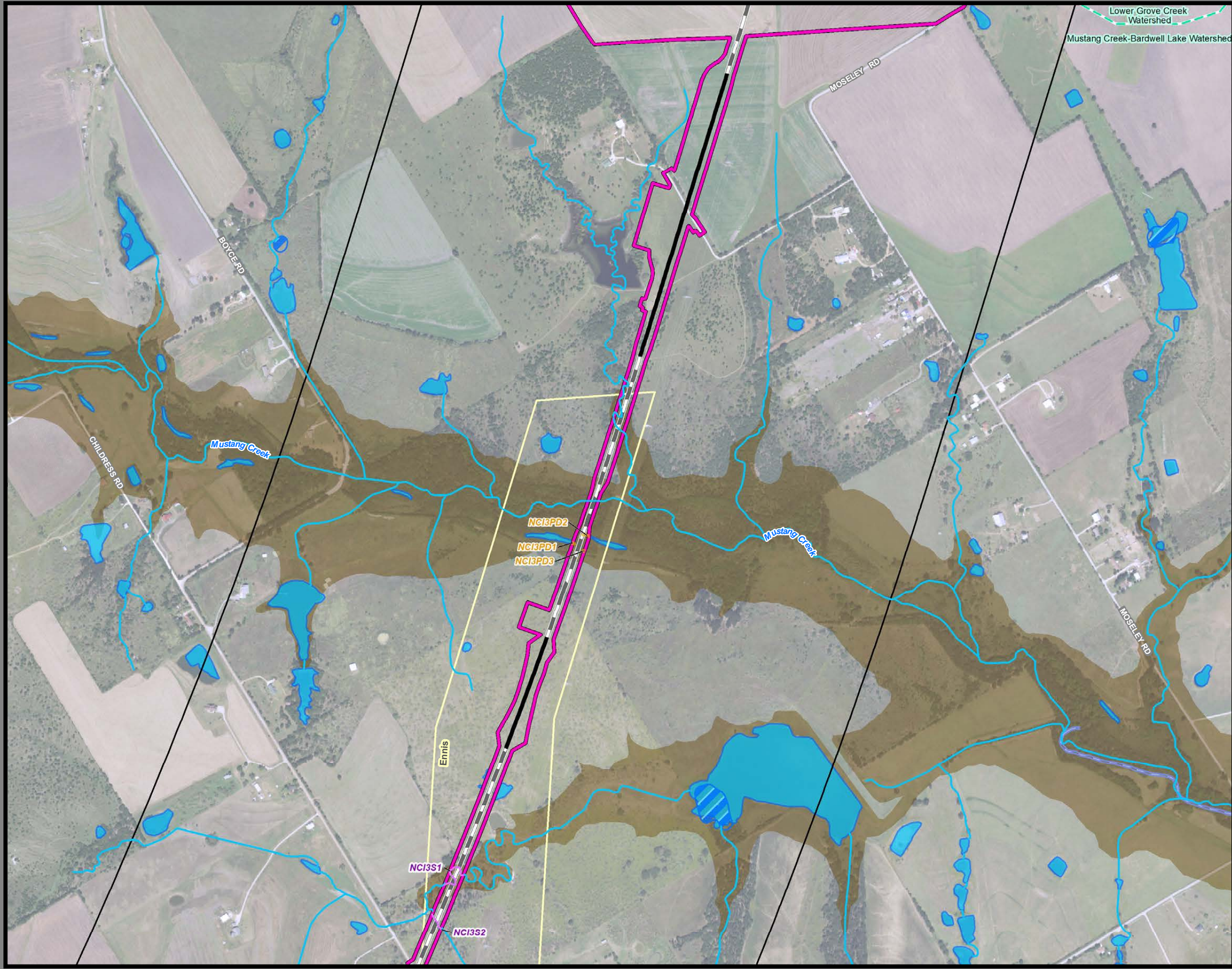
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 35.

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**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 20 of 257**

Legend

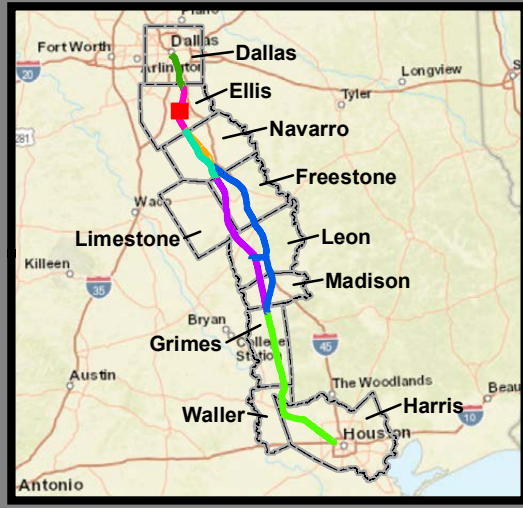
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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% <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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 36.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 21 of 257**

Legend

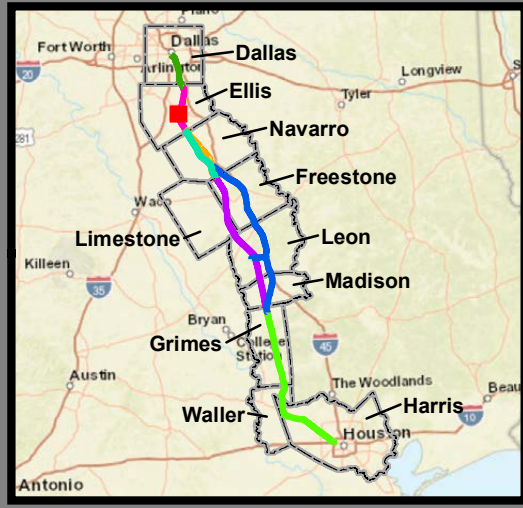
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 37.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 22 of 257**

Legend

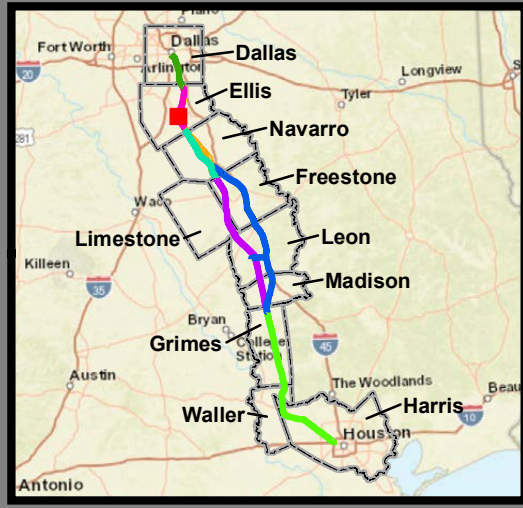
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 38.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 23 of 257**

Legend

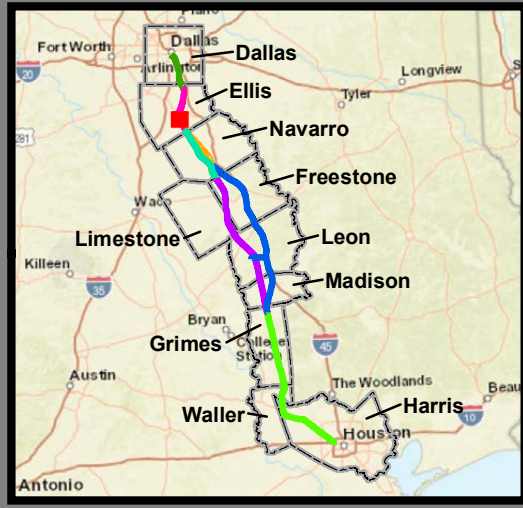
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 39.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 24 of 257**

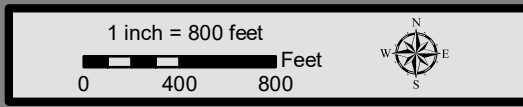
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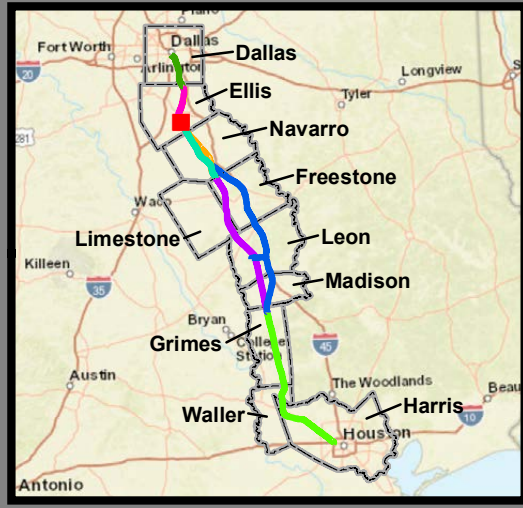
Limits of Disturbance	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	Federal Emergency Management Agency (FEMA) Flood Zone
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	Field-Collected Data
Segment 5	Perennial Stream/River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

This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 40.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 25 of 257**

Legend

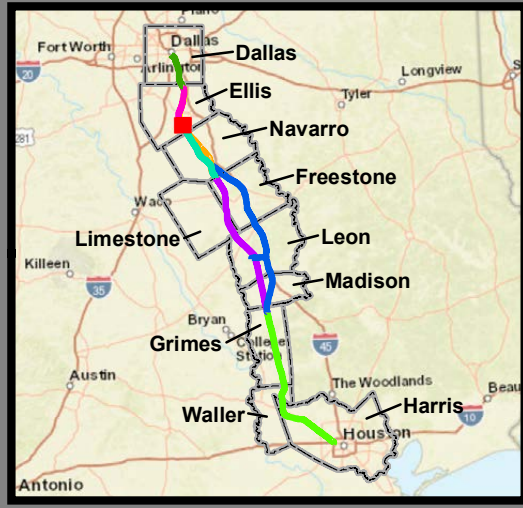
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 41.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A
Sheet 26 of 257**

Legend

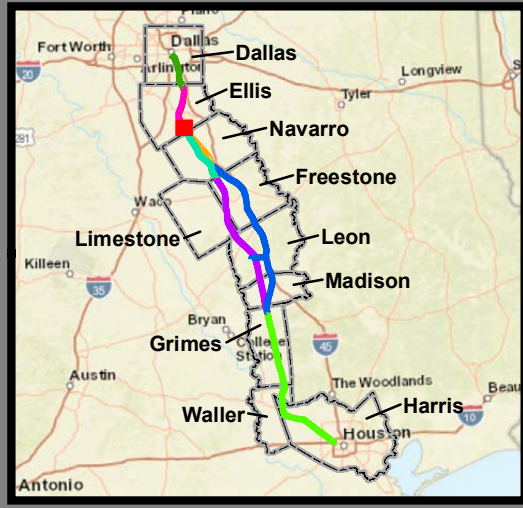
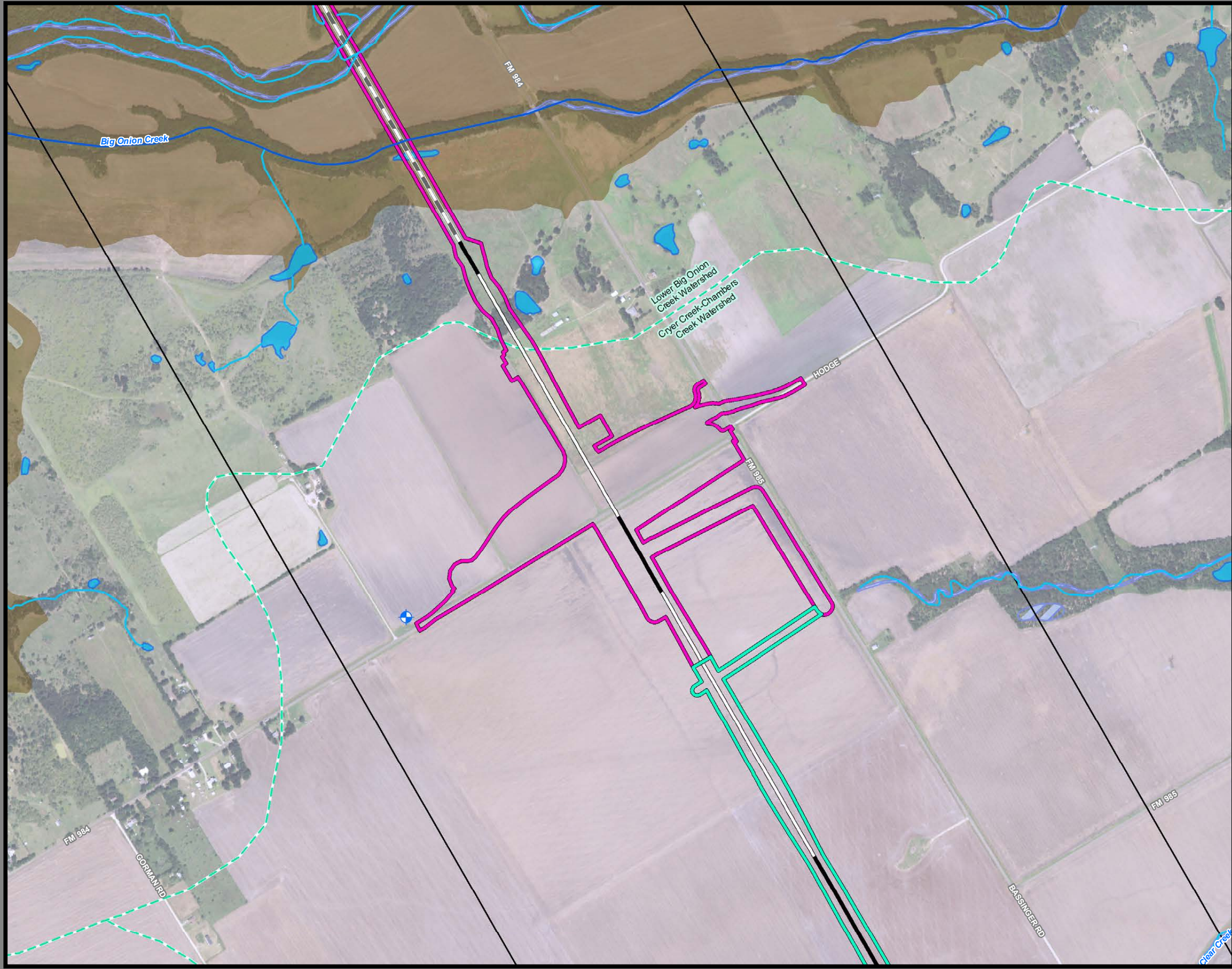
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2A; Segment 2B is also located in this same area and can be referenced on Sheet 42.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2A, 3A
Sheet 27 of 257**

Legend

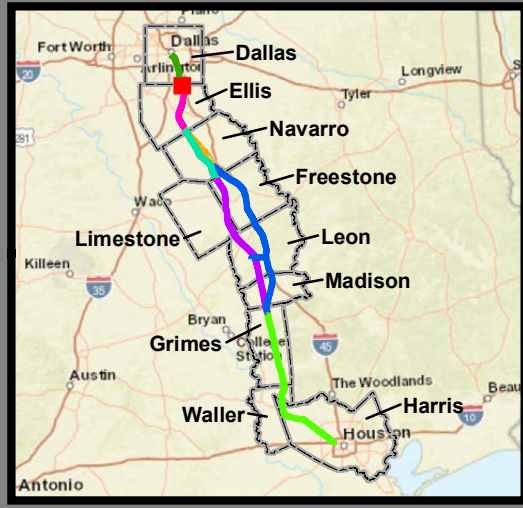
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<ul style="list-style-type: none"> Impaired Waters with Total Maximum Daily Load (TMDL) Impaired Waters Federal Emergency Management Agency (FEMA) Flood Zone A - 1% AE - 1% AO - 1% X - 0.2% <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
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This Sheet only depicts Segments 2A & 3A; Segment 2B, 3B & 3C are also located in this same area and can be referenced on Sheets 43, 62 & 81.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B
Sheet 28 of 257**

Legend

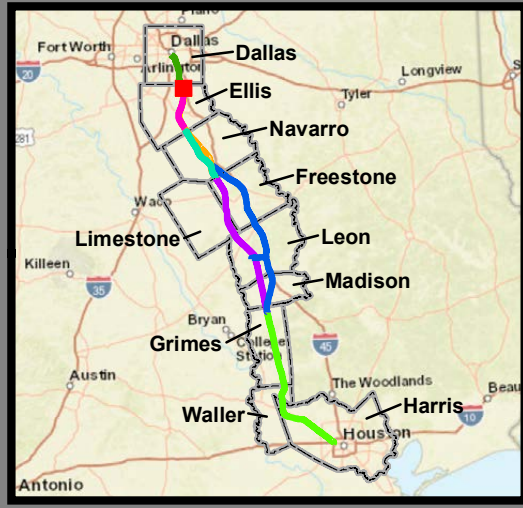
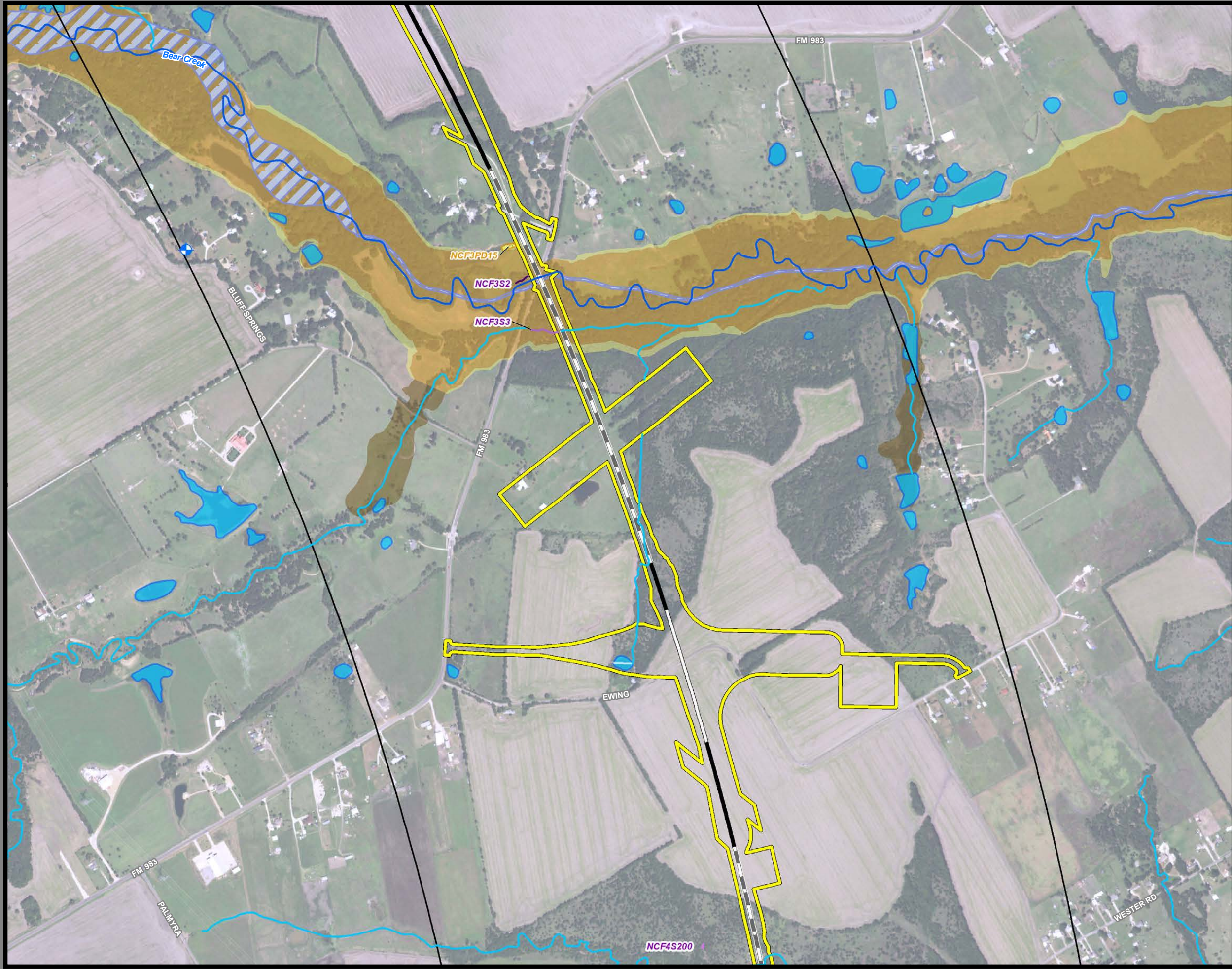
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 12.

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B
Sheet 29 of 257**

Legend

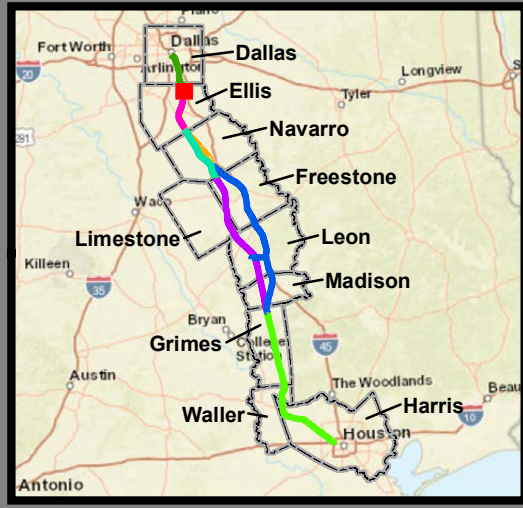
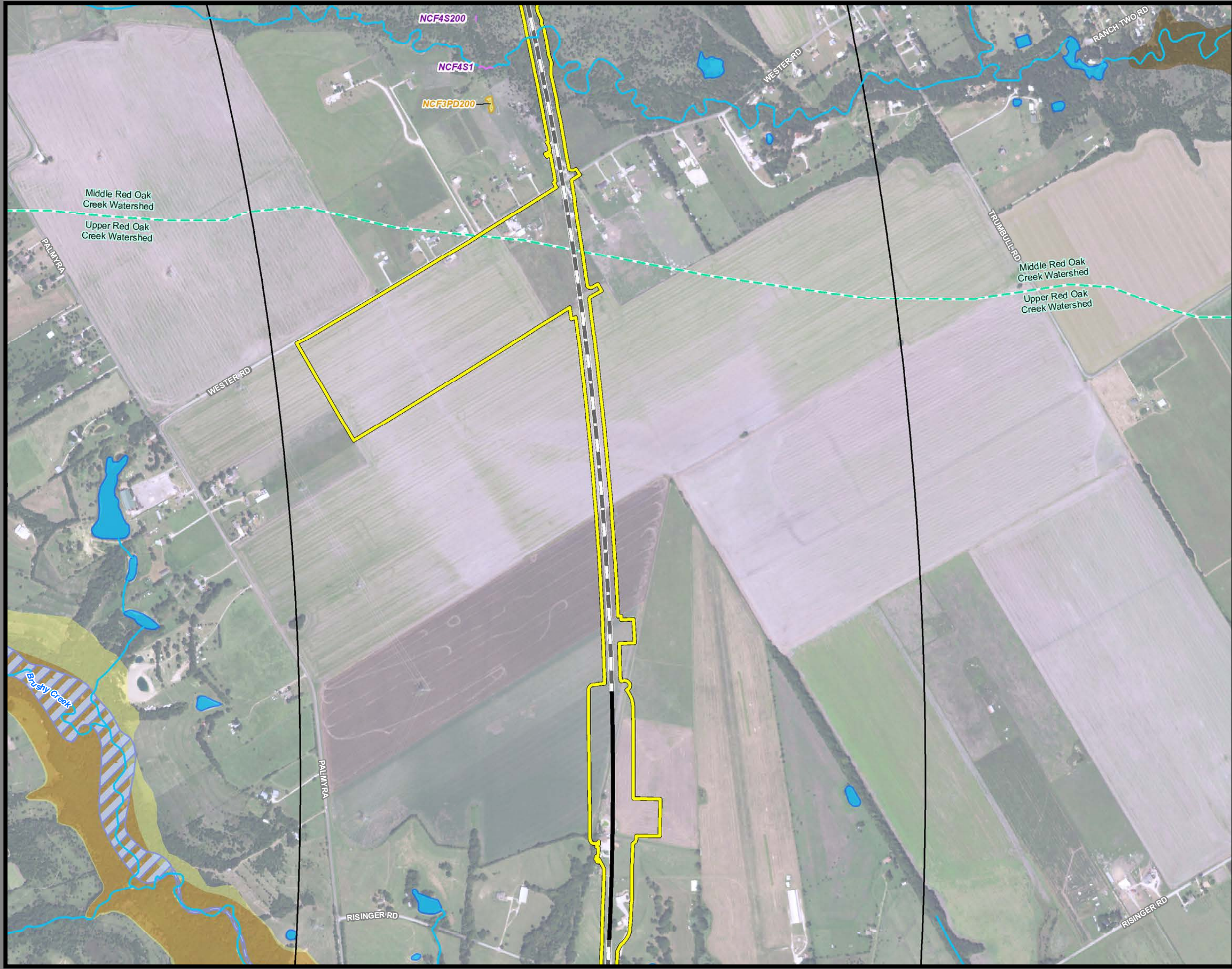
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 13.

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B
Sheet 30 of 257**

Legend

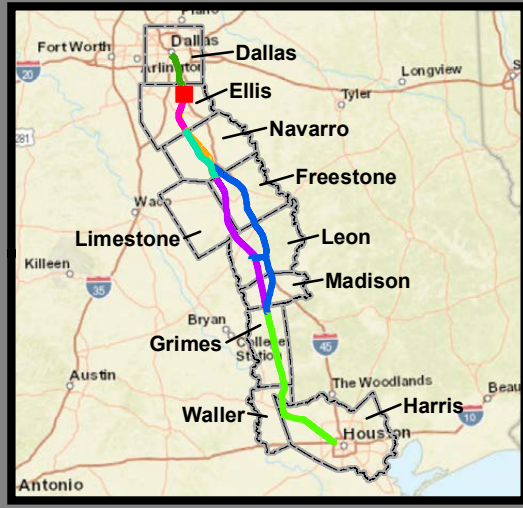
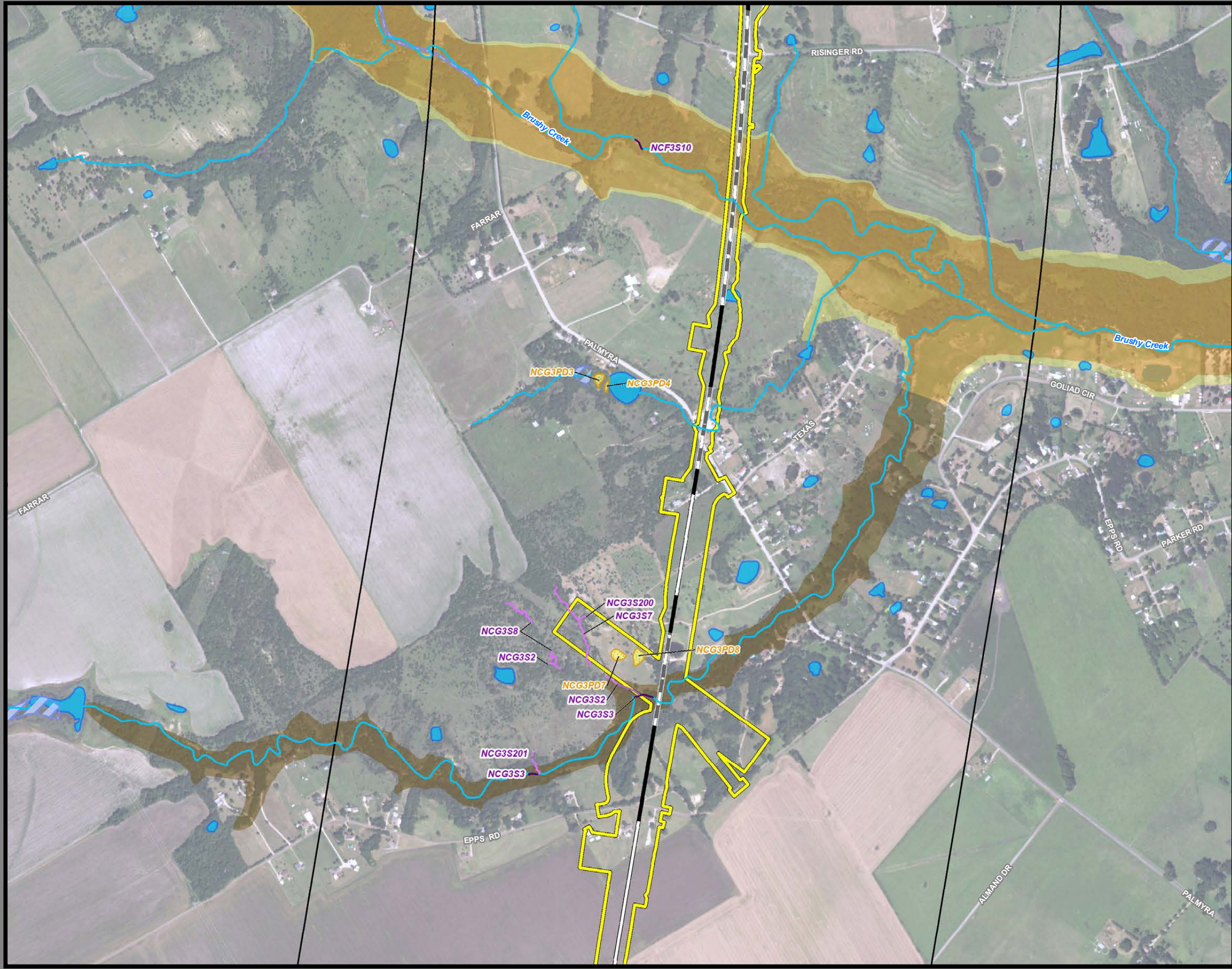
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 14.

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

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





**Dallas to Houston
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Natural Resources
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Sheet 31 of 257**

Legend

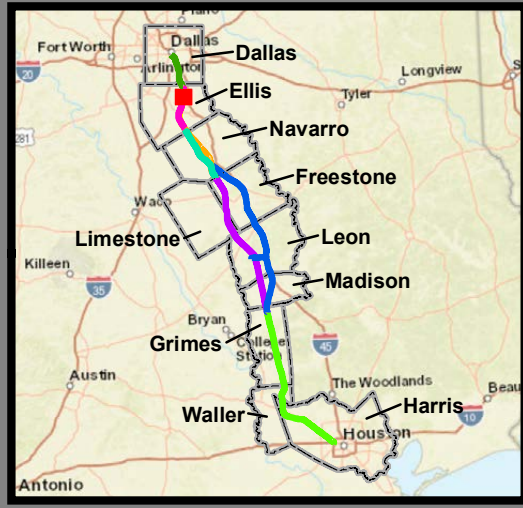
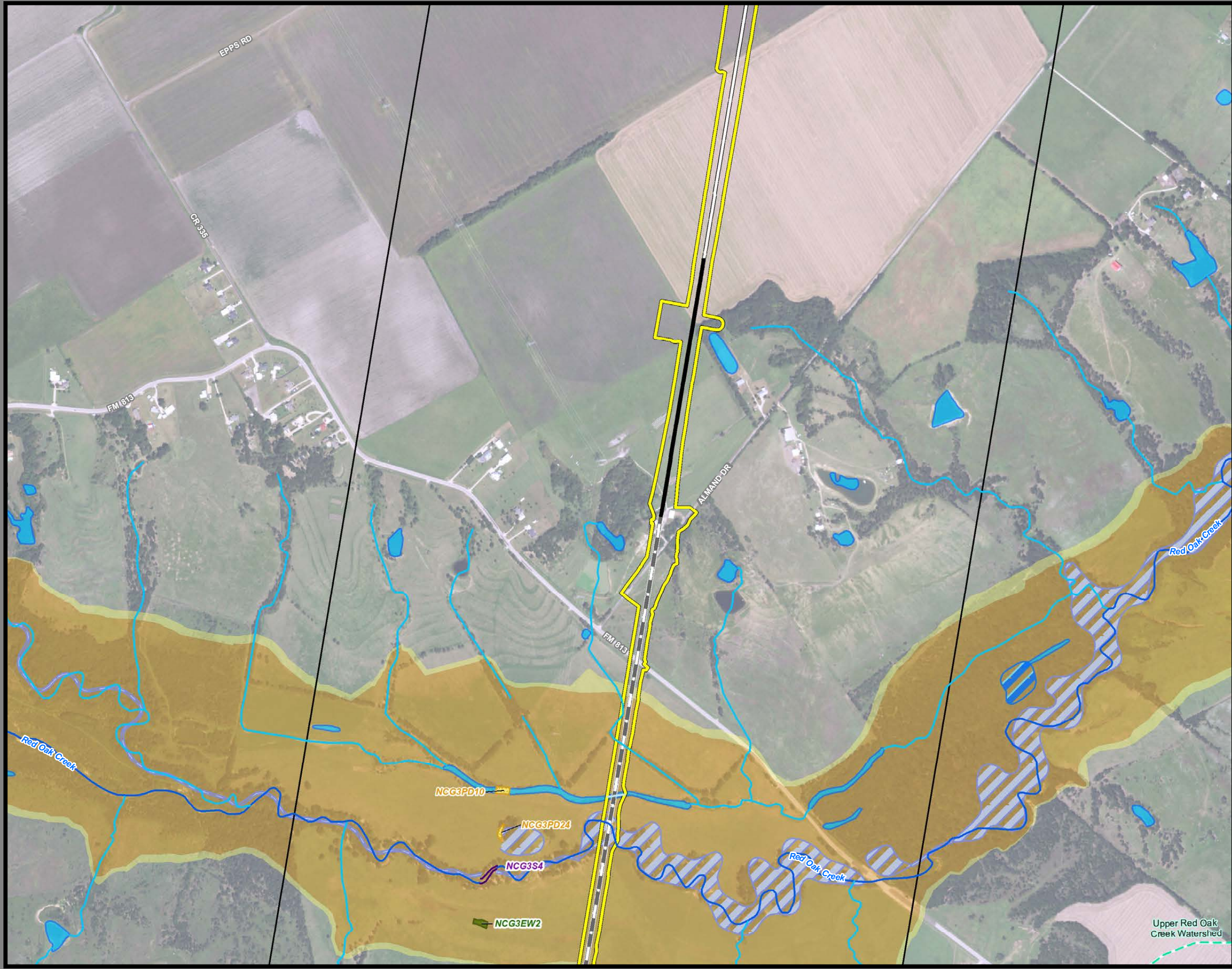
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 15.

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

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





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High-Speed Rail Project
Natural Resources
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Sheet 32 of 257**

Legend

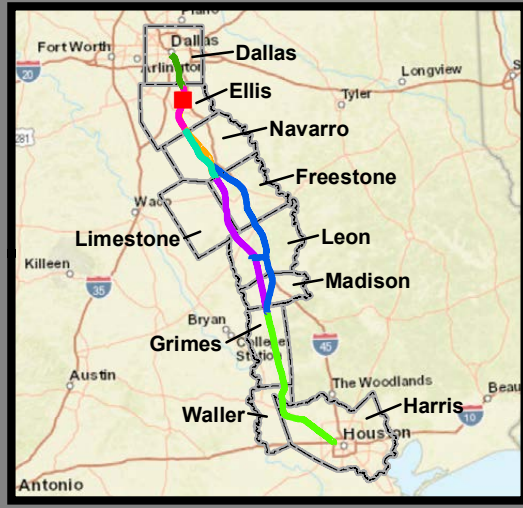
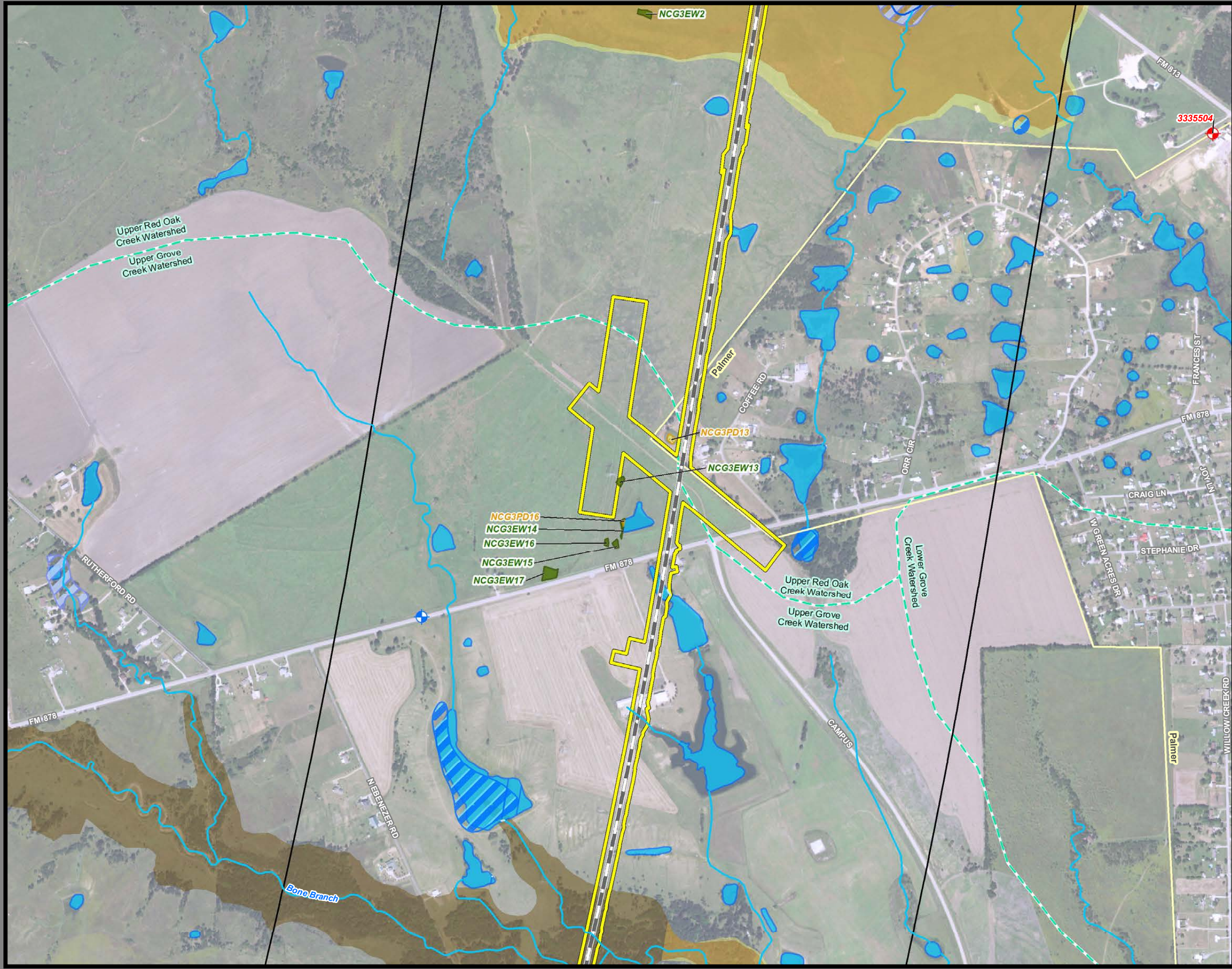
<ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 	<ul style="list-style-type: none"> Impaired Waters with Total Maximum Daily Load (TMDL) Impaired Waters
<ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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

This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 16.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Sheet 33 of 257**

Legend

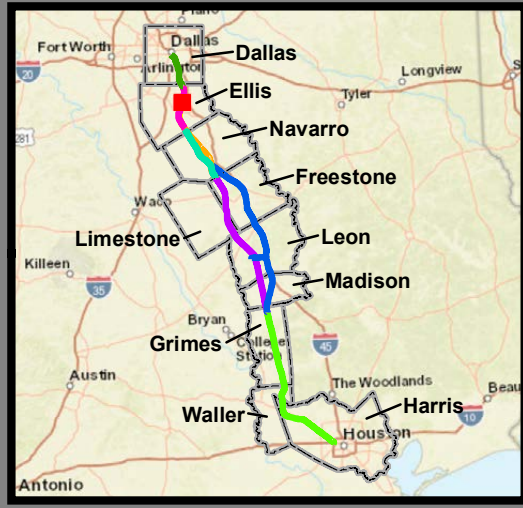
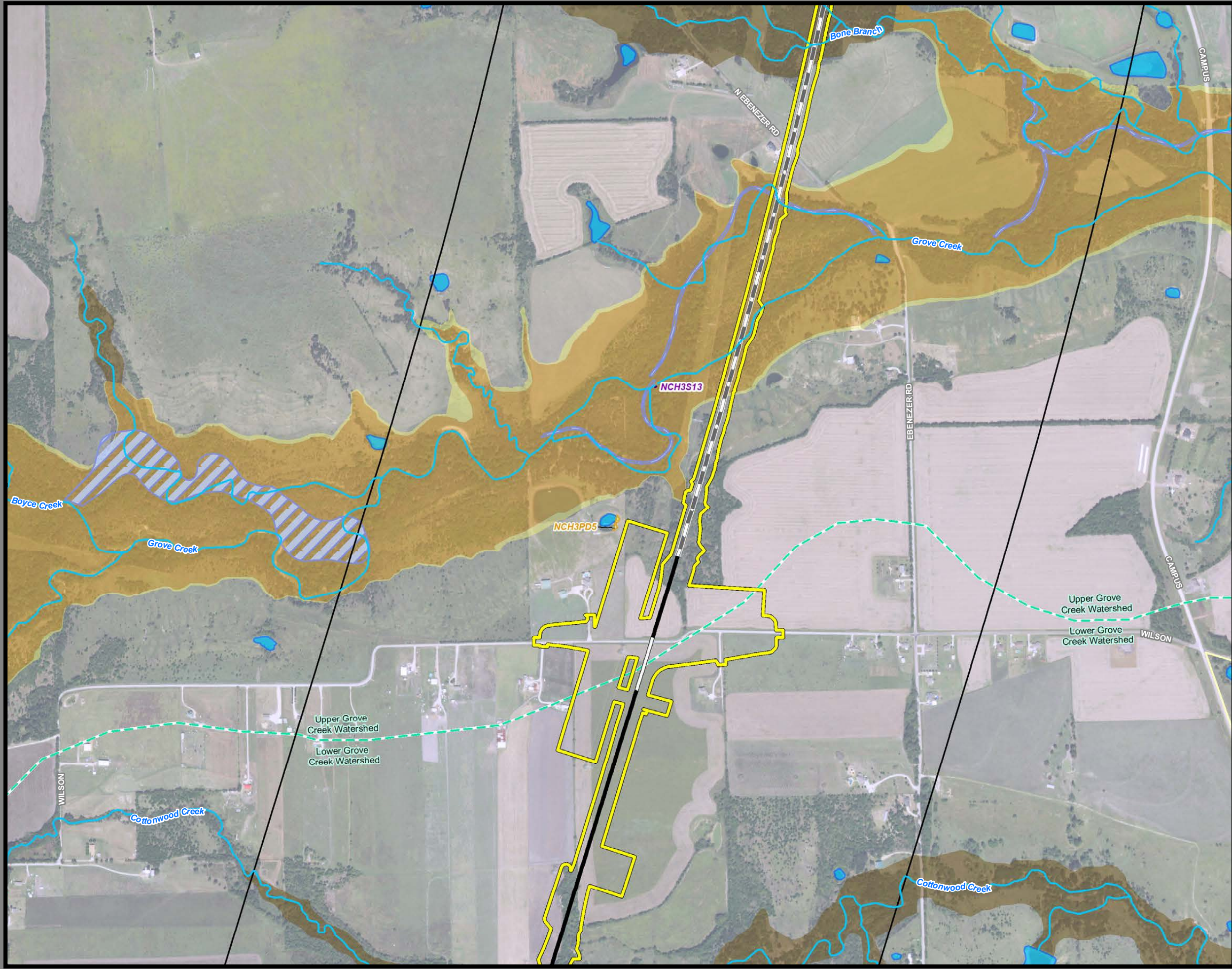
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 17.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Sheet 34 of 257**

Legend

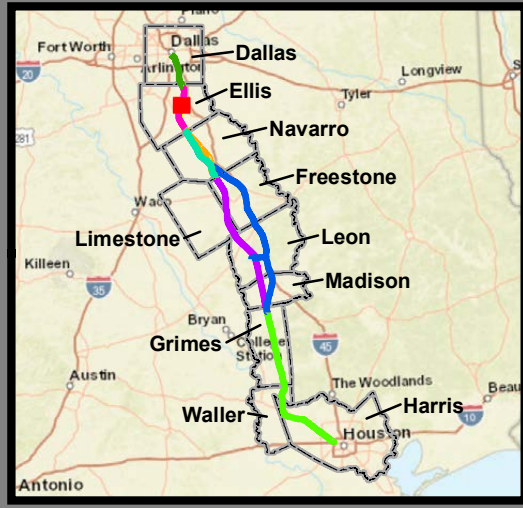
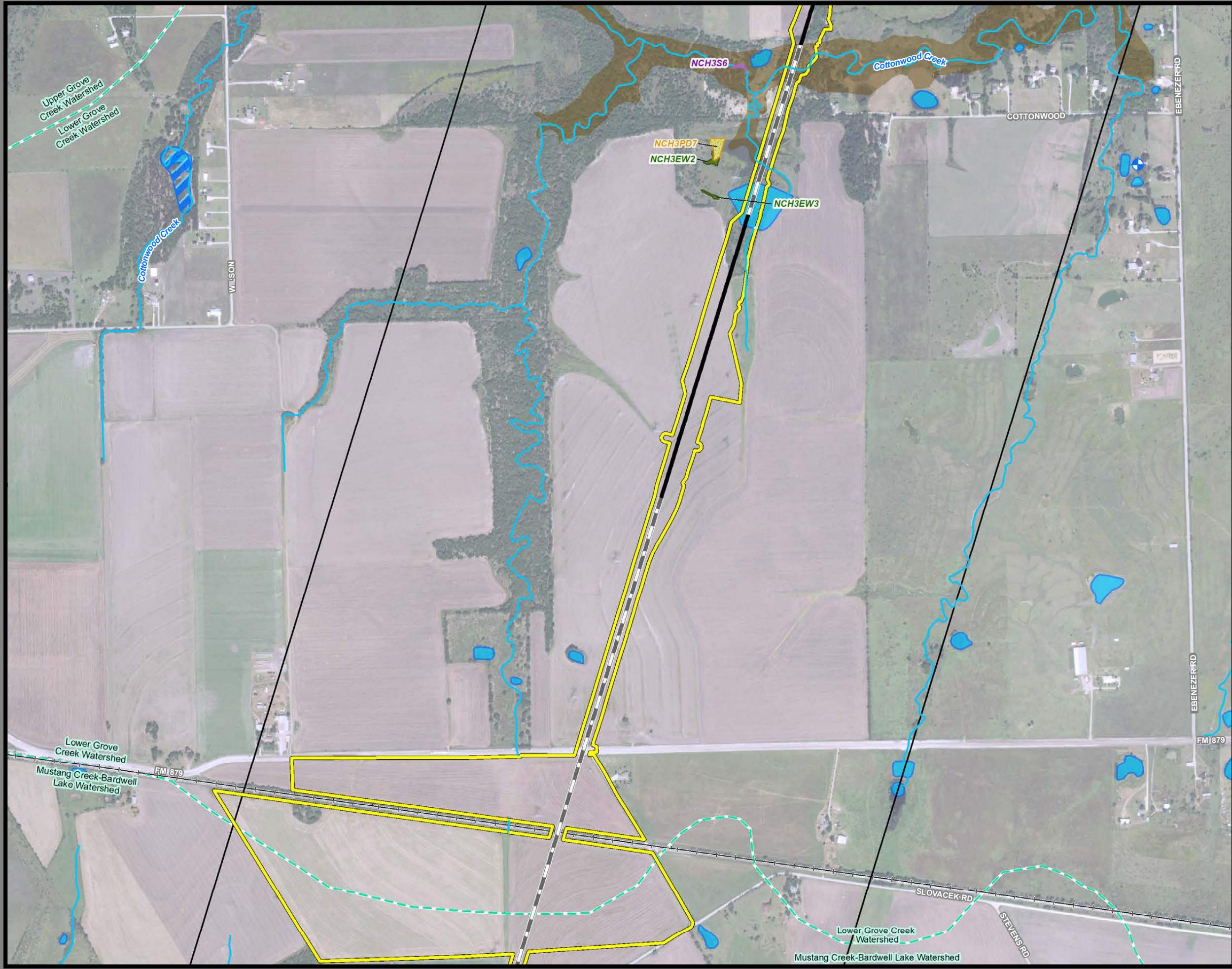
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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% <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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 18.

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Sheet 35 of 257**

Legend

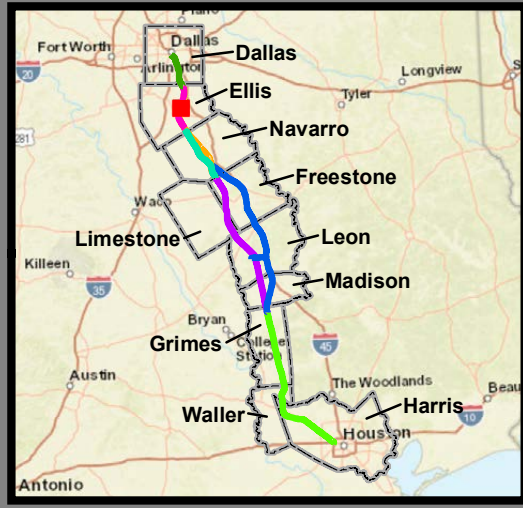
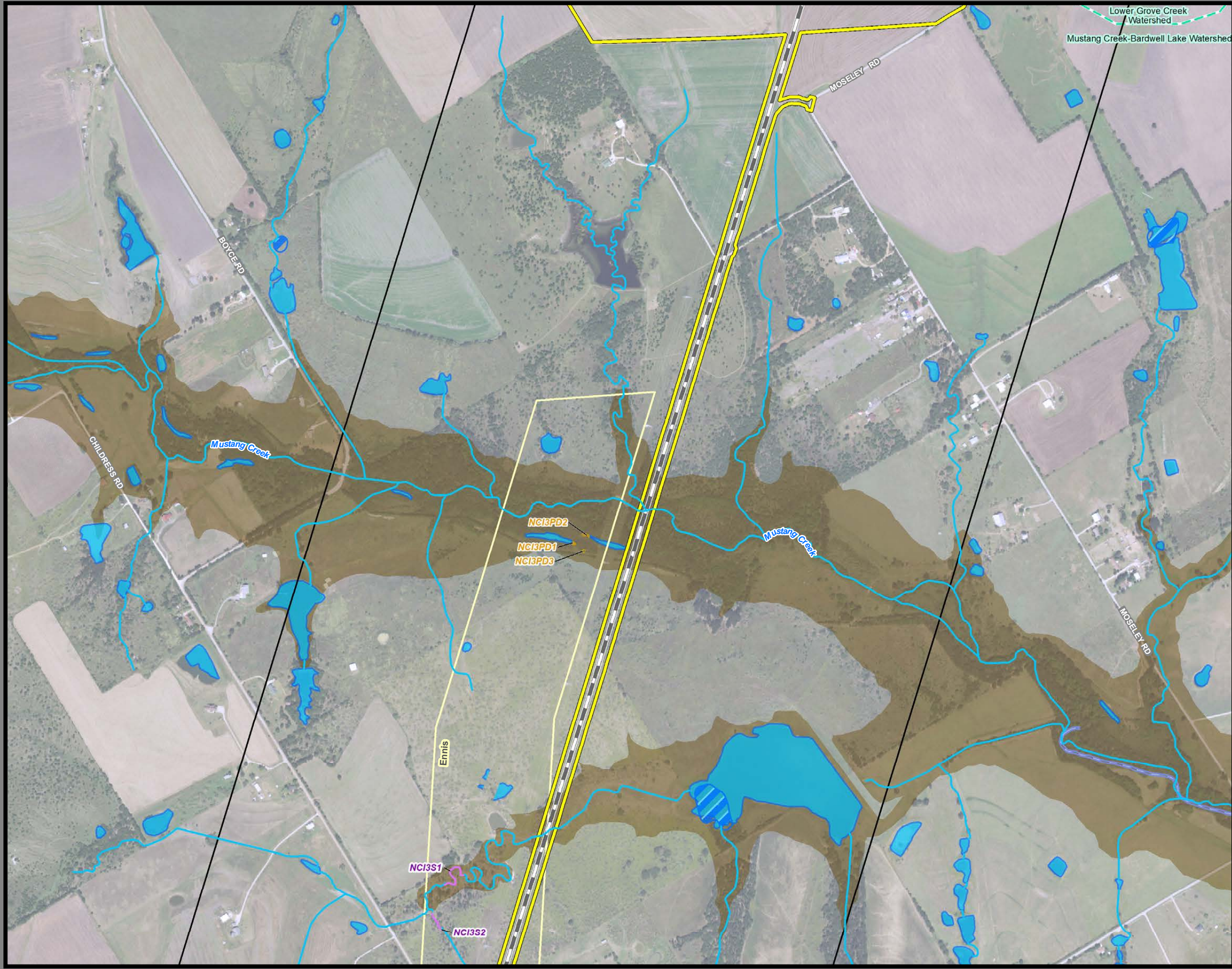
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 19.

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

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





**Dallas to Houston
High-Speed Rail Project
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Sheet 36 of 257**

Legend

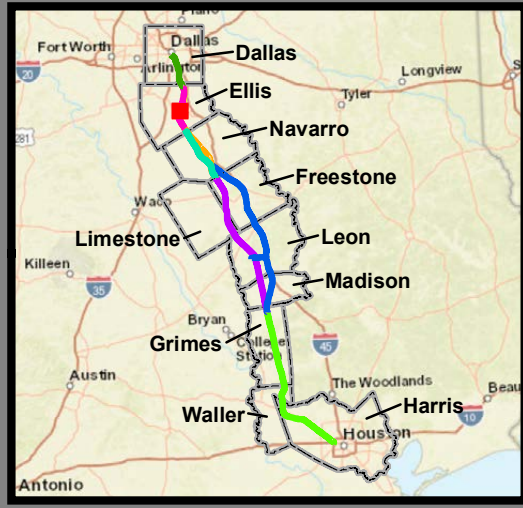
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 20.

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





**Dallas to Houston
High-Speed Rail Project
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Sheet 37 of 257**

Legend

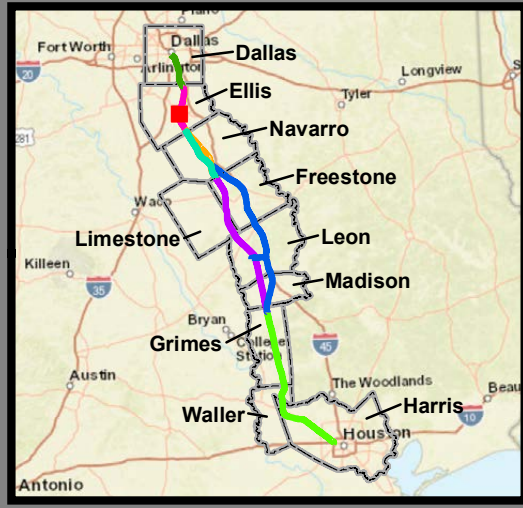
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 21.

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Sheet 38 of 257**

Legend

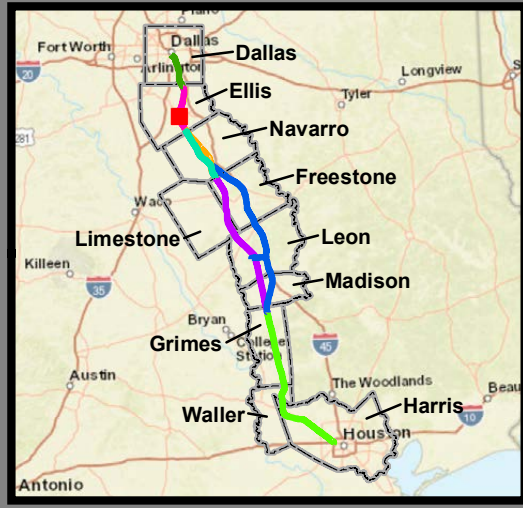
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 22.

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





**Dallas to Houston
High-Speed Rail Project
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Legend

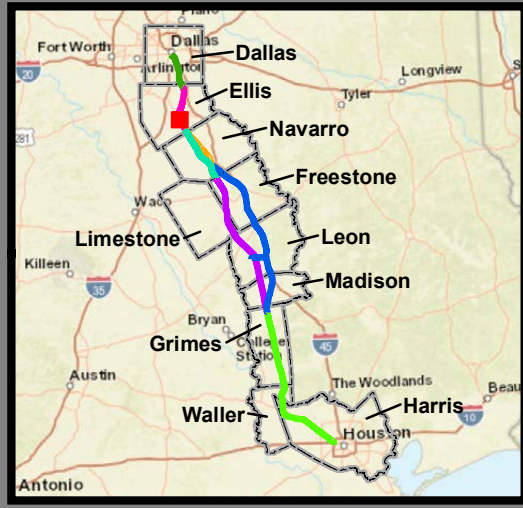
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 23.

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





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Sheet 40 of 257**

Legend

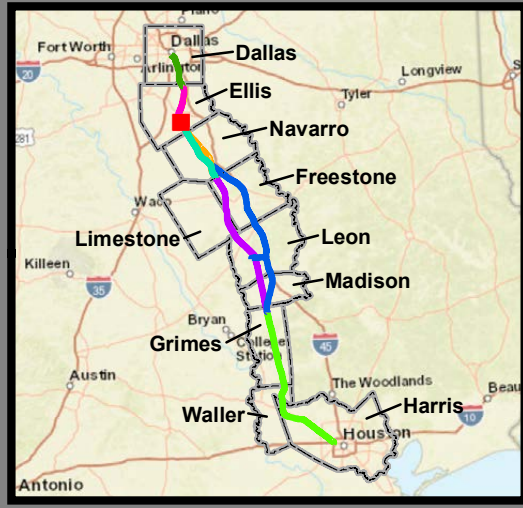
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 24.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B
Sheet 41 of 257**

Legend

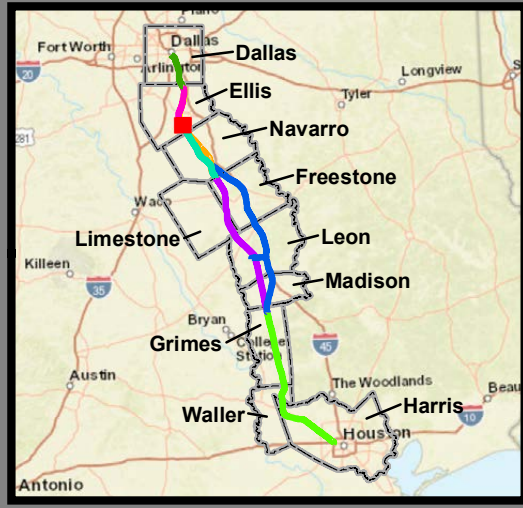
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 25.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B
Sheet 42 of 257**

Legend

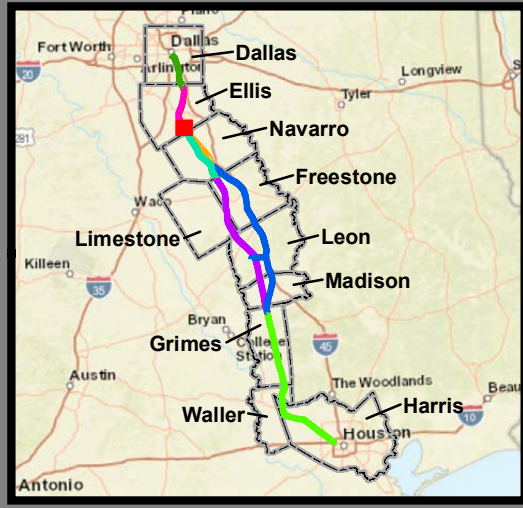
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 2B; Segment 2A is also located in this same area and can be referenced on Sheet 26.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B, 3A
Sheet 43 of 257**

Legend

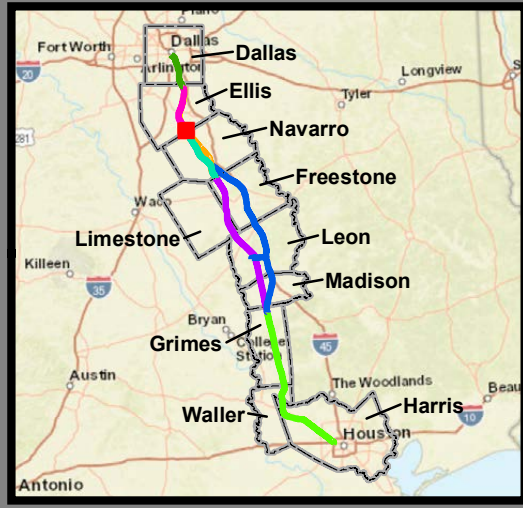
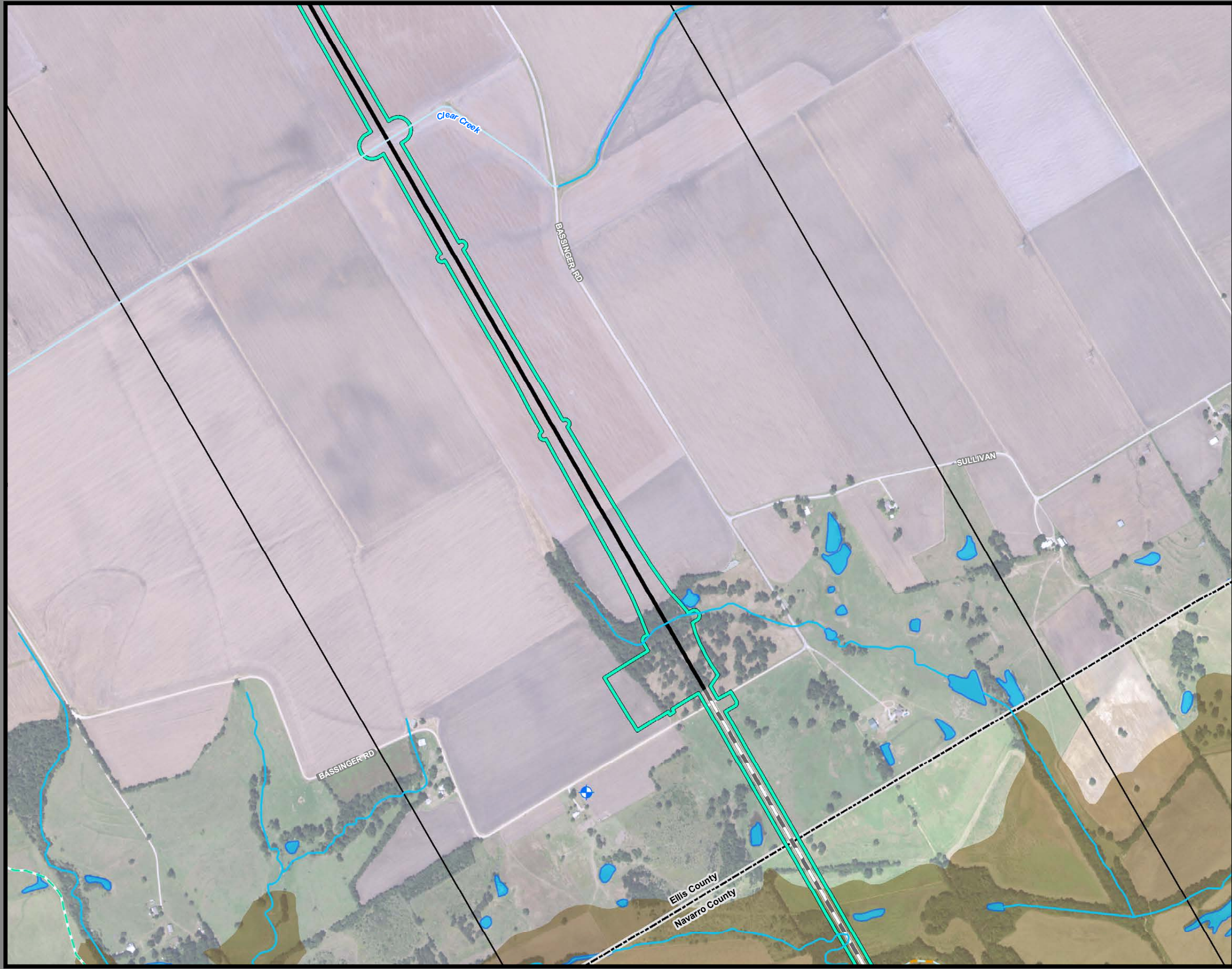
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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% <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
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This Sheet only depicts Segments 2B & 3A; Segments 2A, 3B & 3C are also located in this same area and can be referenced on Sheets 27, 62 & 81.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 44 of 257**

Legend

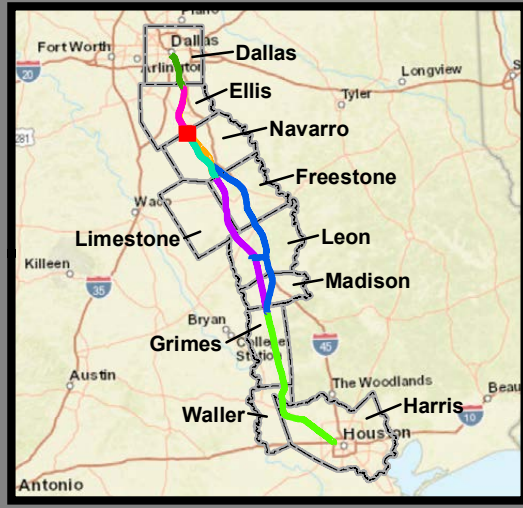
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segments 3B & 3C are also located in this same area and can be referenced on Sheets 63 & 82.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 45 of 257**

Legend

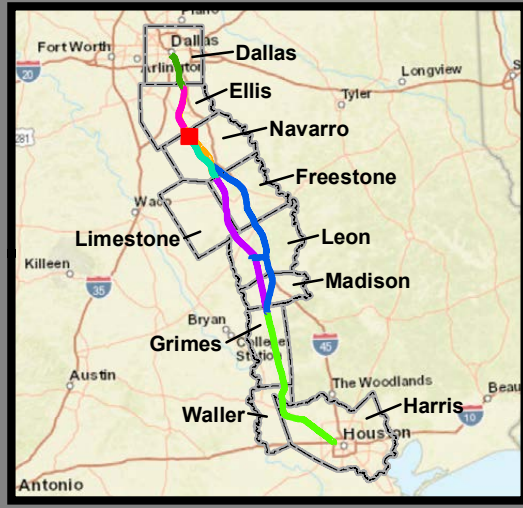
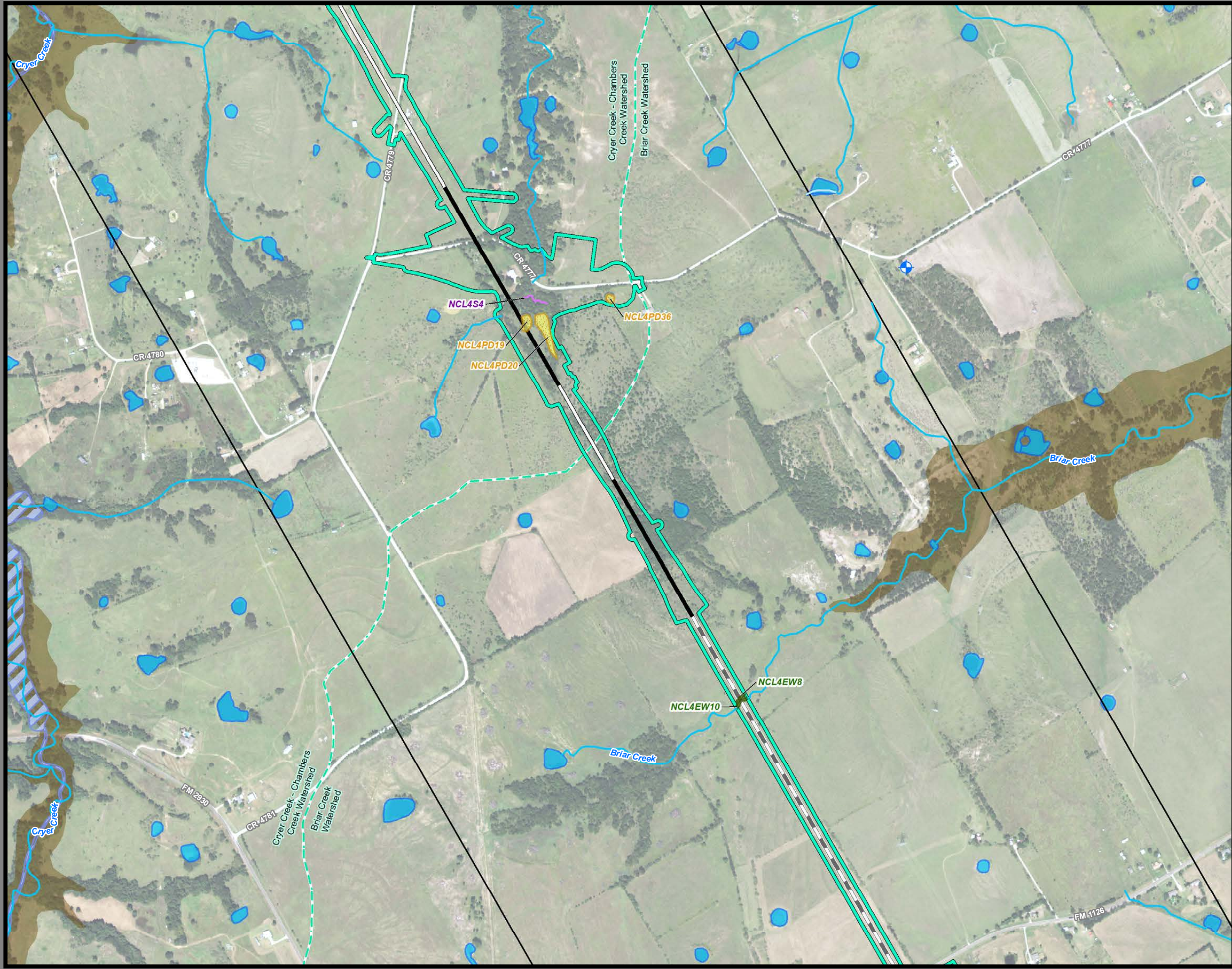
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segments 3B & 3C are also located in this same area and can be referenced on Sheets 64 & 83.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 46 of 257**

Legend

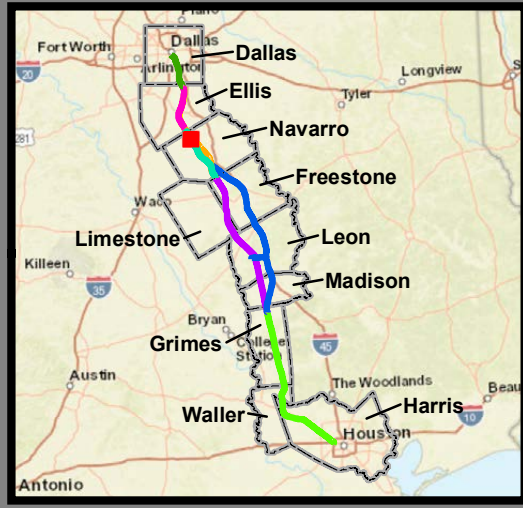
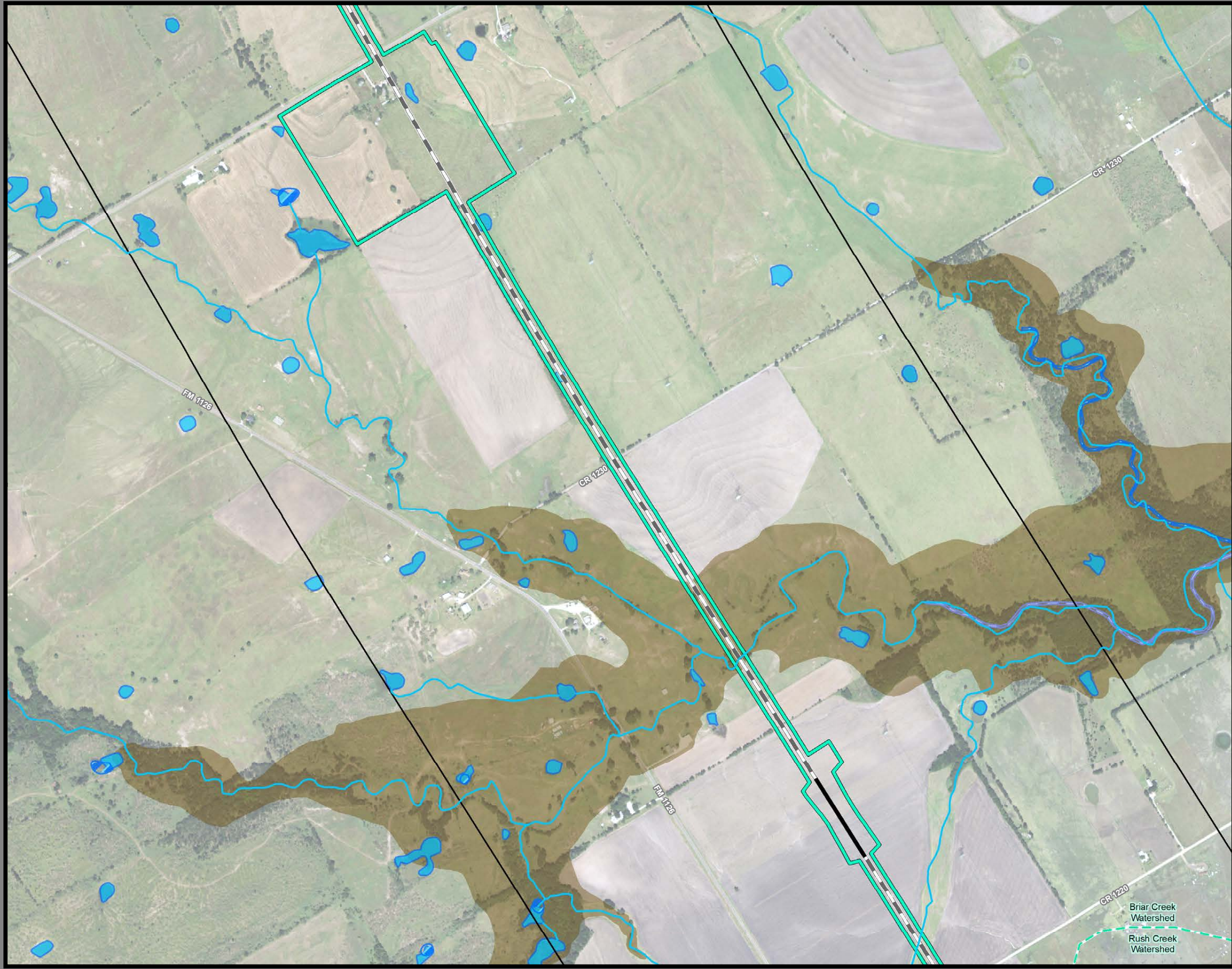
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segments 3B & 3C are also located in this same area and can be referenced on Sheets 65 & 84.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 47 of 257**

Legend

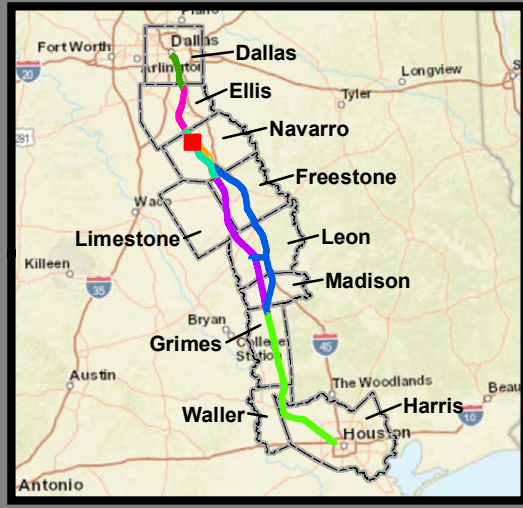
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segments 3B & 3C are also located in this same area and can be referenced on Sheets 66 & 85.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 48 of 257**

Legend

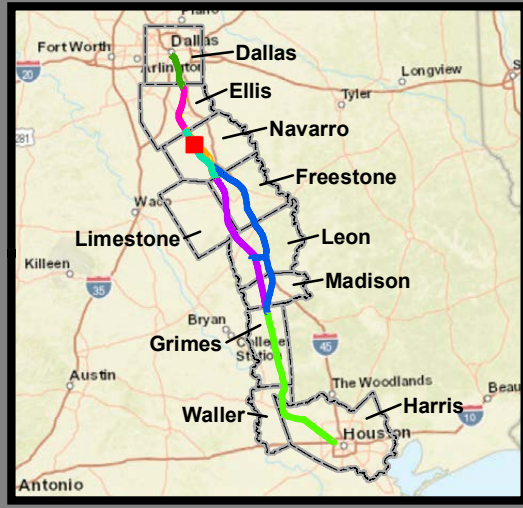
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 86.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 49 of 257**

Legend

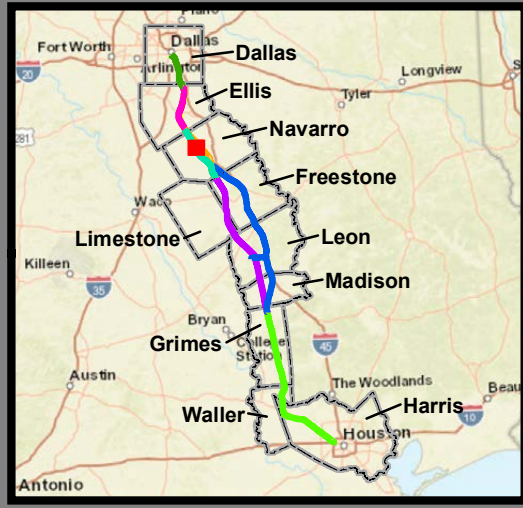
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 87.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 50 of 257**

Legend

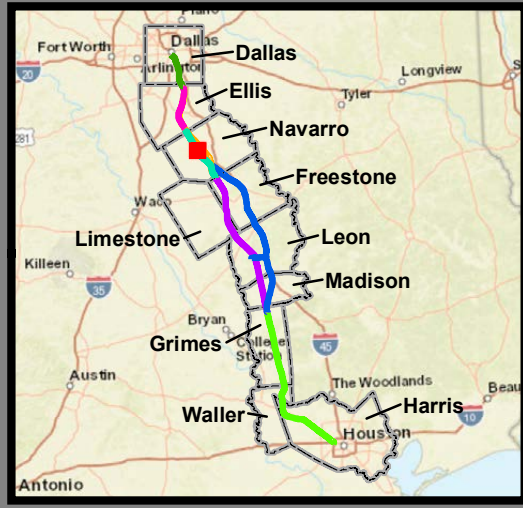
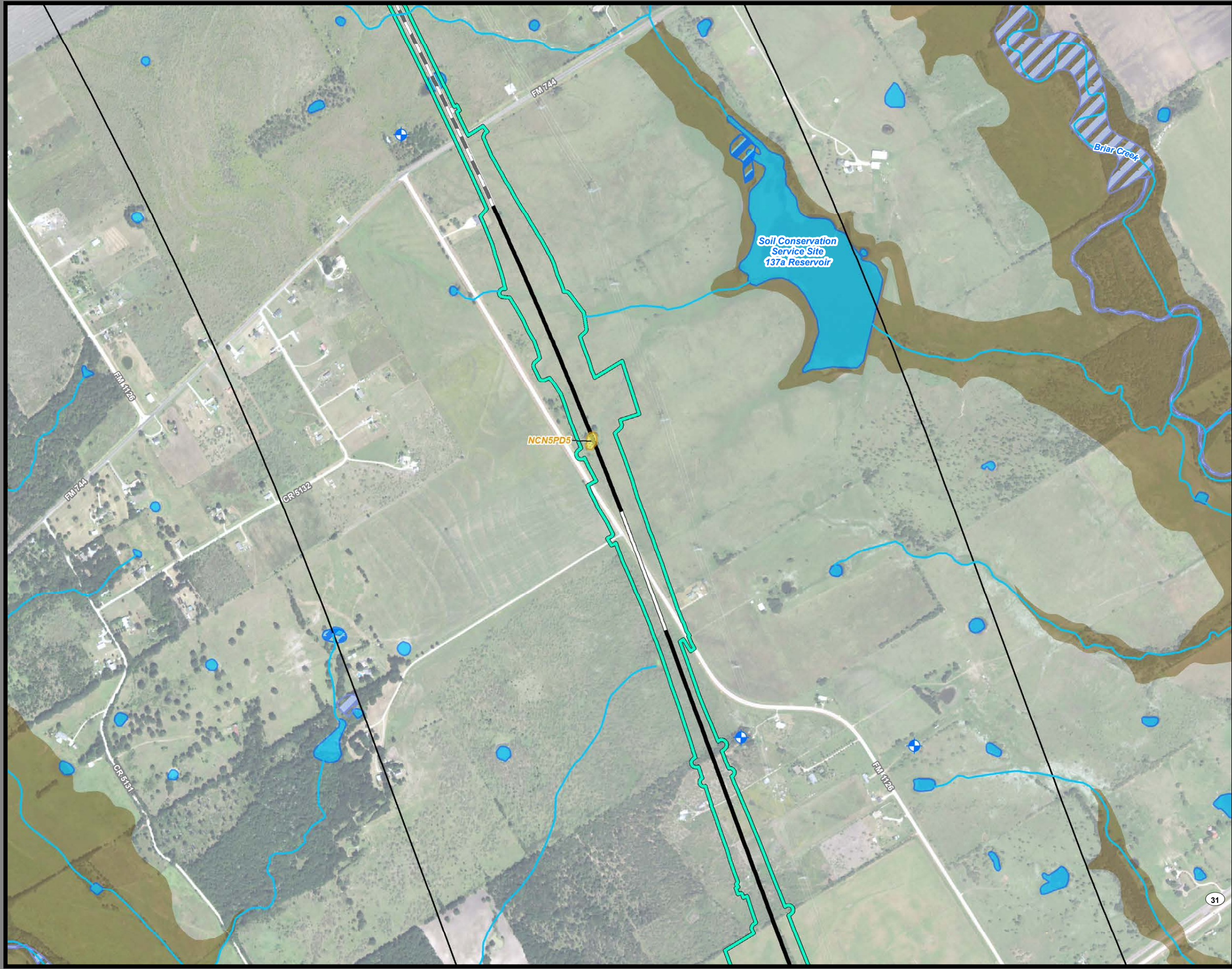
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 88.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 51 of 257**

Legend

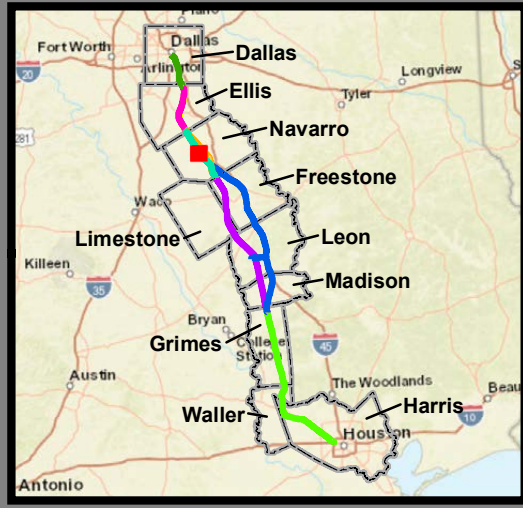
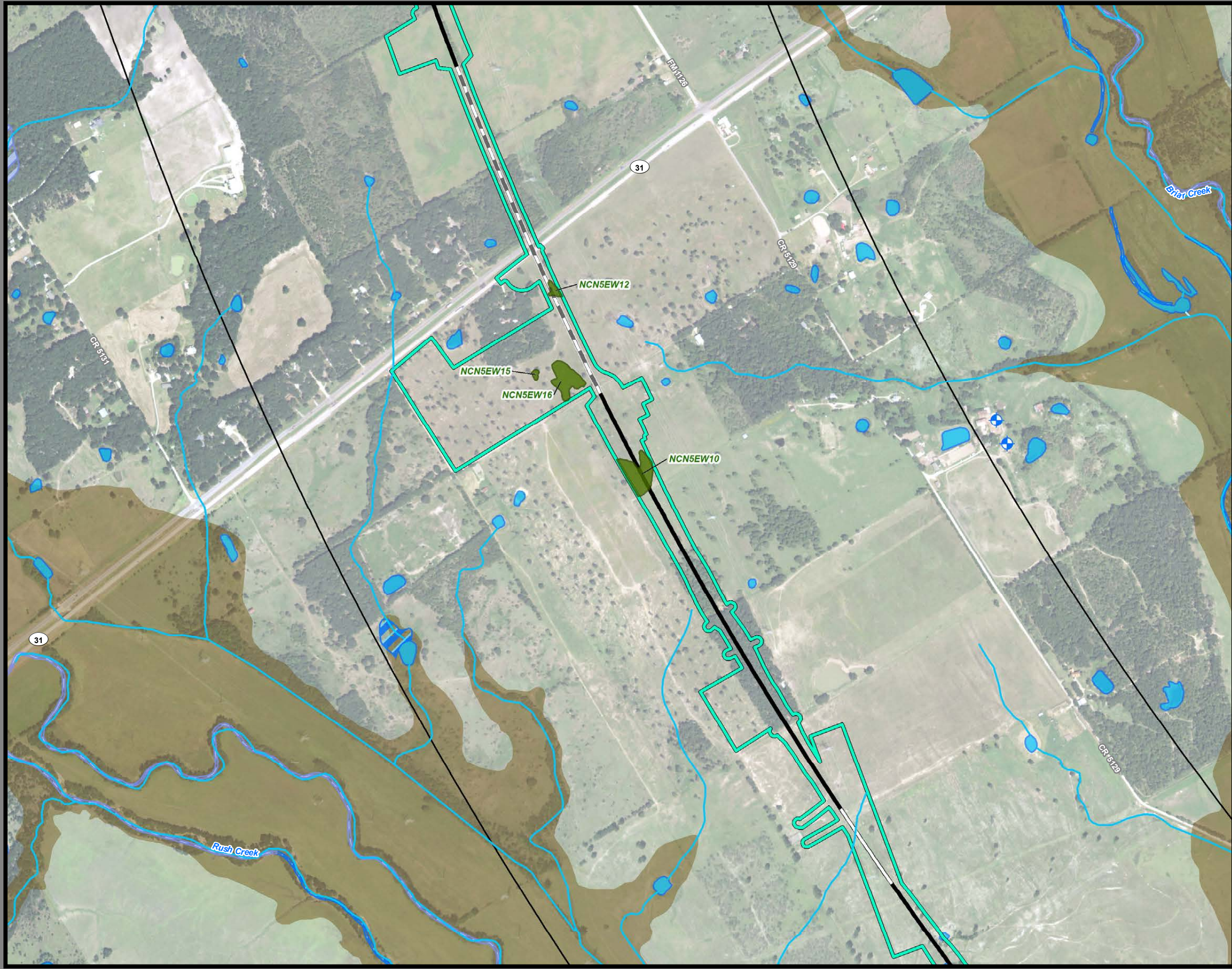
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 89.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Sheet 52 of 257**

Legend

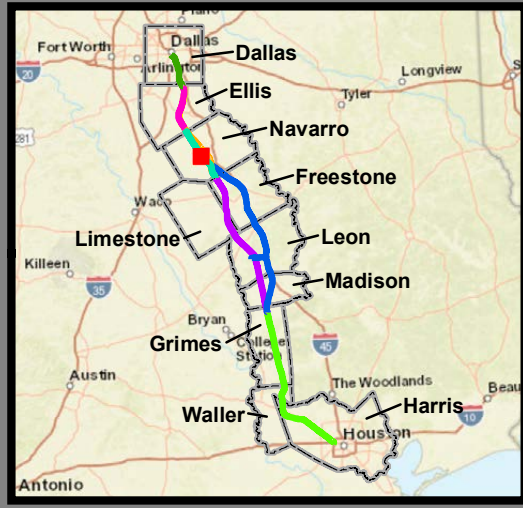
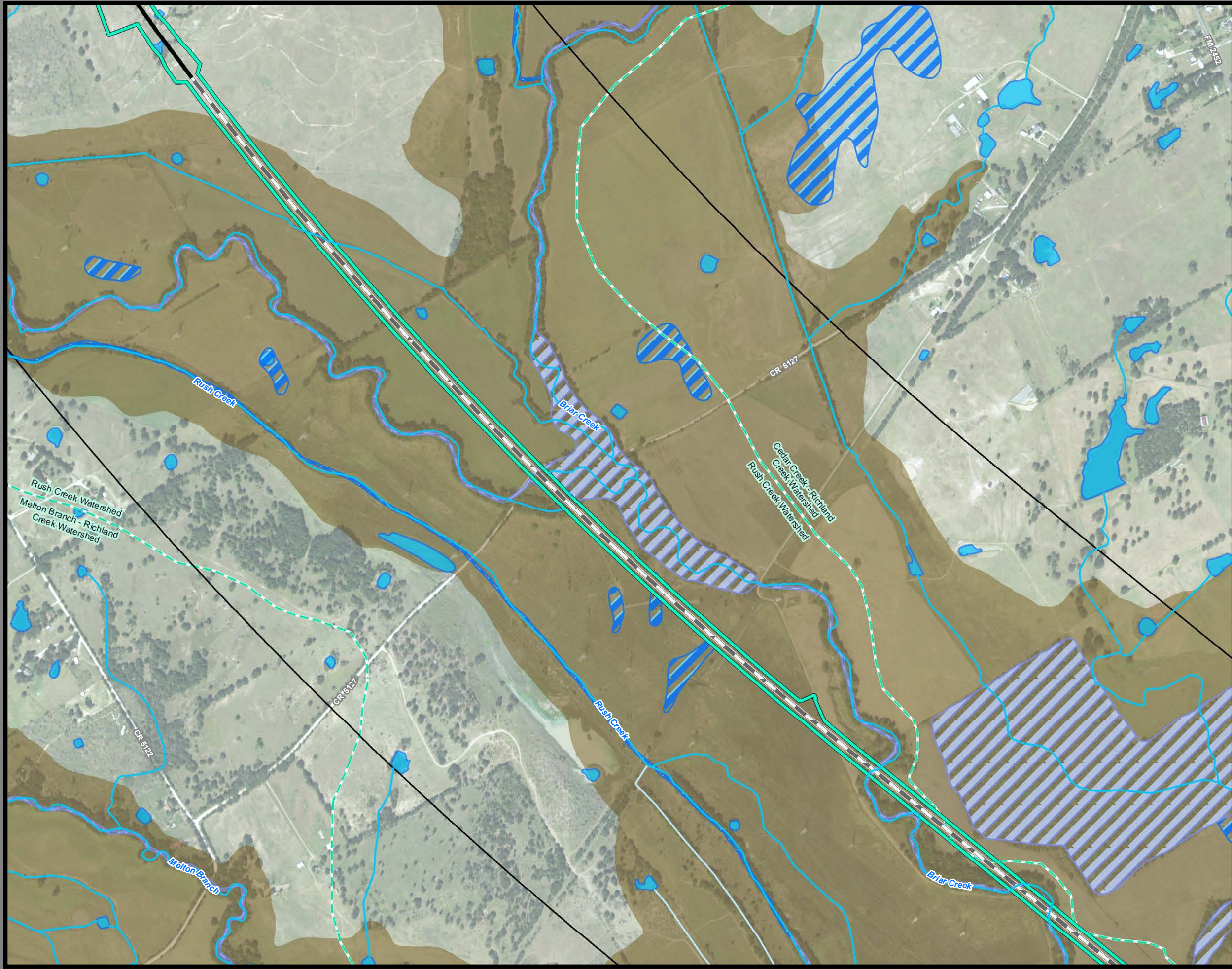
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 90.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 53 of 257**

Legend

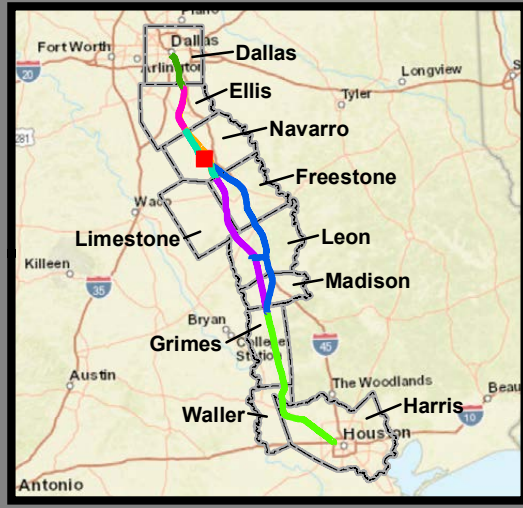
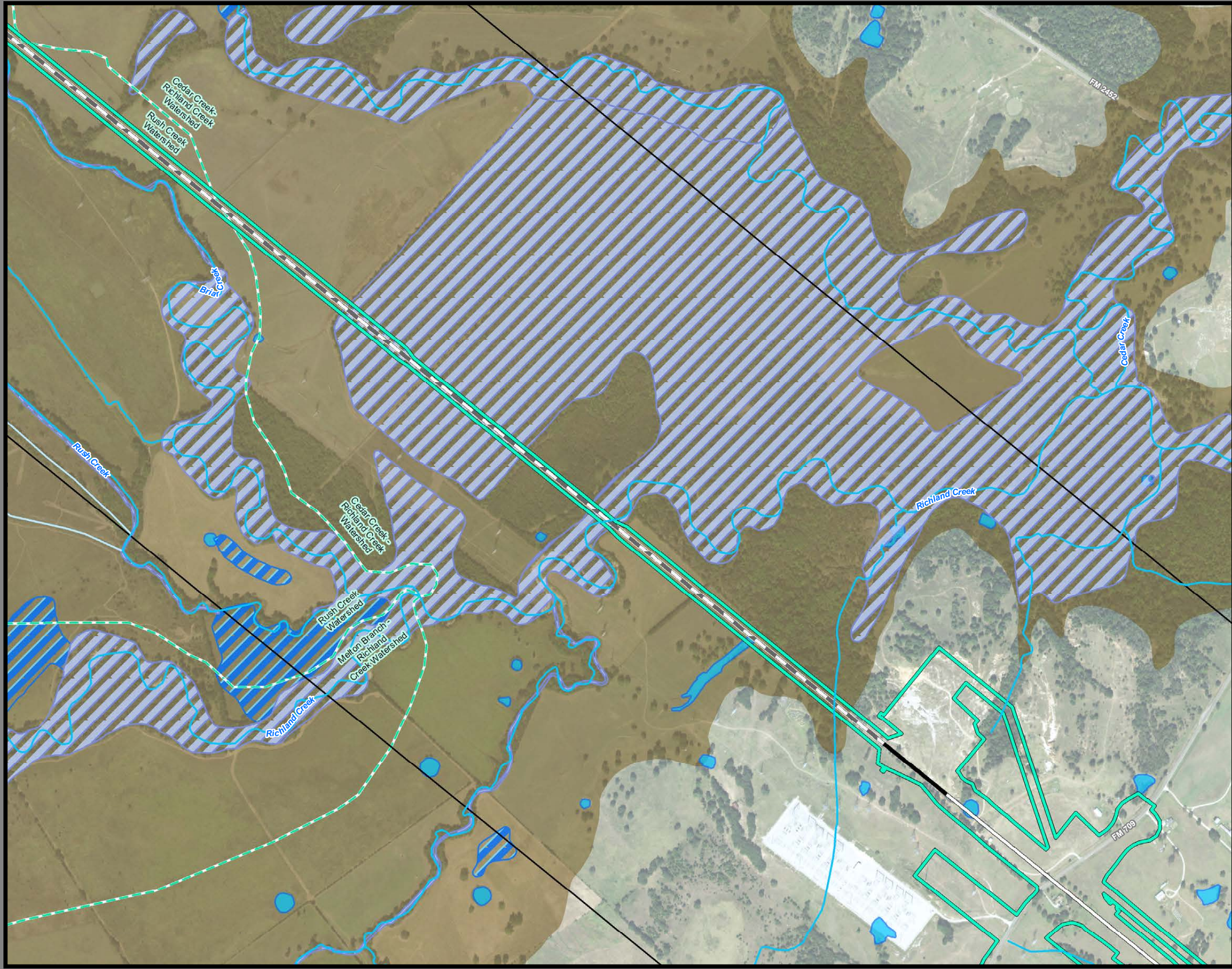
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 91.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 54 of 257**

Legend

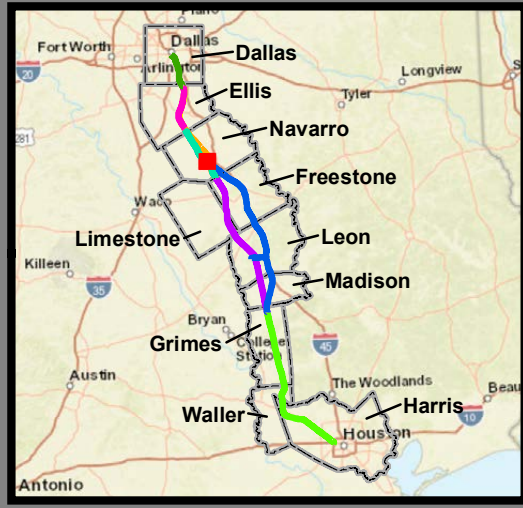
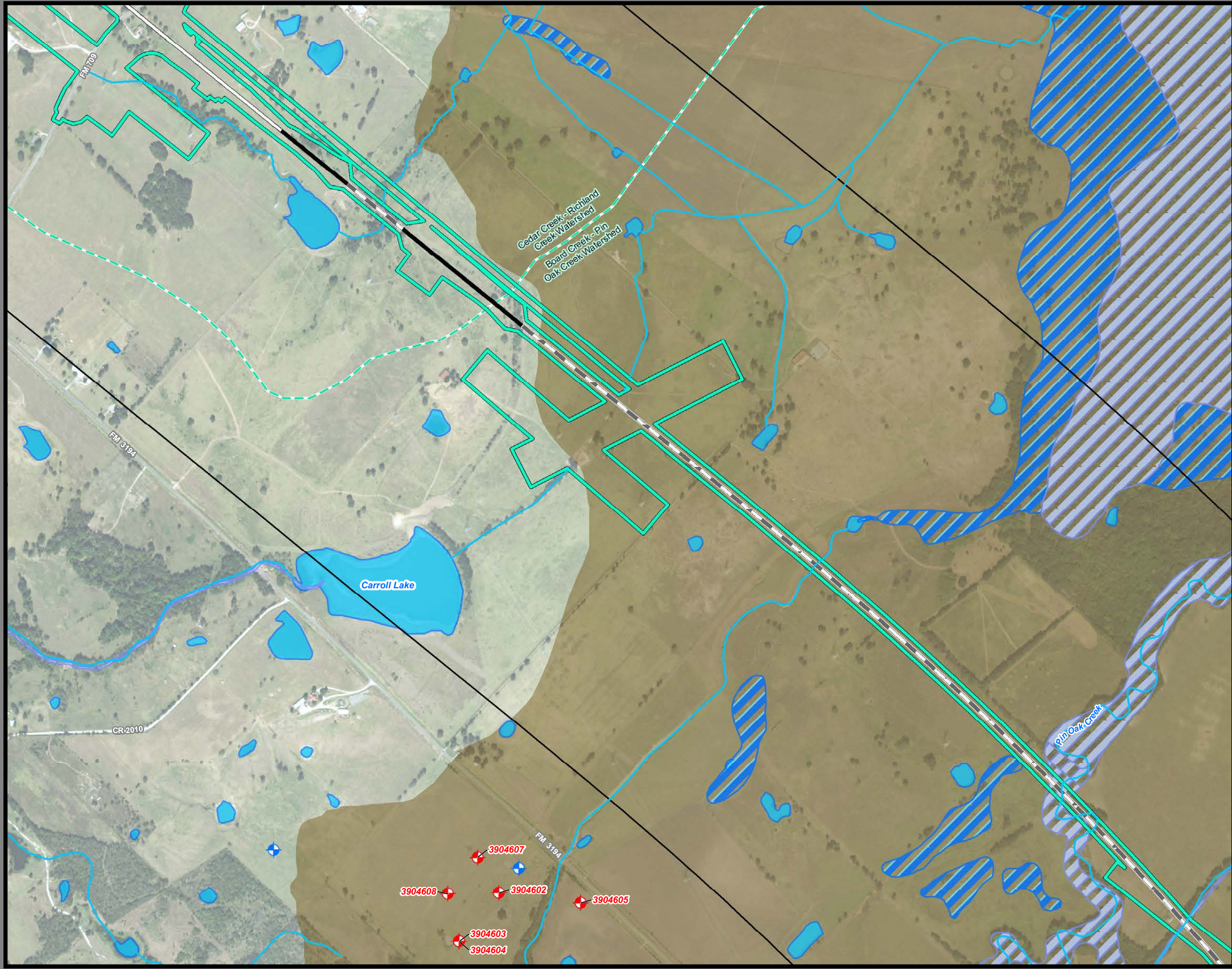
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 92.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 55 of 257**

Legend

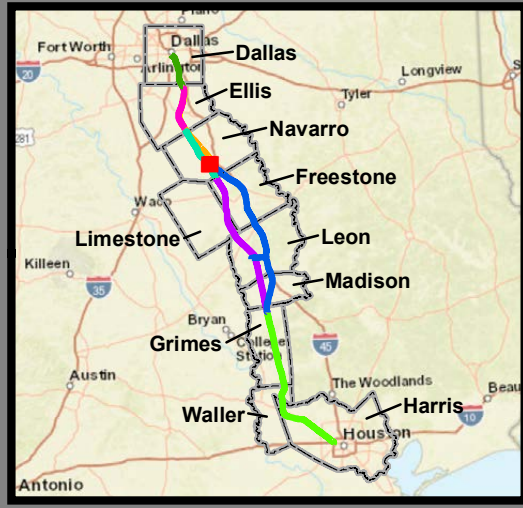
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This Sheet only depicts Segment 3A; Segment 3C is also located in this same area and can be referenced on Sheet 93.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 56 of 257**

Legend

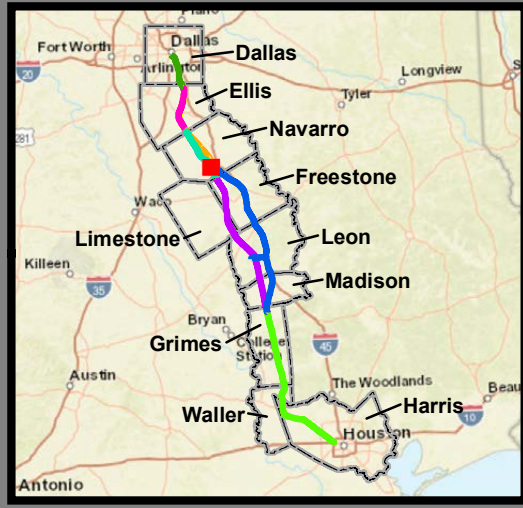
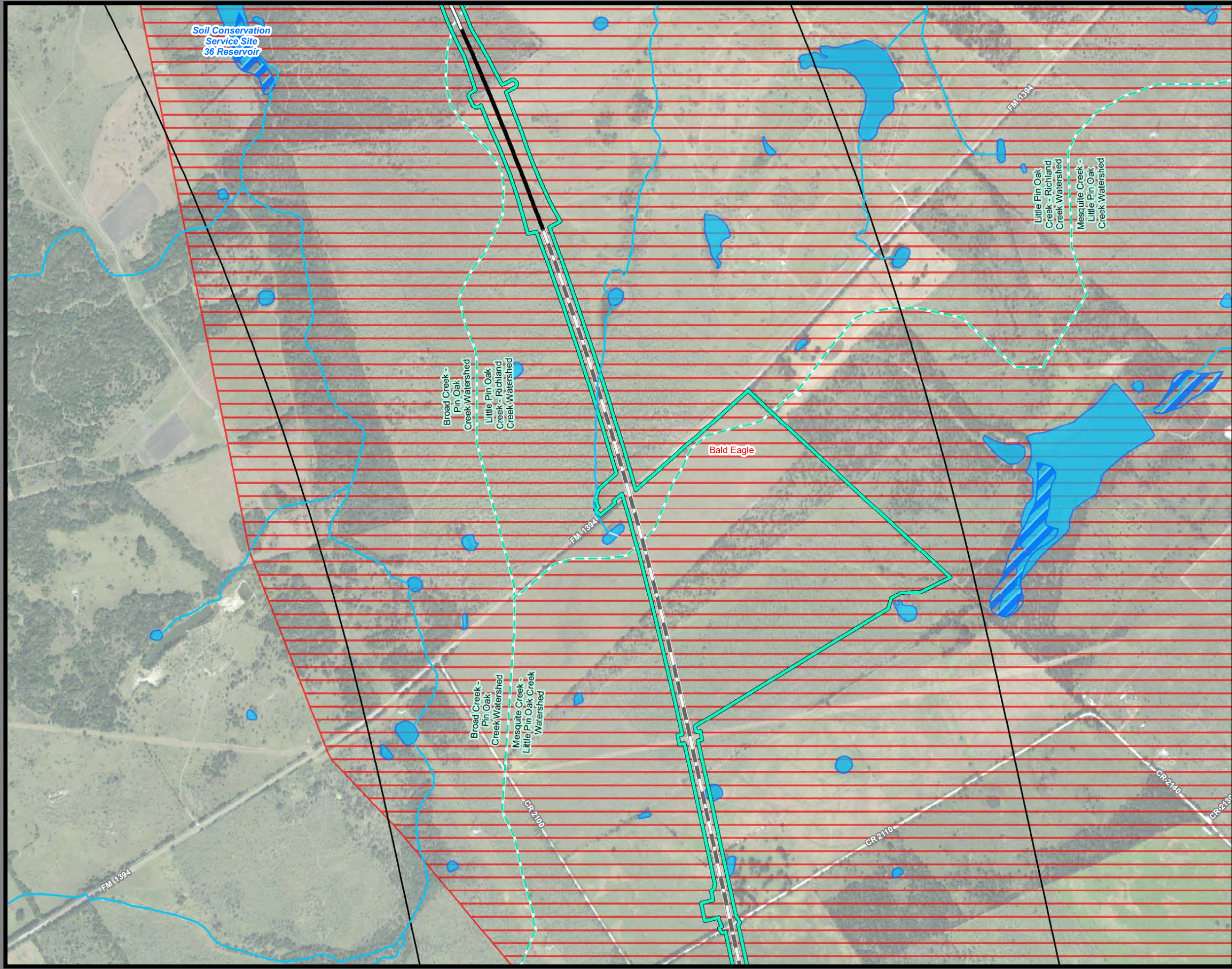
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segments 3B and 3C are also located in this same area and can be referenced on Sheets 75 and 94.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
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Sheet 57 of 257**

Legend

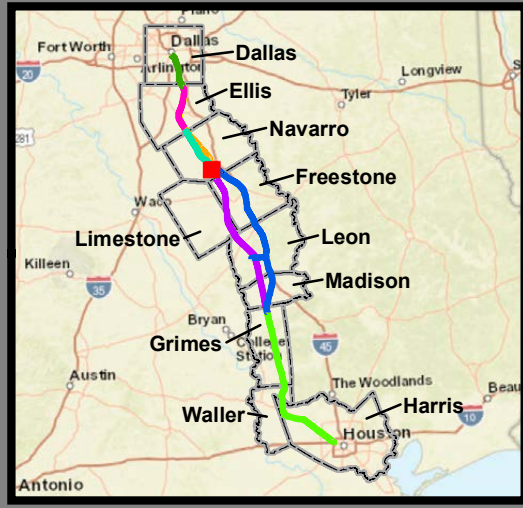
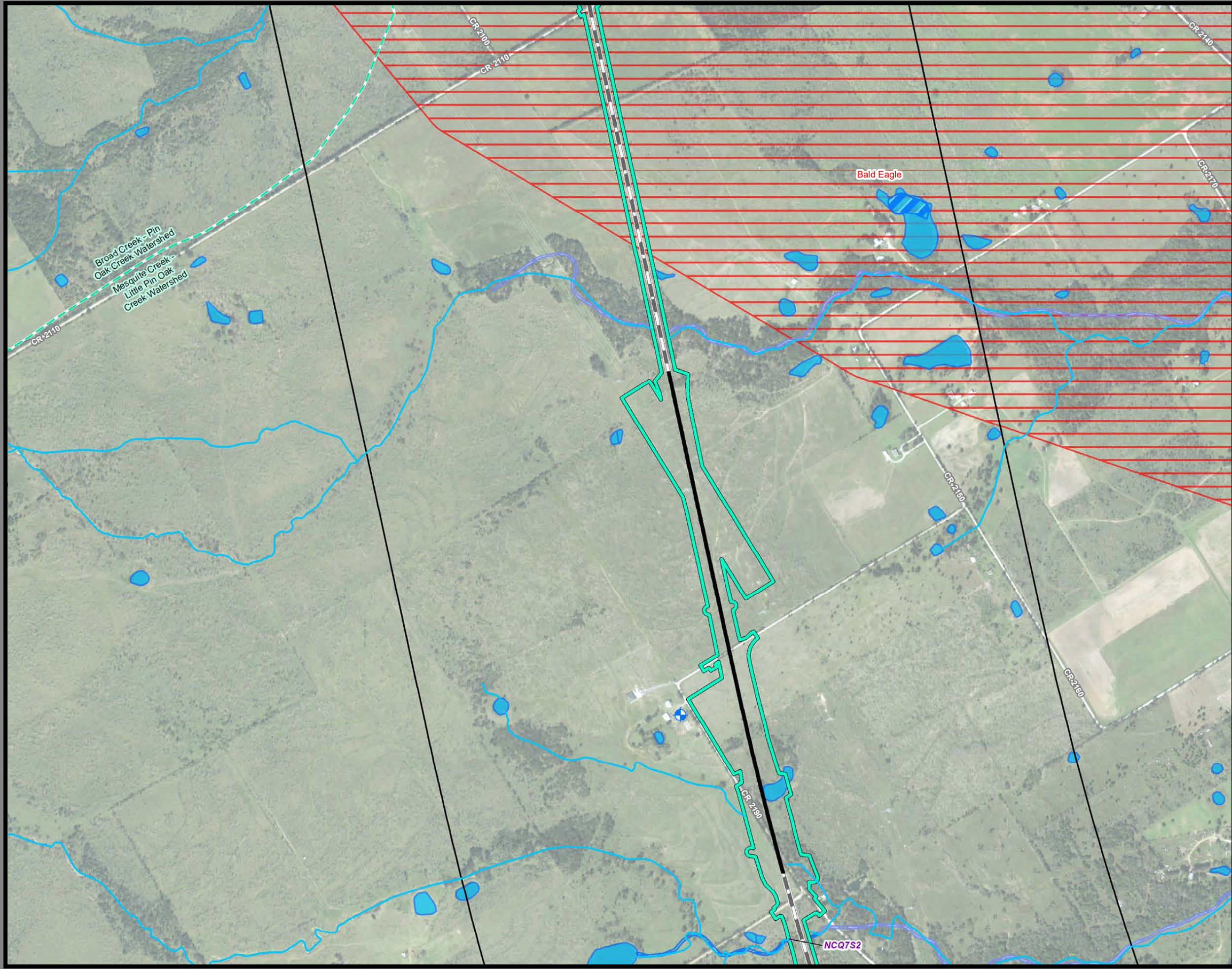
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3B is also located in this same area and can be referenced on Sheet 76.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 58 of 257**

Legend

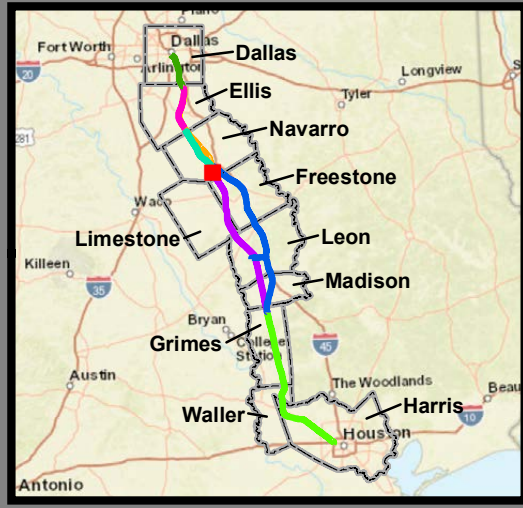
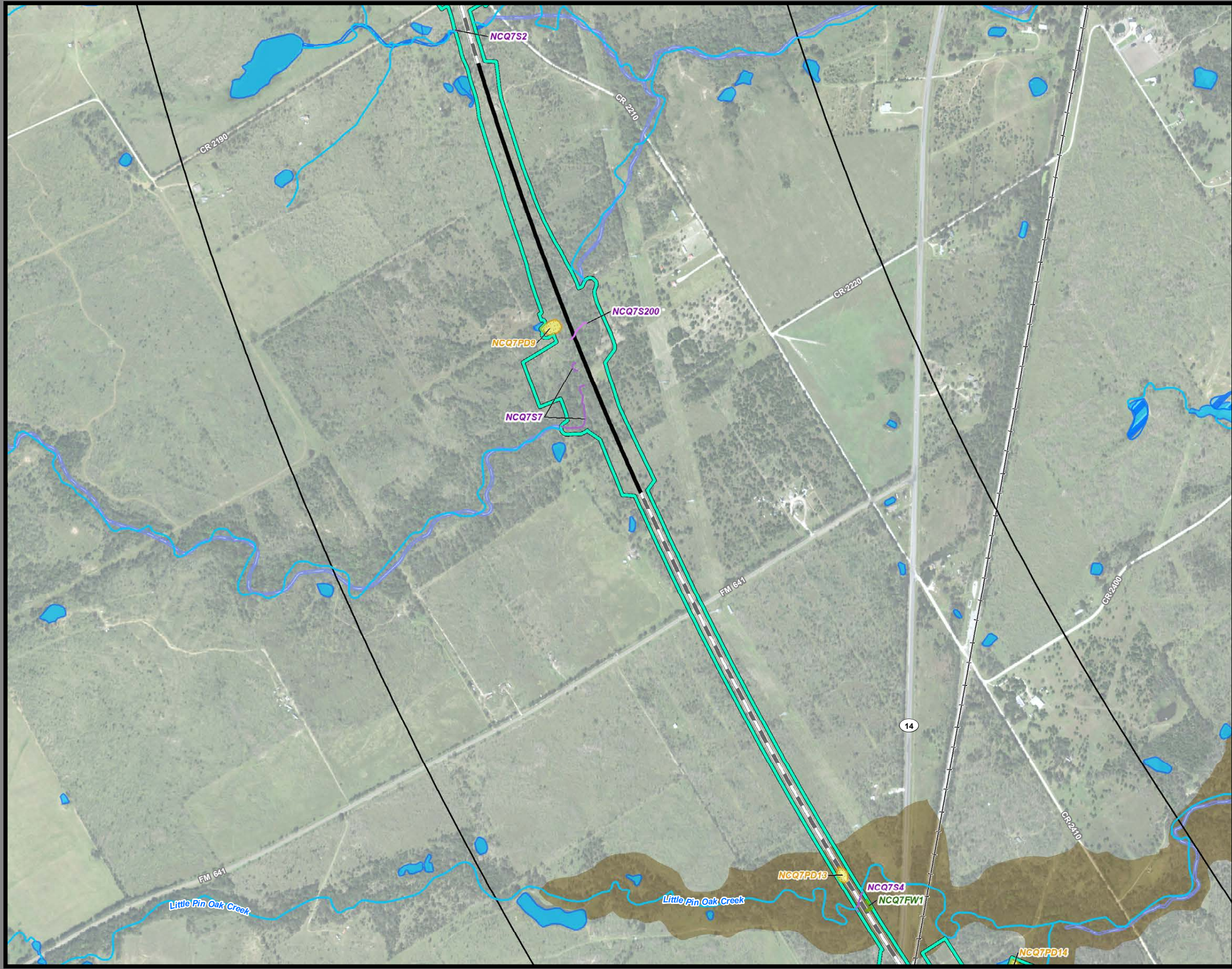
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3B is also located in this same area and can be referenced on Sheet 77.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 59 of 257**

Legend

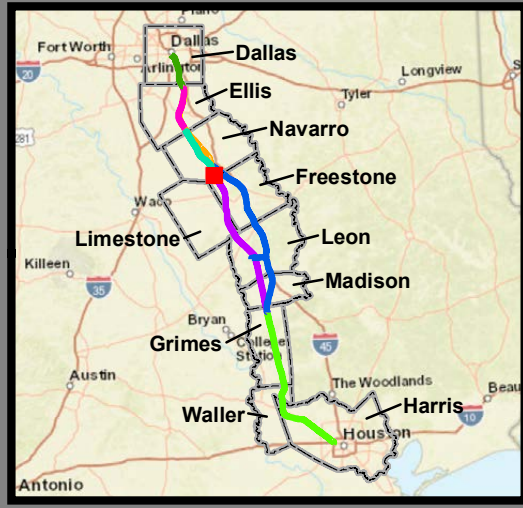
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3B is also located in this same area and can be referenced on Sheet 78.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A
Sheet 60 of 257**

Legend

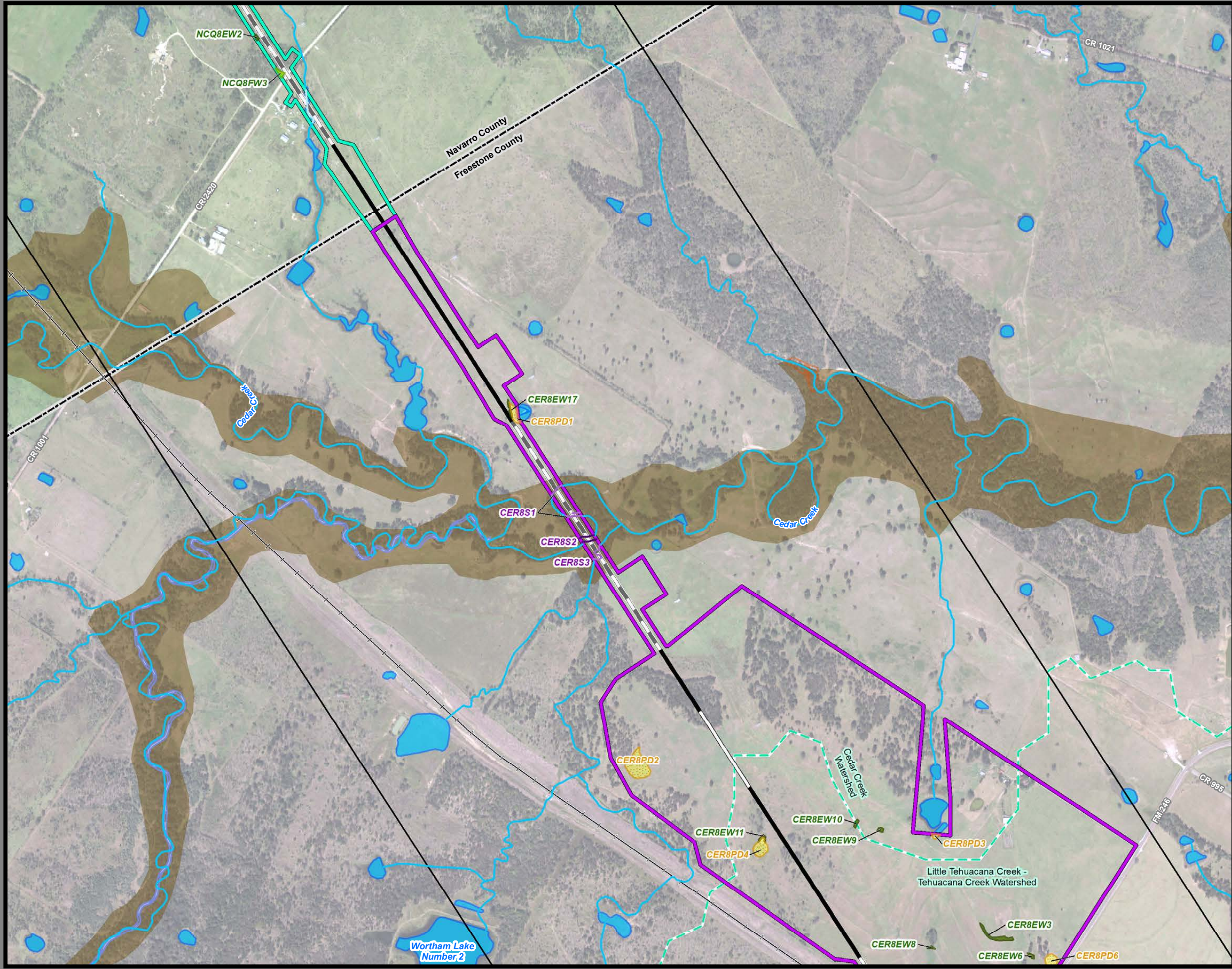
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3A; Segment 3B is also located in this same area and can be referenced on Sheet 79.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3A, 4
Sheet 61 of 257**

Legend

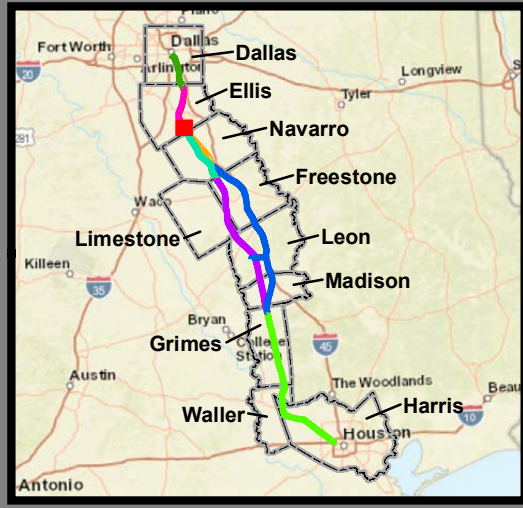
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segments 3A & 4; Segment 3B is also located in this same area and can be referenced on Sheet 80.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B, 3B
Sheet 62 of 257**

Legend

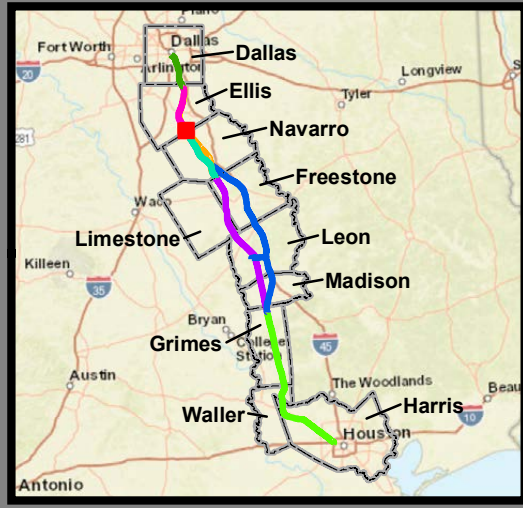
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segments 2B & 3B; Segments 2A, 3A & 3C are also located in this same area and can be referenced on Sheets 27, 43 & 81.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 63 of 257**

Legend

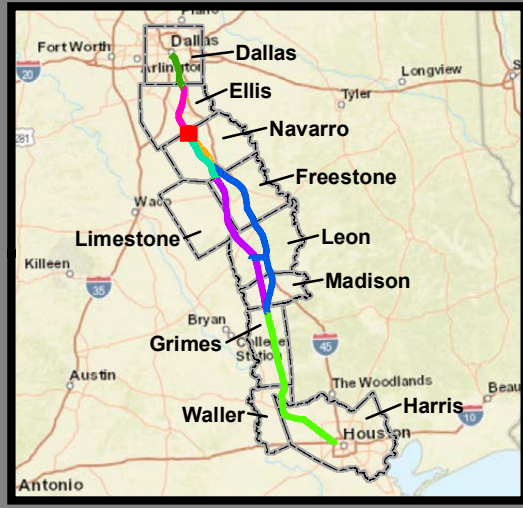
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3B; Segments 3A & 3C are also located in this same area and can be referenced on Sheets 44 & 82.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 64 of 257**

Legend

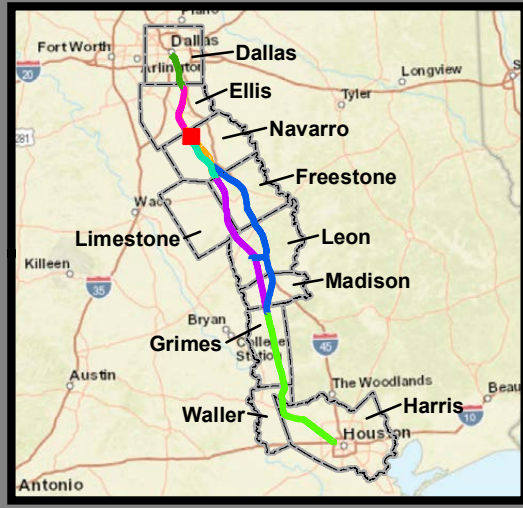
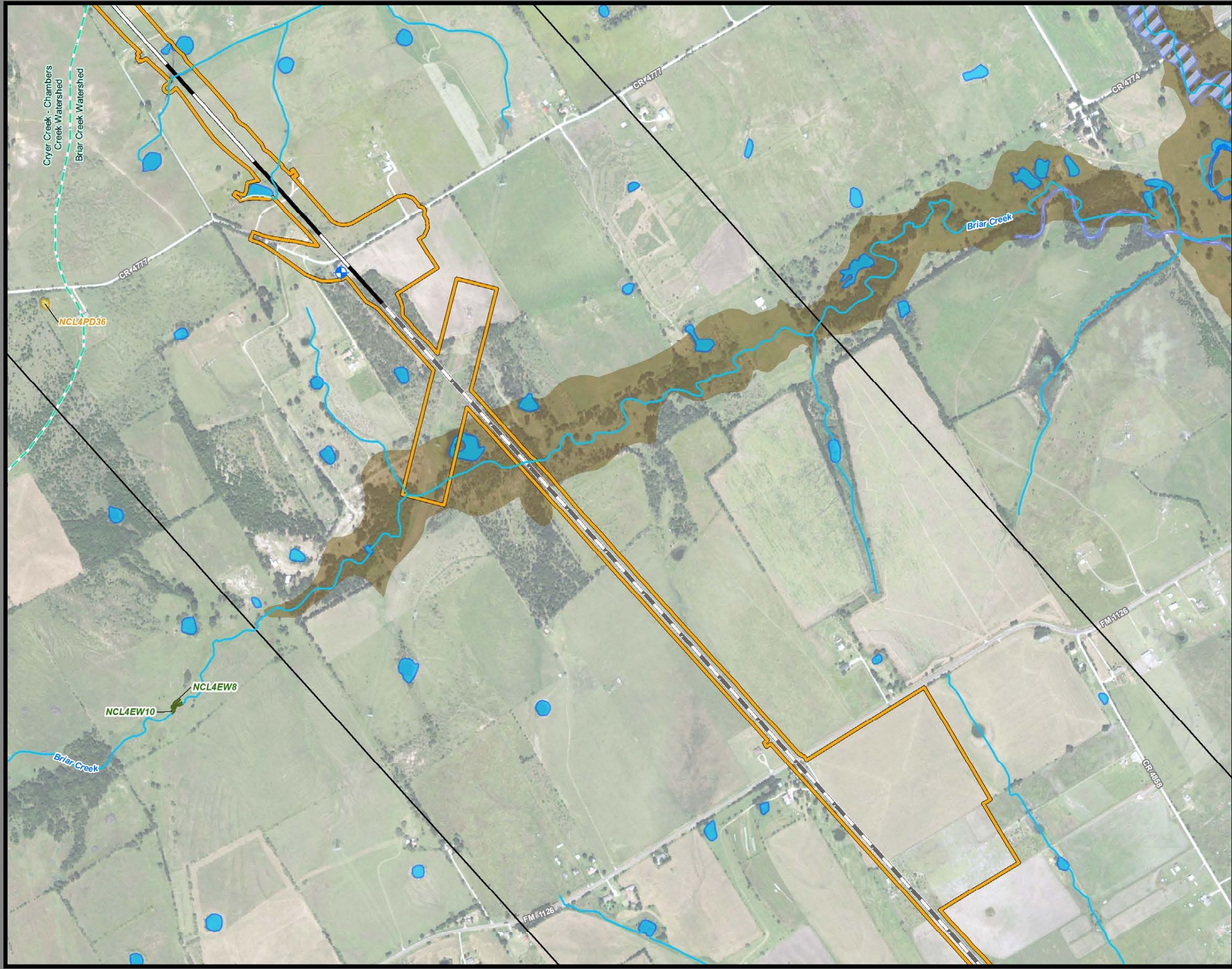
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3B; Segments 3A & 3C are also located in this same area and can be referenced on Sheets 45 & 83.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 65 of 257**

Legend

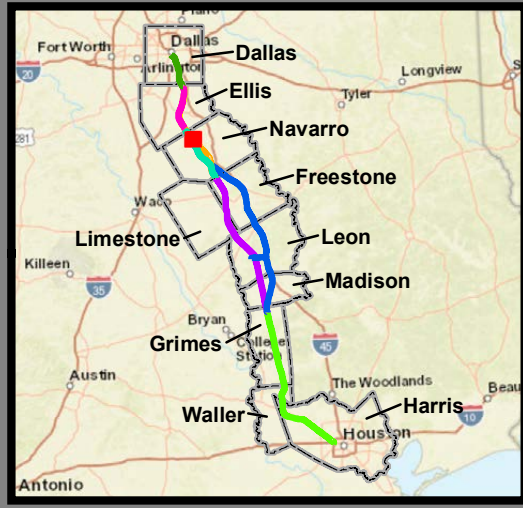
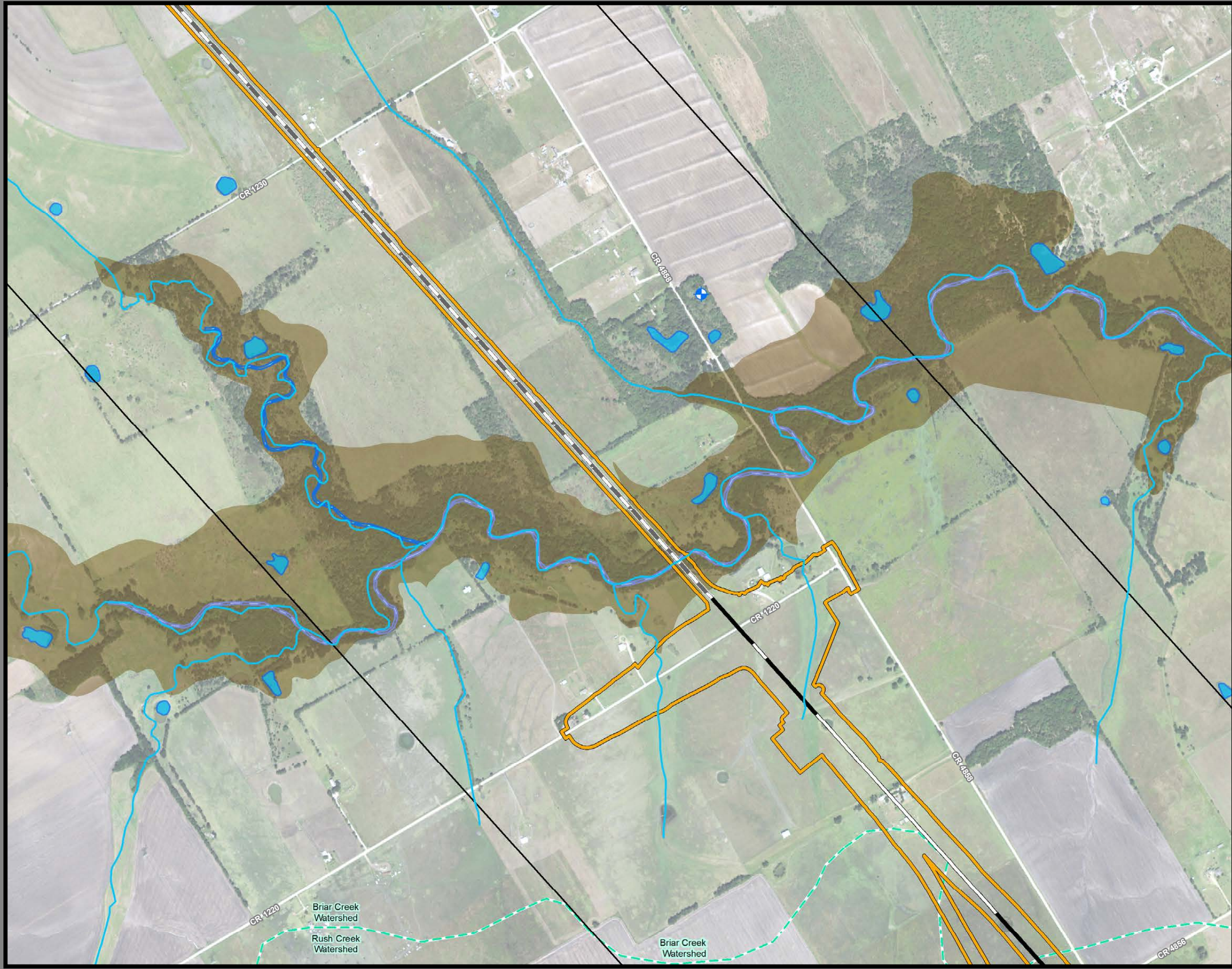
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3B; Segments 3A & 3C are also located in this same area and can be referenced on Sheets 46 & 84.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 66 of 257**

Legend

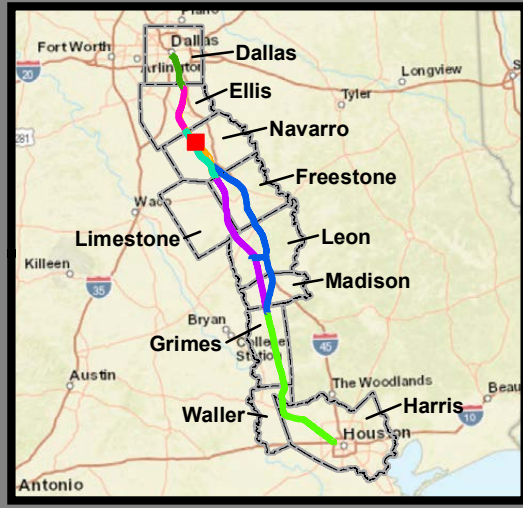
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3B; Segments 3A & 3C are also located in this same area and can be referenced on Sheets 47 & 85.

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

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





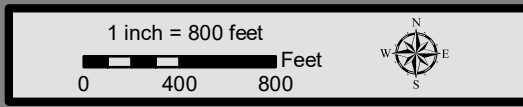
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 67 of 257**

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 Centerline 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
Element of Occurrence	Swamp/Marsh
Record for Federally Protected 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 Wells	

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

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





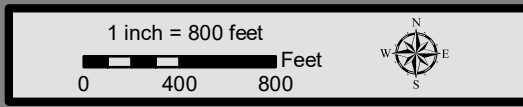
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 68 of 257**

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 Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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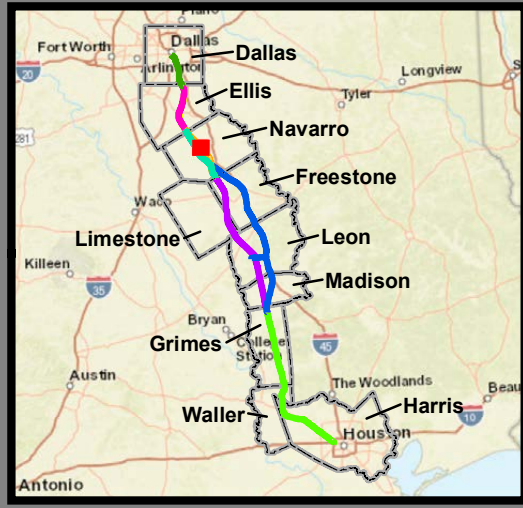
*Floodplains in Freestone and Madison Counties were digitized from U.S. Dept of Housing and Urban Development 1978 and 1991 Flood Hazard Boundary Maps due to absence of digitally mapped FEMA floodplains.

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



Soil Conservation Service Site 137g Reservoir

Soil Conservation Service Site 138 Reservoir



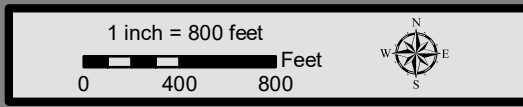
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 69 of 257**

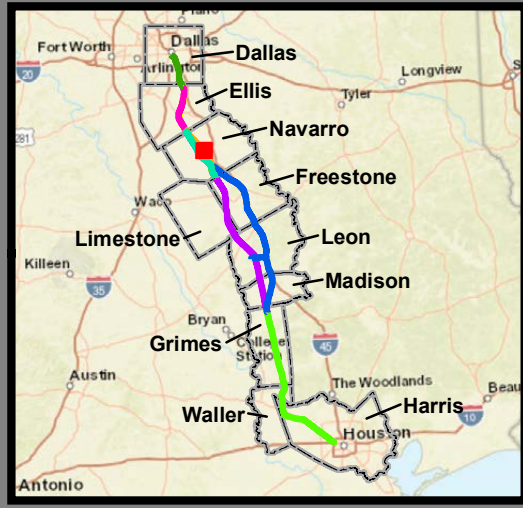
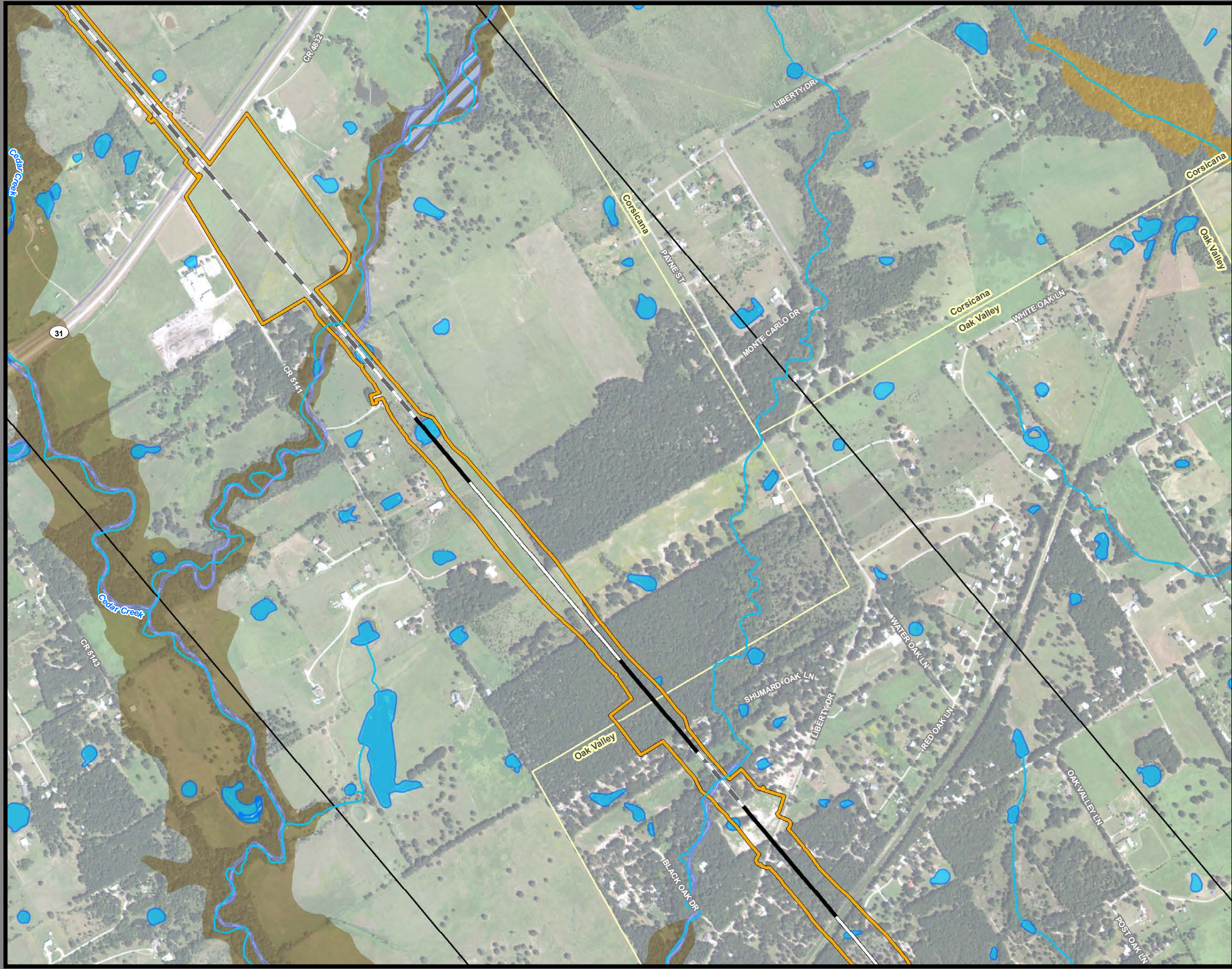
Legend

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 Centerline 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
Element of Occurrence	Swamp/Marsh
Record for Federally Protected 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 Wells	

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

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





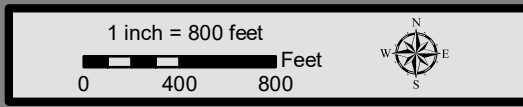
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 70 of 257**

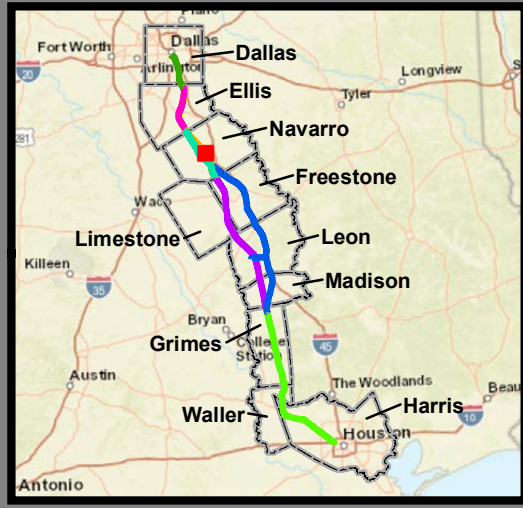
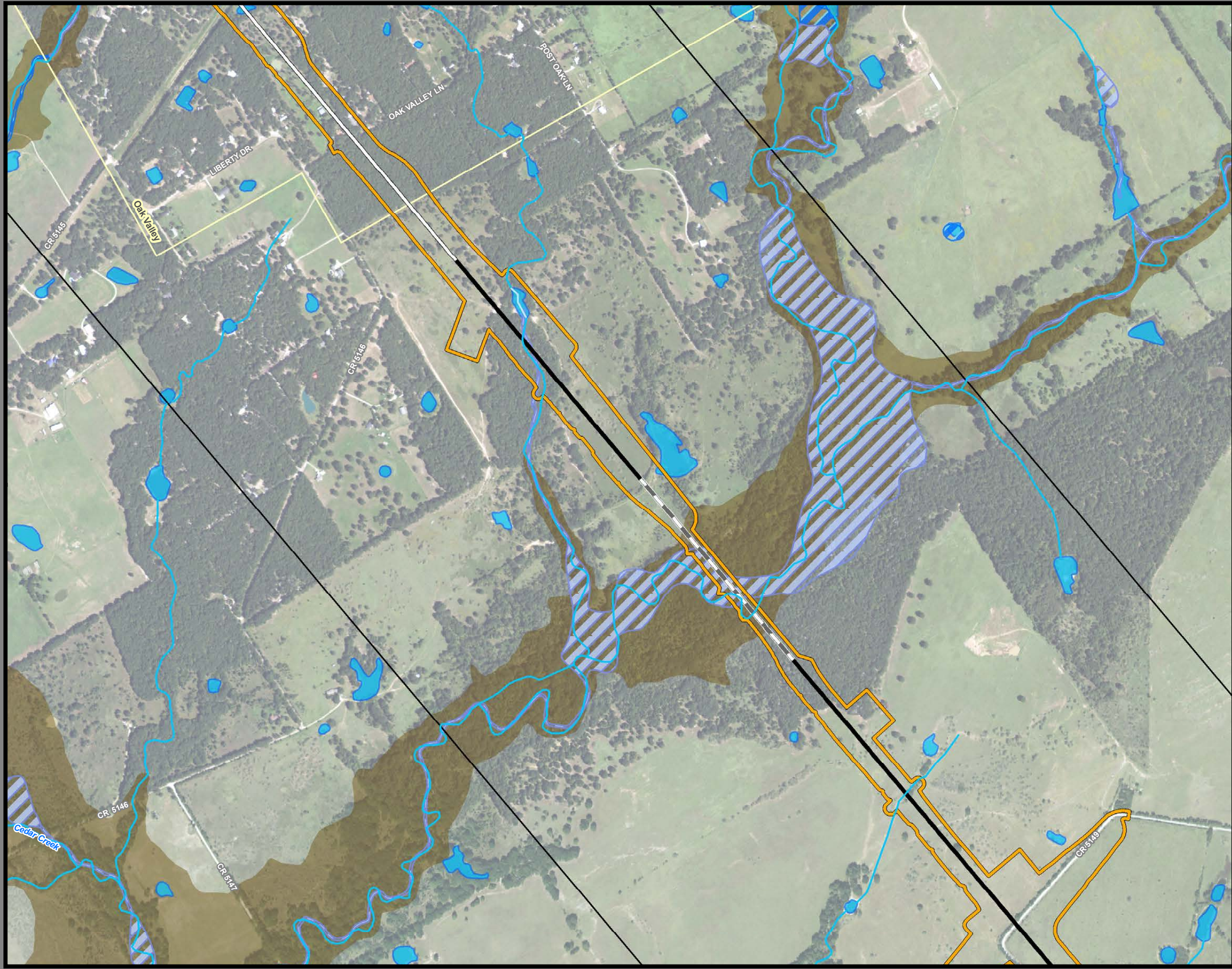
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<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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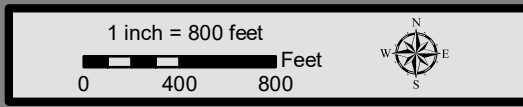
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 71 of 257**

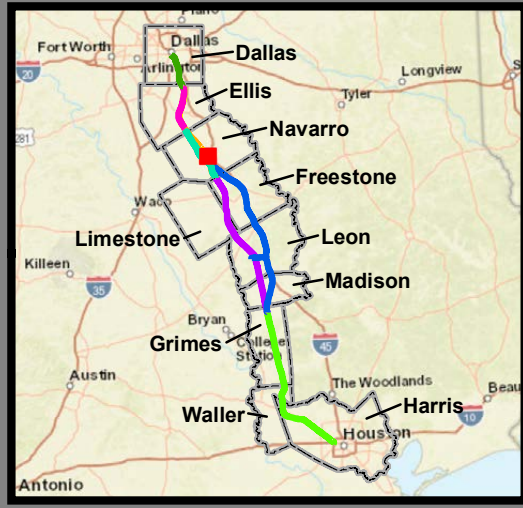
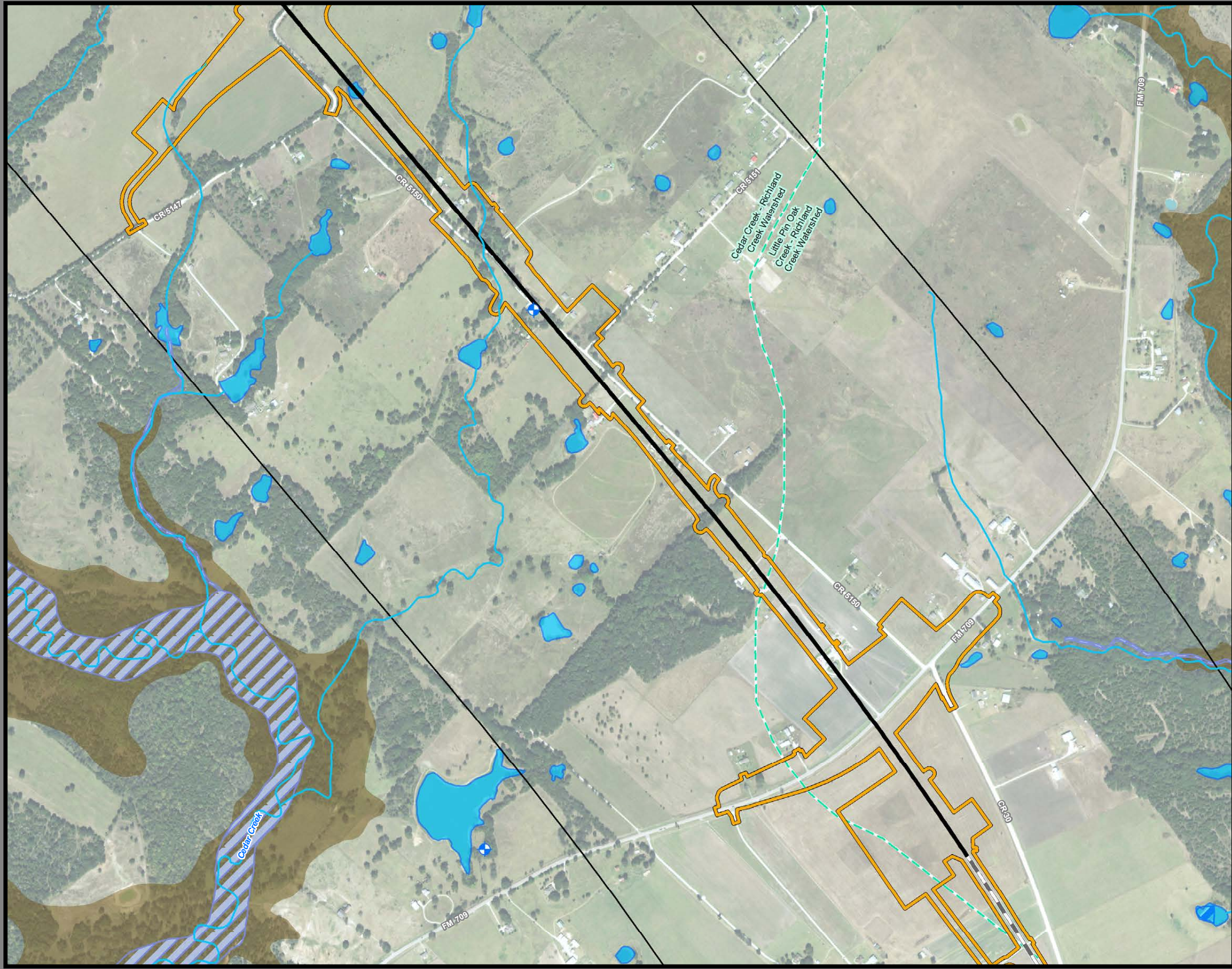
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Aerial Imagery: USDA NAIP 2016





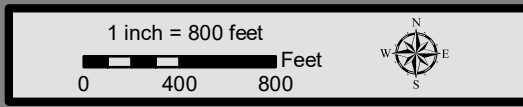
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 72 of 257**

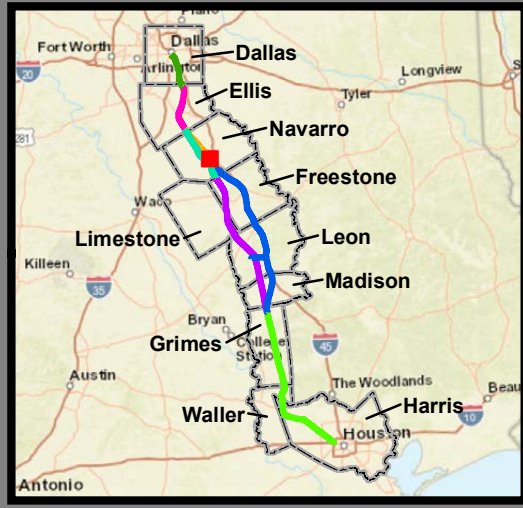
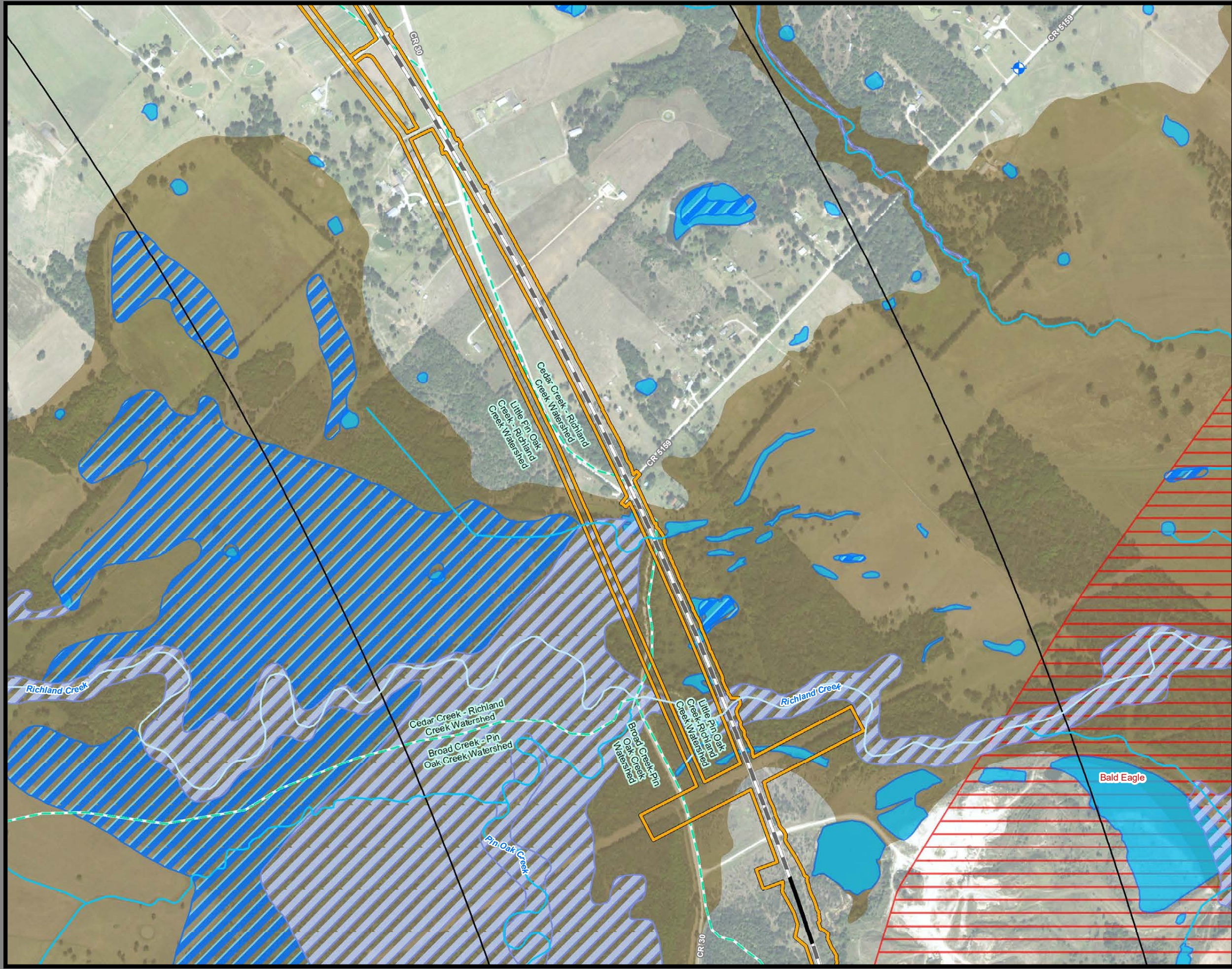
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<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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Aerial Imagery: USDA NAIP 2016





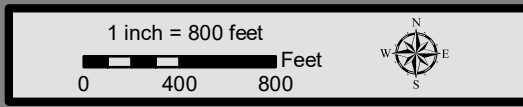
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 73 of 257**

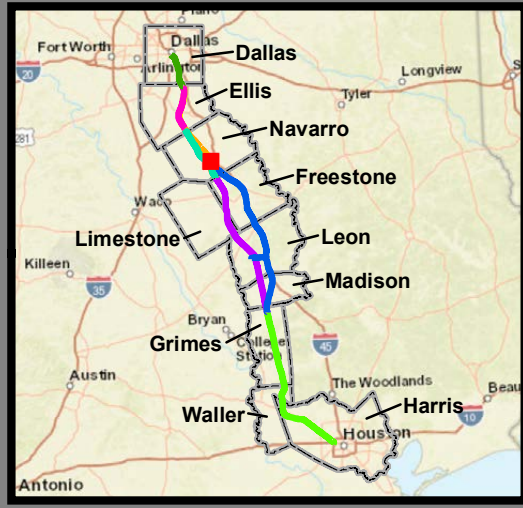
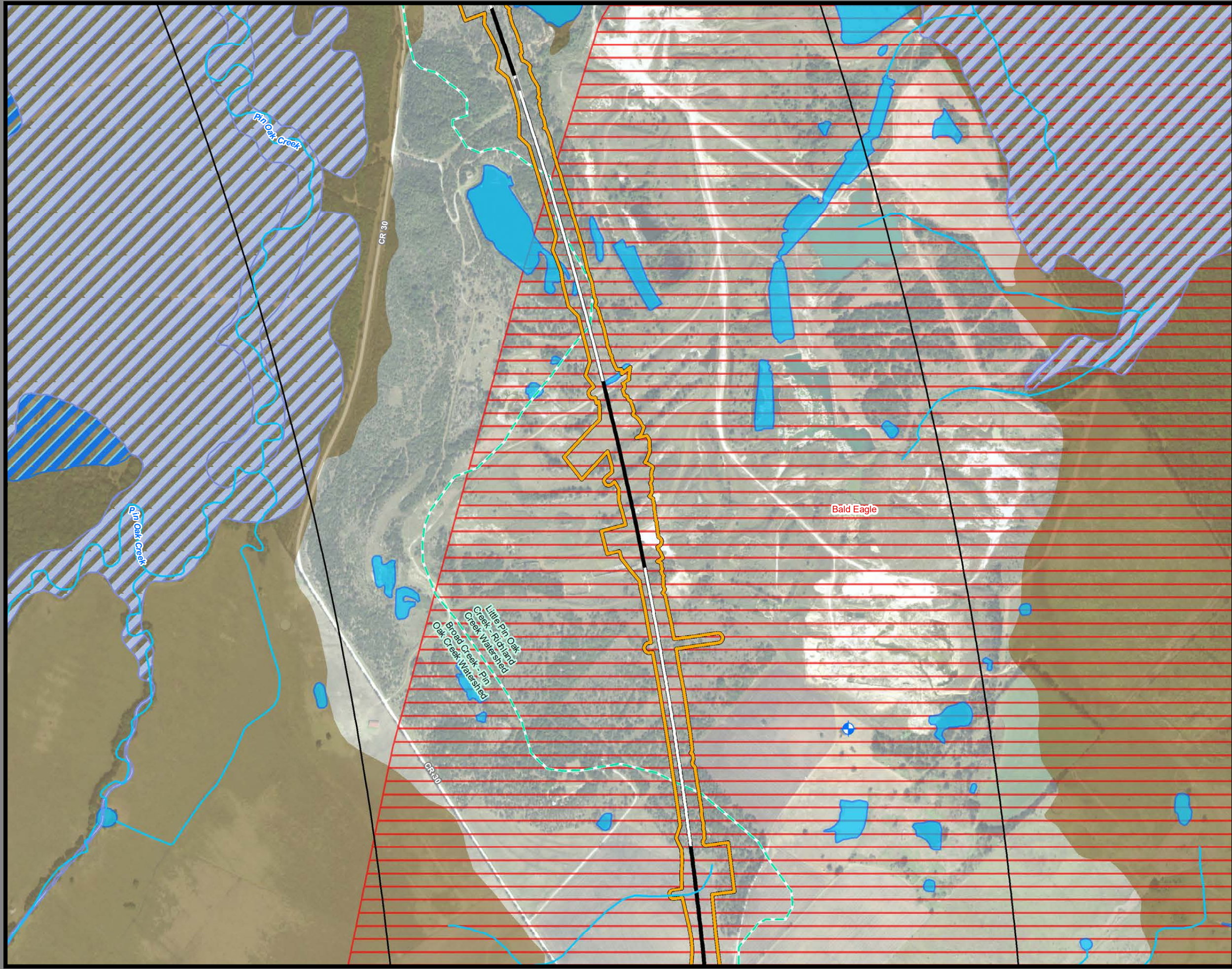
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<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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Aerial Imagery: USDA NAIP 2016





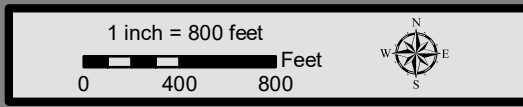
**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 74 of 257**

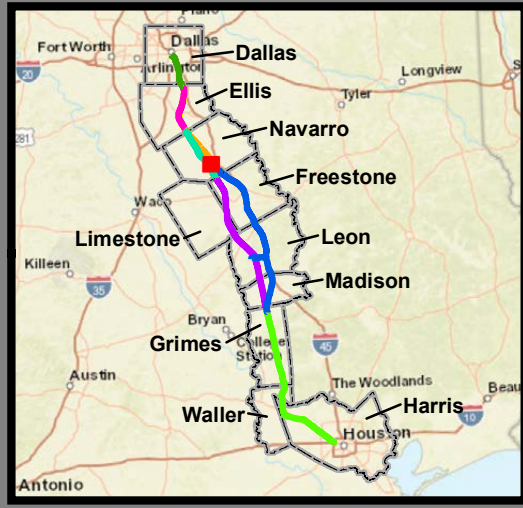
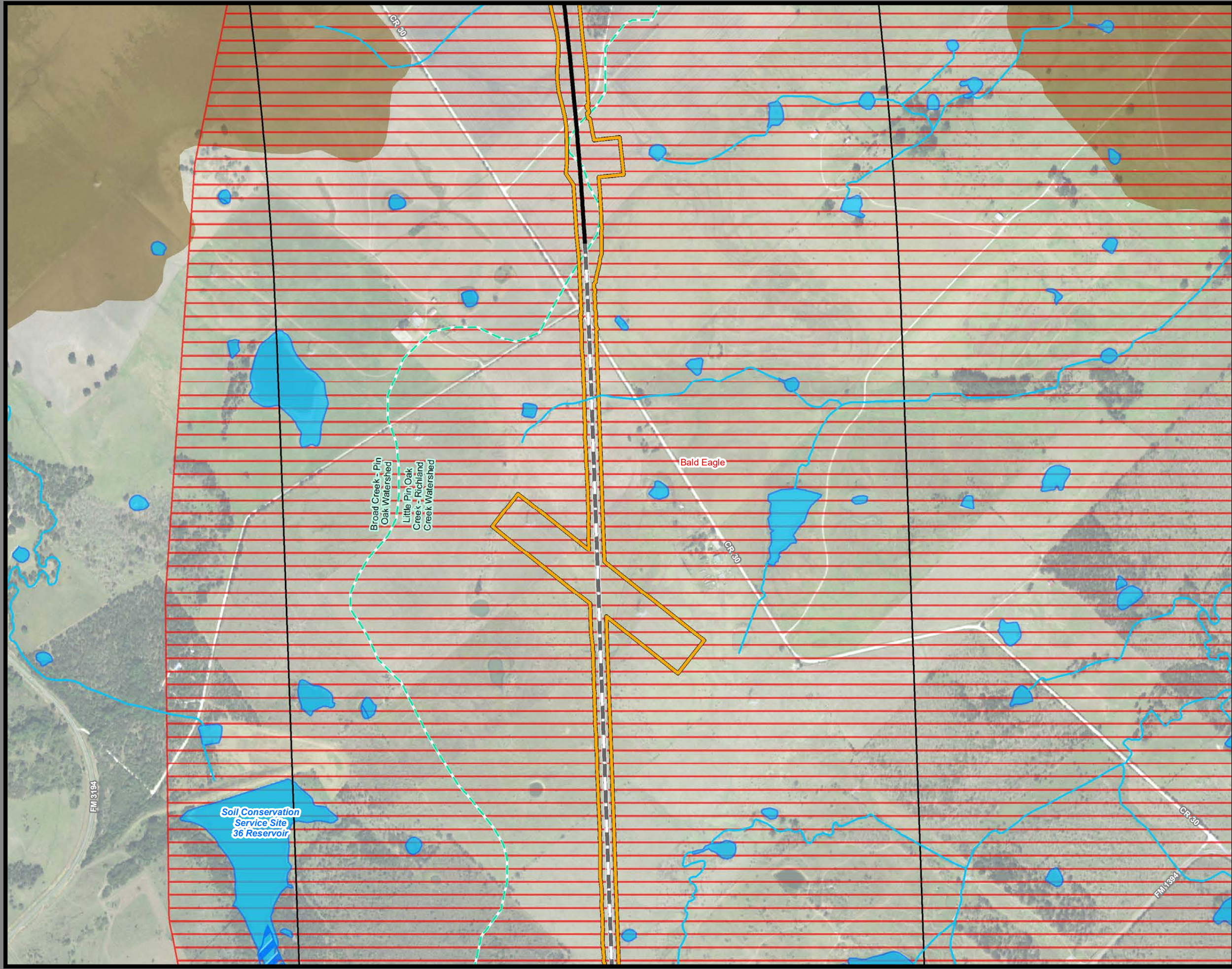
Legend

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 Centerline 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
Element of Occurrence	Lake/Pond
Record for Federally Protected 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 Wells	Freshwater Forested/Shrub Wetland
	Other

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 75 of 257**

Legend

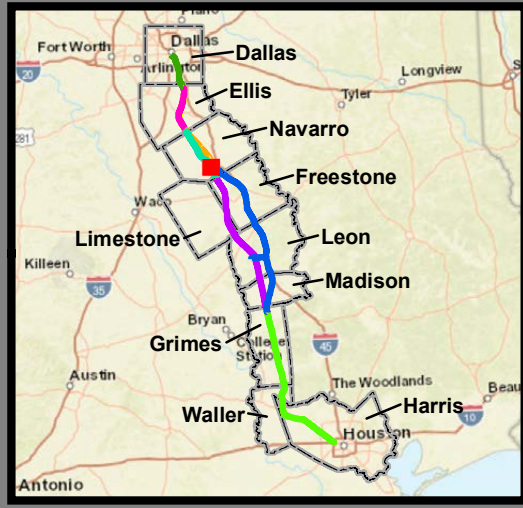
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3B; Segments 3A & 3C are also located in this same area and can be referenced on Sheets 56 & 94.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 76 of 257**

Legend

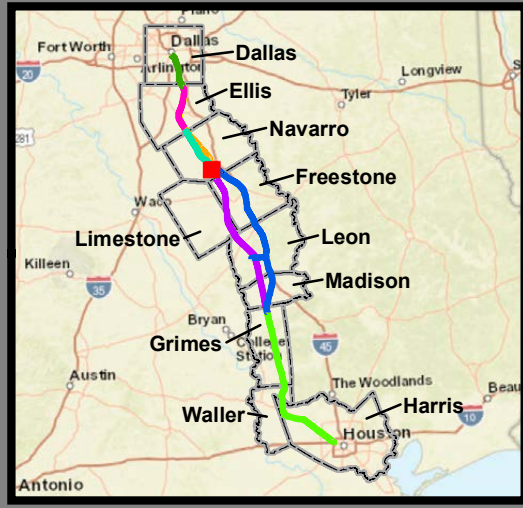
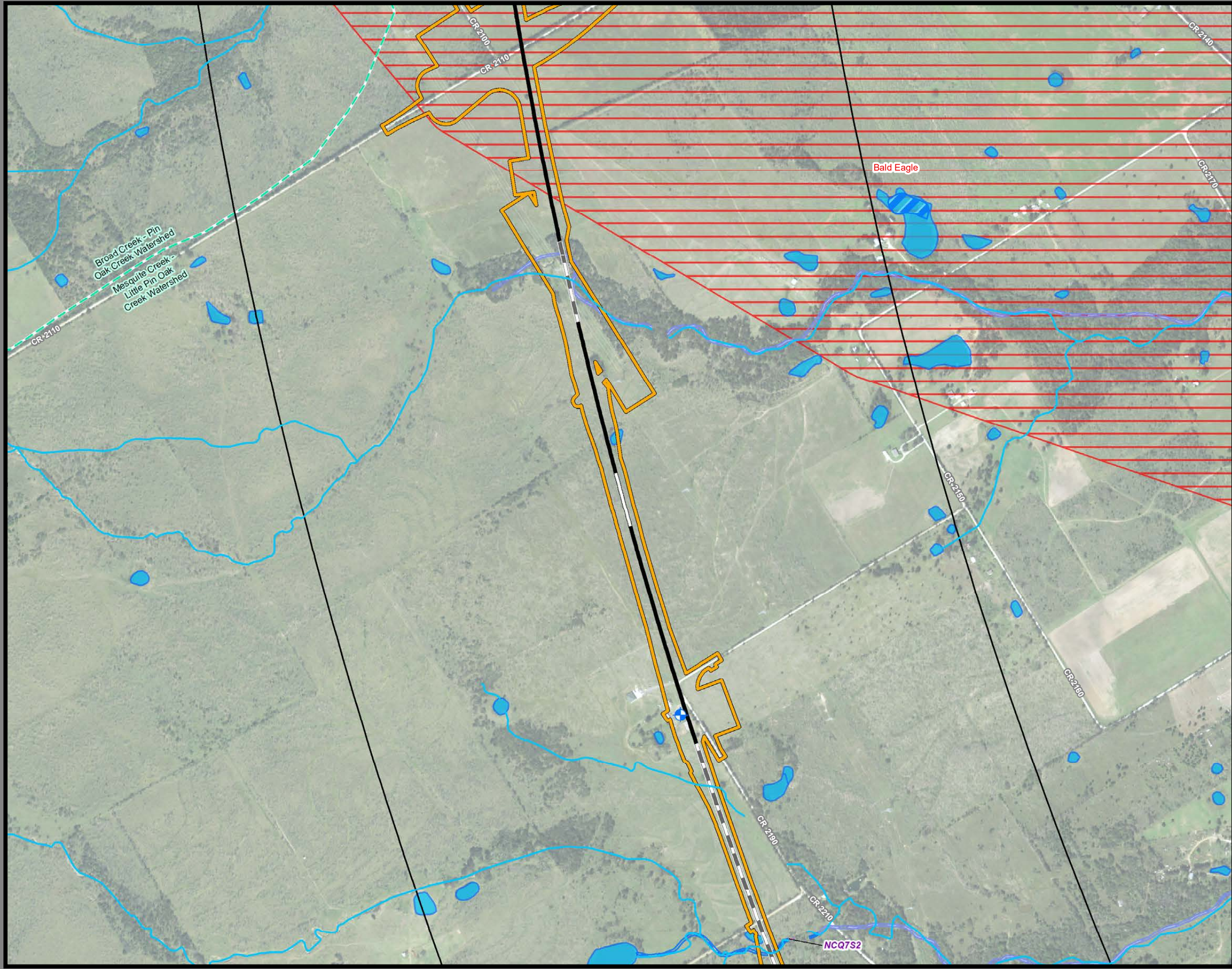
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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 77 of 257**

Legend

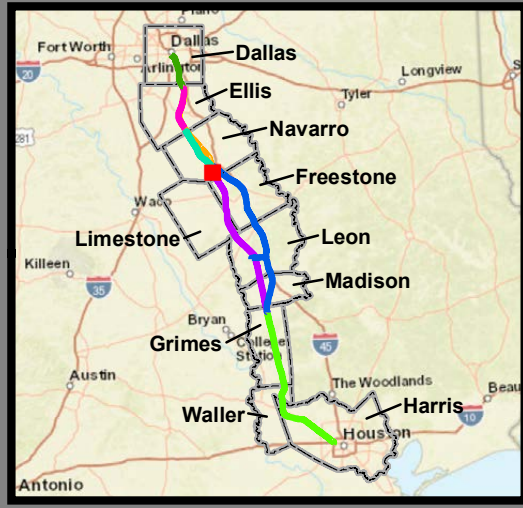
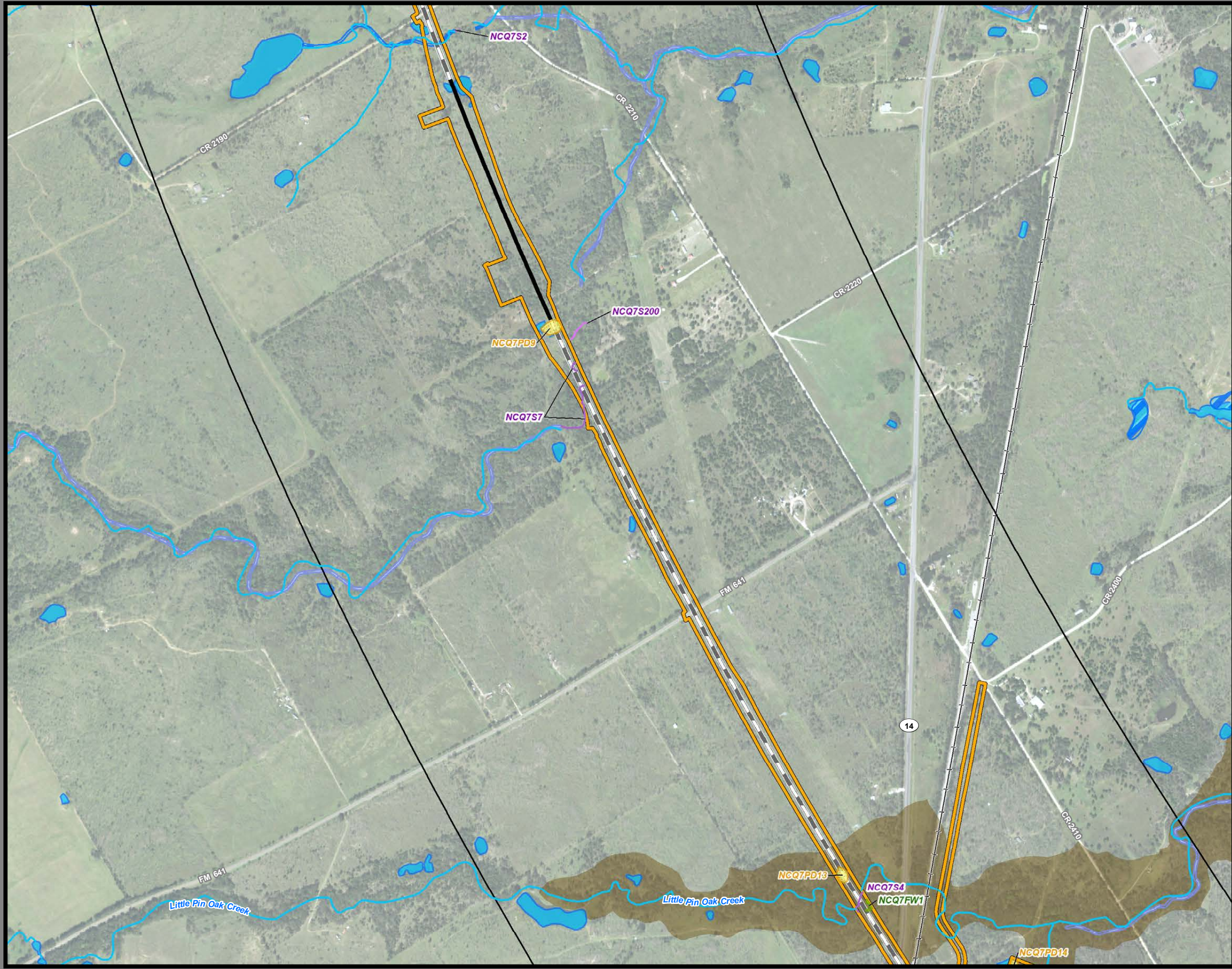
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3B; Segment 3A is also located in this same area and can be referenced on Sheet 58.

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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 78 of 257**

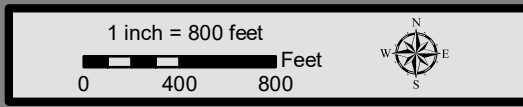
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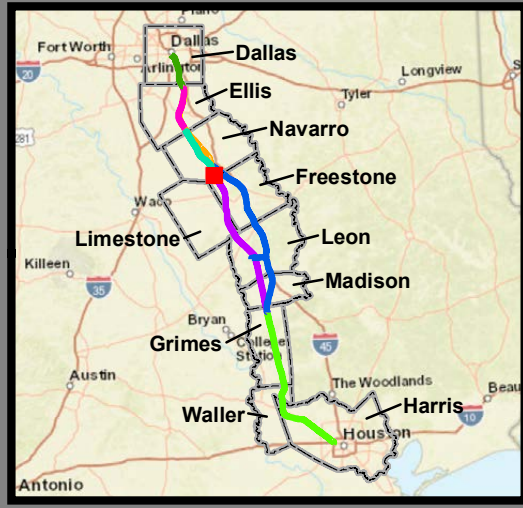
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Aerial Imagery: USDA NAIP 2016





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B
Sheet 79 of 257**

Legend

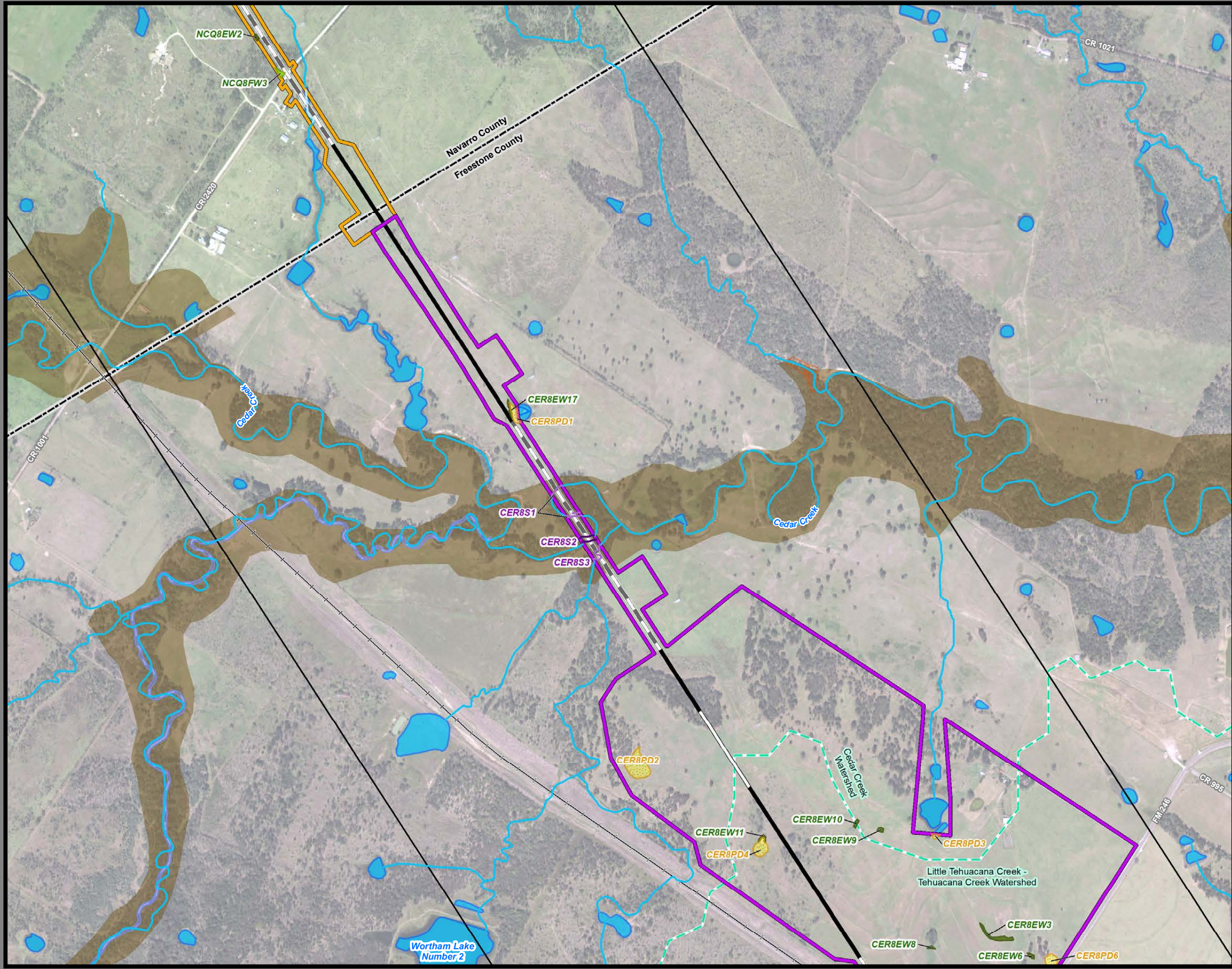
Limits of Disturbance	Impaired Waters with Total Maximum Daily Load (TMDL)
Segment 1	Impaired Waters
Segment 2A	Federal Emergency Management Agency (FEMA) Flood Zone
Segment 2B	A - 1%
Segment 3A	AE - 1%
Segment 3B	AO - 1%
Segment 3C	X - 0.2%
Segment 4	Field-Collected Data
Segment 5	Perennial Stream/River
Track Configuration	Intermittent Stream/River
Viaduct	Ephemeral Stream/River
Embankment	Other Stream/River
Cut	Lake/Pond
Half Mile Centerline 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
Element of Occurrence	Swamp/Marsh
Record for Federally Protected 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 Wells	

This Sheet only depicts Segment 3B; Segment 3A is also located in this same area and can be referenced on Sheet 60.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3B, 4
Sheet 80 of 257**

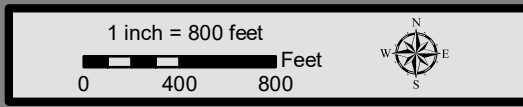
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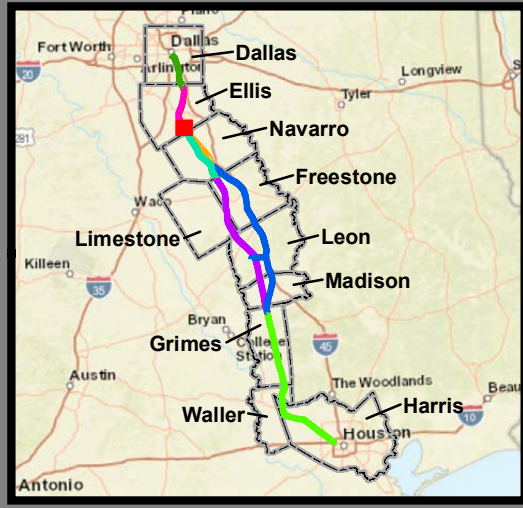
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segments 3B & 4; Segment 3A is also located in this same area and can be referenced on Sheet 61.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 2B, 3C
Sheet 81 of 257**

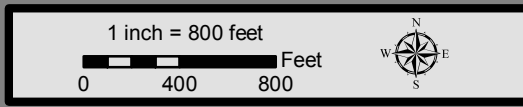
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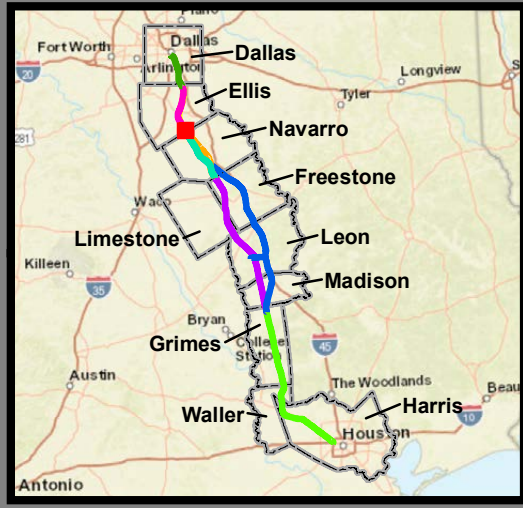
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segments 2B & 3C; Segments 2A, 3A & 3B are also located in this same area and can be referenced on Sheets 27, 43 & 62.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 82 of 257**

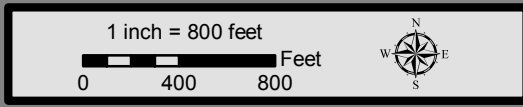
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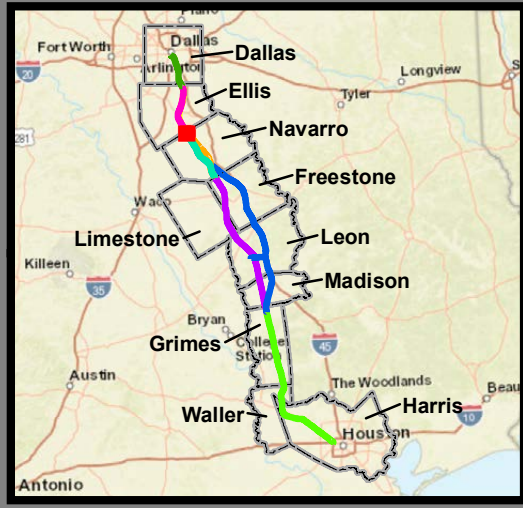
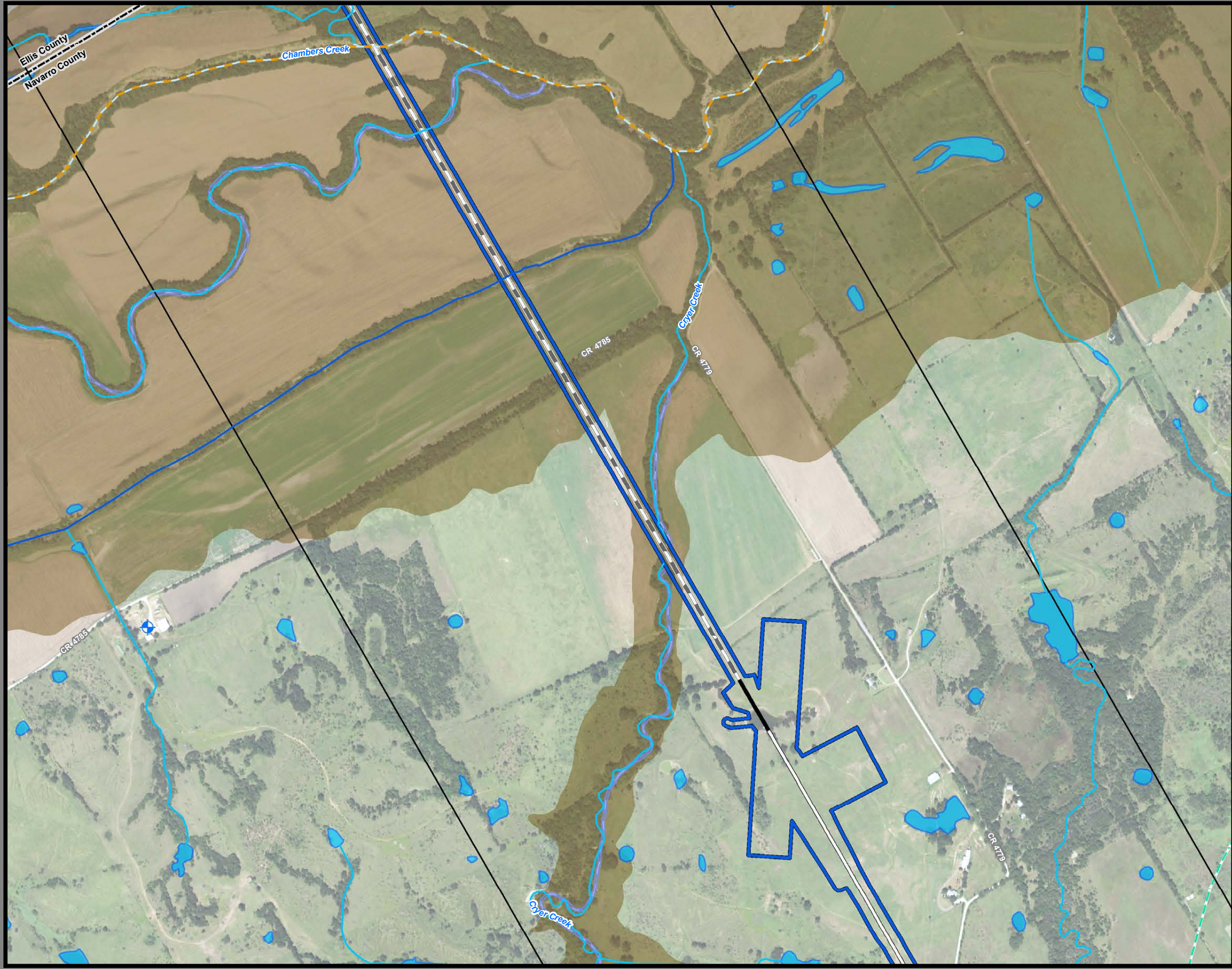
<ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 	<ul style="list-style-type: none"> Impaired Waters with Total Maximum Daily Load (TMDL) Impaired Waters
<ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline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

This Sheet only depicts Segment 3C; Segments 3A & 3B are also located in this same area and can be referenced on Sheets 44 & 63.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 83 of 257**

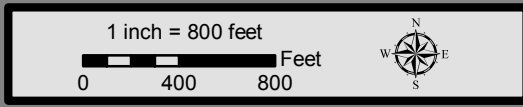
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<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3C; Segments 3A & 3B are also located in this same area and can be referenced on Sheets 45 & 64.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 84 of 257**

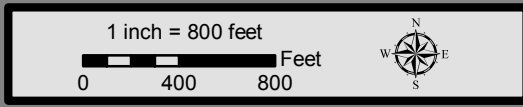
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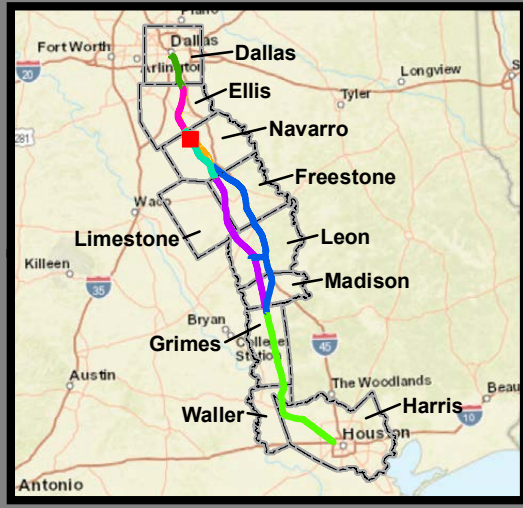
<ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 	<ul style="list-style-type: none"> Impaired Waters with Total Maximum Daily Load (TMDL) Impaired Waters
<ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline 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 Element of Occurrence <ul style="list-style-type: none"> Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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

This Sheet only depicts Segment 3C; Segments 3A & 3B are also located in this same area and can be referenced on Sheets 46 & 65.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 85 of 257**

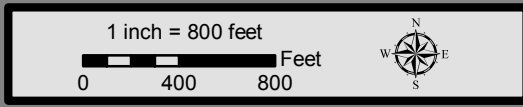
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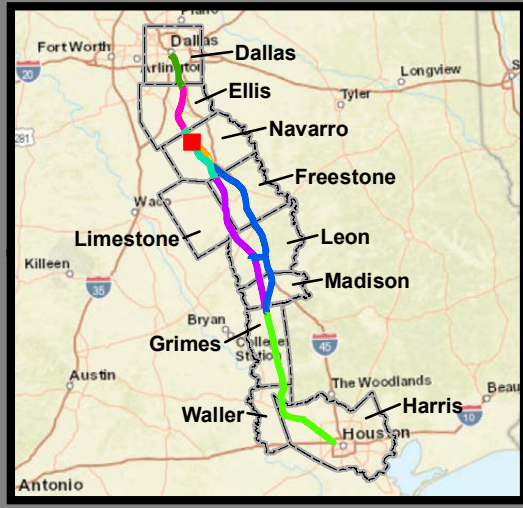
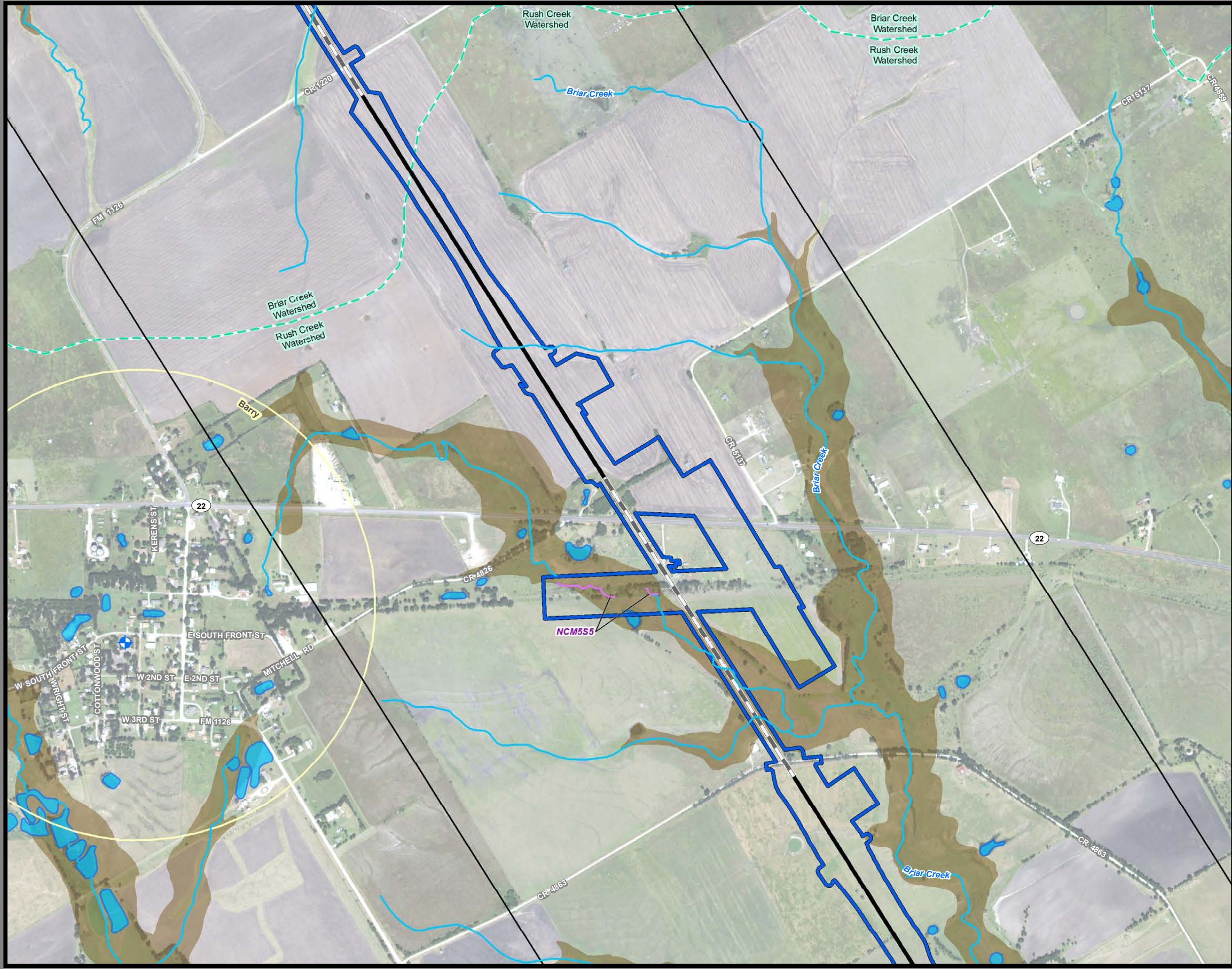
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3C; Segments 3A & 3B are also located in this same area and can be referenced on Sheets 47 & 66.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 86 of 257**

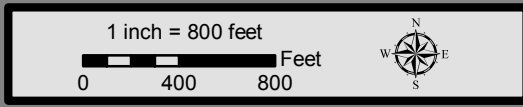
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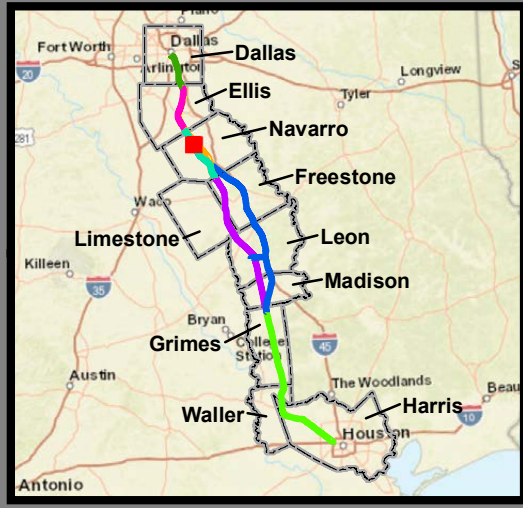
<ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 	<ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) 	<ul style="list-style-type: none"> Impaired Waters with Total Maximum Daily Load (TMDL) Impaired Waters
<ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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"> National Hydrography Dataset (NHD) Perennial Stream/River Intermittent Stream/River Artificial Stream/Canal Lake/Pond Reservoir Swamp/Marsh
<ul style="list-style-type: none"> National Wetlands Inventory (NWI) Freshwater Emergent Wetland Freshwater Forested/Shrub Wetland Other 		

This Sheet only depicts Segment 3C; Segment 3A is also located in this same area and can be referenced on Sheet 48.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 87 of 257**

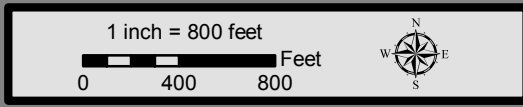
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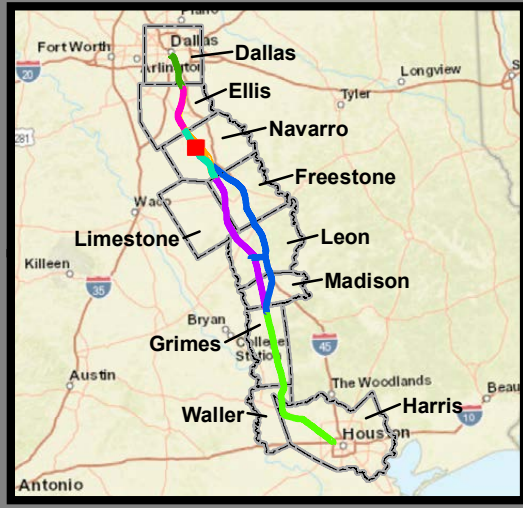
<p>Limits of Disturbance</p> <ul style="list-style-type: none"> Segment 1 Segment 2A Segment 2B Segment 3A Segment 3B Segment 3C Segment 4 Segment 5 <p>Track Configuration</p> <ul style="list-style-type: none"> Viaduct Embankment Cut Half Mile Centerline Buffer City Boundary County Boundary Railroad Municipal Setting Designation (MSD) <p>Potential Habitat</p> <ul style="list-style-type: none"> Houston Toad Large-fruited Sand Verbena Navasota Ladies'-tresses Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3C; Segment 3A is also located in this same area and can be referenced on Sheet 49.

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

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





**Dallas to Houston
High-Speed Rail Project
Natural Resources
Segment 3C
Sheet 88 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 Centerline 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 Element of Occurrence Record for Federally Protected Species U.S. Army Corps of Engineers (USACE) Project Area Watershed (HUC 12) Boundary Public Water Supply Groundwater Wells 	<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
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This Sheet only depicts Segment 3C; Segment 3A is also located in this same area and can be referenced on Sheet 50.

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

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

