APPENDIX B NATURAL RESOURCES

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Stream Data Form

Stream Data Form #: W-1

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #1 to Graveyard Slough in Lewisville Lake

County/State: Denton, Texas

USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-1, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1589+07; observations apply to east side of IH 35E (i.e., no defined channel was observed on the west side of IH 35E).

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 6 feet OHWM Height (in): 18 inches

Stream bottom composition: sand and clay loam; some ponding within channel, but stream bottom is comprised mostly of herbaceous vegetation.

Water Quality: Channel was generally dry; water quality observations apply to pool located near culvert outfall on east side of IH 35E.

- --Slightly Turbid—oily film on surface of ponded areas within channel
- --Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

Riparian Vegetation: List species observed.

Woody Plants: black willow (*Salix nigra*); green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); pecan (*Carya illinoinensis*); redbud (*Cercis canadensis*); dewberry (*Rubus* sp.); grape (*Vitis* sp.).

Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon dactylon*); silver bluestem (*Bothriochloa laguroides*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); western ragweed (*Ambrosia psilostachya*); clover (*Medicago* sp.); aster (*Aster* sp.); dandelion (*Taraxacum officinale*).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County.

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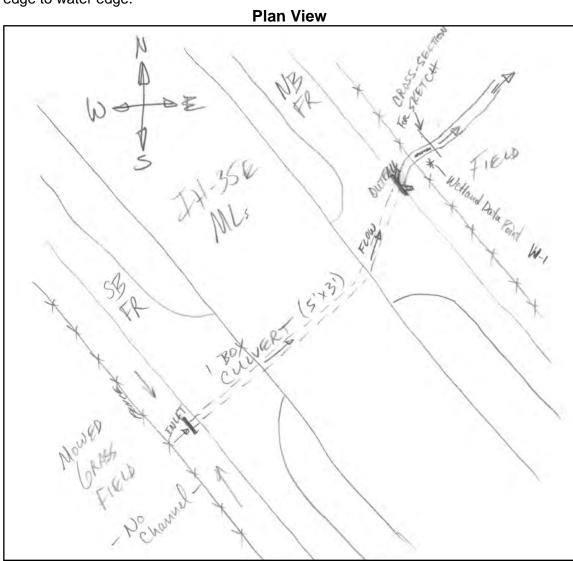
Stream Data Form (continued)

Stream Data Form #: W-1

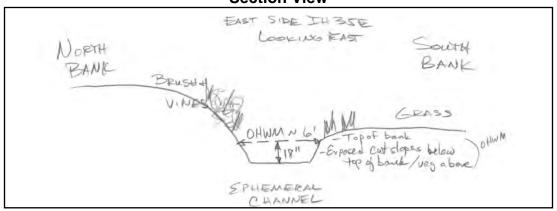
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



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Stream Data Form

Stream Data Form #: W-2

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #2 to Graveyard Slough in Lewisville Lake

County/State: Denton, Texas

USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-2, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35E Centerline Station: 1623+74.

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 10 feet OHWM Height (in): 24 inches

Stream bottom composition: sandy loam.

Water Quality: Channel was generally dry; water quality observations apply to a pool located near culvert outfall on east side of IH 35E; smaller pools less than one foot deep were observed occasionally in channel.

--Slightly Turbid

--Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed; mammal tracks (likely raccoon).

Riparian Vegetation: List species observed.

Woody Plants: black willow (*Salix nigra*); American elm (*Ulmus americana*); bois d'arc *Maclura pomifera*); hackberry (*Celtis laevigata*); pecan (*Carya illinoinensis*); Chinese privet (*Ligustrum sinense*); dewberry (*Rubus* sp.); saw greenbrier (*Smilax bona-nox*), grape (*Vitis* sp.); Japanese honeysuckle (*Lonicera japonica*); grape (*Vitis* sp.).

Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon dactylon*); wood oats (*Chasmanthium latifolium*); flat sedge (*Cyperas* sp.); goldenrod (*Solidago* sp.); ironweed (*Vernonia* sp.).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; riparian forest areas adjacent to channel provide potential habitat for the timber/canebrake cattlesnake (*Crotalus horridus*), although understory vegetation is sparse, and the Plains spotted skunk (*Spilogale putorius interrupta*).

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Stream Data Form (continued)

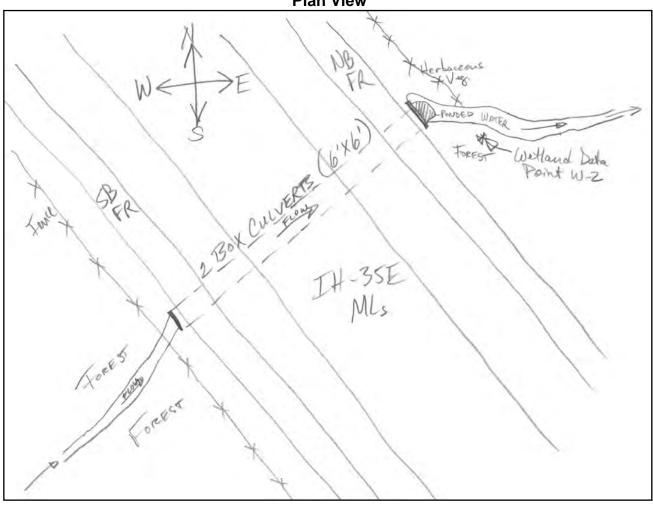
Stream Data Form #: W-2

Project Name: IH 35 E: FM 2181 to US 380

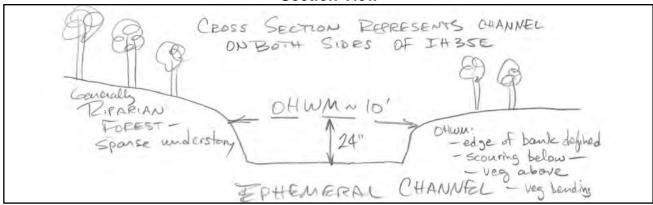
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

Plan View



Section View



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Stream Data Form

Stream Data Form #: W-3

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 and 26 Jan 2009

USGS Stream Name: Unnamed Tributary #1 to Pecan Creek County/State: Denton, Texas USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-3, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1673+17.

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 6 feet OHWM Height (in): 12 inches

Stream bottom composition: some silt, clay, and organic material; channel bottom is predominantly herbaceous vegetation.

Water Quality: Channel was generally dry; water quality observations apply to a pool located near the culvert outfall on east side of IH 35E.

--Slightly Turbid

--Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles
Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation
Other: site is near a commercial business and vegetation adjacent to and within the channel is periodically cut (e.g., only stumps of woody vegetation observable).

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed; mammal tracks (likely raccoon).

Riparian Vegetation: List species observed.

Woody Plants: black willow (*Salix nigra*)—saplings only, cut to base; new deal weed (*Baccharis neglecta*); possumhaw (*Ilex decidua*); dewberry (*Rubus* sp.); saw greenbrier (*Smilax bona-nox*).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); giant ragweed (*Ambrosia trifida*); prickly lettuce (*Lactuca* sp.); clover (*Medicago* sp.); henbit (*Lamium amplexicaule*); dandelion (*Taraxacum officinale*).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; vegetation within stream channel and adjacent areas is mowed or severed (woody plants).

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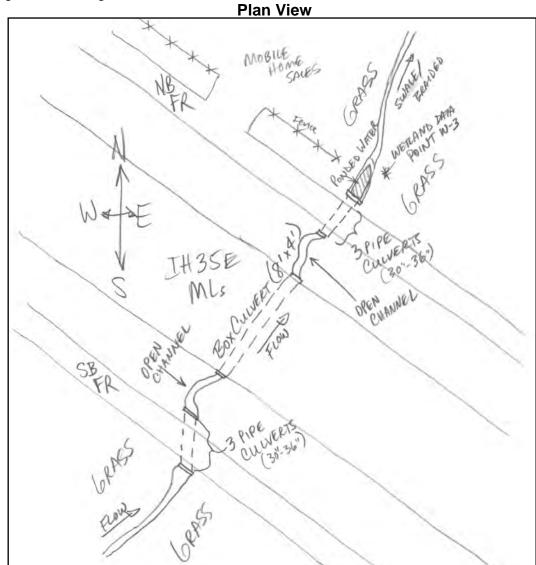
Stream Data Form (continued)

Stream Data Form #: W-3

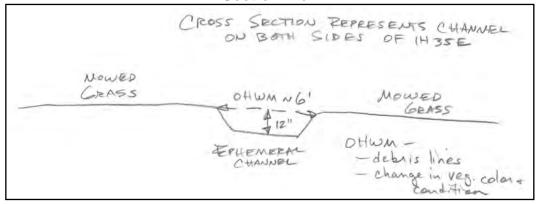
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



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Stream Data Form

Stream Data Form #: W-4

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #2 to Pecan Creek County/State: Denton, Texas USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-4, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1683+31; observations apply to east side of IH 35E (i.e., no defined channel was observed on the west side of IH 35E).

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 8 feet OHWM Height (in): 18 inches

Stream bottom composition: silty loam; one small pond observed in channel; stream braids out as it moves eastward through riparian forest; stream bottom is mostly of leaf debris.

Water Quality: Channel was generally dry; water quality observations apply to pool located near culvert outfall on east side of IH 35E.

--Clear

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other: apparent salt crust observed on portions of surface soil.

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

Riparian Vegetation: List species observed.

Woody Plants: American elm (*Ulmus americana*); black willow (*Salix nigra*); eastern red cedar (*Juniperus virginiana*); cedar elm (*Ulmus crassifolia*); hackberry (*Celtis laevigata*); dewberry (*Rubus* sp.); saw greenbrier (*Smilax bona-nox*); poison ivy (*Toxicodendron radicans*).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*) (near culvert only).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; riparian forest areas adjacent to channel provide potential habitat for the timber/canebrake cattlesnake (*Crotalus horridus*), although understory vegetation is sparse, and the Plains spotted skunk (*Spilogale putorius interrupta*).

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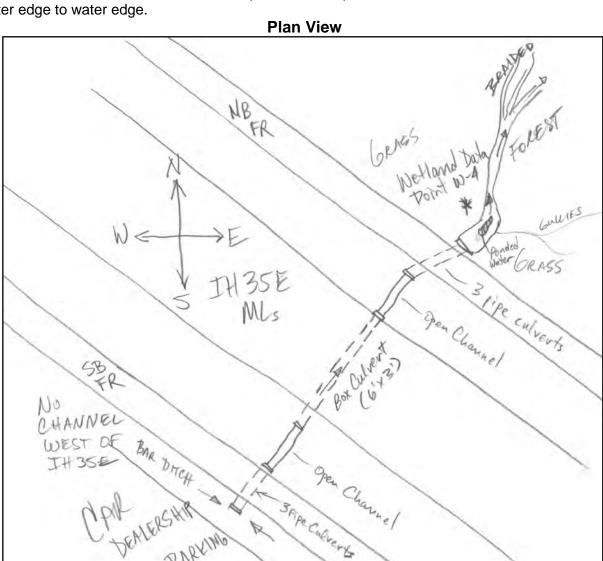
Stream Data Form (continued)

Stream Data Form #: W-4

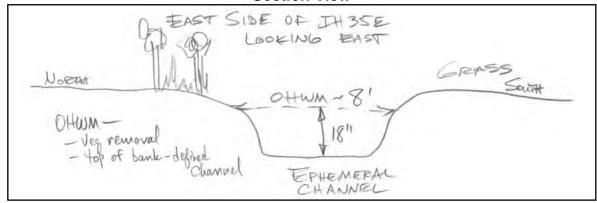
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



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Stream Data Form

Stream Data Form #: W-5

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #3 to Pecan Creek County/State: Denton, Texas USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-5, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1704+23.

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 8 feet OHWM Height (in): 24 inches

Stream bottom composition: loamy mixed with limestone gravel.

Water Quality: Channel was generally dry, but had a minor flow of water when observed. --Clear

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

Riparian Vegetation: List species observed. Note: Forest near channel resembled the same mix of species as upland forest areas further upslope and was generally not distinctively riparian in composition.

Woody Plants: green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); cedar elm (*Ulmus crassifolia*); common persimmon (*Diospyros virginiana*); coralberry (*Symphoricarpos orbiculatus*); possumhaw (*Ilex decidua*); saw greenbrier (*Smilax bonanox*); poison ivy (*Toxicodendron radicans*); grape (*Vitis* sp.).

Herbaceous Plants: wood oats (Chasmanthium latifolium); flat sedge (Cyperas sp.).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; upland forest areas adjacent to channel provide potential habitat for the timber/canebrake cattlesnake (*Crotalus horridus*), and the Plains spotted skunk (*Spilogale putorius interrupta*).

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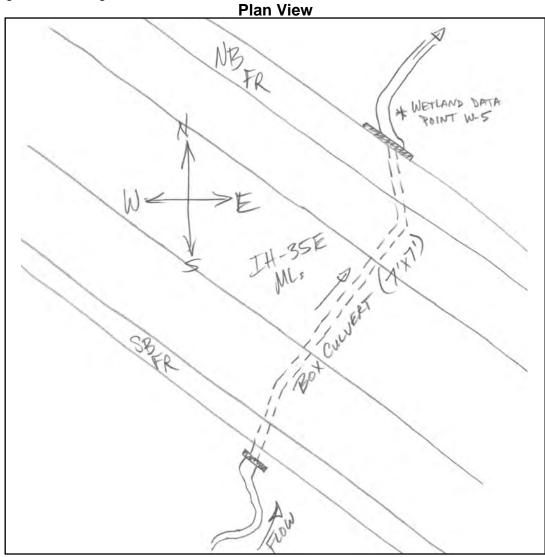
Stream Data Form (continued)

Stream Data Form #: W-5

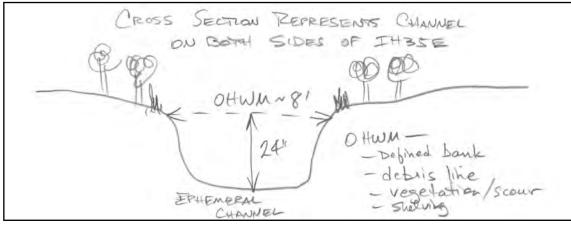
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



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Stream Data Form

Stream Data Form #: W-6

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #4 to Pecan Creek County/State: Denton, Texas USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: Yes (See Wetland Data Points W-6a and 6b—locations on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1715+24.

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 11 feet OHWM Height (in): 12 inches

Stream bottom composition: loamy soil.

Water Quality: Channel was generally dry, but had a minor flow of water when observed.

--Slightly Turbid

--Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: Ducks on pond; mammal tracks in stream bed (likely raccoon and beaver); pond outlet has been modified by ongoing beaver activity, which has raised the level of the pond by several feet.

Riparian Vegetation: List species observed. Note: Forest near channel resembled the same mix of species as upland forest areas further upslope and was generally not distinctively riparian in composition.

Woody Plants: green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); new deal weed (*Baccharis neglecta*); possumhaw (*Ilex decidua*); Chinese privet (*Ligustrum sinense*); dewberry (*Rubus* sp.).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); switchgrass (*Panicum virgatum*); bushy bluestem (*Andropogon glomeratus*); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; upland forest areas adjacent to channel provide potential habitat for the timber/canebrake cattlesnake (*Crotalus horridus*), and the Plains spotted skunk (*Spilogale putorius interrupta*).

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Stream Data Form (continued)

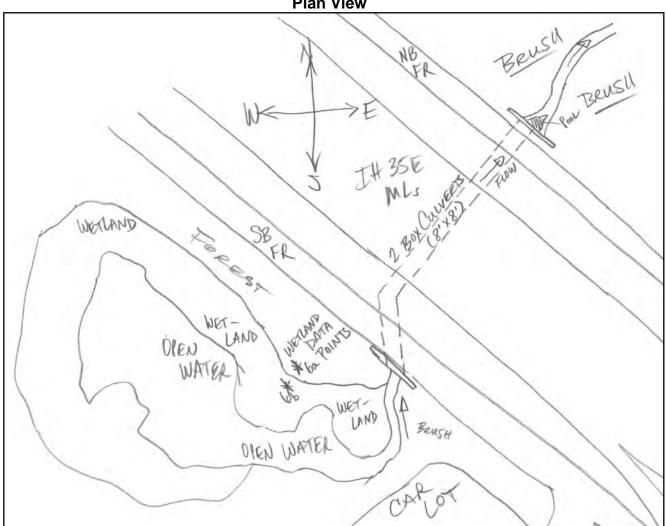
Stream Data Form #: W-6

Project Name: IH 35 E: FM 2181 to US 380

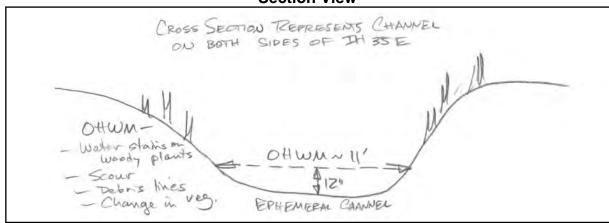
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

Plan View



Section View



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Stream Data Form

Stream Data Form #: W-7

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #5 to Pecan Creek County/State: Denton, Texas USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-7, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1726+20; observations apply to east side of IH 35E (i.e., no defined channel was observed on the west side of IH 35E).

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 8 feet OHWM Height (in): 15 inches

Stream bottom composition: sand and clay loam; some ponding within channel, but stream bottom is comprised mostly of herbaceous vegetation.

Water Quality: Channel was generally dry; water quality observations apply to pool located near culvert outfall on east side of IH 35E.

--Slightly Turbid

--Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles
Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation
Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

Riparian Vegetation: List species observed.

Woody Plants: black willow (*Salix nigra*); hackberry (*Celtis laevigata*)—tree saplings cut to base (areas adjacent to channel closely mowed grass); dewberry (*Rubus* sp.); Japanese honeysuckle (*Lonicera japonica*).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; vegetation within stream channel and adjacent areas is mowed or severed (woody plants).

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Stream Data Form (continued)

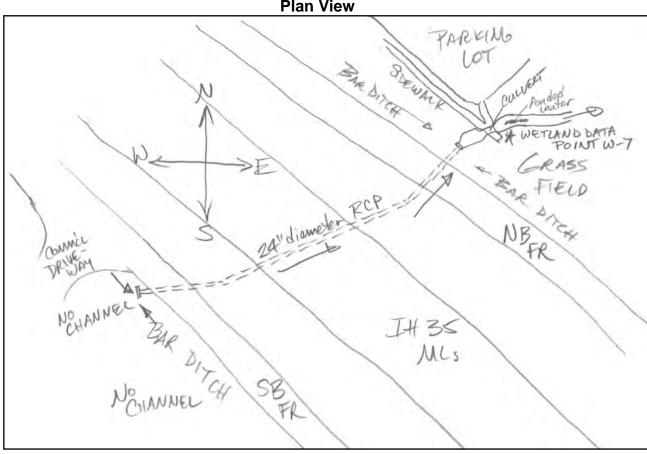
Stream Data Form #: W-7

Project Name: IH 35 E: FM 2181 to US 380

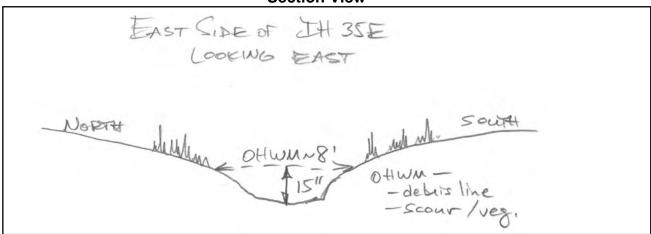
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

Plan View



Section View



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Stream Data Form

Stream Data Form #: W-8

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 23 Jan 2009

USGS Stream Name: Unnamed Tributary #6 to Pecan Creek County/State: Denton, Texas USGS Topo Quad Name: Denton East Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-8, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 1799+43; observations apply to east side of IH 35E (i.e., no defined channel was observed on the west side of IH 35E).

Stream Type: Ephemeral

Stream Flow Direction: Easterly

OHWM Width (ft): 5 feet OHWM Height (in): 15 inches

Stream bottom composition: sand and clay loam; some gravel.

Water Quality: Channel was generally dry; no observations of water possible.

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: Turtles/ducks observed in nearby pond into which the channel drains.

Riparian Vegetation: List species observed.

Woody Plants: black willow (*Salix nigra*); green ash (*Fraxinus pennsylvanica*); hackberry (*Celtis laevigata*); American elm (*Ulmus americana*); cedar elm (*Ulmus crassifolia*); saw greenbrier (Smilax bona-nox); blackberry (*Rubus* sp.); grape (*Vitis* sp.). Herbaceous Plants: goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; riparian forest areas adjacent to channel provide potential habitat for the timber/canebrake cattlesnake (*Crotalus horridus*), although understory vegetation is sparse, and the Plains spotted skunk (*Spilogale putorius interrupta*).

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Stream Data Form (continued)

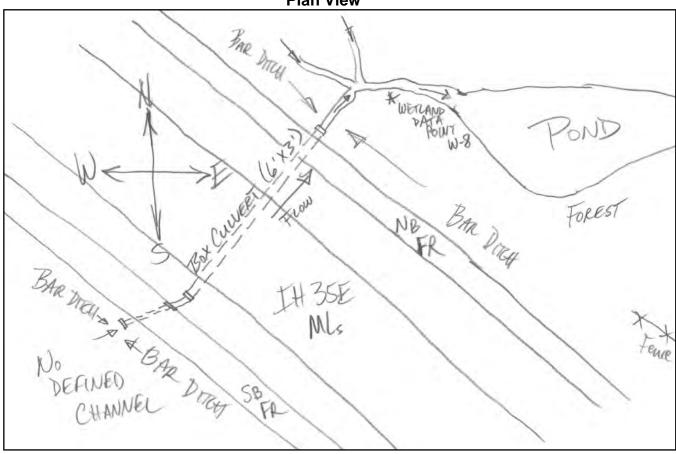
Stream Data Form #: W-8

Project Name: IH 35 E: FM 2181 to US 380

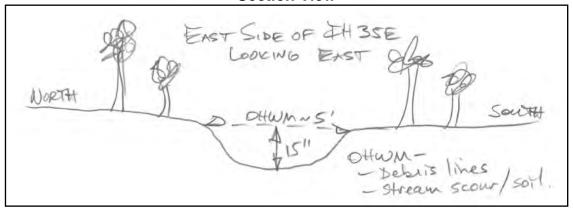
CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.

Plan View



Section View



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Stream Data Form

Stream Data Form #: W-9

Project Name: IH 35 E: FM 2181 to US 380 CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 26 Jan 2009

USGS Stream Name: Unnamed Tributary #1 to Dry Fork Hickory Creek

County/State: Denton, Texas

USGS Topo Quad Name: Denton West Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-9, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 2016+19.

Stream Type: Ephemeral

Stream Flow Direction: Westerly

OHWM Width (ft): 15 feet OHWM Height (in): 24 inches

Stream bottom composition: sand and clay loam; some gravel; ponding within channel.

Water Quality: Channel was generally dry; water quality observations apply to small pools.

--Slightly Turbid

--Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar <u>Sand/Gravel beach/bar</u> Mud bar Gravel riffles <u>Overhanging trees/shrubs</u> Deep pool/hole/channel <u>Aquatic vegetation</u>

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

Riparian Vegetation: List species observed.

Woody Plants: black willow (Salix nigra); box elder (Acer negundo); American elm (Ulmus americana); green ash (Fraxinus pennsylvanica); bois d'arc Maclura pomifera); dewberry (Rubus sp.).

Herbaceous Plants: Bermuda grass (*Cynodon dactylon*); Johnson grass (*Sorghum halepense*); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*) (stream bottom only).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; vegetation within stream channel and adjacent areas is mowed or severed (woody plants); the large trees that form a row along the north side of the stream channel have an understory of mowed grass.

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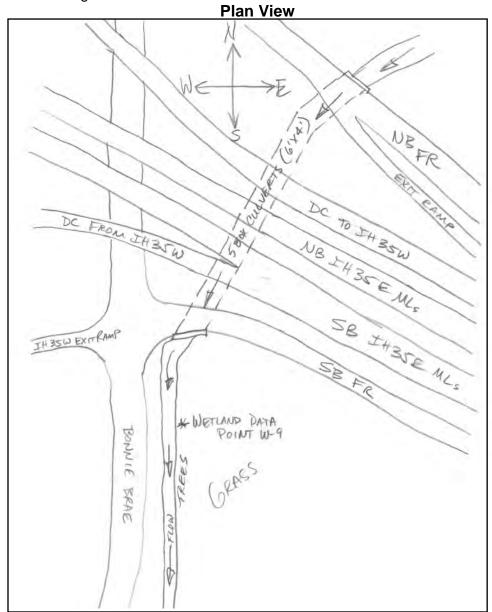
Stream Data Form (continued)

Stream Data Form #: W-9

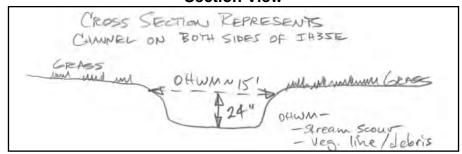
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



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Stream Data Form

Stream Data Form #: W-10

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 26 Jan 2009

USGS Stream Name: Unnamed Tributary #2 to Dry Fork Hickory Creek

County/State: Denton, Texas

USGS Topo Quad Name: Denton West Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-10, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file.

Location Data: IH 35 Centerline Station: 2035+35.

Stream Type: Ephemeral

Stream Flow Direction: Westerly

OHWM Width (ft): 19 feet OHWM Height (in): 12 inches

Stream bottom composition: sand and clay loam; some ponding within channel, near an area of beaver activity; stream bottom is comprised mostly of herbaceous vegetation.

Water Quality: Channel was generally dry; water quality observations apply to pools located near culvert outfall on west side of IH 35.

--Slightly Turbid

--Color of water if other than clear: brownish

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles
Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed; beaver activity further downstream (beginning approximately 80 feet from the culvert outfall on the west side of IH 35).

Riparian Vegetation: List species observed.

Woody Plants: black willow (Salix nigra); hackberry (Celtis laevigata); box elder (Acer negundo); bois d'arc Maclura pomifera); new deal weed (Baccharis neglecta).

Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon dactylon*); bushy bluestem (*Andropogon glomeratus*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); annual sunflower (*Helianthus annuus*); cattail (*Typha latifolia*) (stream bottom only).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; woody vegetation within stream channel has been severed and adjacent areas is mowed; the trees noted above are near the channel but not adjacent to it.

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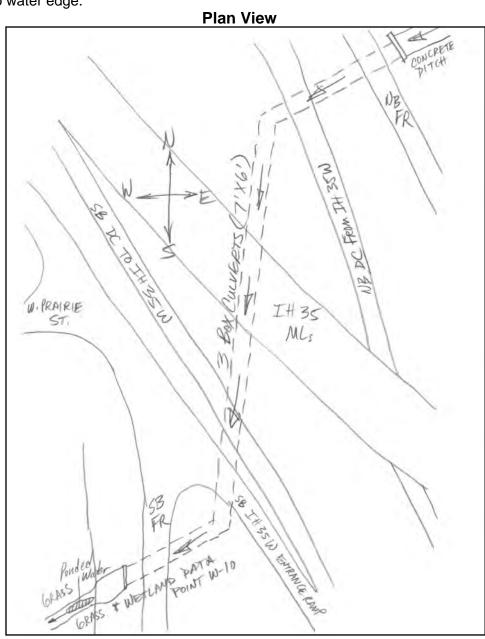
Stream Data Form (continued)

Stream Data Form #: W-10

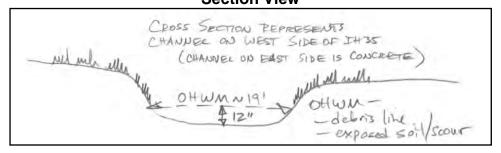
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



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Stream Data Form

Stream Data Form #: W-11

Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Surveyors: Rich Jaynes / Danny Griffith Date of Field Work: 26 Jan 2009

USGS Stream Name: Unnamed Tributary #3 to Dry Fork Hickory Creek

County/State: Denton, Texas

USGS Topo Quad Name: Denton West Stream Number (303(d) List): 0823

Associated Wetland: None (See Wetland Data Point W-11, location of data point on next page) GPS Data: GPS data collected for water features and referenced into MicroStation design file. Location Data: IH 35E Centerline Station: 2065+64.

Stream Type: Ephemeral

Stream Flow Direction: Westerly

OHWM Width (ft): 14 feet OHWM Height (in): 12 inches

Stream bottom composition: sand and clay loam; some gravel; some ponding within channel, but stream bottom is comprised mostly of herbaceous vegetation.

Water Quality: Channel was generally dry; water quality observations apply to pool located near culvert outfall on west side of IH 35.

--Clear

Aquatic Habitat: Indicate all types present within ROW/project limits.

Sand bar Sand/Gravel beach/bar Mud bar Gravel riffles

Overhanging trees/shrubs Deep pool/hole/channel Aquatic vegetation

Other:

Aquatic Organisms: List all species observed. This would include waterfowl, fish, snakes, turtles, frogs, invertebrates, etc.: None observed.

Riparian Vegetation: List species observed.

Woody Plants: black willow (*Salix nigra*); eastern red cedar (*Juniperus virginiana*); grape (*Vitis* sp.).

Herbaceous Plants: Johnson grass (*Sorghum halepense*); Bermuda grass (*Cynodon dactylon*); goldenrod (*Solidago* sp.); giant ragweed (*Ambrosia trifida*); cattail (*Typha latifolia*) (stream bottom only).

T&E Species/Suitable Habitat: List T&E species observed or which species the habitat is suitable for. No T&E species observed; area does not provide sufficient cover or other habitat for T&E species expected to occur within Denton County; areas on either side of riparian corridor are mowed grass.

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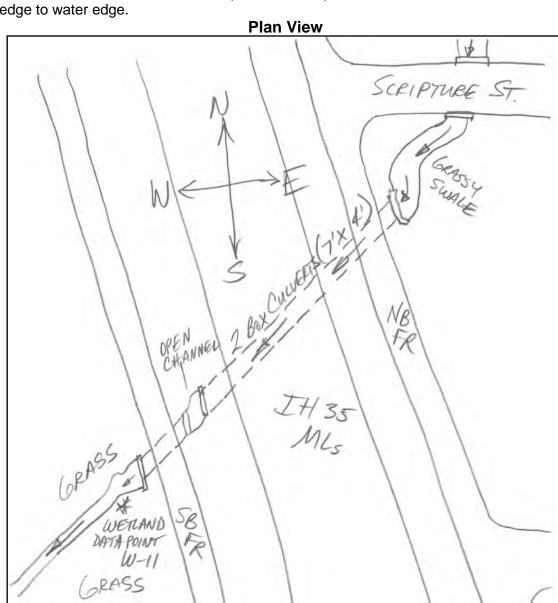
Stream Data Form (continued)

Stream Data Form #: W-11

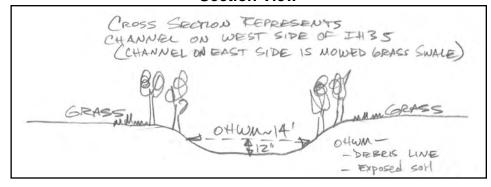
Project Name: IH 35 E: FM 2181 to US 380

CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

Please provide a plan and section view sketch of the stream channel. Sketch should include: directional arrow; width of channel from top of bank to top of bank; and, width of stream from water edge to water edge.



Section View



WETLAND DETERMINATION DATA FORM - Great Plains Region

	City	y/County: <u>Der</u>		Sampling Date: 01/23/2009
Applicant/Owner: TxDOT				State: TX Sampling Point: W-1 (E-IH 35E)
Investigator(s): <u>Griffith/Jaynes</u> Landform (hillslope, terrace, etc.): <u>Terrace</u>		Section, Town	iship, Range	:
				Long: W 97 0' 35.982" Datum: SP 1983
				NWI classification:
Are climatic/hydrologic conditions on the site typic				
Are Vegetation No, Soil No, or Hydrology No sign		-		ormal Circumstances" present? Yes X No
Are Vegetation No, Soil No, or Hydrology No natu	-			ded, explain any answers in Remarks.)
				tions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No <u>X</u>			
	No <u>X</u>		Sampled Are Sample	
No Wetland Hydrology Present? Yes	No <u>X</u>			
Remarks:				
VEGETATION - Use scientific names of	•			
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1				Number of Dominant Species
2.				That Are OBL, FACW, or FAC (excluding FAC –): 0 (A)
3.				Total Niveshay of Dansinaya
4.				Total Number of Dominant Species Across All Strata: 2 (B)
		Total Cover		Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: 0 (A/B)
1				
2.				Prevalence Index worksheet:
3.				OBL species x1 =
4.				
5				FACW species x 2 = FAC species <u>20</u> x 3 = <u>60</u>
		Total Cover	•	FACU species 70 x 4 = 280
Herb Stratum (Plot size: 10'x10'			=. 0	UPL species x 5 =
1. Cynodon dactylon	70%	Yes	FACU+	Column Totals: <u>90</u> (A) <u>340</u> (B)
2. Ambrosia psilostachya	20%	Yes	FAC-	Prevalence Index = B/A = <u>3.7</u>
3.				
4.				Hydrophytic Vegetation Indicators:
5				Dominance Test is >50%
6				Prevalence Index is ≤3.0 ¹
7				Morphological Adaptations ¹ (Provide Supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10.	90%	= Total Cover	. ——	¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)		. 0.0		be present, unless disturbed or problematic.
1. 2.				Hydrophytic Vegetation
9/ Para Cround in Harb Strature 409/		= Total Cover	-	Present? Yes No X_
% Bare Ground in Herb Stratum 10% Remarks:				1
No indicators observed				
		Page 1 of 1	12	

Page 1 of 12

B-2

Depth		scribe to the fatrix	depth needed to		nt the indic Features	ator or	confirm the a	absence of ind	icators.)	
(inches)	Color (moist)		Color (moist)	<u>%</u>		Lot ²	Texture		Remarks	
0-14	10YR 5/3	100					sandy clay			
					· —— ·					
							_			
	· 		-		· -		_			
					· ·		_			
¹ Type:	C-Concentration	D-Depletion	RM=Reduced Matr	iv CS-Co	vered or Co	atad San	nd Grains	² Location:	PL=Pore Lining	M-Matrix
	·		all LRRs, unles			ated Gai			matic Hydric So	•
Histoso		Applicable to		y Gleyed N			iiidik	1 cm Muck (As	•	
_	pipedon (A2)			y Redox (S					Redox (A16) (LR I	R F. G. H)
	listic (A3)			ed Matrix	•			Dark Surface (, -, ,
Hydrog	en Sulfide (A4)		Loam	y Mucky M	lineral (F1)			High Plains De	pressions (F16)	
Stratifie	d Layers (A5) (LF	RR F)	Loam	y Gleyed N	Matrix (F2)			(LRR H outsid	e of MLRA 72 8	· 73)
	uck (A9) (LRR F,			ted Matrix	, ,			Reduced Verti	` '	
	d Below Dark Sui			x Dark Sur				Red Parent Ma		
_	ark Surface (A12)	•			Surface (F7)		3.	Other (Explain		
	Mucky Mineral (s1	•		x Depressi	ions (F8) pressions (F1	IC)	۱۱		ophytic vegetation	
	Mucky Peat or Pe ucky Peat or Peat			-	of LRR H)	16)			ogy must be presed or problematic	
	e Layer (if prese		(IVILI	\A 12 \a 1	OI LIKIK II)			uniess disturbe	d of problematic	•
Type:		J. 11. J.								
• • •							Hydr	ic Soil Presen	t? Yes	No X
	n (inches):									_
Remarks:	ors observed									
NO maicate	ors observed									
HYDROL	OGY									
	lydrology Indica	ators:								
			d: check all that a	pply)			Se	condary Indicate	ors (minimum of	wo required)
•	Water (A1)			Crust (B11)				Surface Soil C	•	-
High W	ater Table (A2)				rates (B13)			Sparsely Vege	tated Concave S	urface (B8)
Saturat			Hydro	gen Sulfid	le Odor (C1)			Drainage Patte	erns (B10)	
Water N	Marks (B1)		Dry-S	eason Wa	ter Table (C	2)		Oxidized Rhize	spheres on Livir	ng Roots (C3)
	nt Deposits (B2)				spheres on L	iving Ro	oots (C3)	(where tilled)		
	posits (B3)			re not tille	•	.		Crayfish Burro		(20)
	at or Crust (B4)				duced Iron (C4)			ble on Aerial Ima	igery (C9)
_	posits (B5) ion Visible on Aer	rial Imagany (P		Muck Surfa	n Remarks)			Geomorphic P FAC-Neutral T		
_	Stained Leaves (B	0, 1	Other	(Explain ii	ii Keiliaiks)				est (D3) ummocks (D7) (I	RR F)
Field Obs	•									
	ater Present?	Yes	No <u>X</u> Dept	h (inches):	:					
Water Table		Yes								
Saturation		Yes	No <u>X</u> Dept	h (inches):		_				
(includes ca	apillary fringe)					V	Vetland Hydro	ology Present	? Yes	No <u>X</u>
Describe R	ecorded Data (str	eam gauge, m	onitoring well, aeria	al photos, p	orevious in s	ections)	, if available:			
Remarks:										
	ors observed									

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City	y/County: <u>Der</u>	ton County		Sampling	Date: 01/23/2009
Applicant/Owner: TxDOT				State: TX	Sampling Po	int: W-2 (E-IH 35E)
Investigator(s): Griffith/Jaynes	;	Section, Town	ship, Range:			
Landform (hillslope, terrace, etc.): Terrace	l	_ocal relief (co	oncave, conve	ex, none): <u>Convex</u>		Slope (%):3%
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3	3' 2.985"		Long: <u>W 97 0'</u> 3	35.592	Datum: <u>SP 1983</u>
Soil Map Unit Name: Gasil fine sandy loam, 1 to	3 percent slopes			NWI classific	cation:	
Are climatic/hydrologic conditions on the site typ	ical for this time o	of year? Yes	X No	(If no, explain in R	emarks.)	
Are Vegetation No, Soil No, or Hydrology No sig	nificantly disturbe	d?	Are "No	rmal Circumstance	s" present?	Yes X No
Are Vegetation No, Soil No, or Hydrology No na	turally problemati	ic?		ed, explain any an		
SUMMARY OF FINDINGS - Attach site			oint locat	ions, transects	, importan	it features, etc.
Hydrophytic Vegetation Present? Yes	s <u>X</u> No _					
Hydric Soil Present? Yes	No <u>X</u>		Sampled Are a Wetland?		No <u>X</u>	;
No Wetland Hydrology Present? Yes	s <u>X</u> No					
Remarks:						
VEGETATION - Use scientific names o	f plants.					
Tree Stratum (Plot size: 30'x30')	Absolute	Dominant	Indicator	Dominance Tes	t worksheet	:
1. Ulmus americana	<u>% Cover</u> - 30	<u>Species?</u> Yes	Status FAC	Number of Domin		
2. Juniperus virginiana		No	FAC-	That Are OBL, FA (excluding FAC –	,	4 (A)
3. Fraxinus pennsylvanica	10	No	FACW-		•	
4	<u> </u>			Total Number of I Species Across A		<u>5</u> (B)
	50%	= Total Cover		Percent of Domin	ant Species	
Sapling/Shrub Stratum (Plot size: 30'x30')				That Are OBL, FA		80 (A/B)
1. <u>Ulmus americana</u>	10%	Yes	FAC			
2. <u>Ligustrum sinense</u>	10%	Yes	UPL	Prevalence Inde Total % Cover		
3.	-				x	
4	<u> </u>			FACW species 1		
5	20%	= Total Cover		FAC species _		
Herb Stratum (Plot size: 10'x10')	20 /6	= Total Cover		FACU species _	x	4 =
1. Cyperus spp.	- 5%	No	FAC	_	<u>0</u> x	
2.	<u>070</u>	110	1710	<u> </u>		A) 295(B)
3.	<u> </u>			Prevalence	Index = B/A =	= 3.1
4.				Hydrophytic Ve	getation Ind	icators:
5	-			X Dominance Te	st is >50%	
6.				Prevalence	e Index is ≤3.0) ¹
7	<u> </u>			Morpholog	ical Adaptatio	ns ¹ (Provide Supporting
8.	<u> </u>					separate sheet)
9	<u> </u>			Problemati	c Hydrophytic	: Vegetation ¹ (Explain)
10.	-			¹ Indicators of hyd	lric soil and w	etland hydrology must
	5	Total Cover		be present, unless		
Woody Vine Stratum (Plot size: 10'x10')	100/		540			
1. Rubus trivialis	<u>10%</u> 10%	Yes Ves	FAC FAC	Hydrophytic		
2. Lonicera japonica	· -	Yes = Total Cover		Vegetation	Van V	Na
% Bare Ground in Herb Stratum 95%	20 /0	- Total Cover		Present?	res <u>X</u>	No
Remarks:						
Herbaceous vegetation generally absent						
		Dogo 2 of 1	2	•		-

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B-2

			depth n	eeded to			cator or	confirm the absence of indicators.)
Depth (inches)	Color (moist)	Matrix) %	Color (moiet)	Redox %	Features Type ¹	Lot ²	Texture Remarks
			COIOI (<u>IIIOISI)</u>		<u>rype</u>	LUL	·
0-10	10YR 5/4	90						sandy loam
			_					
			_					
			- '		-			
			_					-
l ———			_					-
1								21 21 21 21 21 21 21 21 21 21 21 21 21 2
	C=Concentration							<u> </u>
_	il Indicators: ((Applicable to	o ali LRI	•		•		Indicators for Problematic Hydric Soils ³ :
Histosol	pipedon (A2)				y Gleyed N y Redox (S			1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H)
	istic (A3)				oed Matrix			Coast Prairie Redox (ATO) (LRR F, G, H) Dark Surface (S7) (LRR G)
	en Sulfide (A4)					lineral (F1)		High Plains Depressions (F16)
	d Layers (A5) (L	RR F)			ny Gleyed I			(LRR H outside of MLRA 72 & 73)
	uck (A9) (LRR F ,				eted Matrix			Reduced Vertic (F18)
	d Below Dark Su				x Dark Su			Red Parent Material (TF2)
	ark Surface (A12					Surface (F7))	Other (Explain in Remarks)
Sandy N	Mucky Mineral (s	1)			x Depress			3 Indicators of hydrophytic vegetation and
2.5 cm l	Mucky Peat or P	eat (S2) (LRR	G,H)	High	Plains Dep	ressions (F	16)	wetland hydrology must be present,
5 cm Mi	ucky Peat or Pea	at (S3) (LRR F)		(ML	RA 72 & 7	3 of LRR H)	unless disturbed or problematic.
Restrictive	e Layer (if pres	ent):						
Type:				_				
Depth	(inches):							Hydric Soil Present? Yes No \underline{X}
Remarks:	(
	ors observed							
HYDROL	.OGY							
Wetland H	ydrology Indic	ators:						
Primary Ind	icators (minimun	n of one require	ed: checl	k all that a	pply)			Secondary Indicators (minimum of two required)
Surface	Water (A1)			Salt (Crust (B11)			Surface Soil Cracks (B6)
High Wa	ater Table (A2)			Aqua	tic Inverteb	orates (B13))	Sparsely Vegetated Concave Surface (B8)
Saturati	on (A3)					le Odor (C1		Drainage Patterns (B10)
	/larks (B1)					ter Table (C		Oxidized Rhizospheres on Living Roots (C3)
	t Deposits (B2)			_		spheres on	Living Ro	, ,
X Drift Dep					ere not till			Crayfish Burrows (C8)
	at or Crust (B4)					duced Iron	(C4)	Saturation Visible on Aerial Imagery (C9)
	posits (B5)	-:			Muck Surfa	` '		Geomorphic Position (D2)
_	ion Visible on Ae	0, 1	57)	Othe	r (Explain i	n Remarks)		FAC-Neutral Test (D5)
Field Obse	Stained Leaves (I	39)						Frost-Heave hummocks (D7) (LRR F)
	iter Present?	Yes	No <u>X</u>	Den	th (inches)	:		
Water Table		Yes	· <u></u>					
			_	•	, ,			
Saturation F		Yes	No <u>X</u>	Dep	th (inches):	·		
(includes ca	apillary fringe)						V	Vetland Hydrology Present? Yes X No
Describe Re	ecorded Data (st	ream gauge, n	nonitoring	well, aeri	al photos,	previous in	sections)	, if available:
Remarks:								

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City/Cour	nty: Denton County		Sampling Date: <u>01/23/09</u>
Applicant/Owner: TxDOT			State: TX S	ampling Point: W-3 (E-IH 35E)
Investigator(s): Griffith/Jaynes	Section	n, Township, Range:		
Landform (hillslope, terrace, etc.): terrace	Local r	elief (concave, conv	ex, none): none	Slope (%): <u>0</u>
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3' 2.98	5	Long: <u>W 97 0' 35</u>	5.592 Datum:
Soil Map Unit Name: Crockett fine sandy loam, 1				
Are climatic/hydrologic conditions on the site typic	al for this time of year	? Yes x No	(If no, explain in Rer	narks.)
Are Vegetation No, Soil No, or Hydrology No sign		-		'present? Yes X No
Are Vegetation No, Soil No, or Hydrology No natu	rally problematic?		ed, explain any answ	-
SUMMARY OF FINDINGS - Attach site m			ions, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No <u>X</u>			
Hydric Soil Present? Yes	No <u>X</u>	Is the Sampled Ar within a Wetland?		No <u>X</u>
No Wetland Hydrology Present? Yes	No <u>X</u>			
Remarks:				
VEGETATION - Use scientific names of			1	
Tree Stratum (Plot size:)	Absolute Domi <u>% Cover Spec</u>		Dominance Test	worksheet:
1			Number of Dominar That Are OBL, FAC	
2.			(excluding FAC –):	
3.			Total Number of Do	minant
4.			Species Across All	Strata: <u>1</u> (B)
Continuo (Obrash Otrashura (Diataina	= 10ta	al Cover	Percent of Dominar	
Sapling/Shrub Stratum (Plot size:)			That Are OBL, FAC	W, or FAC: <u>0</u> (A/B)
1			Prevalence Index	worksheet:
2			Total % Cover of	f: Multiply by:
4.				x 1 =
5.				x 2 =
	= Tota	al Cover		x 3 =
Herb Stratum (Plot size: 10'x10'				x 4 = <u>380</u>
1. Cynodon dactylon	<u>95% Yes</u>	FACU+		x 5 =
2.				(A) <u>380</u> (B)
3				dex = B/A = 4.0
4.			1	etation Indicators:
5				Test is >50%
6.			Prevalence I	ndex is ≤3.0 ¹
7				al Adaptations ¹ (Provide Supporting
8				rks or on a separate sheet)
9			Problematic	Hydrophytic Vegetation ¹ (Explain)
10.	95% = Tota	al Cover		c soil and wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless	disturbed or problematic.
1				
2.			Hydrophytic Vegetation	
	= Tota	al Cover	•	Yes No X_
% Bare Ground in Herb Stratum 5%				
Remarks: No indicators observed				

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Depth	M			Redox F	- 1 · 2		
inches)	Color (moist)		Color (moist)	<u> </u>	Type ¹ Lot ²	<u>Texture</u>	Remarks
-10	10YR 4/4	100%				sandy loam	
						<u> </u>	
	- ·						
						-	
	-						
T	0.0000000000000000000000000000000000000	D. Danistian DA	A. Dadina d Mate				2) tions Di Dona Linium M Matri
71	oil Indicators: (ered or Coated Sa		² Location: PL=Pore Lining, M=Matrix
Histoso		Applicable to a		Gleyed Ma			ors for Problematic Hydric Soils ³ : cm Muck (A9) (LRR I, J)
	Epipedon (A2)			Redox (S5			oast Prairie Redox (A16) (LRR F, G, H)
	Histic (A3)			ed Matrix (S			ark Surface (S7) (LRR G)
	en Sulfide (A4)			y Mucky Mii			igh Plains Depressions (F16)
	ed Layers (A5) (LF	RR F)		y Gleyed Ma	, ,		RR H outside of MLRA 72 & 73)
	luck (A9) (LRR F,			ted Matrix (R	educed Vertic (F18)
	ed Below Dark Su			Dark Surfa		R	ed Parent Material (TF2)
_ Thick D	Oark Surface (A12))	Deple	ted Dark Su	urface (F7)	_ 0	ther (Explain in Remarks)
Sandy	Mucky Mineral (s1	1)	Redox	Depressio	ons (F8)	³ India	cators of hydrophytic vegetation and
2.5 cm	Mucky Peat or Pe	eat (S2) (LRR G,I	H) High F	Plains Depre	essions (F16)	We	etland hydrology must be present,
_ 5 cm M	lucky Peat or Peat	t (S3) (LRR F)	(MLR	A 72 & 73	of LRR H)	ur	nless disturbed or problematic.
lestrictiv	e Layer (if prese	ent):					
Type	:						
	: h (inches):					Hydric	Soil Present? Yes No X
Depth Remarks:						Hydric	Soil Present? Yes No X
Deptl Remarks: No indicate	n (inches):					Hydric	Soil Present? Yes No X
Depth Remarks: No indicate	ors observed	atore:				Hydric	Soil Present? Yes No X
Depth Remarks: No indicate HYDROI Wetland H	ors observed LOGY Hydrology Indica		check all that ar	only)			
Depth Remarks: No indicate HYDROI Wetland H	h (inches): ors observed LOGY Hydrology Indications (minimum					Secon	ndary Indicators (minimum of two require
Depth Remarks: No indicate HYDROI Wetland F Primary Ind Surface	cors observed LOGY Hydrology Indicaticators (minimum of Water (A1)		Salt C	rust (B11)	rates (B13)	<u>Secor</u> S	ndary Indicators (minimum of two require
Depth Remarks: No indicate HYDROI Wetland F Primary Inc. Surface High W	LOGY Hydrology Indications (minimum of Water (A1) Vater Table (A2)		Salt C Aquat	rust (B11) ic Invertebra		<u>Secor</u> Si S	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8)
Depth Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W Saturat	LOGY Hydrology Indications (Minimum et Water (A1) Vater Table (A2) vicion (A3)		Salt C Aquat Hydro	rust (B11) ic Invertebragen Sulfide	e Odor (C1)	Secor Si Si D	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I	LOGY Hydrology Indications (Minimum et Water (A1) Vater Table (A2) ion (A3) Marks (B1)		Salt C Aquat Hydro Dry-S	rust (B11) ic Invertebragen Sulfide eason Wate	e Odor (C1) er Table (C2)	Secor Si D O	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime	LOGY Hydrology Indications (Minimum et Water (A1) Vater Table (A2) vicion (A3)		Salt C Aquat Hydro Dry-S Oxidiz	rust (B11) ic Invertebragen Sulfide eason Wate	e Odor (C1) er Table (C2) oheres on Living R	Secor Si Si D O	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (C
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De	LOGY Hydrology Indicaticators (minimum e Water (A1) Vater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		Salt C Aquat Hydro Dry-S Oxidiz (whe	rust (B11) ic Invertebra gen Sulfide eason Wate ted Rhizosp re not tilled	e Odor (C1) er Table (C2) oheres on Living R	Secor — Si — Si — D — O coots (C3) (w	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M	LOGY Hydrology Indications (Marks (B1)) ent Deposits (B3)		Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M	rust (B11) ic Invertebra gen Sulfide eason Wate ed Rhizosp re not tilled nce of Redu fluck Surface	e Odor (C1) er Table (C2) pheres on Living R d) uced Iron (C4) be (C7)	Secor — Si — Si — Di — O (w — Ci — Si	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De	LOGY Hydrology Indication (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	of one required:	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M	rust (B11) ic Invertebra gen Sulfide eason Wate ed Rhizosp re not tilled nce of Redu	e Odor (C1) er Table (C2) pheres on Living R d) uced Iron (C4) be (C7)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundate	LOGY Hydrology Indication (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5)	of one required:	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M	rust (B11) ic Invertebra gen Sulfide eason Wate ed Rhizosp re not tilled nce of Redu fluck Surface	e Odor (C1) er Table (C2) pheres on Living R d) uced Iron (C4) be (C7)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S	LOGY Hydrology Indications (Marks (B1)) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aer	of one required:	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M	rust (B11) ic Invertebr. gen Sulfide eason Wate ed Rhizosp re not tiller nce of Redu fluck Surfac (Explain in	e Odor (C1) er Table (C2) cheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5)
Depth Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S Field Obs	h (inches):	rial Imagery (B7)	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M	rust (B11) ic Invertebr. gen Sulfide eason Wate ed Rhizosp re not tiller nce of Redu fluck Surfac (Explain in	e Odor (C1) er Table (C2) pheres on Living R d) uced Iron (C4) be (C7)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8) rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5)
Depth Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S Field Obs	LOGY Hydrology Indications (Marks (Ma	rial Imagery (B7)	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin N Other	rust (B11) ic Invertebra gen Sulfide eason Wate ead Rhizosp re not tilled nuce of Redu fluck Surfac (Explain in	e Odor (C1) er Table (C2) cheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5)
Depth Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W Saturat Water I Sedime Drift De Inundat Water-S Field Obs Surface Water Table	LOGY Hydrology Indications (Marks (Ma	rial Imagery (B7) 39) Yes No	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin N Other	rust (B11) ic Invertebri gen Sulfide eason Wate led Rhizosp re not tilled nuce of Redu fluck Surfact (Explain in	e Odor (C1) er Table (C2) bheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5)
Depth Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S Field Obs Surface Water Tabl Saturation	LOGY Hydrology Indications (Marks (Ma	rial Imagery (B7) 89) Yes No	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin N Other	rust (B11) ic Invertebri gen Sulfide eason Wate led Rhizosp re not tilled nuce of Redu fluck Surfact (Explain in	e Odor (C1) er Table (C2) cheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor — Si — Si — Di — O (w — Ci — Si — G — G — Fi	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5) rost-Heave hummocks (D7) (LRR F)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Inundat Water-S Field Obs Surface Water Tabl Saturation (includes care	LOGY Hydrology Indications (Marks (Ma	rial Imagery (B7) 99) Yes No Yes No Yes No	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M Other o X Depti	rust (B11) ic Invertebri gen Sulfide eason Wate ed Rhizosp re not tilled nice of Redu fluck Surfac (Explain in in (inches): in (inches):	e Odor (C1) er Table (C2) cheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor Si	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5) rost-Heave hummocks (D7) (LRR F)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Inundat Water-S Field Obs Surface Water Tabl Saturation includes ca	LOGY Hydrology Indications (Marks (Ma	rial Imagery (B7) 89) Yes No Yes No Yes No	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M Other o X Depti	rust (B11) ic Invertebri gen Sulfide eason Wate ed Rhizosp re not tilled nice of Redu fluck Surfac (Explain in in (inches): in (inches):	e Odor (C1) er Table (C2) oheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor Si	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5) rost-Heave hummocks (D7) (LRR F)
Depth Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime Drift De Inundat Water-S Field Obs Surface Water Tabl Saturation includes ca	LOGY Hydrology Indications (Marks (Ma	rial Imagery (B7) 89) Yes No Yes No Yes No	Salt C Aquat Hydro Dry-S Oxidiz (whe Prese Thin M Other o X Depti	rust (B11) ic Invertebri gen Sulfide eason Wate ed Rhizosp re not tilled nice of Redu fluck Surfac (Explain in in (inches): in (inches):	e Odor (C1) er Table (C2) oheres on Living R d) uced Iron (C4) ce (C7) Remarks)	Secor Si	ndary Indicators (minimum of two require urface Soil Cracks (B6) parsely Vegetated Concave Surface (B8 rainage Patterns (B10) xidized Rhizospheres on Living Roots (Cyhere tilled) rayfish Burrows (C8) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) AC-Neutral Test (D5) rost-Heave hummocks (D7) (LRR F)

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City	//County: Den	ton County		Sampling	Date: 01/23/09
Applicant/Owner: TxDOT				State: TX	Sampling Po	oint: <u>W-4 (E-IH 35E)</u>
Investigator(s): Griffith/Jaynes		Section, Town	ship, Range:			
Landform (hillslope, terrace, etc.): valley	L	ocal relief (co	ncave, conv	ex, none): concave)	Slope (%): <u>2</u>
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3	' 2.985"		Long: <u>W 97 0'</u>	35.592"	Datum: SP 1983
Soil Map Unit Name: Wilson clay loam, 1 to 3 per						
Are climatic/hydrologic conditions on the site typic						
Are Vegetation No, Soil No, or Hydrology No sign		•		rmal Circumstance		Yes X No
Are Vegetation No, Soil No, or Hydrology No natu	-			ed, explain any an		-
SUMMARY OF FINDINGS - Attach site m			,			,
Hydrophytic Vegetation Present? Yes	No <u>X</u>					
<u> </u>	No <u>X</u>		Sampled Are a Wetland?		No <u>></u>	<u><</u>
No Wetland Hydrology Present? Yes	<u>X</u> No					
Remarks: Site altered due to nearby construction and	local drainage is	not considered	I native			
VEGETATION - Use scientific names of	•					
Tree Stratum (Plot size: 30'x30'	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Tes	it workshee	t:
1. <u>Salix nigra</u>		Yes	FACW+	Number of Domir That Are OBL, FA		
2. <u>Ulmus americana</u>	30%	Yes	FAC	(excluding FAC –		<u>5</u> (A)
3.				Total Number of I	Dominant	
4				Species Across A		<u>8</u> (B)
	60%	Total Cover		Percent of Domin		
Sapling/Shrub Stratum (Plot size: 30'x30'	000/	.,		That Are OBL, FA	ACW, or FAC:	62.5 (A/B)
1. Celtis laevigata		Yes	FAC	Prevalence Inde	ev worksho	at·
2. <u>Salix nigra</u> 3. <i>Ulmus americana</i>		Yes Ves	FACW+ FAC	Total % Cove		
o	20 /0	Yes	IAC	OBL species _	;	< 1 =
5				FACW species 5	<u>i0</u> >	(2 = <u>100</u>
J	60%	= Total Cover		FAC species 7	<u>'0</u>	(3 = <u>210</u>
Herb Stratum (Plot size: 10'x10'				FACU species _		
1. Sorghum halepense	40%	Yes	FACU	-	90)	
2. Cynodon dactylon	40%	Yes	FACU+	Column Totals: 2	<u>110</u> ((A) <u>760</u> (B)
3.				Prevalence	Index = B/A	= 3.61
4.				Hydrophytic Ve	getation Inc	dicators:
5				Dominance	e Test is >50°	%
6.				Prevalence	e Index is ≤3.	0 ¹
7						ons ¹ (Provide Supporting
8						separate sheet)
9				Problemat	ic Hydrophyti	c Vegetation ¹ (Explain)
10	80%	= Total Cover				etland hydrology must
Woody Vine Stratum (Plot size: 10'x10')	00 /0	- Total Cover		be present, unles	s disturbed o	r problematic.
1. Toxicodendron radicans	10%	Yes	FACU			
2.				Hydrophytic		
	10%	Total Cover		Vegetation Present?	Yes	No X
% Bare Ground in Herb Stratum 20%						<u>/.</u>
Remarks:			· <u> </u>			
No indicators observed						

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SOIL

Depth nches)	Color (moist)	%	Color ((moist)	<u>%</u>	Type ¹	Lot ²	Texture			Remarks	
10	10YR 4/3	95						sandy clay				
										-		
					• •					_		
					·							
 Гуре: С:	=Concentration, [— ————————————————————————————————————		duced Mati	rix CS-Co	vered or Co	ated San	d Grains	<u>2</u> 1	ocation:	PL=Pore Lin	ng M-Matr
	Indicators: (A	•	<u> </u>								natic Hydric	
Histosol	•	pp		,	y Gleyed M	,				Muck (A9)	-	
•	pipedon (A2)				y Redox (S	, ,					edox (A16) (L	RR F, G, H)
Black His					oed Matrix (•		•			7) (LRR G)	, - , ,
	n Sulfide (A4)				ny Mucky M			·			ressions (F1	6)
Stratified	Layers (A5) (LR I	R F)		Loam	y Gleyed N	/latrix (F2)			(LRR	H outside	of MLRA 72	& 73)
	ck (A9) (LRR F, C				eted Matrix				Redu	ced Vertic	(F18)	
Depleted	Below Dark Surf	ace (A11)		Redo	x Dark Sur	face (F6)			Red	Parent Mat	erial (TF2)	
Thick Da	ark Surface (A12)			Deple	eted Dark S	Surface (F7)			Othe	r (Explain i	n Remarks)	
Sandy M	lucky Mineral (s1)			Redo	x Depressi	ons (F8)			³ Indicate	ors of hydro	phytic vegeta	ation and
2.5 cm M	lucky Peat or Pea	t (S2) (LRF	R G,H)	High	Plains Dep	ressions (F	16)		wetla	nd hydrolo	gy must be p	resent,
5 cm Mu	cky Peat or Peat	(S3) (LRR F	F)	(MLI	RA 72 & 73	of LRR H)			unles	s disturbed	d or problema	tic.
strictive	Layer (if presen	nt):										
Type: _												
				_				Ну	dric So	il Present	? Yes	No X
	(inches):			<u> </u>				Ну	dric Soi	il Present	? Yes	No <u>X</u>
Depth emarks:	(inches):							Ну	dric So	il Present	? Yes	_ No <u>X</u>
Depth emarks:	(inches):	ors:		_				Ну	dric So	il Present	? Yes	_ No <u>X</u>
Depth emarks:	OGY vdrology Indica		ired, chec	k all that a	pply)							
Depth emarks: YDROLO etland Hy imary India	OGY ydrology Indicacators (minimum o		ired: chec						Seconda	ry Indicator	s (minimum o	
Depth emarks: YDROLO etland Hy imary Indic Surface N	OGY ydrology Indicacators (minimum owater (A1)		ired: chec	Salt 0	Crust (B11)				Seconda Surfa	ry Indicator ace Soil Cra	s (minimum o	of two requir
Depth emarks: YDROLO etland Hy imary India Surface N High Wat	OGY ydrology Indicacators (minimum owater (A1) ter Table (A2)		ired: chec	Salt (Crust (B11) tic Inverteb	rates (B13)			Seconda Surfa Spar	ry Indicator ace Soil Cra sely Vegeta	s (minimum o acks (B6) ated Concave	of two requir
Depth emarks: YDROLO etland Hy imary India Surface N High Wat Saturatio	OGY ydrology Indicacators (minimum of Water (A1) ter Table (A2) on (A3)		ired: chec	Salt (Aqua Hydro	Crust (B11) tic Inverteb ogen Sulfid	rates (B13) e Odor (C1))		Seconda Surfa Spar Drair	ry Indicator ace Soil Cra sely Vegeta age Patter	s (minimum o acks (B6) ated Concave ns (B10)	of two requir
Depth emarks: YDROLO etland Hy imary India Surface V High Wat Saturatio Water Ma	OGY vdrology Indicacators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		ired: chec	Salt (Aqua Hydro Dry-S	Crust (B11) tic Inverteb ogen Sulfid Season Wat	rates (B13) e Odor (C1) ter Table (C) (2)		Seconda Surfa Spar Drair Oxidi	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos	s (minimum o acks (B6) ated Concave	of two requir
POPUTATION OF THE PROPERTY OF	OGY vdrology Indicarcators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)		ired: chec	Salt (Aqua Hydro Dry-S Oxidi	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos	rates (B13) e Odor (C1) ter Table (C pheres on I) (2)		Seconda Surfa Spar Drair Oxidi (whe	ry Indicator ace Soil Cra sely Vegeta age Patter	es (minimum d acks (B6) ated Concave ns (B10) spheres on Li	of two requir
POPUTATION OF THE PROPERTY OF	OGY vdrology Indicated actors (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B2) osits (B3)		ired: chec	Salt (Aqua Hydro Dry-S Oxidi (whe	Crust (B11) tic Invertebogen Sulfide Geason Water zed Rhizosere not tille	rates (B13) e Odor (C1) ter Table (C pheres on I) :2) _iving Ro		Seconda Surfa Spar Drair Oxidi (whe Cray	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow	es (minimum d acks (B6) ated Concave ns (B10) spheres on Li	of two requires Surface (Boving Roots (
POPUTATION OF THE POPUTATION O	OGY vdrology Indicarcators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)		ired: chec	Salt (Aqua Hydro Dry-S Oxidi (whe Prese	Crust (B11) tic Invertebogen Sulfide Geason Water zed Rhizosere not tille	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron () :2) _iving Ro		Seconda Surfa Spar Drair Oxidi (whe Cray Satu	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow	es (minimum dacks (B6) ated Concave ns (B10) spheres on Li es (C8) le on Aerial II	of two requires Surface (Boving Roots (
Pepth emarks: YDROLO YDROLO Yetland Hy imary Indio Surface V High War Saturatio Water Ma Sedimen Drift Depo Algal Ma Iron Depo	OGY Varology Indicate Cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B2) osits (B3) at or Crust (B4) osits (B5)	of one requi		Salt (Aqua Hydro Dry-S Oxidi (who	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron () :2) _iving Ro		Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow ration Visib	es (minimum of acks (B6) ated Concave on s (B10) spheres on Lives (C8) le on Aerial II sition (D2)	of two requires Surface (Boving Roots (
POPUTATION OF THE POPUTATION O	OGY vdrology Indicated actors (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B2) osits (B3) at or Crust (B4)	of one requi		Salt (Aqua Hydro Dry-S Oxidi (who	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron (ice (C7)) :2) _iving Ro		Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po	es (minimum of acks (B6) ated Concave on s (B10) spheres on Lives (C8) le on Aerial II sition (D2)	of two requires Surface (Boundary (C9)
POPUTATION OF THE POPUTATION O	OGY ydrology Indicat cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aeria	of one requi		Salt (Aqua Hydro Dry-S Oxidi (who	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron (ice (C7)) :2) _iving Ro		Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po	es (minimum of acks (B6) ated Concave ns (B10) spheres on Lives (C8) le on Aerial Institution (D2) st (D5)	of two requires Surface (Boundary (C9)
Popth emarks: YDROLO etland Hy imary Indice Surface Volume High Water May Saturatio Water May Sedimen Drift Depo Algal May Iron Depo Inundation Water-Steld Observed	OGY vdrology Indicated cators (minimum of Water (A1)) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aeriatained Leaves (B5) rvations:	of one requi	B7)	Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid season Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron (ice (C7)) (2) Living Ro		Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po	es (minimum of acks (B6) ated Concave ns (B10) spheres on Lives (C8) le on Aerial Institution (D2) st (D5)	of two requires Surface (Boundary (C9)
POPUTATION OF THE POPUTATION O	OGY Varology Indicated Cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B3) arks (B3) arks (B4) osits (B3) arks (B5) on Visible on Aericatined Leaves (B5) rvations: ver Present?	of one requi	B7) No <u>X</u>	Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron (ice (C7) in Remarks)) :2) Living Ro		Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po	es (minimum of acks (B6) ated Concave ns (B10) spheres on Lives (C8) le on Aerial Institution (D2) st (D5)	of two requires Surface (Boundary (C9)
Depth emarks: YDROLO etland Hy imary Indica Surface Value High Water Ma Sedimen Drift Depo Algal Ma Iron Depo Inundatica Water-St eld Observator Table	OGY ydrology Indicat cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aeria tained Leaves (B5) rvations: ter Present? Present?	of one requi	B7) No <u>X</u> No <u>X</u>	Salt (Aqua Hydro Dry-S Oxidi (who Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid Beason Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron (ice (C7) in Remarks)) c2) Living Ro C4)		Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor	ry Indicator ace Soil Cra sely Vegeta age Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po	es (minimum of acks (B6) ated Concave ns (B10) spheres on Lives (C8) le on Aerial Institution (D2) st (D5)	of two requires Surface (Boundary (C9)
Depth emarks: YDROLO etland Hy imary Indio Surface V High Water Ma Sedimen Drift Depo Algal Ma Iron Depo Inundatio Water-St eld Obser atter Table attration P	OGY ydrology Indicat cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aeria tained Leaves (B5) rvations: ter Present? Present?	of one requi	B7) No <u>X</u> No <u>X</u>	Salt (Aqua Hydro Dry-S Oxidi (who Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid Beason Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir	rates (B13) e Odor (C1) ter Table (C pheres on I ed) duced Iron (ice (C7) in Remarks)) C2) Living Ro	ots (C3)	Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor FAC-	ry Indicator ace Soil Cra sely Vegeta nage Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po Neutral Te t-Heave hur	s (minimum of acks (B6) ated Concave on Line (B10) spheres on Line (C8) le on Aerial lusition (D2) st (D5) mmocks (D7)	of two requires Surface (Bright Surface) (Bright Surface) (C9)
Depth emarks: YDROLO Yetland Hy rimary Indic Surface V High War Saturatio Water Ma Sedimen Drift Depo Algal Mar Iron Depo Inundatic Water-St ield Observator Vater Table atturation Pencludes cap	OGY ydrology Indicated cators (minimum of Water (A1)) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aeriatained Leaves (B5) rvations: er Present? Present?	of one requi	(B7) No <u>X</u> No <u>X</u> No <u>X</u>	Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir th (inches): th (inches):	rates (B13) e Odor (C1) ter Table (C) pheres on I ed) duced Iron (ice (C7) in Remarks)) C2) Living Ro C4)	ots (C3)	Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor FAC- Frost	ry Indicator ace Soil Cra sely Vegeta nage Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po Neutral Te t-Heave hur	s (minimum of acks (B6) ated Concave on Line (B10) spheres on Line (C8) le on Aerial lusition (D2) st (D5) mmocks (D7)	of two requires Surface (Boundary (C9)
Depth emarks: YDROLO YDROLO Yetland Hy imary Indic Surface V High War Saturatio Water Ma Sedimen Drift Depo Algal Ma Iron Depo Inundatic Water-St eld Observation Periodudes cap	OGY ydrology Indicate cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B3) arks (B3) arks (B5) on Visible on Aericatined Leaves (B5) on Visible on Aericatined Leaves (B5) arks (B5) on Present? Present?	of one requi	(B7) No <u>X</u> No <u>X</u> No <u>X</u>	Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir th (inches): th (inches):	rates (B13) e Odor (C1) ter Table (C) pheres on I ed) duced Iron (ice (C7) in Remarks)) C2) Living Ro C4)	ots (C3)	Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor FAC- Frost	ry Indicator ace Soil Cra sely Vegeta nage Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po Neutral Te t-Heave hur	s (minimum of acks (B6) ated Concave on Line (B10) spheres on Line (C8) le on Aerial lusition (D2) st (D5) mmocks (D7)	of two requires Surface (Bright Surface) (Bright Surface) (C9)
Depth emarks: YDROLO etland Hy imary Indice Surface Valuation Water May Sedimen Drift Deponent Algal May Iron Deponent Iron De	OGY ydrology Indicate cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) arks (B3) arks (B3) arks (B5) on Visible on Aericatined Leaves (B5) on Visible on Aericatined Leaves (B5) arks (B5) on Present? Present?	of one requi	(B7) No <u>X</u> No <u>X</u> No <u>X</u>	Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin Other	Crust (B11) tic Inverteb ogen Sulfid Season Wat zed Rhizos ere not tille ence of Rec Muck Surfa r (Explain ir th (inches): th (inches):	rates (B13) e Odor (C1) ter Table (C) pheres on I ed) duced Iron (ice (C7) in Remarks)) C2) Living Ro C4)	ots (C3)	Seconda Surfa Spar Drair Oxidi (whe Cray Satu Geor FAC- Frost	ry Indicator ace Soil Cra sely Vegeta nage Patter ized Rhizos re tilled) fish Burrow ration Visib morphic Po Neutral Te t-Heave hur	s (minimum of acks (B6) ated Concave on Line (B10) spheres on Line (C8) le on Aerial lusition (D2) st (D5) mmocks (D7)	of two requires Surface (Bright Surface) (Bright Surface) (C9)

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City/	County: Denton County	Sampling Date: 01/23/09	_
Applicant/Owner: <u>TxDOT</u>			State: TX Sampling Point: W-5 (E-IH 35E)	L
Investigator(s): Griffith/Jaynes	Se	ection, Township, Range:		_
Landform (hillslope, terrace, etc.): Valley	Lo	ocal relief (concave, conv	ex, none): none Slope (%):3	
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3'	2.985"	Long: <u>W 97 0' 35.592"</u> Datum: <u>SP 1983</u>	3
Soil Map Unit Name: Gasil fine sandy loam, 1 to	3 percent slopes		NWI classification:	_
Are climatic/hydrologic conditions on the site type	oical for this time of	year? Yes X No	(If no, explain in Remarks.)	
Are Vegetation No, Soil No, or Hydrology No sig	gnificantly disturbed	? Are "No	rmal Circumstances" present? Yes X No	
Are Vegetation No, Soil No, or Hydrology No na	aturally problematic?	(If need	ed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site	map showing s	ampling point locat	ions, transects, important features, etc.	
Hydrophytic Vegetation Present? Ye	es X No	Is the Sampled Are		
	es No <u>X</u>	within a Wetland?		
No Wetland Hydrology Present? Ye	es <u>No X</u>			
Remarks:				
VEGETATION - Use scientific names of	•		I	
Tree Stratum (Plot size: 30'x30'		Dominant Indicator Species? Status	Dominance Test worksheet:	
1. Fraxinus pennsylvanica	<u>40</u>	es <u>FACW-</u>	Number of Dominant Species That Are OBL, FACW, or FAC	
2. <u>Celtis laevigata</u>		es <u>FAC</u>	(excluding FAC –): $\underline{4}$ (A)	
3. <u>Ulmus crassifolia</u>	<u>30 Y</u>	es <u>FAC</u>	Total Number of Dominant	
4		Total Cover	Species Across All Strata: 4 (B)	
Sapling/Shrub Stratum (Plot size:)	<u>100</u> =	rotal Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B	٥١
			That Are OBL, FACW, or FAC: 100 (A/B	')
1. 2.			Prevalence Index worksheet:	
3.			Total % Cover of: Multiply by:	
4			OBL species x 1 =	
5			FACW species $\underline{40}$ $\times 2 = \underline{80}$	
	=	Total Cover	FAC species 70 $\times 3 = 210$	
Herb Stratum (Plot size: 10'x10'			FACU species x 4 =	
1. Chasmanthium latifolium	<5% <u>N</u>	o FAC	UPL species x 5 =	
2.			Column Totals: <u>110</u> (A) <u>290</u> (B) Prevalence Index = B/A = <u>2.6</u>	
3.	-			
4.	-		Hydrophytic Vegetation Indicators:	
5			X Dominance Test is >50%	
6.			Prevalence Index is ≤3.0¹	
7.			Morphological Adaptations ¹ (Provide Suppor data in Remarks or on a separate sheet)	ting
8			Problematic Hydrophytic Vegetation ¹ (Explain	n)
10.			i Toblematic Hydrophytic Vegetation (Explai	'')
	<5% =	Total Cover	¹ Indicators of hydric soil and wetland hydrology mu be present, unless disturbed or problematic.	st
Woody Vine Stratum (Plot size: 10'x10')			be present, unless disturbed of problematic.	
1. Smilax bona-nox	<u>5</u> <u>Y</u>	<u>fac</u>	Undrankutia	
2.			Hydrophytic Vegetation	
	<u>5</u> =	Total Cover	Present? Yes X No	
% Bare Ground in Herb Stratum 95				
Remarks: Herbaceous vegetation generally absent				
rierbaceous vegetation generally absent		5 - (10		

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Sampling Point: W-5 (E-side IH 35E)

B-2

c	\sim	п	

			depth needed			cator or	r confirm the absence of indicators.)
Depth (inches)	Mat Color (moist)	<u>%</u>	Color (moist)	Redox %	Features Type ¹	Lot ²	- Texture Remarks
0-14	10YR 5/8	95	Color (Illoist)		туре	LUI	clayey sand
0-14	10113/0	90					
	-				- ——		-
							-
							<u>. </u>
	•	_					<u> </u>
	-		-		- ——		
1 Turner C	· Concentration D	Danlatian	OM Dadward M				
	C=Concentration, D:						<u> </u>
Histosol	I Indicators: (Ap	plicable to	•	ndy Gleyed N	•		Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J)
	oipedon (A2)			ndy Gleyed i ndy Redox (S			Coast Prairie Redox (A16) (LRR F, G, H)
	stic (A3)			ipped Matrix			Coast Plane Redox (ATO) (ERRT, G, H) Dark Surface (S7) (LRR G)
	en Sulfide (A4)			amy Mucky N			High Plains Depressions (F16)
	d Layers (A5) (LRR	F)		amy Gleyed I			(LRR H outside of MLRA 72 & 73)
	ıck (A9) (LRR F, G ,			pleted Matrix			Reduced Vertic (F18)
Depleted	d Below Dark Surfa	ce (A11)	Re	dox Dark Su	rface (F6)		Red Parent Material (TF2)
Thick Da	ark Surface (A12)		De	pleted Dark	Surface (F7))	Other (Explain in Remarks)
Sandy N	Mucky Mineral (s1)		Re	dox Depress	ions (F8)		³ Indicators of hydrophytic vegetation and
	Mucky Peat or Peat		5,H) Hi	gh Plains Dep	oressions (F	16)	wetland hydrology must be present,
	ucky Peat or Peat (S		(N	ILRA 72 & 7	3 of LRR H)	unless disturbed or problematic.
Restrictive	Layer (if presen	t):					
Type:							
Depth	(inches):						Hydric Soil Present? Yes No X
Remarks:							
No indicato	rs observed						
HYDROL	.OGY						
Wetland H	ydrology Indicate	ors:					
Primary Indi	icators (minimum of	one require	d: check all tha	t apply)			Secondary Indicators (minimum of two required
_	Water (A1)			It Crust (B11)			Surface Soil Cracks (B6)
_ ~	ater Table (A2)			uatic Invertel	` '		Sparsely Vegetated Concave Surface (B8)
Saturation	` '			drogen Sulfic			X Drainage Patterns (B10)
_	larks (B1)			/-Season Wa			Oxidized Rhizospheres on Living Roots (C3
	nt Deposits (B2)			idized Rhizo	•	Living Ro	
	oosits (B3) at or Crust (B4)			here not till esence of Re		(C4)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
	oosits (B5)			in Muck Surf		(04)	Geomorphic Position (D2)
	on Visible on Aerial	Imagery (B		ner (Explain i	, ,		FAC-Neutral Test (D5)
_	tained Leaves (B9)	inagory (D		ioi (Explaiii)	n rtomanto,		Frost-Heave hummocks (D7) (LRR F)
Field Obse	,						
		'es	No X Do	epth (inches)	:		
Water Table		es		epth (inches)			
Saturation F		es	_	epth (inches)			
			110 <u>x</u>	spui (iiiciies)	•		
(includes ca	pillary fringe)					V	Wetland Hydrology Present? Yes No X
Describe Re	ecorded Data (strea	m gauge, m	onitoring well, a	erial photos,	previous in	sections)), if available:
Remarks:							

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City	/County: Den	ton County	Sampling Date: 01/23/09			
Applicant/Owner: TxDOT	State: TX Sampling Point: W-6a (W-IH 35E)						
Investigator(s): Griffith/Jaynes Section, Township, Range:							
Landform (hillslope, terrace, etc.): terrace	L	ocal relief (co	ncave, conve	ex, none): None Slope (%):0			
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3'	2.985"		Long: W 97 0' 35.592" Datum: SP 1983			
Soil Map Unit Name: Callisburg fine sandy loam 1	to 3 percent slop	pes		NWI classification:			
Are climatic/hydrologic conditions on the site typic							
Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation No, Soil No, or Hydrology No natu	rally problematic	?	(If neede	ed, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site m	nap showing s	sampling p	oint locati	ons, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes	<u>X</u> No	_	Compled Are				
	No <u>X</u>		Sampled Are a Wetland?	Yes No X			
	No <u>X</u>						
Remarks: sampling point adjacent to beaver pond ups	stream of IH-35E c	ulvert					
VEGETATION - Use scientific names of	plants. Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size:)	% Cover	Species?	Status				
1				Number of Dominant Species That Are OBL, FACW, or FAC			
2				(excluding FAC –): $\underline{4}$ (A)			
3.				Total Number of Dominant			
4		Total Cover		Species Across All Strata: 6 (B)			
Sapling/Shrub Stratum (Plot size: 20'x20')		- Total Govol		Percent of Dominant Species That Are OBL, FACW, or FAC: 66% (A/B)			
1. Salix nigra	30	⁄es	FACW+	(**=)			
2. Prunus mexicana	20	⁄es	NI*	Prevalence Index worksheet:			
3. Baccarhis neglecta	<u>10 N</u>	No	FAC	Total % Cover of: Multiply by:			
4.				OBL species x 1 =			
5				FACW species 30			
	60% =	Total Cover		FACU species $\frac{40}{100}$ $x = \frac{40}{100}$			
Herb Stratum (Plot size: 10'x10'				UPL species x 5 =			
1. Chasmanthium latifolium 2 Solidago altissima			FACU	Column Totals: <u>180</u> (A) <u>550</u> (B)			
2			FACU	Prevalence Index = B/A = 3.05			
<u> </u>	20	163	1,400	Hydrophytic Vegetation Indicators:			
5				X Dominance Test is >50%			
6.				Prevalence Index is ≤3.0 ¹			
7				Morphological Adaptations ¹ (Provide Supporting			
8.				data in Remarks or on a separate sheet)			
9.				Problematic Hydrophytic Vegetation ¹ (Explain)			
10.				1 Indicators of hydric call and watland hydrology must			
	100% =	Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
Woody Vine Stratum (Plot size: 10'x10')		.,					
1. Rubus trivialis	20	Yes	FAC	Hydrophytic			
2	20% =	Total Cover		Vegetation			
% Bare Ground in Herb Stratum 0%	20 /0 -	- Total Oovel		Present? Yes X No			
Remarks:							
* - FAC indcator assumed for Prunus mexicana							

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nches) -14		%	Color (moist)	%	Features Type ¹	Lot ²	Texture	Remarks
-14	Color (moist) 10YR 5/8	100	Color (IIIolst)		туре	LOI	sandy clay	Kemarks
	10110 3/0	100	-				Salidy Clay	
				_				
			_					
								2.
			, RM=Reduced M					² Location: PL=Pore Lining, M=Matrix
Histosol	•	Applicable	to all LRRs, unl	ess otnerwis ndy Gleyed M				tors for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J)
-	oipedon (A2)			ndy Gleyed IV ndy Redox (S				Coast Prairie Redox (A16) (LRR F, G, H)
Black His	. , ,			ipped Matrix (·	Dark Surface (S7) (LRR G)
	n Sulfide (A4)		· —	amy Mucky M				High Plains Depressions (F16)
	d Layers (A5) (LR	R F)	· —	amy Gleyed N			· · · · · · · · · · · · · · · · · · ·	LRR H outside of MLRA 72 & 73)
	ick (A9) (LRR F, (pleted Matrix			•	Reduced Vertic (F18)
	d Below Dark Sur			dox Dark Sur	. ,			Red Parent Material (TF2)
	ark Surface (A12)			pleted Dark S			_	Other (Explain in Remarks)
Sandy M	lucky Mineral (s1))	Re	dox Depressi	ons (F8)		3 Ind	licators of hydrophytic vegetation and
2.5 cm N	Mucky Peat or Pea	at (S2) (LRR	G,H) Hig	h Plains Dep	ressions (F	16)	v	vetland hydrology must be present,
5 cm Mu	icky Peat or Peat	(S3) (LRR F	·) (N	LRA 72 & 73	of LRR H)		ι	unless disturbed or problematic.
estrictive	Layer (if prese	nt):						
Type:								
Depth	(inches):						Hydric	Soil Present? Yes No X
emarks:	()							
VDDAL	$\alpha \alpha \nu$							
YDROL		tore:						
etland Hy	ydrology Indica		rod: chock all tha	t apply)			Sacr	andary Indicators (minimum of two require
etland Hy rimary Indi	ydrology Indica cators (minimum		red: check all tha					•
etland Hyrimary Indic Surface	ydrology Indica cators (minimum Water (A1)		Sa	t Crust (B11)			_	Surface Soil Cracks (B6)
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WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	Ci	ty/County: Denton County	Sampling Date: 01/23/09			
Applicant/Owner: TxDOT			State: TX Sampling Point: W-6b (W-IH 35E)			
Investigator(s): Griffith/Jaynes		Section, Township, Range:				
Landform (hillslope, terrace, etc.): terrace		Local relief (concave, conv	vex, none): Concave Slope (%):0			
Subregion (LRR): Southwestern Prairies (J)	Lat: <u>N 33</u>	3' 2.985"	Long: W 97 0' 35.592 Datum: SP 1983			
Soil Map Unit Name: Callisburg fine sandy loam,	1 to 3 percent s	slopes	NWI classification:			
Are climatic/hydrologic conditions on the site typic	cal for this time	of year? Yes X No	(If no, explain in Remarks.)			
Are Vegetation No, Soil No, or Hydrology No sign	nificantly disturb	ed? Are "No	ormal Circumstances" present? Yes X No			
Are Vegetation No, Soil No, or Hydrology No natu	urally problemat	ic? (If need	ded, explain any answers in Remarks.)			
SUMMARY OF FINDINGS - Attach site n			tions, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes	<u>X</u> No _	le the Compled A				
Hydric Soil Present? Yes	X No_	Is the Sampled A within a Wetland?				
No Wetland Hydrology Present? Yes	<u>X</u> No_					
Remarks:						
VEGETATION - Use scientific names of	•					
Tree Stratum (Plot size:)	Absolute <u>% Cover</u>	Dominant Indicator Species? Status	Dominance Test worksheet:			
1			Number of Dominant Species That Are OBL, FACW, or FAC			
2.			(excluding FAC –): <u>2</u> (A)			
3			Total Number of Dominant			
4			Species Across All Strata: 2 (B)			
Continue (Obsult Obstatute (Districts)		= Total Cover	Percent of Dominant Species			
Sapling/Shrub Stratum (Plot size:)			That Are OBL, FACW, or FAC: 100% (A/B)			
1			Prevalence Index worksheet:			
2			Total % Cover of: Multiply by:			
4.			OBL species <u>60</u> x 1 = <u>60</u>			
5			FACW species $\underline{40}$ $\times 2 = \underline{80}$			
		= Total Cover	FAC species x 3 =			
Herb Stratum (Plot size: 10'x10'			FACU species x 4 =			
1. Typha latifolia	60	Yes OBL	UPL species x 5 =			
2. Andropogon glomeratus	40	Yes FACW+	Column Totals: 100 (A) 140 (B)			
3			Prevalence Index = B/A = 1.4			
4.	 -		Hydrophytic Vegetation Indicators:			
5.			X Dominance Test is >50%			
6			X Prevalence Index is ≤3.0 ¹			
7			Morphological Adaptations ¹ (Provide Supporting			
8 9			data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)			
10.			Froblematic Hydrophytic Vegetation (Explain)			
	100%	= Total Cover	¹ Indicators of hydric soil and wetland hydrology must			
Woody Vine Stratum (Plot size:)			be present, unless disturbed or problematic.			
1			Hada a bada			
2			Hydrophytic Vegetation			
		= Total Cover	Present? Yes X No			
% Bare Ground in Herb Stratum 0%						
Remarks:	<u></u>					

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c	n	ш	
	.,		_

Depth (inches)	Color (moist)	<u>%</u>	Color (moist)	Redox Feat	rpe ¹ Lot ²	Texture	Remarks
				<u> </u>		_	
		_	_				_
			_				_
			_				_
¹ Type: C	=Concentration, D	=Depletion	, RM=Reduced N	Matrix, CS=Covere	d or Coated Sar	nd Grains.	2Location: PL=Pore Lining, M=Matrix.
•	` '	oplicable t	•	less otherwise n	•		rs for Problematic Hydric Soils ³ :
Histosol	` '			andy Gleyed Matrix	(S4)	·——	m Muck (A9) (LRR I, J)
Histic Ep Black His	pipedon (A2)			andy Redox (S5) ripped Matrix (S6)			ast Prairie Redox (A16) (LRR F, G, H) rk Surface (S7) (LRR G)
	n Sulfide (A4)			npped Matrix (30) pamy Mucky Miner	al (F1)		gh Plains Depressions (F16)
	l Layers (A5) (LRF	F)		pamy Gleyed Matrix			RR H outside of MLRA 72 & 73)
	ick (A9) (LRR F, G	•		epleted Matrix (F3)	(12)	•	duced Vertic (F18)
	Below Dark Surfa			edox Dark Surface	(F6)		d Parent Material (TF2)
Thick Da	ark Surface (A12)		D	epleted Dark Surfa	ce (F7)	Oth	ner (Explain in Remarks)
Sandy M	lucky Mineral (s1)		R	edox Depressions	(F8)	³ Indica	ators of hydrophytic vegetation and
2.5 cm M	Mucky Peat or Pea	(S2) (LRR	G,H) H	gh Plains Depress	ions (F16)	we	tland hydrology must be present,
	icky Peat or Peat (-) (1	MLRA 72 & 73 of I	RR H)	unl	ess disturbed or problematic.
	Layer (if presen	t):					
Type:							
						Hardela C	all DusasutO Vas V
Depth	(inches):					Hydric S	soil Present? Yes X No
Remarks:	(inches):					Hydric S	oil Present? Yes X No
Remarks:	(inches):	rated soils	and high water	table, soil assume	ed hydric	Hydric S	oil Present? Yes X No
Remarks:	(inches):	rated soils	and high water	table, soil assume	ed hydric	Hydric S	oil Present? Yes <u>X</u> No
Remarks: Soil pit not t	(inches):	rated soils	and high water	table, soil assum	ed hydric	Hydric S	oil Present? Yes <u>X</u> No
Remarks: Soil pit not t	(inches):		and high water	table, soil assume	ed hydric	Hydric S	oil Present? Yes <u>X</u> No
Remarks: Soil pit not t	(inches):taken due to satu	ors:			ed hydric		dary Indicators (minimum of two required)
Remarks: Soil pit not t HYDROL Wetland Hy Primary India	cators (minimum o	ors:	red: check all tha		ed hydric	Second	
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WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	Ci	ty/County: <u>Der</u>	nton County	Sampling Date: 01/23/09				
Applicant/Owner: TxDOT	State: TX Sampling Point: W-7 (E-II-							
Investigator(s): Griffith/Jaynes	estigator(s): Griffith/Jaynes Section, Township, Range:							
Landform (hillslope, terrace, etc.): Terrace		Local relief (co	oncave, conve	ex, none): concave Slope (%):2				
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33	3' 2.985"		Long: W 97 0' 35.592" Datum: SP 1983				
Soil Map Unit Name: Birome-Rayex-Aubrey comp	olex, 2 to 15 per	cent slopes		NWI classification:				
Are climatic/hydrologic conditions on the site typic	al for this time	of year? Yes	X No	(If no, explain in Remarks.)				
Are Vegetation No, Soil No, or Hydrology No sign	ificantly disturb	ed?	Are "No	rmal Circumstances" present? Yes X No				
Are Vegetation No, Soil No, or Hydrology No natu	rally problemat	ic?	(If neede	ed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site m			point locat	ions, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes	X No_		. 0					
Hydric Soil Present? Yes	No <u>X</u>		e Sampled Are n a Wetland?					
No Wetland Hydrology Present? Yes	<u>X</u> No							
Remarks:								
VEGETATION - Use scientific names of	•	Danisant	La dia atau	Denvisor Test word about				
Tree Stratum (Plot size:)	Absolute <u>% Cover</u>	Dominant Species?	Indicator Status	Dominance Test worksheet:				
1.				Number of Dominant Species That Are OBL, FACW, or FAC				
2				(excluding FAC –): $\frac{4}{}$ (A)				
3				Total Number of Dominant				
4		= Total Cover		Species Across All Strata: 6 (B)				
Sapling/Shrub Stratum (Plot size: 20'x20')		= Total Cover		Percent of Dominant Species That Are OBL. FACW. or FAC: 66% (A/B)				
Salix nigra	10	Yes	FACW+	That Are OBL, FACW, or FAC: 66% (A/B)				
2. <u>Ulmus americana</u>	10	Yes	FAC	Prevalence Index worksheet:				
3.				Total % Cover of: Multiply by:				
4.				OBL species x 1 =				
5				FACW species $\underline{10}$ $x = 20$				
	20%	= Total Cover	r	FAC species $\underline{30}$ $\times 3 = \underline{90}$				
Herb Stratum (Plot size: 10'x10'				FACU species <u>60</u> x 4 = <u>240</u>				
1. Sorghum halepense	30	Yes	FACU	UPL species				
2. <u>Cynodon dactylon</u>	30	Yes	FACU+	Column Totals: <u>100</u> (A) <u>350</u> (B) Prevalence Index = B/A = 3.5				
3.				Hydrophytic Vegetation Indicators:				
4				X Dominance Test is >50%				
5	-			-				
6				Prevalence Index is ≤3.0¹				
8.				Morphological Adaptations ¹ (Provide Supporting data in Remarks or on a separate sheet)				
9.				Problematic Hydrophytic Vegetation ¹ (Explain)				
10.								
	60%	= Total Cover	r	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Woody Vine Stratum (Plot size: 10'x10)								
1. Rubus trivialis	10	Yes	FAC	Hydrophytic				
2. <u>Ionicera japonica</u>	10	Yes	FAC	Vegetation				
	20%	= Total Cover	r	Present? Yes X No				
% Bare Ground in Herb Stratum 40%								
Remarks:								
		Dogo 9 of	10					

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Profile De Depth	escription: (Describe Matrix	e to tne	e aeptn ne	eeaea to		Features	cator or	confirm t	ne absenc	e or maior	1013.)	
inches)	Color (mo		%	Color (r	noist)	%	Type ¹	Lot ²	Texture	<u> </u>		Remarks	
)-14	10YR 3/4		95		-		· <u></u>		sandy cla	ıy			
	-					·	· ——			·			
									-				
							_						
	-								-	 •			
	-								_				
Type:	C=Concentrat	ion, D=De	epletion,	RM=Red	uced Mati	rix, CS=Co	vered or Co	oated Sar	nd Grains.	² Lo	cation: P	L=Pore Linin	g, M=Matrix
lydric So	il Indicators	: (Appli	icable t	o all LRR	s, unles	s otherwi	se noted.)			ndicators fo	or Problema	atic Hydric So	oils³:
Histoso	ol (A1)				Sand	y Gleyed N	Matrix (S4)			1 cm N	Muck (A9) (I	LRR I, J)	
Histic E	pipedon (A2)				Sand	y Redox (S	<u>85)</u>			Coast	Prairie Red	dox (A16) (LR	R F, G, H)
Black H	listic (A3)				Stripp	ed Matrix	(S6)			Dark S	Surface (S7) (LRR G)	
Hydrog	en Sulfide (A4	<u>1)</u>			Loam	y Mucky M	lineral (F1)			High F	Plains Depre	essions (F16)	<u>l</u>
Stratifie	ed Layers (A5)	(LRR F)			Loam	y Gleyed M	Matrix (F2)			(LRR I	H outside of	f MLRA 72 &	73)
1 cm M	uck (A9) (LRR	R F, G, H)			Deple	eted Matrix	(F3)			Reduc	ced Vertic (F	- 18)	
Deplete	ed Below Dark	Surface	(A11)		Redo	x Dark Sur	face (F6)			Red P	arent Mater	rial (TF2)	
Thick D	ark Surface (A	A12)			Deple	eted Dark S	Surface (F7	<u>)</u>		Other	(Explain in	Remarks)	
Sandy	Mucky Minera	l (s1)			Redo	x Depressi	ions (F8)			3 Indicato	rs of hydrop	ohytic vegetat	tion and
2.5 cm	Mucky Peat o	r Peat (S2	2) (LRR	<u>G,H)</u>	High	Plains Dep	ressions (F	16)		wetlan	nd hydrology	/ must be pre	sent.
5 cm M	lucky Peat or F	Peat (S3)	(LRR F)	<u>)</u>	(MLF	RA 72 & 73	of LRR H)			unless	disturbed of	or problemati	<u>C.</u>
	n (inches):				_				Н	ydric Soil	Present?	Yes	No <u>X</u>
Remarks:					- -				Н	ydric Soil	Present?	Yes	No <u>X</u>
Remarks: No indicate	ors observed				<u>-</u>				Н	ydric Soil	Present?	Yes	No <u>X</u>
Remarks: No indicate HYDROI Wetland H	ors observed LOGY Hydrology Inc.	dicators	:			nnly)			Н				
Remarks: No indicate HYDROI Wetland H Primary Indi	ors observed LOGY Hydrology Indicators (minim	dicators	:		all that a				Н	Secondary	/ Indicators	(minimum of	
Remarks: No indicate HYDROI Wetland F Primary Inc Surface	cors observed LOGY Hydrology Indicators (minim	dicators	:		all that a	Crust (B11)	-		Н	Secondary Surface	/ Indicators ce Soil Crac	(minimum of	two required
Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W	ors observed LOGY Hydrology Indicators (minim & Water (A1) Jater Table (A2)	dicators	:		all that a Salt (Aqua	Crust (B11) tic Inverteb	orates (B13)		H	Secondary Surfac Sparse	/ Indicators ce Soil Crac	(minimum of ks (B6) ed Concave s	two required
Remarks: No indicate HYDROI Wetland F Primary Inc Surface High W Saturat	n (inches):	dicators	:		all that a Salt (Aqua Hydro	Crust (B11) tic Inverteb ogen Sulfid	orates (B13) le Odor (C1)	H	Secondary Surfac Sparse Draina	/ Indicators ce Soil Crac ely Vegetate age Patterns	(minimum of ks (B6) ed Concave s s (B10)	two required
Remarks: No indicate HYDROI Wetland H Primary Inc Surface High W Saturat Water I	n (inches):	dicators num of on	:		all that a Salt (Aqua Hydro Dry-S	Crust (B11) tic Inverteb ogen Sulfid Season Wa	orates (B13) le Odor (C1 ter Table (C) (22)		Secondary Surfac Sparse Draina Oxidiz	/ Indicators be Soil Cracely Vegetate age Patterns led Rhizosp	(minimum of ks (B6) ed Concave s	two required
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime	LOGY Hydrology Indicators (minimal Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (E	dicators num of on	:		all that a Salt C Aqua Hydro Dry-S Oxidi	Crust (B11) tic Inverteb ogen Sulfid Season Wa zed Rhizos	orates (B13) le Odor (C1 ter Table (C) (22)		Secondary Surfac Sparso Draina Oxidiz (where	/ Indicators ce Soil Cracely Vegetate age Patterns ced Rhizosp etilled)	(minimum of ks (B6) ed Concave s s (B10) theres on Livi	two required
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime K Drift Dep	LOGY Hydrology Indicators (minimal Water (A1) Jater Table (A2) Jon (A3) Marks (B1) ent Deposits (B3)	dicators num of on 2)	:		all that a Salt (Aqua Hydro Dry-S Oxidi (whee	Crust (B11) tic Invertebogen Sulfid Season Wa zed Rhizos ere not tille	orates (B13) le Odor (C1 ter Table (C spheres on d)) (2) Living Ro		Secondary Surfac Sparse Draina Oxidiz (where Crayfis	/ Indicators ce Soil Cracely Vegetate age Patterns ded Rhizosp et tilled) sh Burrows	(minimum of ks (B6) ed Concave s s (B10) heres on Livi	two required Surface (B8)
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime K Drift Dep Algal M	LOGY Hydrology Indicators (minimal Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B3) lat or Crust (B	dicators num of on 2)	:		all that a Salt (Aqua Hydro Dry-S Oxidi (whe	Crust (B11) tic Inverteb ogen Sulfid Season Wa zed Rhizos ere not tilled ence of Re	brates (B13) le Odor (C1 ter Table (C spheres on d) duced Iron) (2) Living Ro		Secondary Surfac Sparse Draina Oxidiz (where Crayfis Satura	/ Indicators se Soil Cracely Vegetate age Patterns sed Rhizosp e tilled) sh Burrows attion Visible	(minimum of ks (B6) ed Concave s s (B10) heres on Livi (C8)	two required Surface (B8)
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De	LOGY Hydrology Indicators (minimal Water (A1) Jater Table (A2) Jon (A3) Marks (B1) ent Deposits (B3)	dicators num of on 2) 32) 4)	: e requir	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whee	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa	prates (B13) le Odor (C1) ter Table (Cspheres on d) duced Iron ace (C7)	.) (<u>C2)</u> Living Ro		Secondary Surfac Sparse Draina Oxidiz (where Crayfis Satura Geom	/ Indicators ce Soil Cracely Vegetate age Patterns ded Rhizosp et tilled) sh Burrows	(minimum of ks (B6) ed Concave s (B10) wheres on Living (C8) on Aerial Im tion (D2)	two required Surface (B8)
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De Inundat	LOGY Hydrology Indicators (minimal Water (A1) Part Table (A2) Ion (A3) Marks (B1) Part Deposits (B3) Lat or Crust (B- Leposits (B5) Lition Visible on	dicators num of on 2) 32) 4) Aerial Im	: e requir	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whee	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa	brates (B13) le Odor (C1 ter Table (C spheres on d) duced Iron	.) (<u>C2)</u> Living Ro		Secondary Surfac Sparsi Draina Oxidiz (where Crayfii Satura Geom FAC-N	/ Indicators ce Soil Crace ely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi	(minimum of ks (B6) ed Concave s (B10) wheres on Living (C8) on Aerial Im tion (D2)	two required Surface (B8) ng Roots (C
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De Inundar Water-S	n (inches):	dicators num of on 2) 32) 4) Aerial Im	: e requir	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whee	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa	prates (B13) le Odor (C1) ter Table (Cspheres on d) duced Iron ace (C7)	.) (<u>C2)</u> Living Ro		Secondary Surfac Sparsi Draina Oxidiz (where Crayfii Satura Geom FAC-N	/ Indicators ce Soil Crace ely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi	(minimum of eks (B6) ed Concave son Living (C8) en Aerial Imstion (D2) en (D5)	two required Surface (B8) ng Roots (C
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime C Drift Dep Algal M Iron De Inundat Water-S Field Obs	LOGY Hydrology Indicators (minimal Water (A1) Part Table (A2) Ion (A3) Marks (B1) Part Deposits (B3) Lat or Crust (B- Leposits (B5) Lition Visible on	dicators num of on 2) 32) 4) Aerial Im ss (B9)	: ne require	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whe Press Thin Other	Crust (B11) tic Invertebogen Sulfid teason Wa zed Rhizos ter not tillet ence of Re Muck Surfa (Explain in	prates (B13) le Odor (C1) ter Table (Cspheres on d) duced Iron ace (C7)) (<u>22)</u> Living Ro		Secondary Surfac Sparsi Draina Oxidiz (where Crayfii Satura Geom FAC-N	/ Indicators ce Soil Crace ely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi	(minimum of eks (B6) ed Concave son Living (C8) en Aerial Imstion (D2) en (D5)	two required Surface (B8) ng Roots (C
HYDROI Wetland F Primary Inc Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De Inundat Water-S Field Obs	n (inches):	dicators num of on 2) 32) 4) Aerial Im s (B9)	: ne require	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whee Prese Thin I Other	Crust (B11) tic Inverteb ogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Re Muck Surfa (Explain in	orates (B13) le Odor (C1) ter Table (C) spheres on d) duced Iron ace (C7) n Remarks)) (<u>C2)</u> Living Ro (<u>C4)</u>		Secondary Surfac Sparsi Draina Oxidiz (where Crayfii Satura Geom FAC-N	/ Indicators ce Soil Crace ely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi	(minimum of eks (B6) ed Concave son Living (C8) en Aerial Imstion (D2) en (D5)	two required Surface (B8) ng Roots (C
HYDROI Wetland F Primary Inc Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De Inundat Water-S Field Obs	n (inches):	dicators num of on 2) 32) 4) Aerial Im s (B9) Yes Yes	: ne require	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin I Other	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa (Explain in	orates (B13) le Odor (C1) ter Table (C) spheres on d) duced Iron ace (C7) n Remarks)) 22) Living Ro (C4)		Secondary Surfac Sparsi Draina Oxidiz (where Crayfii Satura Geom FAC-N	/ Indicators ce Soil Crace ely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi	(minimum of eks (B6) ed Concave son Living (C8) en Aerial Imstion (D2) en (D5)	two required Surface (B8) ng Roots (C agery (C9)
HYDROI Wetland H Primary Inc Surface High W Saturat Water I Sedime K Drift Deg Algal M Iron De Inundat Water-S Field Obs Surface Water Tabl Saturation	n (inches):	dicators num of on 2) 32) 4) Aerial Im s (B9) Yes Yes Yes	: ne require nagery (E	ed: check	all that a Salt (Aqua Hydro Dry-S Oxidi (whe Prese Thin I Other	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa (Explain in	orates (B13) le Odor (C1) ter Table (C) spheres on d) duced Iron ace (C7) n Remarks)) (<u>C2)</u> Living Rd (<u>C4)</u>	oots (C3)	Secondary Surfac Sparse Draina Oxidiz (where Crayfis Satura Geom FAC-N Frost-I	/ Indicators ce Soil Cracely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi Neutral Test Heave hum	(minimum of eks (B6) ed Concave s (B10) wheres on Living (C8) e on Aerial Impartion (D2) et (D5) mocks (D7) (two required Surface (B8) ng Roots (C agery (C9) LRR F)
Remarks: No indicate HYDROI Wetland I- Primary Inc. Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De Inundat Water-S Field Obs Surface Water Table Saturation includes ca	n (inches):	dicators num of on 2) 32) 4) Aerial Im s (B9) Yes Yes Yes	: ne require	ed: check 37) No <u>X</u> No <u>X</u>	all that a Salt (Aqua Hydro Dry-S Oxidii (whee Prese Thin I Other	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa (Explain in th (inches): th (inches):	orates (B13) le Odor (C1) ter Table (C) spheres on d) duced Iron ace (C7) n Remarks))))) (C4) V	oots (C3)	Secondary Surface Sparse Draina Oxidiz (where Crayfis Satura Geom FAC-N Frost-	/ Indicators ce Soil Cracely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi Neutral Test Heave hum	(minimum of eks (B6) ed Concave son Living (C8) en Aerial Imstion (D2) en (D5)	two required Surface (B8) ng Roots (C) agery (C9)
Remarks: No indicate HYDROI Wetland I- Primary Inc. Surface High W Saturat Water I Sedime C Drift Dep Algal M Iron De Inundat Water-S Field Obs Surface Water Table Saturation includes ca	n (inches):	dicators num of on 2) 32) 4) Aerial Im s (B9) Yes Yes Yes	: ne require	ed: check 37) No <u>X</u> No <u>X</u>	all that a Salt (Aqua Hydro Dry-S Oxidii (whee Prese Thin I Other	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa (Explain in th (inches): th (inches):	orates (B13) le Odor (C1) ter Table (C) spheres on d) duced Iron ace (C7) n Remarks))))) (C4) V	oots (C3)	Secondary Surface Sparse Draina Oxidiz (where Crayfis Satura Geom FAC-N Frost-	/ Indicators ce Soil Cracely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi Neutral Test Heave hum	(minimum of eks (B6) ed Concave s (B10) wheres on Living (C8) e on Aerial Impartion (D2) et (D5) mocks (D7) (two require Surface (B8 ng Roots (C agery (C9) LRR F)
Remarks: No indicate HYDROI Wetland I- Primary Inc. Surface High W Saturat Water I Sedime K Drift Dep Algal M Iron De Inundat Water-S Field Obs Surface Water Table Saturation includes ca	n (inches):	dicators num of on 2) 32) 4) Aerial Im s (B9) Yes Yes Yes	: ne require	ed: check 37) No <u>X</u> No <u>X</u>	all that a Salt (Aqua Hydro Dry-S Oxidii (whee Prese Thin I Other	Crust (B11) tic Invertebogen Sulfid Geason Wa zed Rhizos ere not tilled ence of Red Muck Surfa (Explain in th (inches): th (inches):	orates (B13) le Odor (C1) ter Table (C) spheres on d) duced Iron ace (C7) n Remarks))))) (C4) V	oots (C3)	Secondary Surface Sparse Draina Oxidiz (where Crayfis Satura Geom FAC-N Frost-	/ Indicators ce Soil Cracely Vegetate age Patterns ced Rhizosp e tilled) sh Burrows ation Visible orphic Posi Neutral Test Heave hum	(minimum of eks (B6) ed Concave s (B10) wheres on Living (C8) e on Aerial Impartion (D2) et (D5) mocks (D7) (two require Surface (B8) ng Roots (C agery (C9) LRR F)

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City/Coυ	ınty: Denton County	Sampling Date	e: <u>01/23/2009</u>
Applicant/Owner: TxDOT			State: TX Sampling Point: \	<u> W-8 (E-IH 35E)</u>
Investigator(s): Griffith/Jaynes	Section	on, Township, Range	:	
Landform (hillslope, terrace, etc.): Valley	Local	relief (concave, conv	rex, none): None Slop	e (%): <u>0</u>
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3' 2.98	35"	Long: <u>W 97 0' 35.592</u> D	atum: SP 1983
Soil Map Unit Name: Gasil fine sandy loam, 2 to	3 percent slopes		NWI classification:	
Are climatic/hydrologic conditions on the site type	pical for this time of yea	r? Yes X No	(If no, explain in Remarks.)	
Are Vegetation No, Soil No, or Hydrology No sig	gnificantly disturbed?	Are "No	ormal Circumstances" present? Yes	<u>X</u> No
Are Vegetation No, Soil No, or Hydrology No na			led, explain any answers in Remarks	
SUMMARY OF FINDINGS - Attach site	map showing sam	pling point locat	tions, transects, important fe	atures, etc.
Hydrophytic Vegetation Present? Ye	s No			
Hydric Soil Present? Ye	s No <u>X</u>	Is the Sampled Ar within a Wetland?		
No Wetland Hydrology Present? Ye	es <u>X</u> No			
Remarks:				
VEGETATION - Use scientific names of	•			
Tree Stratum (Plot size: 30'x30'		ninant Indicator cies? Status	Dominance Test worksheet:	
1. Fraxinus pennsylvanica		FACW-	Number of Dominant Species That Are OBL, FACW, or FAC	
2. <u>Salix nigra</u>	<u>20</u> <u>Yes</u>	FACW+	(excluding FAC –):	<u>6</u> (A)
3. <u>Ulmus americana</u>	<u>20</u> <u>Yes</u>	FAC	Total Number of Dominant	
4. <u>Celtis laevigata</u>		<u>FAC</u>	Species Across All Strata:	<u>6</u> (B)
	<u>70%</u> = To	tal Cover	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 20'x20'		5. O.V	That Are OBL, FACW, or FAC:	100 (A/B)
1. Fraxinus pennsylvanica		FACW-	Prevalence Index worksheet:	
2. <u>Ulmus americana</u>		<u>FAC</u>		ultiply by:
3. Symphoricarps orbiculatus		<u>FACU</u>	OBL species x 1 =	
4. 5.	-		FACW species <u>60</u> x 2 = <u>1</u>	<u>120</u>
5.	50% = To	tal Cover	FAC species <u>70</u> x 3 = 2	<u>210</u>
Herb Stratum (Plot size: 10'x10'			FACU species <u>20</u> x 4 = <u>8</u>	<u>80</u>
1. Solidago altissismus	<u>10 No</u>	FACU	UPL species x 5 =	
2. Ambrosia trifida	<u>10 No</u>	FAC	Column Totals: 150 (A)	
3			Prevalence Index = $B/A = 2.7$	3
4.	- <u> </u>		Hydrophytic Vegetation Indicate	ors:
5			X Dominance Test is >50%	
6			X Prevalence Index is ≤3.0 ¹	
7.			Morphological Adaptations ¹ (label{eq:morphological} data in Remarks or on a separations)	•
8.			Problematic Hydrophytic Veg	
9			i Toblematic Hydrophytic Veg	Cidion (Expidin)
10		tal Cover	¹ Indicators of hydric soil and wetland be present, unless disturbed or prob	
Woody Vine Stratum (Plot size: 10'x10')	<u> 2070 </u>	O0701	be present, unless disturbed or prob	nemano.
1. Smilax bona-nox	10 Yes	FAC		
2		.710	Hydrophytic	
	10 = To	tal Cover	Vegetation Present? Yes X	No
% Bare Ground in Herb Stratum 80%			100 /4	
Remarks:			1	
	Da	ne 9 of 12		

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B-2

Profile De Depth		scribe to the	depth needed to		nt the indic Features	cator or	confirm the a	bsence of indic	ators.)	
(inches)	Color (moist)		Color (moist)		Type ¹	Lot ²	Texture		Remarks	
0-10	10YR 4/1	95					clay			
<u> </u>			-							
			-							
			<u> </u>				=			
			-				_			
-										
1 —				. — —			- :	3.		
			RM=Reduced Mat						PL=Pore Lining	_
		(Applicable to	all LRRs, unles					ators for Problem	-	ls³:
Histoso	` '			y Gleyed N			_	1 cm Muck (A9)		
	pipedon (A2)			y Redox (S	•			Coast Prairie Re		R F, G, H)
_	listic (A3) en Sulfide (A4)			ed Matrix	(So) fineral (F1)			Dark Surface (Si High Plains Dep		
	en Sullide (A4) d Layers (A5) (L	DD E\							, ,	72)
	uck (A9) (LRR F ,			y Gleyed Neted Matrix				(LRR H outside Reduced Vertic		13)
	ed Below Dark Su			x Dark Sur				Red Parent Mate	` ,	
	ark Surface (A12				Surface (F7)	ı	_	Other (Explain in		
	Mucky Mineral (s	,		x Depressi	٠,		3 In	dicators of hydro		n and
	Mucky Peat or P	•			ressions (F	16)		wetland hydrolog		
5 cm M	ucky Peat or Pea	at (S3) (LRR F)	-		of LRR H			unless disturbed	or problematic.	
Restrictive	e Layer (if pres	ent):								
Type:										
Denth	n (inches):						Hydri	c Soil Present?	Yes	No X
Remarks:	1 (IIICIIC3).									
HYDROL	OGY									
	lydrology Indic	ators.								
			ed: check all that a	(vlaa			Sec	condary Indicators	s (minimum of t	wo required)
	Water (A1)	Tor one require		Crust (B11)				Surface Soil Cra		wo roquirou j
	ater Table (A2)				rates (B13)		_	Sparsely Vegeta	` ,	urface (B8)
Saturat	` '				le Odor (C1		<u>X</u> I	Drainage Pattern		
	Marks (B1)			-	ter Table (C		_	Oxidized Rhizos		g Roots (C3)
Sedime	nt Deposits (B2)		Oxidi	zed Rhizos	spheres on	Living Ro	oots (C3)	(where tilled)		
X Drift Dep	oosits (B3)		(whe	ere not tille	ed)			Crayfish Burrows	s (C8)	
	at or Crust (B4)				duced Iron ((C4)		Saturation Visibl	e on Aerial Ima	gery (C9)
	posits (B5)			Muck Surfa				Geomorphic Pos		
	ion Visible on Ae	0 , (7) Other	(Explain i	n Remarks)		_	FAC-Neutral Tes		
	Stained Leaves (I	B9)						Frost-Heave hur	nmocks (D7) (L	RR F)
Field Obs	ervations:									
Surface Wa	ater Present?	Yes	No X Dept	th (inches):	·	_				
Water Table	e Present?	Yes	No X Dept	h (inches):	:					
Saturation	Present?	Yes	No X Dept	:h (inches):						
(includes ca	apillary fringe)		_			v	Vetland Hvdro	logy Present?	Yes X	No
Describe R	ecorded Data (st	ream gauge m	onitoring well, aeri	al photos i	previous in			. 3,	<u> </u>	
Describe IX	coorded Bala (Si	ream gaage, m	iorinorning went, deri	ai priotos, p	provious iii	300110113)	, ii avaliabic.			
Remarks:										
. tomanto.										

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City/Cour	nty: Denton County	Samp	oling Date: 01/26/09
Applicant/Owner: TxDOT			State: TX Samplin	g Point: <u>W-9 (W-IH 35E)</u>
Investigator(s): Griffith/Jaynes	Section	n, Township, Range		
Landform (hillslope, terrace, etc.): Terrave	Local r	relief (concave, conv	ex, none): None	Slope (%): <u>0</u>
Subregion (LRR): Southwestern Prairies (J)	Lat: N 32 3' 2.98	5"	Long: <u>W 97 0' 35.592</u>	Datum: <u>SP 1983</u>
Soil Map Unit Name: Wilson-Urban land complex	0 to 2 percent slopes		NWI classification:	
Are climatic/hydrologic conditions on the site typic	cal for this time of year	? Yes <u>X</u> No	(If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No sign	ificantly disturbed?	Are "No	ormal Circumstances" prese	nt? Yes X No
Are Vegetation No, Soil No, or Hydrology No natu	rally problematic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS - Attach site n	nap showing sam	pling point locat	ions, transects, impo	rtant features, etc.
	No <u>X</u>	la the Compled Ar	••	
Hydric Soil Present? Yes	No <u>X</u>	Is the Sampled Ar within a Wetland?		No <u>X</u>
No Wetland Hydrology Present? Yes	No <u>X</u>			
Remarks:				
VEGETATION - Use scientific names of	•	in ant la dianta	Dominance Test works	haat
Tree Stratum (Plot size:)		inant Indicator cies? <u>Status</u>		
1.			Number of Dominant Spec That Are OBL, FACW, or F	
2			(excluding FAC –):	<u>0</u> (A)
3			Total Number of Dominant	
4.		al Cover	Species Across All Strata:	<u>1</u> (B)
Sapling/Shrub Stratum (Plot size:)	= 100	ai Covei	Percent of Dominant Spec That Are OBL, FACW, or F	
1			That Are OBL, FACW, or F	FAC: <u>0%</u> (A/B)
2.			Prevalence Index works	sheet:
3.		<u> </u>	Total % Cover of:	-
4.			OBL species	
5			FACW species	
	= Tota	al Cover	FAC species	
Herb Stratum (Plot size: 10'x10'			FACU species 100 UPL species	
1. Cynodon dactylon	<u>100</u> <u>Yes</u>	FACU+	Column Totals: 100	
2			Prevalence Index = I	
3				
4		<u> </u>	Hydrophytic Vegetation	
5.			Dominance Test is	
6.			Prevalence Index is	
7 8			Morphological Adap data in Remarks or o	otations ¹ (Provide Supporting
9.		<u> </u>		hytic Vegetation ¹ (Explain)
10.			r robicinate riyarop	Tytio vogotation (Explain)
	100% = Tota	al Cover	¹ Indicators of hydric soil as be present, unless disturbe	nd wetland hydrology must
Woody Vine Stratum (Plot size:)			be present, unless distarbe	od of problematic.
1			Hydrophytic	
2			Hydrophytic Vegetation	
	= Tota	al Cover	Present? Yes	No <u>X</u>
% Bare Ground in Herb Stratum 0%				
Remarks:				

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(inches)					Features		
	Color (moist)	%	Color (moist)		Type ¹ Lot ²	Texture	Remarks
-14	10YR 4/3	100				gravelly clay	
		·-	-				
			-				
		-					
					- 		
,,					overed or Coated S	Sand Grains.	² Location: PL=Pore Lining, M=Matrix
	I Indicators: (A	Applicable to					tors for Problematic Hydric Soils ³ :
_ Histosol				andy Gleyed N		 -	cm Muck (A9) (LRR I, J)
	oipedon (A2)			andy Redox (S	•		Coast Prairie Redox (A16) (LRR F, G, H)
_ Black Hi	en Sulfide (A4)			ripped Matrix pamy Mucky N			Dark Surface (S7) (LRR G) High Plains Depressions (F16)
	d Layers (A5) (LR	D E		amy Gleyed I		 -	LRR H outside of MLRA 72 & 73)
	uck (A9) (LRR F ,			epleted Matrix		`	Reduced Vertic (F18)
	d Below Dark Sur			edox Dark Su			Red Parent Material (TF2)
	ark Surface (A12)			epleted Dark S	, ,		Other (Explain in Remarks)
_	/lucky Mineral (s1			edox Depress			icators of hydrophytic vegetation and
_	Mucky Peat or Pe	•			pressions (F16)		vetland hydrology must be present,
 5 cm Mu	ıcky Peat or Peat	(S3) (LRR F)	(1	MLRA 72 & 7	3 of LRR H)		inless disturbed or problematic.
Restrictive	Layer (if prese	ent):					
Type:							
						Hydric	Cail Dragant? Vac Na V
Depth	(inches):					Hydric	Soil Present? Yes No \underline{X}
	(inches):					riyunc	Soil Present? Tes No A
Remarks:						Tiyune	Soil Present? Tes No A
Remarks:	OGY	ators.				Tiyunc	Soil Present? Tes No A
Remarks: HYDROL Wetland H	OGY ydrology Indica		ed: check all th	at apply)			
Remarks: HYDROL Wetland H Primary Indi	OGY ydrology Indica icators (minimum)	Seco	ndary Indicators (minimum of two require
Remarks: HYDROL Wetland H Primary Indi Surface	OGY ydrology Indica icators (minimum Water (A1)		Sa	alt Crust (B11)	•	<u>Seco</u> S	ndary Indicators (minimum of two require Surface Soil Cracks (B6)
Remarks: HYDROL Wetland H Primary Indi Surface High Wa	OGY ydrology Indica icators (minimum Water (A1) ater Table (A2)		Sa A	alt Crust (B11) quatic Inverteb	brates (B13)	<u>Seco</u> S	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8
HYDROL Wetland H Primary Indi Surface High Wa Saturatio	OGY ydrology Indica icators (minimum Water (A1) ater Table (A2)		Sa Aa H	alt Crust (B11) quatic Invertebydrogen Sulfic	brates (B13)	<u>Seco</u> S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8 Drainage Patterns (B10)
HYDROL Wetland Hy Primary Indi Surface High Wa Saturatio Water M	ydrology Indica icators (minimum Water (A1) ater Table (A2) on (A3)		Sa Aa Ha	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa	brates (B13) de Odor (C1)	Seco S S C	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8
HYDROL Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer	OGY ydrology Indica icators (minimum Water (A1) ater Table (A2) on (A3) larks (B1)		Sa Ad H D O	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa	brates (B13) de Odor (C1) ater Table (C2) spheres on Living	Seco S S C C Roots (C3)	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8 Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (C
HYDROL Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep	ydrology Indica icators (minimum Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		Si Ai Hi D O	alt Crust (B11) quatic Invertel ydrogen Sulfic ry-Season Wa xidized Rhizos where not till	brates (B13) de Odor (C1) ater Table (C2) spheres on Living	Seco S S C C Roots (C3) (0	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8 Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (C
AYDROL Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep	ydrology Indicalicators (minimum) Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	of one require	S; A(H; D O ((P) Ti	alt Crust (B11) quatic Invertel ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa	orates (B13) de Odor (C1) ater Table (C2) spheres on Living ed) duced Iron (C4) ace (C7)	Seco ————————————————————————————————————	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
AYDROL Vetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep	ydrology Indicalicators (minimum) Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeri	of one require	S; A(H; D O ((P) Ti	alt Crust (B11) quatic Invertel ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re	orates (B13) de Odor (C1) ater Table (C2) spheres on Living ed) duced Iron (C4) ace (C7)	Seco S S S S S S S S S S S S S S S S S S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
HYDROL Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Water-S	ydrology Indica icators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeritained Leaves (B	of one require	S; A(H; D O ((P) Ti	alt Crust (B11) quatic Invertel ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa	orates (B13) de Odor (C1) ater Table (C2) spheres on Living ed) duced Iron (C4) ace (C7)	Seco S S S S S S S S S S S S S S S S S S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
HYDROL Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Water-S	ydrology Indica icators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeritained Leaves (B	of one require	Si Ai H! O (' Pi Ti 7) O	alt Crust (B11) quatic Invertel ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i	orates (B13) de Odor (C1) atter Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco S S S S S S S S S S S S S S S S S S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
HYDROL Wetland H Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Water-S	ydrology Indica icators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeritained Leaves (B	of one required in the second	Si Ai H! O (' Pi Ti 7) O	alt Crust (B11) quatic Invertel ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i	orates (B13) de Odor (C1) ater Table (C2) spheres on Living ed) duced Iron (C4) ace (C7)	Seco S S S S S S S S S S S S S S S S S S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
HYDROL Wetland H; Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Water-S Field Obse	ydrology Indicalicators (minimum) Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeritained Leaves (Bervations: ter Present?	of one required in the second	Si Ai Hi Di O (ri Ti Ti 7) O	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i	orates (B13) de Odor (C1) atter Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco S S S S S S S S S S S S S S S S S S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Remarks: HYDROL Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dept Iron Dept Water-S Field Obse	ydrology Indical cators (minimum Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aeritained Leaves (Bervations: ter Present?	ial Imagery (B'9) Yes	- Si - Ai - Hi - D - O - (r - Ti 7) - O	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i	broates (B13) de Odor (C1) ater Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco S S S S S S S S S S S S S S S S S S S	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Remarks: HYDROL Wetland H Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Depti Inundati Water-S Field Obse Surface Wat Water Table Saturation F	ydrology Indicaticators (minimum) Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeritained Leaves (Bervations: ter Present? Present?	ial Imagery (B'9)	- Si - Ai - Hi - D - O - (r - Ti 7) - O	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i	orates (B13) de Odor (C1) atter Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco S S C C Roots (C3) (() S C F F	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave hummocks (D7) (LRR F)
Remarks: HYDROL Wetland High Water Mand Mandali Mandali Mater-S Field Obset Surface Water Water Mater-S Water Table Saturation F (includes ca	ydrology Indical cators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aeritained Leaves (Bervations: ter Present? Present? Present? Present?	ial Imagery (B'9) Yes Yes Yes	- Si - Ai	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i Depth (inches) Depth (inches)	brates (B13) de Odor (C1) atter Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave hummocks (D7) (LRR F)
Remarks: HYDROL Wetland High Water Mandation Water-S Field Obset Saturation Fincludes ca	ydrology Indical cators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aeritained Leaves (Bervations: ter Present? Present? Present? Present?	ial Imagery (B'9) Yes Yes Yes	- Si - Ai	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i Depth (inches) Depth (inches)	orates (B13) de Odor (C1) atter Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave hummocks (D7) (LRR F)
Remarks: HYDROL Wetland High Water Mandation Water-S Field Obset Saturation Fincludes ca	ydrology Indical cators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aeritained Leaves (Bervations: ter Present? Present? Present? Present?	ial Imagery (B'9) Yes Yes Yes	- Si - Ai	alt Crust (B11) quatic Invertet ydrogen Sulfic ry-Season Wa xidized Rhizos where not till resence of Re nin Muck Surfa ther (Explain i Depth (inches) Depth (inches)	brates (B13) de Odor (C1) atter Table (C2) spheres on Living ed) duced Iron (C4) ace (C7) in Remarks)	Seco	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Dxidized Rhizospheres on Living Roots (Compared tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave hummocks (D7) (LRR F)

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	City/Cour	nty: Denton County	Sampling Date: <u>01/26/09</u>
Applicant/Owner: TxDOT			State: TX Sampling Point: W-10 (W-IH 35E)
Investigator(s): Griffith/Jaynes	Section	n, Township, Range:	
Landform (hillslope, terrace, etc.): Terrace	Local r	elief (concave, conve	ex, none): <u>Concave</u> Slope (%): <u>1-3%</u>
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33 3' 2.85	1	Long: <u>W 97 0' 35.592</u> Datum: <u>SP 1983</u>
Soil Map Unit Name: Sanger clay, 3 to 5 percent s	slopes		NWI classification:
Are climatic/hydrologic conditions on the site typic			
Are Vegetation No, Soil No, or Hydrology No signi			mal Circumstances" present? Yes X No
Are Vegetation No, Soil No, or Hydrology No natu	-		ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site m		oling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 2		In the Commission Ave	_
	No <u>X</u>	Is the Sampled Are within a Wetland?	
	No <u>X</u>		
Remarks:			
VEGETATION - Use scientific names of		nant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30'x30'	% Cover Spec	ies? Status	
1. Celtis laevigata	<u>20 Yes</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC
2			(excluding FAC –): $\underline{2}$ (A)
3			Total Number of Dominant
4.			Species Across All Strata: <u>3</u> (B)
	<u>20%</u> = Tota	al Cover	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 20'x20'			That Are OBL, FACW, or FAC: 66% (A/B)
1. <u>Celtis laevigata</u>	<u>40 Yes</u>	FAC	Providence Index weather et.
2			Prevalence Index worksheet: Total % Cover of: Multiply by:
3			OBL species x 1 =
4.			FACW species x 2 =
5			FAC species 60 x 3 = 180
Llank Charters (Plat sine 40h 40l	<u>40%</u> = Tota	al Cover	FACU species 80 x 4 = 320
Herb Stratum (Plot size: 10'x10'	00 Vaa	FACILI	UPL species x 5 =
1. Cynodon dactylon	80 <u>Yes</u>	FACU+	Column Totals: 140 (A) 500 (B)
2.			Prevalence Index = B/A = 3.57
3.			Hydrophytic Vegetation Indicators:
4			X Dominance Test is >50%
5.			 X Prevalence Index is ≤3.0¹
6.			Morphological Adaptations ¹ (Provide Supporting
7			data in Remarks or on a separate sheet)
9			Problematic Hydrophytic Vegetation ¹ (Explain)
10.			
10.	80% = Tota	al Cover	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)			The property of the property o
1			
2			Hydrophytic
	= Tota	al Cover	Vegetation Present? Yes X No
% Bare Ground in Herb Stratum 20%			
Remarks:			
	Page	11 of 12	

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	scription: (to the	depth ne	eded to			cator or	confirm the absence of indicators.)
Depth (inches)	Colon /r	Matrix	0/	Color (r	ooiot\		Features 1	1 c+2	Texture Remarks
(inches)	Color (mo	•		COIOT (P	HOIST)		Type ¹	∟Ot	
0-14	10YR 4/3		100	-					sandy clay
-						-			
	· ·					-			
·				-		-			
	-								
	-								-
 									-
	C=Concentrati								<u> </u>
	il Indicators:	: (Appli	cable to	all LRR)	Indicators for Problematic Hydric Soils ³ :
Histoso							Matrix (S4)		1 cm Muck (A9) (LRR I, J)
	pipedon (A2)					y Redox (S			Coast Prairie Redox (A16) (LRR F, G, H)
	listic (A3)	1				oed Matrix			Dark Surface (S7) (LRR G)
	<u>en Sulfide (A4</u> d Layers (A5)						<u>//ineral (F1)</u> Matrix (F2)		High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
	uck (A9) (LRR					eted Matrix			Reduced Vertic (F18)
	ed Below Dark		A11)			x Dark Su			Red Parent Material (TF2)
	ark Surface (A						Surface (F7)	Other (Explain in Remarks)
Sandy I	Mucky Mineral	l (s1)			Redo	x Depress	ions (F8)	=	3 Indicators of hydrophytic vegetation and
2.5 cm	Mucky Peat or	r Peat (S2	2) (LRR (<u>5,H)</u>	High	Plains Dep	oressions (F	<u>16)</u>	wetland hydrology must be present,
	ucky Peat or F	, ,	(LRR F)		(MLF	RA 72 & 73	3 of LRR H)		unless disturbed or problematic.
Restrictive	e Layer (if pr	resent):							
Type:					_				
Depth	n (inches):				_				Hydric Soil Present? Yes No \underline{X}
Remarks:									
considerat	ole amount of	gravel m	ixed thro	oughout	soil				
HYDROL	_OGY								
Wetland F	lydrology Inc	dicators:							
Primary Inc	licators (minim	num of on	e require	d: check	all that a	pply)			Secondary Indicators (minimum of two required
Surface	Water (A1)				Salt (Crust (B11)		Surface Soil Cracks (B6)
High W	ater Table (A2	<u>2)</u>			Aqua	tic Invertel	orates (B13)	<u>)</u>	Sparsely Vegetated Concave Surface (B8)
	ion (A3)					_	de Odor (C1	-	Drainage Patterns (B10)
	Marks (B1)						ater Table (C		Oxidized Rhizospheres on Living Roots (C3
	nt Deposits (E	<u>32)</u>					spheres on	Living Ro	
	posits (B3) at or Crust (B4	4)				ere not tille	duced Iron	(C4)	<u>Crayfish Burrows (C8)</u> Saturation Visible on Aerial Imagery (C9)
	posits (B5)	<u>+)</u>				Muck Surfa		(04)	Geomorphic Position (D2)
	ion Visible on	Aerial Ima	agery (B	7)			in Remarks)	ı	FAC-Neutral Test (D5)
	Stained Leave		agory (Di	<u> </u>	Otrio	LAPIGITI	iii rtomanto,	•	Frost-Heave hummocks (D7) (LRR F)
	ervations:								
	ater Present?	Yes		No <u>X</u>	Dept	th (inches)	:		
Water Tabl							:		
Saturation					-		:		
	apillary fringe)			<u> </u>	Вср	iii (iiioiioo)	•		
,									No X No X
Describe R	ecorded Data	(stream g	jauge, m	onitoring	well, aeri	al photos,	previous in	sections)	i, if available:
Damerilia									
Remarks: No indicate	ors observed								
. to maioati	J. J J.								

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: IH-35E	C	City/County: <u>Der</u>	nton County	Sampling Date: 01/26/09
Applicant/Owner: TxDOT				State: TX Sampling Point: W-11 (W-IH 35E)
Investigator(s): Griffith/Jaynes		Section, Town	ship, Range	:
Landform (hillslope, terrace, etc.): Terrace		Local relief (co	oncave, conv	vex, none): <u>none</u> Slope (%): <u>1</u>
Subregion (LRR): Southwestern Prairies (J)	Lat: N 33	3 3' 2.985"		Long: <u>W 97 0' 35.592"</u> Datum: <u>SP 1983</u>
Soil Map Unit Name: Sanger Clay, 1 to 3 percen	NWI classification:			
Are climatic/hydrologic conditions on the site typ	ical for this time	of year? Yes	<u>X</u> No	(If no, explain in Remarks.)
Are Vegetation No, Soil No, or Hydrology No sig	nificantly disturb	bed?	Are "No	ormal Circumstances" present? Yes X No
Are Vegetation No, Soil No, or Hydrology No nat	turally problema	atic?	(If need	led, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site	map showin	g sampling լ	point locat	tions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	s <u>X</u> No		Compled Ar	
	s No		Sampled Ar a Wetland?	
No Wetland Hydrology Present? Yes	s No	X		
Remarks:				
VEGETATION - Use scientific names of	•			
Tree Stratum (Plot size: 30'x30'	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test worksheet:
1. Salix nigra	30	Yes	FACW+	Number of Dominant Species That Are OBL, FACW, or FAC
2.				(excluding FAC –): <u>5</u> (A)
3				Total Number of Dominant
4				Species Across All Strata: 7(B)
Ocalia (Obash Otashara (Dishaira 00) 00)	30%	= Total Cover	•	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 20'x20')	<u>15</u>	Voo	FACW+	That Are OBL, FACW, or FAC: 71% (A/B)
1. Salix nigra 2. Celtis laevigata		<u>Yes</u> Yes	FAC FAC	Prevalence Index worksheet:
2. <u>Celtis laevigata</u> 3			1710	Total % Cover of: Multiply by:
4.				OBL species x 1 =
5.				FACW species 45 $\times 2 = 90$
<u> </u>	30%	= Total Cover	•	FAC species 45 $x 3 = 135$
Herb Stratum (Plot size: 10'x10'				FACU species $\underline{40}$ $x 4 = \underline{160}$
1. Ambrosia trifida	20	Yes	FAC	UPL species x 5 =
2. Sorghum halepense	20	Yes	FACU	Column Totals: <u>130</u> (A) <u>385</u> (B)
3. <u>Cynodon dactylon</u>	20	Yes	FACU+	Prevalence Index = B/A = <u>2.96</u>
4				Hydrophytic Vegetation Indicators:
5.				X Dominance Test is >50%
6.				Prevalence Index is ≤3.0 ¹
7	-			Morphological Adaptations ¹ (Provide Supporting
8				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10	60%	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size: 10'x10')				be present, unless disturbed or problematic.
1. Smilax bona-nox	10	Yes	FAC	
2.				Hydrophytic Vegetation
	10%	= Total Cover		Present? Yes X No
% Bare Ground in Herb Stratum 40%				
Remarks:				

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Profile De Depth	escription: (Desc Ma		depth neede		ent the indic x Features	ator or	confirm the abser	nce of indicators.)
(inches)	Color (moist)	%	Color (moist		Type ¹	Lot ²	Texture	Remarks
0-14	10YR 4/3	100					sandy loam	_
-			_					
	_,		_					
								-
	<u> </u>		_					
¹ Type:	C=Concentration, D	— Depletion,	RM=Reduced	Matrix, CS=C	overed or Co	ated San	id Grains. ² l	Location: PL=Pore Lining, M=Matrix.
	oil Indicators: (A	pplicable t	o all LRRs, u	nless otherw	ise noted.)		Indicators	s for Problematic Hydric Soils ³ :
Histoso	l (A1)		_ s	Sandy Gleyed I	Matrix (S4)		1 cn	n Muck (A9) (LRR I, J)
Histic E	pipedon (A2)		_ s	Sandy Redox (S5)		Coa	st Prairie Redox (A16) (LRR F, G, H)
Black F	listic (A3)			Stripped Matrix	(S6)		Dark	s Surface (S7) (LRR G)
_	en Sulfide (A4)			 .oamy Mucky N			_	n Plains Depressions (F16)
) E\	_	oamy Gleyed				R H outside of MLRA 72 & 73)
	ed Layers (A5) (LRR		_					·
	uck (A9) (LRR F, G		_	Depleted Matrix			_	uced Vertic (F18)
Deplete	ed Below Dark Surfa	ice (A11)	_ F	Redox Dark Su	rface (F6)		Red	Parent Material (TF2)
Thick D	Park Surface (A12)		_ [Depleted Dark	Surface (F7)			er (Explain in Remarks)
Sandy	Mucky Mineral (s1)		_ F	Redox Depress	sions (F8)		³ Indica	tors of hydrophytic vegetation and
2.5 cm	Mucky Peat or Peat	(S2) (LRR	G,H) _ ⊦	ligh Plains De	pressions (F1	6)	wetl	and hydrology must be present,
5 cm M	ucky Peat or Peat (S3) (LRR F)		(MLRA 72 & 7	3 of LRR H)		unle	ess disturbed or problematic.
Restrictiv	e Layer (if presen	nt):						
Туре	:							"B 40 Y
Depti	h (inches):						Hydric Sc	oil Present? Yes No X
Remarks:								
HYDRO	ors observed							
	lydrology Indicat	ors:						
	dicators (minimum o		ed: check all tl	hat apply)			Seconda	ary Indicators (minimum of two required)
Surface	Water (A1)		5	Salt Crust (B11)		 Surf	ace Soil Cracks (B6)
High W	ater Table (A2)			Aquatic Inverte	brates (B13)		— Spa	rsely Vegetated Concave Surface (B8)
	ion (A3)		_	Hydrogen Sulfic	, ,			nage Patterns (B10)
			_			2)	_	
_	Marks (B1)		_	Ory-Season Wa		•	_ , .	dized Rhizospheres on Living Roots (C3) ere tilled)
	ent Deposits (B2)		_	Oxidized Rhizo (where not til	•	iving Roo	013 (03)	,
Drift De	eposits (B3)			(where not th	ieu)		_	yfish Burrows (C8)
Algal M	at or Crust (B4)		_ F	Presence of Re	duced Iron (C4)	Satu	uration Visible on Aerial Imagery (C9)
Iron De	posits (B5)		_ ™	hin Muck Surf	ace (C7)		Geo	morphic Position (D2)
Inundat	ion Visible on Aeria	l Imagery (E	57) <u> </u>	Other (Explain	in Remarks)		FAC	c-Neutral Test (D5)
Water-S	Stained Leaves (B9))					Fros	st-Heave hummocks (D7) (LRR F)
Field Obs	ervations:							
Surface Wa	ater Present?	Yes	No <u>X</u>	Depth (inches)):			
Water Tab	le Present?	Yes	No <u>X</u>	Depth (inches)):	_		
Saturation	Present?	Yes	No X	Depth (inches)):			
(includes c	apillary fringe)		_			W	/etland Hydrology	/ Present? Yes No X
Describe R	ecorded Data (strea	am gauge, n	nonitoring well,	aerial photos,	previous in s			
	•					,		
Remarks:								
	ors observed							

GENERAL

Project/Site	Improvements to IH 35E		Area #: 1	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doc Field notes: Site 1				

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1570+00.

Vegetation type: upland forest—mowed grass understory.

Overstory: dominated by loblolly pine trees; trees generally not more than 50 feet tall.

Understory: dominated by grass (closely mowed), and includes the following-

- vines: dewberry (Rubus sp.), saw greenbrier (Smilax bona-nox)
- shrubs: none
- grasses and sedges: Bermuda grass (Cynodon dactylon)
- forbs: dandelion (*Taraxacum officinale*)

Is Site Unusual or Typical of Others in the Area? | unusual—loblolly pines not native to the area

SPECIES DESCRIPTION

	Species by Or	rder of Dominance	
Common Name		Taxonomic Name	Range of Sizes (dbh)
loblolly pine	Pinus tae	eda	8" – 12"
green ash	Fraxinus	s pennsylvanica	17"
blackjack oak	Quercus	Quercus marilandica	
Acreage of Trees to be Removed		0.05 (number of trees >6" dbh: 9)	
Density per Acre (trees > 6" dbh)		184	
Remarks Description of any Unique 1	arge or Matu	re Trees (>20" dbh)	

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.

Density sample: trees >6" dbh within the area delineated (0.05 acre): 9 trees total (7 pine, 1 ash, 1 oak). Canopy coverage estimate: 50%.

Tree notes: area is near commercial buildings; pines likely planted as part of site landscaping.

HABITAT VALUE

Is the Site Adjacent to Water?	No			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acorns?				
Yes: oak—acorn; pine and ash—samara.				
Land Use in the Project Area				
Commercial and undeveloped vacant land				
Evidence or Sightings of Wildlife in the Project Area?				
No				
Remarks				
Well maintained site with closely-mowed understory; little habitat value of	other than for birds.			

GENERAL

Project/Site	Improvements to IH 35E		Area #: 2	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doc Field notes: Site 29				

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1585+00.

Vegetation type: brushland area.

Overstory: dominated by persimmon and live oak trees; trees generally not more than 20 feet tall.

Understory: dense privet with mostly brome grass in open areas, and includes the following-

- vines: saw greenbrier (Smilax bona-nox), dewberry (Rubus sp.)
- shrubs: Chinese privet (*Ligustrum sinense*)
- grasses and sedges: Japanese brome (Bromus japonicus), Bermuda grass (Cynodon dactylon), Johnson grass (Sorghum halepense)
- forbs: goldenrod (Solidago sp.), curly dock (Rumex crispus)

Is Site Unusual or Typical of Others in the Area? | unusual—indicative of past site disturbance

SPECIES DESCRIPTION

Species by Order of Dominance						
Common Name		Taxonomic Name	Range of Sizes (dbh)			
common persimmon	Diospyro	os virginiana	<1" - 3"			
live oak	Quercus	virginiana	<1" - 4"			
hackberry	Celtis la	evigata	<1" - 4"			
eastern red cedar	Juniperu	<1"				
Acreage of Trees to be Removed		0.28				
Density per Acre (trees > 6" dbh)		brush area—no trees >6" dbh				
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)						
Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.						

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 0 trees.

Canopy coverage estimate: 70%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: persimmon and hackberry—berry; oak—acorn; cedar—berry-like cone.					
Land Use in the Project Area					
Undeveloped vacant land and residential					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks	Remarks				

GENERAL

Project/Site	Improvements to IH 35E		Area #: 3	Date	4 Feb 2009		
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton		
Filename	IH35E woodlands data forms.doc Field notes: Site 6						
	Drainet Coons						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1608+00.

Vegetation type: upland forest—mowed grass understory.

Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.

Understory: sparse grass (closely mowed), and includes the following-

vines: noneshrubs: none

grasses and sedges: Bermuda grass (*Cynodon dactylon*), panic grass (*Panicum* sp.)

• forbs: dandelion (Taraxacum officinale), henbit (Lamium amplexicaule), filaree (Erodium cicutarium)

Is Site Unusual or Typical of Others in the Area? | typical of areas near residences or businesses

SPECIES DESCRIPTION

Spe	ecies by Or	der of D	ominance	
Common Name		Та	xonomic Name	Range of Sizes
				(dbh)
post oak Quercus				16" – 22"
Acreage of Trees to be Removed		0.51	(number of trees >6" dbh: 34)	
Density per Acre (trees > 6" dbh)		67		
Demands Description of any Union a Long		T	- / OO" -II-I-)	

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 3a, 0.40 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area on the northward (Site 3b, CL Station 1616+00, 0.11 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees. Canopy coverage estimate: 70%.

Tree notes: six post oak trees are within this forest area with >20" dbh (21", 22", 23", 24", 31", 34").

HABITAT VALUE

Is the Site Adjacent to Water?	No			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acorns?				
Yes: oak—acorn.				
Land Use in the Project Area				
Residential, agricultural (pasture), and undeveloped vacant land				
Evidence or Sightings of Wildlife in the Project Area?				
Yes (song birds)—mowed understory diminishes value of area for wildlife habitat, except birds.				
Remarks				

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 4	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename	IH35E woodlands data forms.doc Field notes: Site 9					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1622+00.

Vegetation type: upland forest.

Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.

Understory: vine dominated understory is very sparse, and includes the following-

- vines: saw greenbrier (Smilax bona-nox), dewberry (Rubus sp.)
- shrubs: possumhaw (*Ilex decidua*)
- grasses and sedges: Bermuda grass (Cynodon dactylon)
- forbs: none observed

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name		Taxonomic Name	Range of Sizes		
			(dbh)		
post oak	Quercus	11" – 18"			
hackberry	Celtis lae	<1"			
American elm	Ulmus ar	mericana	<1"		
Bradford pear	Pyrus ca	lleryana	<1"		
Acreage of Trees to be Removed		0.70 (number of trees >6" dbh: 47)			
Density per Acre (trees > 6" dbh)		67			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 4a, 0.07 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 4b, CL Station 1606+00, 0.10 acre), at the same station on the west side of IH 35E (Site 4c, CL Station 1622, 0.40 acre); and northward on the west side of IH 35E (Site 4d, CL Station 1637+00, 0.13 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees. Canopy coverage estimate: 60%.

Tree notes: within Site 4b there is a 26" dbh catalpa (*Catalpa speciosa*) tree; within Site 4c there is a 29" dbh post oak tree.

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acc	Do Plants Produce Nuts, Berries, or Acorns?				
Yes: oak—acorn; hackberry—berry; elm—samara; pear—pome.					
Land Use in the Project Area					
Commercial and agricultural (pasture)					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 5	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename IH35E woodlands data forms.doc Field notes: Site 4					
	·	Droinet Coor			

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1624+00.

Vegetation type: riparian forest.

Overstory: dominated by American elm trees; trees generally not more than 60 feet tall.

Understory: sparsely vegetated, and includes the following—

- vines: saw greenbrier (*Smilax bona-nox*), grape (*Vitis* sp.), Japanese honeysuckle (*Lonicera japonica*)
- shrubs: Chinese privet (*Ligustrum sinense*), possumhaw (*Ilex decidua*)
- grasses and sedges: wood oats (Chasmanthium latifolium), Virginia wildrye (Elymus virginicus)
- forbs: giant ragweed (*Ambrosia trifida*), goldenrod (*Solidago* sp.), western ragweed (*Ambrosia psilostachya*), ironweed (*Vernonia* sp.)

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance				
Common Name		Taxonomic Name	Range of Sizes	
American elm	Ulmus ai	Ulmus americana		
bois d'arc	Maclura pomifera		<1"	
hackberry	Celtis laevigata		<1"	
Acreage of Trees to be Removed		0.49 (number of trees >6" dbh: 87)		
Density per Acre (trees > 6" dbh)		178		

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 5a, 0.31 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to a riparian forest area on the east side of IH 35E (Site 5b, CL Station 1623+00, 0.18 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 8 trees. Canopy coverage estimate: 90%.

Tree notes: one 30" dbh American elm is located ~100' north of data point area; one 35" American elm is located on the east side of IH 35E near this data point.

HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream			
Is the Site in a Developed Area?	No			
Do Plants Produce Nuts, Berries, or Acorns?				
Yes: elm—samara; bois d'arc—syncarp; hackberry—berry.	Yes: elm—samara; bois d'arc—syncarp; hackberry—berry.			
Land Use in the Project Area				
Agricultural (pasture) and undeveloped vacant land				
Evidence or Sightings of Wildlife in the Project Area?				
Yes (song birds); some saplings gnawed off—apparent beaver activity (not recent); no bird nests in culvert.				
Remarks				

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 6	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename IH35E woodlands data forms.doc Field notes: Site 13					
		D : 10			

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1643+00.

Vegetation type: savanna-like upland forest—mowed grass understory.

Overstory: dominated by American elm and pecan trees; trees generally not more than 40 feet tall.

Understory: complete grass cover (mowed), and includes the following-

- vines: saw greenbrier (Smilax bona-nox)
- shrubs: none
- grasses and sedges: Bermuda grass (*Cynodon dactylon*), Johnson grass (*Sorghum halepense*), silver bluestem (*Bothriochloa laguroides*), panic grass (*Panicum* sp.)
- forbs: none

Is Site Unusual or Typical of Others in the Area? | typical—of landscaped commercial areas

SPECIES DESCRIPTION

OI LOILO DECORRI TION			
	Species by Or	der of Dominance	
Common Name		Taxonomic Name	Range of Sizes (dbh)
American elm	Ulmus ar	mericana	17"
pecan	Carya illii	Carya illinoinensis	
hackberry	Celtis laevigata		<1"
Acreage of Trees to be Removed		0.42 (number of trees >6" dbh: 18)	
Density per Acre (trees > 6" dbh)		44	

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 6a, 0.17 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas northward (Site 6b, CL Station 1647+00, 0.16 acre) and northward on the west side of IH 35E (Site 6c, CL Station 1656+00, 0.09 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees. Canopy coverage estimate: 50%.

Tree notes: outside the data point area but within the area of impacts are four trees >20" dbh: one red mulberry (*Morus rubra*), 27"; three post oak (*Quercus stellata*) trees, 23", 30", 31".

HABITAT VALUE

Is the Site Adjacent to Water?	No			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acc	orns?			
Yes: elm—samara; pecan—nut; hackberry—berry.				
Land Use in the Project Area				
Commercial, transportation, and residential				
Evidence or Sightings of Wildlife in the Project Area?				
Nomaintained understory and nearby developed land renders area of little value to wildlife, except birds.				
Remarks				

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 7	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.de	oc Field note	s: Site 28		

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1643+00.

Vegetation type: savanna-like upland forest—mowed between individual trees or small groups of trees.

Overstory: dominated by cottonwood trees; trees generally not more than 70 feet tall.

Understory: mowed grass, and includes the following-

- vines: saw greenbrier (Smilax bona-nox
- shrubs: none
- grasses and sedges: Bermuda grass (*Cynodon dactylon*), Johnson grass (*Sorghum halepense*), Virginia wildrye (*Elymus virginicus*), flat sedge (*Cyperas* sp.)
- forbs: dandelion (*Taraxacum officinale*)

Is Site Unusual or Typical of Others in the Area? | typical—of landscaped commercial areas

SPECIES DESCRIPTION

OF EGIEG BEGOTTIF FIGURE			
Species by Order of Dominance			
Common Name	Taxonomic Name	Range of Sizes	
		(dbh)	
eastern cottonwood	Populus deltoides	17" – 18"	
hackberry	Celtis laevigata	<1" – 16"	
cedar elm	Ulmus crassifolia	<1" - 4"	
Bradford pear	Pyrus calleryana	<1" - 2"	
eastern red cedar	Juniperus virginiana	<1"	
Acreage of Trees to be Removed	0.26 (number of trees >6" dbh: 17)		

Acreage of Trees to be Removed	0.26 (n	number of trees >6" dbh: 17)	
Density per Acre (trees > 6" dbh)	67		

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 7a, 0.17 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area northward (Site 7b, CL Station 1654+00, 0.09 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees. Canopy coverage estimate: 50%.

Tree notes: within vicinity of the data point are three trees >20" dbh: cottonwood, 28"; hackberry, 25" and 28"; also, within Site 7b there is a 25" dbh cottonwood tree.

HABITAT VALUE

Is the Site Adjacent to Water?	No		
Is the Site in a Developed Area?	Yes		
Do Plants Produce Nuts, Berries, or Acc	orns?		
Yes: hackberry—berry; elm—samara; pear—pome; cedar—berry-like co	one.		
Land Use in the Project Area			
Commercial, transportation, and undeveloped vacant land			
Evidence or Sightings of Wildlife in the Project Area?			
No			
Remarks			
Occasionally mowed areas between large trees; poor quality habitat exc	cept for birds.		

GENERAL

Project/Site	Improvements to IH 35E		Area #: 8	Date	4 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename IH35E woodlands data forms.doc Field notes: Site 15					
		Dania at 0			

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1683+00.

Vegetation type: riparian forest.

Overstory: dominated by American elm trees; trees generally not more than 50 feet tall.

Understory: sparse understory (apparent water disturbance from ephemeral channel) includes—

- vines: poison ivy (Toxicodendron radicans)
- shrubs: none
- grasses and sedges: Johnson grass (Sorghum halepense)
- forbs: giant ragweed (*Ambrosia trifida*), goldenrod (*Solidago* sp.)

Is Site Unusual or Typical of Others in the Area? typical

SDECIES DESCRIPTION

SPECIES DESCRIPTION						
Species by Order of Dominance						
Common Name		Taxonomic Name	Range of Sizes (dbh)			
American elm	Ulmus ar	mericana	<1" - 10"			
eastern red cedar	Juniperu	s virginiana	<1" - 8"			
hackberry	Celtis lae	evigata	<1" - 5"			
Acreage of Trees to be Removed		0.15 (number of trees >6" dbh: 53)				
Density per Acre (trees > 6" dbh) 356						
Remarks, Description of any Unique, Large	Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)					
Impacts: trees would be removed to clear	existing a	nd proposed new right-of-way for cons	truction.			

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 16 trees. Canopy coverage estimate: 90%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water? Yes—ephemeral channel						
Is the Site in a Developed Area?	No					
Do Plants Produce Nuts, Berries, or Acc	orns?					
Yes: elm—samara; cedar—berry-like cone; hackberry—berry.						
Land Use in the Project Area	Land Use in the Project Area					
Commercial and vacant undeveloped land						
Evidence or Sightings of Wildlife in the Project Area?						
Yes (song birds)						
Remarks						

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 9	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename	IH35E woodlands data forms.d	oc Field notes	: Site 22			
Dunings Comp						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1702+00.

Vegetation type: upland forest.

Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.

Understory: sparsely vegetated, and includes the following—

- vines: saw greenbrier (Smilax bona-nox), dewberry (Rubus sp.)
- shrubs: none
- grasses and sedges: Johnson grass (Sorghum halepense)
- forbs: giant ragweed (Ambrosia trifida)

Is Site Unusual or Typical of Others in the Area? | typical

SPECIES DESCRIPTION

	Tayonomic Name	Danaga of C:
Taxonomic Name		Range of Sizes
	(dbh)	
Quercus	stellata	1" – 11"
Fraxinus	2" - 6"	
Ulmus crassifolia		2" – 4"
	0.83 (number of trees >6" dbh: 37)	
	44	
	Fraxinus	0.83 (number of trees >6" dbh: 37)

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 9a, 0.55 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 9b, CL Station 1695+00, 0.11 acre; and, Site 9c, CL Station 1690+00, 0.17 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees.

Canopy coverage estimate: 60%.

Tree notes: observed a 23" dbh post oak near ephemeral stream to the north.

HABITAT VALUE

Is the Site Adjacent to Water?	No, but ephemeral stream nearby				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn; ash and elm—samara.					
Land Use in the Project Area					
Commercial and undeveloped vacant					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					
Portions of understory disturbed in connection with recent construction of a two-lane road.					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 10	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename IH35E woodlands data forms.doc Field notes: Site 16						
Drainet Come						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1704+00.

Vegetation type: upland forest.

Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.

Understory: sparsely vegetated, and includes the following-

- vines: saw greenbrier (Smilax bona-nox), poison ivy (Toxicodendron radicans)
- shrubs: Chinese privet (Ligustrum sinense), coralberry (Symphoricarpos orbiculatus)
- grasses and sedges: Bermuda grass (*Cynodon dactylon*), panic grass (*Panicum* sp.), Virginia wildrye (*Elymus virginicus*), flat sedge (*Cyperas* sp.)
- forbs: giant ragweed (*Ambrosia trifida*), western ragweed (*Ambrosia psilostachya*), sunflower (*Helianthus annuus*)

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name		Taxonomic Name			
			(dbh)		
post oak	Quercus	Quercus stellata			
green ash	Fraxinus	<1" - 4"			
winged elm	Ulmus alata		<1"		
Acreage of Trees to be Removed		0.68 (number of trees >6" dbh: 151)			
Density per Acre (trees > 6" dbh)		222	_		

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 10a, 0.55 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area northward (Site 10b, CL Station 1712+00, 0.13 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 10 trees. Canopy coverage estimate: 70%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn; ash and elm—samara.					
Land Use in the Project Area					
Commercial and undeveloped vacant land					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 11	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename IH35E woodlands data forms.doc Field notes: Site 21						
Duringt Course						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1717+00.

Vegetation type: riparian forest.

Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.

Understory: characterized by dense greenbrier vines and sparse grasses, and includes the following—

- vines: saw greenbrier (Smilax bona-nox)
- shrubs: prickly-pear cactus (Opuntia sp.); possumhaw (Ilex decidua); Chinese privet (Ligustrum sinense)
- grasses and sedges: Bermuda grass (Cynodon dactylon), Johnson grass (Sorghum halepense), panic grass (Panicum sp.), little bluestem (Schizachyrium scoparium)
- forbs: goldenrod (Solidago sp.)

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name		Taxonomic Name	Range of Sizes		
			(dbh)		
post oak	Quercus	stellata	<1" - 10"		
American elm	Ulmus ai	mericana	4" - 6"		
hackberry	Celtis lae	Celtis laevigata			
green ash	Fraxinus pennsylvanica		<1" - 4"		
Acreage of Trees to be Removed		0.28 (number of trees >6" dbh: 37)			
Density per Acre (trees > 6" dbh)		133			
Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)					

Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 6 trees.

Canopy coverage estimate: 80%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	Yes—near pond to the west				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn; ash and elm—samara; hackberry—berry.					
Land Use in the Project Area					
Commercial and undeveloped vacant land					
Evidence or Sightings of Wildlife in the Project Area?					
Ducks in nearby pond; hawk observed; several swallow nests in nearby culvert under IH 35E					
Remarks					
Site is within the 100-year floodplain for the ephemeral channel draining into and out of the nearby pond.					

GENERAL

Project/Site	Improvements to IH 35E		Area #: 12	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename IH35E woodlands data forms.doc Field notes: Site 19						
Duniant Conna						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1747+00.

Vegetation type: upland forest.

Overstory: dominated by hackberry trees; trees generally not more than 40 feet tall.

Understory: sparsely vegetated, and includes the following—

- vines: saw greenbrier (*Smilax bona-nox*), grape (*Vitis* sp.)
- shrubs: Chinese privet (*Ligustrum sinense*), new deal weed (*Baccharis neglecta*), coralberry (*Symphoricarpos orbiculatus*), plum (*Prunus* sp.)
- grasses and sedges: none observed
- forbs: goldenrod (Solidago sp.)

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

	OF EGILO DESCRIPTION						
Species by Order of Dominance							
Common Name	Taxonomic Name		Range of Sizes				
			(dbh)				
hackberry	Celtis lae	evigata	<1" – 16"				
ndonoony	Conto iac	, vigata	VI 10				
Acreage of Trees to be Removed		0.23 (number of trees >6" dbh: 10)					
Density per Acre (trees > 6" dbh)		44					
Remarks, Description of any Unique, Larg	e, or Matu	re Trees (>20" dbh)					
Impacts: trees would be removed to clear			truction.				
	3	3					
Density sample: trees >6" dbh within a cir	cle with a	radius of 25 feet (0.045 acre) = 2 trees					
Canopy coverage estimate: 50%.							
Carlopy coverage estimate. 5070.							
Tree notes:							
TTCC TICICO.							

HABITAT VALUE

Is the Site Adjacent to Water?	No			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acc	orns?			
Yes: hackberry—berry.				
Land Use in the Project Area				
Commercial				
Evidence or Sightings of Wildlife in the Project Area?				
No				
Remarks				

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 13	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename	IH35E woodlands data forms.doc Field notes: Site 32					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1794+00.

Vegetation type: upland forest.

Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.

Understory: generally open with mixture of plant life forms, and includes the following-

- vines: saw greenbrier (Smilax bona-nox)
- shrubs: Chinese privet (Ligustrum sinense), Hercules' club (Zanthoxylum clava-herculis)
- grasses and sedges: silver bluestem (Bothriochloa laguroides), little bluestem (Schizachyrium scoparium)
- forbs: goldenrod (Solidago sp.), western ragweed (Ambrosia psilostachya)

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance				
Common Name	Taxonomic Name	Range of Sizes		
		(dbh)		
post oak	Quercus stellata	<1" – 12"		
eastern red cedar	Juniperus virginiana	<1" - 2"		
blackjack oak	Quercus marilandica	<1"		
winged elm	Ulmus alata	<1"		
hackberry	Celtis laevigata	<1"		
Acreage of Trees to be Removed	0.85 (number of trees >6" dbh: 133)			
Density per Acre (trees > 6" dbh)	156			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 13a, 0.54 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to a upland forest areas southward (Site 13b, CL Station 1786+00, 0.12 acre) and northward (Site 13c, CL Station 1801+00, 0.19 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 7 trees. Canopy coverage estimate: 60%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	No, but pond is near north end				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn; cedar—berry-like cone; elm—samara; hackberry—be	rry.				
Land Use in the Project Area					
Undeveloped vacant land					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 14	Date	4 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename	IH35E woodlands data forms.do	c Field notes	Field notes: Site 33			
Drainet Comp						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1800+00.

Vegetation type: riparian forest.

Overstory: dominated by persimmon trees; trees generally not more than 40 feet tall.

Understory: sparsely vegetated, and includes the following—

■ vines: grape (Vitis sp.)

• shrubs: coralberry (Symphoricarpos orbiculatus), blackberry (Rubus sp.)

grasses and sedges: none observed

• forbs: giant ragweed (Ambrosia trifida), goldenrod (Solidago sp.)

Is Site Unusual or Typical of Others in the Area? | typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name	Taxonomic Name		Range of Sizes (dbh)		
common persimmon	Diospyro	s virginiana	<1" - 4"		
green ash	Fraxinus	pennsylvanica	<1" - 4"		
black willow	Salix nig	gra	13"		
American elm	Ulmus americana		<1" - 9"		
hackberry	Celtis laevigata		<1" - 5"		
cedar elm	Ulmus crassifolia		<1" - 5"		
winged elm	Ulmus alata		<1" - 2"		
Bradford pear	Pyrus calleryana		<1" - 3"		
Acreage of Trees to be Removed		0.22 (number of trees >6" dbh: 10)			
Density per Acre (trees > 6" dbh)		44			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 2 trees.

Canopy coverage estimate: 90%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water? Yes (ephemeral channel an					
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acc	orns?				
Yes: persimmon and hackberry—berry; ash and elm—samara; pearpome.					
Land Use in the Project Area					
Commercial and undeveloped vacant land					
Evidence or Sightings of Wildlife in the Project Area?					
Yes (ducks on pond)					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 15	Date	12 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename	ame IH35E woodlands data forms.doc Field notes: Site 35					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1800+50.

Vegetation type: riparian forest.

Overstory: dominated by American elm trees; trees generally not more than 50 feet tall.

Understory: predominately giant ragweed and privet, and includes the following-

- vines: grape (Vitis sp.), poison ivy (Toxicodendron radicans)
- shrubs: Chinese privet (Ligustrum sinense), coralberry (Symphoricarpos orbiculatus)
- grasses and sedges: none observed
- forbs: giant ragweed (Ambrosia trifida), goldenrod (Solidago sp.), henbit (Lamium amplexicaule)

Is Site Unusual or Typical of Others in the Area? | typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name	Taxonomic Name		Range of Sizes (dbh)		
American elm	Ulmus ai	mericana	3" – 16"		
hackberry	Celtis lae	evigata	<1" - 8"		
black willow	Salix nig	ıra	<1" - 3"		
Acreage of Trees to be Removed 0.11 (number of trees >6" dbh: 12)					
Density per Acre (trees > 6" dbh) 111		111			
Remarks, Description of any Unique, Larg	je, or Matu	re Trees (>20" dbh)			
Impacts: trees would be removed to clear	r existing a	nd proposed new right-of-way for cons	truction.		
Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 5 trees.					
Canopy coverage estimate: 90%.					
T	.1 20. 2	and a state of the			
Tree notes: one 64" dbh multi-branch bla	CK Willow is	s in the data point vicinity.			

HABITAT VALUE

	· · · · · · · · · · · · · · · · · · ·				
Is the Site Adjacent to Water?	Yes—ephemeral stream				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: elm—samara; hackberry—berry.	Yes: elm—samara; hackberry—berry.				
Land Use in the Project Area					
Commercial and agricultural (pasture)					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 16	Date	12 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename	IH35E woodlands data forms.d	ands data forms.doc Field notes: Site 35				
Duniant Conna						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1803+00.

Vegetation type: upland forest.

Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.

Understory: grass/forb dominated, and includes the following—

- vines: saw greenbrier (Smilax bona-nox), poison ivy (Toxicodendron radicans)
- shrubs: Chinese privet (*Ligustrum sinense*)
- grasses and sedges: Virginia wildrye (Elymus virginicus), Bermuda grass (Cynodon dactylon), panic grass (Panicum sp.)
- forbs: giant ragweed (Ambrosia trifida), dandelion (Taraxacum officinale), aster (Aster sp.)

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name		Range of Sizes			
		(dbh)			
post oak	Quercus	stellata	12" – 18"		
cedar elm	Ulmus crassifolia		4" - 6"		
Acreage of Trees to be Removed		0.60 (number of trees >6" dbh: 53)			
Density per Acre (trees > 6" dbh)		89			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 16a, 0.38 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 16b, CL Station 1799+00, 0.11 acre; Site 16c, CL Station 1791+00, 0.06 acre; and, Site 16d, CL Station 1786+00, 0.05 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees. Canopy coverage estimate: 80%.

Tree notes: one 22" dbh post oak tree is in the vicinity of the data point.

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acc	orns?				
Yes: oak—acorn; elm—samara.					
Land Use in the Project Area					
Commercial and agricultural (pasture)					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 17	Date	12 Feb 2009		
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton		
Filename	ename IH35E woodlands data forms.doc Field notes: Site 34						
		D :					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1814+00.

Vegetation type: riparian forest.

Overstory: dominated by American elm trees; trees generally not more than 50 feet tall.

Understory: dominated by greenbrier vines, and includes the following-

- vines: saw greenbrier (Smilax bona-nox), grape (Vitis sp.)
- shrubs: Chinese privet (Ligustrum sinense), coralberry (Symphoricarpos orbiculatus)
- grasses and sedges: Virginia wildrye (Elymus virginicus)
- forbs: none observed

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

<u> </u>				
Sp	ecies by Oı	rder of Dominance		
Common Name		Taxonomic Name	Range of Sizes (dbh)	
American elm	Ulmus ai	mericana	<1" - 8"	
hackberry	Celtis la	evigata	<1" - 6"	
eastern cottonwood	Populus	Populus deltoides		
black willow	Salix nig	Salix nigra		
post oak	Quercus	Quercus stellata		
winged elm	Ulmus alata		<1" - 3"	
Acreage of Trees to be Removed		0.10 (number of trees >6" dbh: 18)		

Density per Acre (trees > 6" dbh) 178

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 8 trees.

Canopy coverage estimate: 90%.

Tree notes: data point included several dead black willow trees (not inventoried above).

HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream				
Is the Site in a Developed Area?					
Do Plants Produce Nuts, Berries, or Acc	orns?				
Yes: elm—samara; hackberry—berry; oak—acorn.					
Land Use in the Project Area					
Commercial and undeveloped vacant land					
Evidence or Sightings of Wildlife in the Project Area?					
Dead raccoon observed in area					
Remarks					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 18	Date	12 Feb 2009		
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton		
Filename IH35E woodlands data forms.doc Field notes: Site 34							
Ductions Commo							

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1816+00.

Vegetation type: upland forest.

Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.

Understory: dominated by greenbrier vines and privet, and includes the following—

- vines: saw greenbrier (Smilax bona-nox)
- shrubs: Chinese privet (Ligustrum sinense), coralberry (Symphoricarpos orbiculatus)
- grasses and sedges: none observed
- forbs: none observed

Is Site Unusual or Typical of Others in the Area? typical

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name		Ta	axonomic Name	Range of Sizes (dbh)	
post oak	Quercus	stellata	1	1" – 14"	
winged elm	Ulmus alata			<1" - 2"	
Acreage of Trees to be Removed		0.59	(number of trees >6" dbh: 92)		
Density per Acre (trees > 6" dbh)		156	<u> </u>		

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 18a, 0.41 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area southward (Site 18b, CL Station 1813+00, 0.18 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 7 trees. Canopy coverage estimate: 90%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	No				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn; elm—samara.					
Land Use in the Project Area					
Commercial and undeveloped vacant land					
Evidence or Sightings of Wildlife in the Project Area?					
Cottontail rabbit					
Remarks					

GENERAL

Project/Site	Improvements to IH 35E		Area #: 19	Date	12 Feb 2009	
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton	
Filename IH35E woodlands data forms.doc Field notes: Site 47						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1870+00.

Vegetation type: upland forest—mowed grass understory.

Overstory: dominated by loblolly pine trees; trees generally not more than 60 feet tall.

Understory: mowed grass, and includes the following-

vines: noneshrubs: none

grasses and sedges: Bermuda grass (Cynodon dactylon)

• forbs: clover (*Medicago* sp.)

Is Site Unusual or Typical of Others in the Area? unusual—loblolly pines not native to the area

SPECIES DESCRIPTION

<u> </u>			
Sp	pecies by Or	rder of Dominance	
Common Name		Taxonomic Name	Range of Sizes
			(dbh)
loblolly pine	Pinus tae	eda	8" – 17"
post oak	Quercus stellata		4" - 5"
Acreage of Trees to be Removed		0.42 (number of trees >6" dbh: 64)	
Density per Acre (trees > 6" dbh)		152	
Demarks Description of any Unique La	rac or Moto	ro Troco / 20" dbb)	

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 19a, 0.03 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward in the IH 35E median (Site 19b, CL Station 1854+00, 0.11 acre), southward on the east side of IH 35E (Site 19c, CL Station 1866+00, 0.18 acre), and northward on the east side of IH 35E (Site 19d, CL Station 1914+00, 0.10 acre).

Density sample: all trees >6" dbh within the forest area delineated (0.033 acre) were tallied: = 5 trees. Canopy coverage estimate: 90%.

Tree notes: included in Site 19d are three pine trees >20 dbh: 21", 23", 26".

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	Yes				
Do Plants Produce Nuts, Berries, or Acc	orns?				
Yes: pine—samara; oak—acorn.					
Land Use in the Project Area					
Commercial and transportation					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					
Data point is representative of commercial/transportation landscaping w little value as habitat, except possibly for birds.	ith loblolly pine trees in the vicinity;				

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 20	Date	12 Feb 2009		
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton		
Filename	Filename IH35E woodlands data forms.doc Field notes: Site 46						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1877+00.

Vegetation type: upland forest—mowed grass understory.

Overstory: dominated by post oak trees; trees generally not more than 40 feet tall.

Understory: mowed grass, and includes the following-

vines: noneshrubs: none

grasses and sedges: St. Augustine grass (Stenotaphrum secundatum)

■ forbs: none

Is Site Unusual or Typical of Others in the Area? | typical—for landscaped commercial/transportation areas

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name	Taxonomic Name		Range of Sizes		
			(dbh)		
post oak	Quercus	stellata	5" – 13"		
Acreage of Trees to be Removed		0.63 (number of trees >6" dbh: 168)			
Density per Acre (trees > 6" dbh)		267			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 20a, 0.39 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 20b, CL Station 1873+00, 0.21 acre) and northward on the east side of IH 35E (Site 20c, CL Station 1895+00, 0.03 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 12 trees.

Canopy coverage estimate: 90%.

Tree notes: included within Site 20c are three post oak trees >20" dbh: 22", 23", 26".

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	Yes				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn.					
Land Use in the Project Area					
Commercial, residential, and transportation					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					
Data point is representative of landscaped areas in the vicinity; little value as habitat, except for birds.					

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 21	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doo	c Field note	s: Site 39		

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1928+00 (by RR

tracks).

Vegetation type: upland forest.

Overstory: dominated by chinaberry trees; trees generally not more than 20 feet tall.

Understory: vine thicket understory, and includes the following-

■ vines: saw greenbrier (Smilax bona-nox)

shrubs: none observed

grasses and sedges: none observed

• forbs: none observed

Is Site Unusual or Typical of Others in the Area? unusual—only observed along railroad ROW

SPECIES DESCRIPTION

	Species by Order of Dominance	
Common Name	Taxonomic Name	Range of Sizes (dbh)
chinaberry	Melia azedarach	<1" - 7"
bois d'arc	Maclura pomifera	<1" - 3"
hackberry	Celtis laevigata	<1"
Acreage of Trees to be Removed	0.16 (number of trees >6" dbh; 4)	

Acreage of Trees to be Removed 0.16 (number of trees >6" dbh: 4)

Density per Acre (trees > 6" dbh) 22

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 21a, 0.09 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area northward (Site 21b, CL Station 1929+00, 0.07 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 1 tree. Canopy coverage estimate: 60%.

Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?	Yes				
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: chinaberry and hackberry—berry; bois d'arcsyncarp.					
Land Use in the Project Area					
Commercial and railroad right-of-way					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					
Area includes steep slopes of railroad ROW; likely regrowth from past R	Area includes steep slopes of railroad ROW; likely regrowth from past ROW maintenance.				

Page 21 of 27

GENERAL

Project/Site	Improvements to IH 35E		Area #: 22	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename IH35E woodlands data forms.doc Field notes: Site 41					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: east side of IH 35E.

Nearest IH 35E Centerline Station: 1956+00.

Vegetation type: upland forest—generally with a mowed grass understory.

Overstory: dominated by pecan trees; trees generally not more than 50 feet tall.

Understory: mowed/sparse grass, and includes the following-

- vines: saw greenbrier (Smilax bona-nox), grape (Vitis sp.)
- shrubs: Chinese privet (*Ligustrum sinense*)
- grasses and sedges: Bermuda grass (Cynodon dactylon)
- forbs: none observed

Is Site Unusual or Typical of Others in the Area? typical—trees are likely an orchard remnant

SPECIES DESCRIPTION

: b O.					
Species by Order of Dominance					
	Range of Sizes				
	(dbh)				
Carya illi	Carya illinoinensis				
Celtis laevigata		<1" - 2"			
Juniperus virginiana		<1" - 2"			
Acreage of Trees to be Removed)			
Density per Acre (trees > 6" dbh)					
	Carya illi Celtis lae	Taxonomic Name Carya illinoinensis Celtis laevigata			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 22a, 0.23 acre) would be removed to clear existing and proposed new right-of-way for construction; this sample point is also representative of five similarly forested areas on the west side of IH 35E (Site 22b, CL Station 1951+00, 0.63 acre; Site 22c, CL Station 1957+00, 0.45 acre; Site 22d, CL Station 1964+00, 0.21 acre; Site 22e, CL Station 1966+00, 0.22 acre; and, Site 22f, CL Station 1968+00, 0.11 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 5 trees. Canopy coverage estimate: 80%.

Tree notes: several trees >20" dbh within the vicinity of this data point (but on west side of IH 35E) include: one post oak (*Quercus stellata*), 24"; one cottonwood (*Populus deltoides*), 31"; one American elm (*Ulmus americana*), 28".

HABITAT VALUE

Is the Site Adjacent to Water?	No			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acorns?				
Yes: pecan—nut; hackberry—berry; cedar—berry-like cone.				
Land Use in the Project Area				
Commercial, institutional (Presbyterian Children's Home), and residential				
Evidence or Sightings of Wildlife in the Project Area?				
No				
Remarks				

Page 22 of 27

GENERAL

Project/Site	Improvements to IH 35E		Area #: 23	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename IH35E woodlands data forms.doc Field notes: Site 43					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1974+00.

Vegetation type: upland forest—mowed grass understory.

Overstory: dominated by post oak trees; trees generally not more than 50 feet tall.

Understory: mowed grass, and includes the following-

- vines: saw greenbrier (Smilax bona-nox)
- shrubs: none
- grasses and sedges: Bermuda grass (Cynodon dactylon)
- forbs: plantain (*Plantago* sp.), clover (*Medicago* sp.)

Is Site Unusual or Typical of Others in the Area? | typical—residential yard landscaping

SPECIES DESCRIPTION

Species by Order of Dominance					
Common Name	Taxonomic Name			Range of Sizes (dbh)	
post oak	Quercus stellata			16" – 27"	
cedar elm	Ulmus crassifolia			16" – 23"	
Acreage of Trees to be Removed		0.18 (nu	umber of trees >6" dbh: 9)		
Density per Acre (trees > 6" dbh)		50			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 23a, 0.16 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to an upland forest area southward (Site 23b, CL Station 1971+00, 0.02 acre).

Density sample: all trees >6" dbh within the forest area delineated (0.16 acre) were tallied: = 8 trees. Canopy coverage estimate: 90%.

Tree notes: Site 23a includes the following trees >20" dbh: three post oaks, 22", 26", 27"; and one cedar elm, 23"; additionally, Site 23b has one 35" eastern cottonwood (*Populus deltoides*).

HABITAT VALUE

Is the Site Adjacent to Water?	No				
Is the Site in a Developed Area?					
Do Plants Produce Nuts, Berries, or Acorns?					
Yes: oak—acorn; elm—samara.					
Land Use in the Project Area					
Residential and commercial					
Evidence or Sightings of Wildlife in the Project Area?					
No					
Remarks					
Data point is representative of other residential yards and common areas in the vicinity; little value as					
habitat, except possibly for birds.					

Page 23 of 27 CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

GENERAL

Project/Site	Improvements to IH 35E		Area #: 24	Date	12 Feb 2009		
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton		
Filename	Filename IH35E woodlands data forms.doc Field notes: Site 42						
	D : 10						

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 1987+00.

Vegetation type: upland forest—mowed grass understory.

Overstory: dominated by cedar elm trees; trees generally not more than 60 feet tall.

Understory: mowed grass, and includes the following-

- vines: none
- shrubs: Chinese privet (*Ligustrum sinense*)
- grasses and sedges: Bermuda grass (Cynodon dactylon), panic grass (Panicum sp.)
- forbs: none observed

Is Site Unusual or Typical of Others in the Area? | typical—residential yard landscaping

SPECIES DESCRIPTION

Species by Order of Dominance				
Common Name		Range of Sizes		
			(dbh)	
cedar elm	Ulmus cr	assifolia	3" – 16"	
post oak	Quercus	stellata	<1" - 4"	
green ash	Fraxinus pennsylvanica		<1"	
Acreage of Trees to be Removed		0.97 (number of trees >6" dbh: 65)		
Density per Acre (trees > 6" dbh)		67		

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 24a, 0.46 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to upland forest areas southward (Site 24b, CL Station 1983+00, 0.29 acre; and, Site 24c, CL Station 1980+00, 0.22 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees. Canopy coverage estimate: 80%.

Tree notes: eight trees in the vicinity (near Ave. C) are >20" dbh: one eastern red cedar (*Juniperus virginiana*), 21"; seven post oak trees, 21", 21", 23", 24", 24", 24".

HABITAT VALUE

Is the Site Adjacent to Water?	No			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acc	orns?			
Yes: ash and elm—samara; oak—acorn.				
Land Use in the Project Area				
Residential and commercial				
Evidence or Sightings of Wildlife in the Project Area?				
No				
Remarks				
Data point is representative of other residential yards and common areas in the vicinity; little value as				
habitat, except possibly for birds.				

Page 24 of 27 CSJs: 0195-03-050, -071, -075; 0196-01-056, -074

GENERAL

Project/Site	Improvements to IH 35E		Area #: 25	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	Filename IH35E woodlands data forms.doc Field notes: Site 51				

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E.

Nearest IH 35E Centerline Station: 2016+00.

Vegetation type: riparian forest.

Overstory: dominated by black willow trees; trees generally not more than 50 feet tall.

Understory: mowed grass, and includes the following-

- vines: none (stream channel maintained and kept clear of woody plants)
- shrubs: none (stream channel maintained and kept clear of woody plants)
- grasses and sedges: Bermuda grass (Cynodon dactylon), Johnson grass (Sorghum halepense)
- forbs: cattail (*Typha* sp.) (in stream bed)

Is Site Unusual or Typical of Others in the Area? | unusual—due to landscaped condition of area

SPECIES DESCRIPTION

Species by Order of Dominance			
Common Name	Taxonomic Name	Range of Sizes	
		(dbh)	
black willow	Salix nigra	<1" - 28"	
American elm	Ulmus americana	<1" – 18"	
box elder	Acer negundo	<1" - 17"	
green ash	Fraxinus pennsylvanica	<1" - 2"	
bois d'arc	Maclura pomifera	<1"	
A (T (D	0.05 / 1 () 0" " 1 7		

Acreage of Trees to be Removed	0.35 (number of trees >6" dbh: 7)
Density per Acre (trees > 6" dbh)	20

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.

Density sample: all trees >6" dbh within the forest area delineated (0.346 acre) were tallied: = 7 trees. Canopy coverage estimate: 60%.

Tree notes: site includes one 28" dbh (multi-stem) black willow tree.

HABITAT VALUE

intense management.

Is the Site Adjacent to Water?	Yes—ephemeral stream			
Is the Site in a Developed Area?	Yes			
Do Plants Produce Nuts, Berries, or Acc	orns?			
Yes: ash, box elder, and elm—samara; bois d'arc—syncarp.				
Land Use in the Project Area				
Institutional (university grounds), commercial, and transportation				
Evidence or Sightings of Wildlife in the Project Area?				
No				
Remarks				
Although riparian in nature, the area has a mowed lawn understory and a landscaped appearance (i.e., adjacent stream channel is kept free of brush); does not offer high quality habitat due to urban setting and				

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GENERAL

Project/Site	Improvements to IH 35E		Area #: 26	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doo	Field notes	: Site 53		

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35E—adjacent to IH 35W. Nearest IH 35W Centerline Station: 111+00.

Vegetation type: riparian forest.

Overstory: dominated by American elm trees; trees generally not more than 40 feet tall.

Understory: very sparsely vegetated, and includes the following-

• vines: poison ivy (Toxicodendron radicans), blackberry (Rubus sp.)

■ shrubs: none

grasses and sedges: none observed

forbs: none observed

Is Site Unusual or Typical of Others in the Area? | typical (of other wooded areas near railroad tracks)

SPECIES DESCRIPTION

OI EGIEG DEGOIGH TIGH			
Sp	ecies by O	Order of Dominance	
Common Name		Taxonomic Name	Range of Sizes (dbh)
American elm	Ulmus a	Ulmus americana	
common persimmon	Diospyro	Diospyros virginiana	
hackberry	Celtis la	Celtis laevigata	
black willow	Salix nigra		<1" - 9"
Acreage of Trees to be Removed		0.22 (number of trees >6" dbh: 20)	
Density per Acre (trees > 6" dbh) 89		89	,

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees in the data point area (Site 26a, 0.05 acre) would be removed to clear existing and proposed new right-of-way for construction; this data point is also representative of impacts to riparian forest areas southward (Site 26b, IH 35W CL Station 110+00, 0.10 acre) and westward on the opposite side of IH 35W (Site 26c, IH 35W CL Station 114+00, 0.07 acre).

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees. Canopy coverage estimate: 90%.

Tree notes: north of the data point area (near the National Guard Armory, IH 35 CL Station 2036+00) is a 30" dbh eastern cottonwood (*Populus deltoides*).

HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream			
Is the Site in a Developed Area?	No			
Do Plants Produce Nuts, Berries, or Acorns?				
Yes: elm—samara; persimmon and hackberry—berry.				
Land Use in the Project Area				
Commercial, institutional (university athletic fields), transportation, and undeveloped vacant land				
Evidence or Sightings of Wildlife in the Project Area?				
No				
Remarks				
Not directly adjacent to stream, but within 100-year floodplain of ephemeral stream.				

GENERAL

Project/Site	Improvements to IH 35E		Area #: 27	Date	12 Feb 2009
CSJ	0195-03-050, -071, -075; 0196-01-056, -074	Investigators	Rich Jaynes April English	County	Denton
Filename	IH35E woodlands data forms.doc Field notes: Site 57				
Drainet Coope					

Project Scope

From FM 2181 to US 380, Corinth and Denton, TX

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: west side of IH 35.

Nearest IH 35 Centerline Station: 2065+00.

Vegetation type: riparian forest.

Overstory: dominated by black willow trees; trees generally not more than 50 feet tall.

Understory: dominated by giant ragweed and greenbrier, and includes the following-

- vines: saw greenbrier (*Smilax bona-nox*), grape (*Vitis* sp.)
- shrubs: none
- grasses and sedges: Johnson grass (Sorghum halepense)
- forbs: giant ragweed (Ambrosia trifida), goldenrod (Solidago sp.), cattail (Typha sp.) (in stream bed)

Is Site Unusual or Typical of Others in the Area? | typical

SPECIES DESCRIPTION

Density per Acre (trees > 6" dbh)

OF EGIEG BEGOTTI FIGH				
Species by Order of Dominance				
Common Name	Taxonomic Name	Range of Sizes		
		(dbh)		
black willow	Salix nigra	<3" – 38"		
hackberry	Celtis laevigata	<1" - 3"		
eastern red cedar	Juniperus virginiana	<1" - 4"		
Acreage of Trees to be Removed	0.11 (number of trees >6" dbh: 10)			

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: trees would be removed to clear existing and proposed new right-of-way for construction.

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees. Canopy coverage estimate: 70%.

Tree notes: site includes one 38" dbh black willow tree (multi-stem). Also on the west side of IH 35 two additional large trees occur northward of this site, both of which are solitary trees with mowed grass understory: cottonwood (Populus deltoides), 22" dbh, near CL Station 2079+00; and, live oak (*Quercus virginiana*), 24" dbh, near CL Station 2075+00.

HABITAT VALUE

Is the Site Adjacent to Water?	Yes—ephemeral stream		
Is the Site in a Developed Area?	No		
Do Plants Produce Nuts, Berries, or Acorns?			
Yes: hackberry—berry; cedar—berry-like cone.			
Land Use in the Project Area			
Commercial/industrial, and agricultural (hay meadow)			
Evidence or Sightings of Wildlife in the Project Area?			
Crayfish burrows			
Remarks			

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Data for Areas with Fencerow Trees

Average width of fencerow tree areas: 14 feet.

Fencerow	Centerline	Side of 35E	Length	Area
Area #	Station*		(linear feet)	(acres)
1	1573	west	94	0.030
2	1575	west	72	0.024
3	1587	east	291	0.069
4	1593	east	130	0.025
5	1594	west	603	0.229
6	1601	west	110	0.034
7	1624	east	103	0.048
8	1624	west	329	0.124
9	1630	west	441	0.238
10	1720	west	276	0.084
11	1724	west	174	0.079
12	1776	west	322	0.078
13	1780	east	446	0.081
14	1787	east	394	0.078
15	1789	west	108	0.044
16	2062	west	115	0.028
17	2065	west	59	0.020
18	2069	west	59	0.034
19	2085	west	219	0.072
20	2091	west	528	0.125
		TOTAL	4,873 lf	1.544 ac.

^{*} Indicates the IH 35E centerline station nearest the southern extent of each area of fencerow trees; centerline stationing for fencerow areas 16-20 refer to IH 35.



January 21, 2010

Life's better outside."

Commissioners

Peter M. Holt Chairman San Antonio

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Carter P. Smith Executive Director Bryan W. Phillips
Ecological Resources Branch
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

RE: Proposed Reconstruction of IH 35E North Section: From FM 2181 to US 380 (Denton County, CSJs 0195-03-050, 0195-03-071, 0196-01-056, and 0196-01-074)

Dear Mr. Phillips:

The Texas Parks and Wildlife Department (TPWD) has reviewed the Environmental Assessment (EA) for the project referenced above. The project involves reconstruction of IH 35E with additional mainlanes, frontage road lanes, ramps, cross street interchanges, and managed/HOV concurrent flow (MHOV-C) lanes. Approximately 106.8 acres of new right-of-way (ROW) would be required.

The EA Section 5.1.5 Vegetation and Wildlife Habitat indicates that the project footprint would affect 643.81 acres inclusive of the proposed ROW. Half of the footprint comprises introduced grassland areas (317.79 ac), nearly half of the footprint comprises existing paved areas (301.7 ac), and the remaining footprint comprises vegetated or water resource areas (15.32 ac) that may serve importance as wildlife habitat as follows: stream channel and pond (0.39 ac), herbaceous wetland (0.19 ac), riparian forest (2.03 ac), upland forest (9.93 ac), fencerows (1.54 ac), and brush (1.24 ac.). It is anticipated that all disturbed areas within the project area that would not ultimately be paved, would be revegetated with grass-dominated ground cover that would be mowed.

The EA indicated that impacts to the channel, pond, and wetland areas are regulated waters, thus any required mitigation would be addressed through the Section 404 permitting process.

The EA indicates that TxDOT proposes non-regulatory mitigation for 11 upland forest sites that are dominated by Post Oak trees with a reasonable contiguous forest canopy and understory and account for 3.45 acres of upland forest at sites indicated in Appendix B-3 as 4a, 4c, 4d, 9a, 10a, 13a-c, 16a-b, and 18a.

4200 SMITH SCHOOL ROAD AUSTIN, TEXAS 78744-3291 512.389.4800 www.tpwd.state.tx.us

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

Bryan Phillips Page 2 January 21, 2010

Mitigation is expected through in-lieu payment or otherwise in accordance with the TxDOT woodland mitigation standards. The EA also indicated that much of the upland woodland areas consist of very isolated patches of post oak forest, landscape trees with mowed understories, were dominated by hackberry species that readily reestablishes themselves throughout the area, or contained stands of invasive Chinaberry trees, thus have low value to wildlife.

Of the 15.32 acres of vegetated areas of potential wildlife habitat, TxDOT found that all of the riparian, fencerow, and brushland areas and 6.48 acres of the upland forest areas did not warrant non-regulatory mitigation. The riparian impacts were considered small per site (<0.5 acre at 12 locations) and TxDOT indicated that where riparian habitat would be removed, woody species would re-establish themselves because they are in drainage easements that would not be mowed. Additionally, the need for riparian mitigation was diminished because TxDOT suggested there was an abundance of riparian habitat throughout the floodplains and lake areas in the general vicinity of Lewisville Lake and municipal limitations on development within floodplains and USACE regulatory programs would protect the remaining intact riparian areas in the general area.

TPWD agrees with much of the habitat assessment though disagrees regarding the quality of habitat assigned to some of the riparian areas within the project limits and regarding a portion of the upland forest sites. Riparian areas and upland forests within urban settings provide important travel corridors and refuge areas for wildlife. Some of the riparian areas that would be impacted by the project are part of an intact riparian corridor or contiguous with other habitats, such as upland post oak forests; therefore, value should be placed on the riparian habitats that exhibit such characteristics.

Request: Woodland mitigation should include impacts to those riparian areas that are adjacent to the woodland areas being considered for mitigation or are contiguous with other habitat valuable for the area's wildlife such as upstream or downstream riparian corridors. Based on aerial image review, site photographs, and the woodland data forms in Appendix B-3, the following riparian areas should be included in the woodland mitigation calculations: sites 5 (0.49 ac), 11 (0.28 ac), 14 (0.22 ac), 15 (0.11ac), and 17 (0.10 ac).

The woodlands data forms in Appendix B-3 identify a site by Area #, and some areas are subdivided and identified with a letter. For example, Area #4 contains 4a, 4b, 4c, and 4d. Of the upland forest sites identified in the EA for mitigation, all of the sites contain subdivided areas in which the data forms clearly indicate that the habitat within all the subdivided areas are representative of the data point, though the mitigation proposal leaves out many of the subdivided areas.

Bryan Phillips Page 3 January 21, 2010

Request: Woodland mitigation should include the following upland forest impacts to the subareas that were not included in the calculations: 4b (0.10 ac), 9b (0.11 ac), 9c (0.17 ac), 10b (0.13 ac), 16c (0.06 ac), 16d (0.05 ac), and 18b (0.18 ac). The requests for additional mitigation for impacts to some of the riparian and upland forest habitats would bring the total for non-regulatory mitigation to 5.45 acres.

TPWD advises review and implementation of these requests. If you have any questions, please contact me at (512) 917-4155.

Sincerely,

Karen B. Hardin

Wildlife Habitat Assessment Program

Wildlife Division

kbh/5894



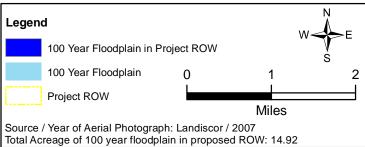


Figure B-6 100 Year Floodplain in the Project ROW

IH 35E from FM 2181 to US 380 Denton County, Texas