Wetland Delineation

InControl Technologies conducted a wetland delineation and USAGE Jurisdiction Assessment for the 75-acre tract (herein referred to as project site) located southeast of the intersection of SH 6 and the Fort Bend Parkway in southwest Fort Bend County, Texas **(Figure 1)** in May 2019. The subject property will be purchased by NewQuest Properties and developed into the Fort Bend Town Center III complex **(Figures 2 and 3).** A complete copy of the wetland delineation report is included in **Appendix A.**

Seven aquatic resource habitat classes were identified, including six vegetation communities and one other surface water within the survey area. These include the following classes:

Wetland ID	Wetland Type	Size (Acres)
Palustrine Forested Wetland	PFO	9.55
Palustrine Emergent Marsh	PEM	2.17
Other Surface Water	OSW	0.14
	Total	11.86

The wetlands in the above table provides the acreage of the wetlands within the project site identified in **Figure 4.** The following is a summary of the wetlands depicted in **Figure 4.**

Table 4: Summary of Special Aquatic Resources

Wetland ID	Wetland Type	Size (ac.)
OSW	PFO	0.14
Wet A	PFO	6.65
Wet B	PEM	1.06
WetC	PFO	1.19
Wet D	PFO	1.71
Wet E	PEM	0.82
Wet F	PEM	0.29
	Total:	11.86

Palustrine Emergent Wetlands (PEM)

Three PEM wetlands were delineated within the project area. Wetland B (1.06-acres); Wetland E (0.82 acres) and Wetland F (0.29-acre).

- **Wetland B** is a cut-out of the larger 6.65-acre Wetland A and occurs within two pipeline ROWs that intersect in the northwestern corner of the property. As a PEM Wetland B is devoid of woody vegetation, but maintains fairly robust assemblage of facultative and obligate wetland species including raven' foot sedge (Carex Grus-Corvi), Louisiana Sedge (Carex louisianica) Green flat sedge (Cyperus virens), dwarf Spikerush (Eleocharis parvula) soft rush (Juncus effusus) and rattlebush (Sesbania drummondii).

- **Wetland E** is located within the maintained powerline easement is the eastern boundary of the property. The dominant wetland species occupying this habitat Baldwin's spike rush, which is subordinated by soft rush and articulated flat sedge (Cyperus articulatus).

  Wetland F is an isolated man-made excavation located above Zone AE (outside the 100-year floodplain). It is a small surface water dominated by a monoculture of cattails (Typha latifoliate). This feature lies outside the 100-year floodplain and only has an insubstantial connection to downstream waters. This wetland is isolated from Traditionally Navigable Waters.

Palustrine Forested Wetlands (PFO)

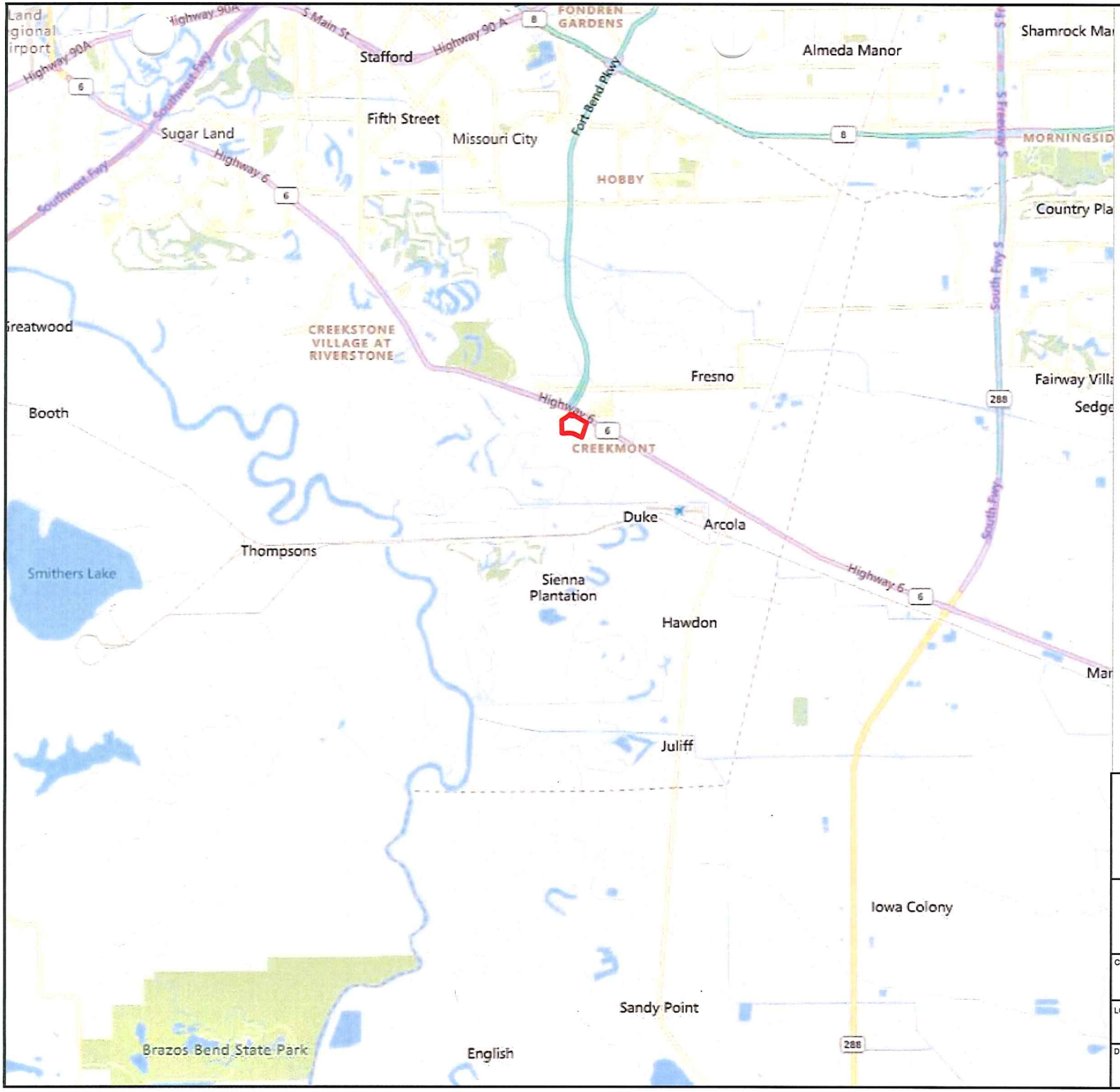
The Palustrine Forested Wetland community identified within the project area consists of wetland areas dominated by mature trees, shrubs, and herbaceous species. The following is a description of each PFO wetland area identified in Figure 3:

Wetland A (6.65 acres) is a bifurcated system composed of two forested wetlands occupying depressions in the northwestern and southwestern quadrants of the property. Wetland A is a bifurcated system that drains toward the southeastern corner of the property where it converges with Wetlands E and F. These wetlands discharge into a small impoundment which in turn drains to the south of the property through an arcing drainage path that is composed of a monoculture of cattails (Typha latifolia). The northern fork of Wetland A, as depicted in Figure 6 and Figure 6A, arcs around the central upland that occupies the north central portion of the property. The southern fork of Wetland B is separated from the northern fork by a smaller upland rise that levels out towards the east allowing the two wetlands to merge. The interior of the systems is vegetated with an herbaceous layer of maidencane.

- **Wetlands C and D** at 1.19 and 1.71 acres respectively are located along the eastern margin of the afore-mentioned central upland and are only separated by a long narrow upland berm that serves to segregate the two systems and limit hydrologic exchanges (Figure 6). Absent this berm, the two habitats are basically similar in vegetative composition and hydrology, and both are confined by steep embankments. However, the large Wetland D extends to the northern boundary of the project area and receives stormwater discharge from a culvert that appears to receive storm runoff from Highway 6. Near the northern limit of Wetland D, stands the concrete foundation of what appears to be a pumphouse that was part of some previous land use for the property. Wetland D appears to have functioned as a spillway for this facility which may have once directed intermittent discharges south through this wetland area. The berm separating the two wetlands may have been constructed to confine the flow to Wetland D. The vegetative communities of Wetlands C and D have similar vegetation components to that of Wetland A, with the exception that Wetlands C and D appear to have a greater density of Chinese tallow tree as canopy species.

Other Surface Water (OSW)

The Other Surface Water consisted of a small drainage impoundment approximately 0.14-acre in size occurring within the powerline ROW, and east of the confluence of Wetlands A, C and D. This OSW discharges to the southeast of the property through the vegetated ditch is visible in **Figure 4**.



InControl Technologies
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Site Location on Topographic Map

CLIENT: NewQuest Properties			PM: MFM
LOCATION: SEC Fort Bend Toll & Hwy 6 Missouri City, TX 77545			CHECKED:
DETAILED: 3/2/2020	DESIGNED: MFM	PROJECT NO: 320-223	FIGURE: 1

LEGEND

Property Boundary

N

0 800 1600

Approximate Scale (Feet)

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Site Layout and Vicinity
2019 Aerial Photograph

CLIENT: NewQuest Properties			PM: JMS
LOCATION: SEC Fort Bend Toll & Hwy 6 Missouri City, TX 77545			CHECKED:
DETAILED: 9/11/19	DESIGNED: DB	PROJECT NO: 320-223	FIGURE: 2

LEGEND

- Property Boundary
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

N

0 50 100

Approximate Scale (Feet)

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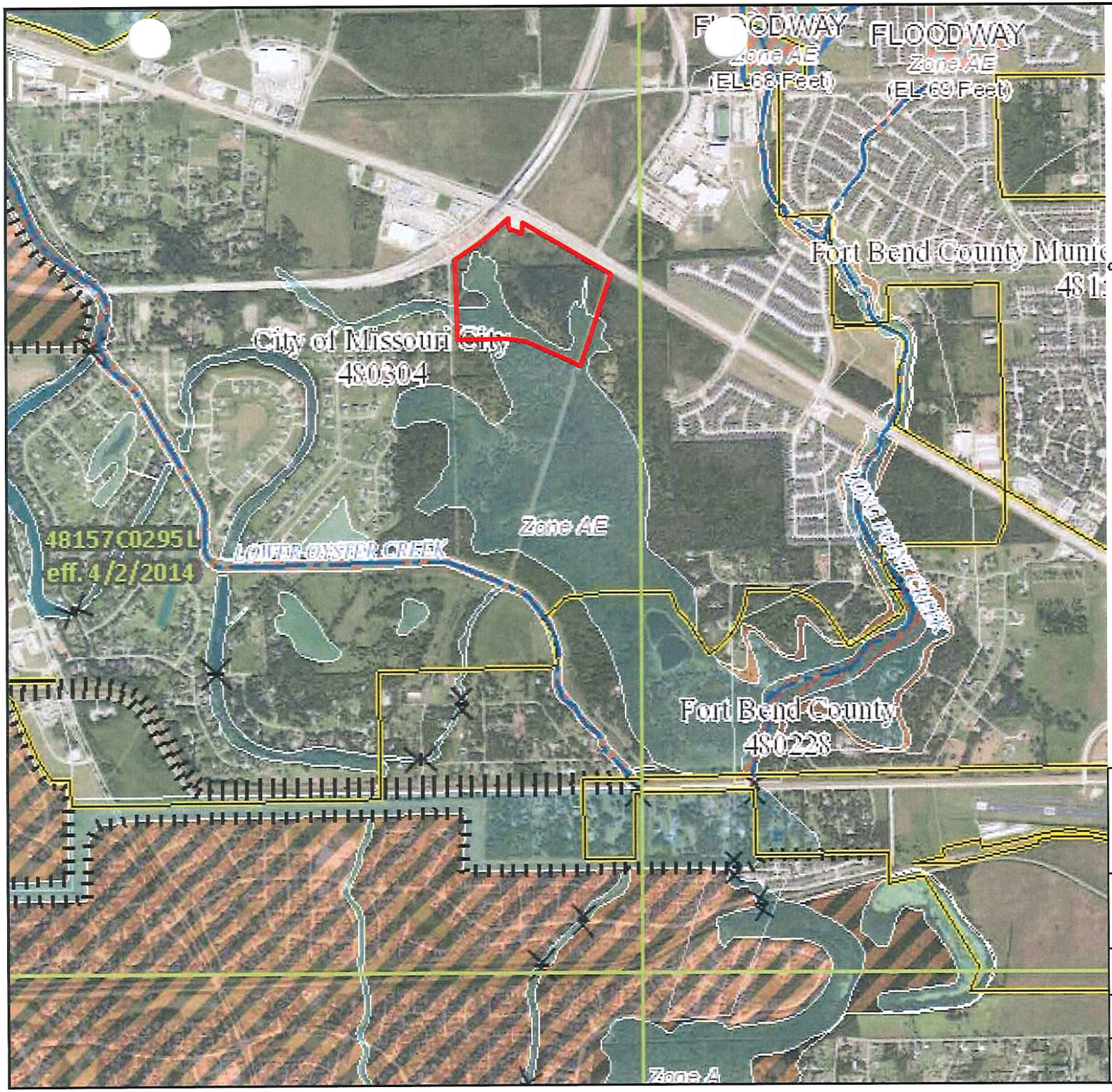
National Wetland Inventory Map

CLIENT: NewQuest Properties			PM: MFM
LOCATION: SEC Fort Bend Toll & Hwy 6 Missouri City, TX 77545			CHECKED:
DETAILED: 3/19/2020	DESIGNED: MFM	PROJECT NO: 320-223	FIGURE: 3



LEGEND

Property Boundary

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes. Zone X
	Area with Flood Risk due to Levee Zone D
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
	Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	20.2 Cross Sections with 1% Annual Chance
	17.5 Water Surface Elevation
	Coastal Transect
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature

N

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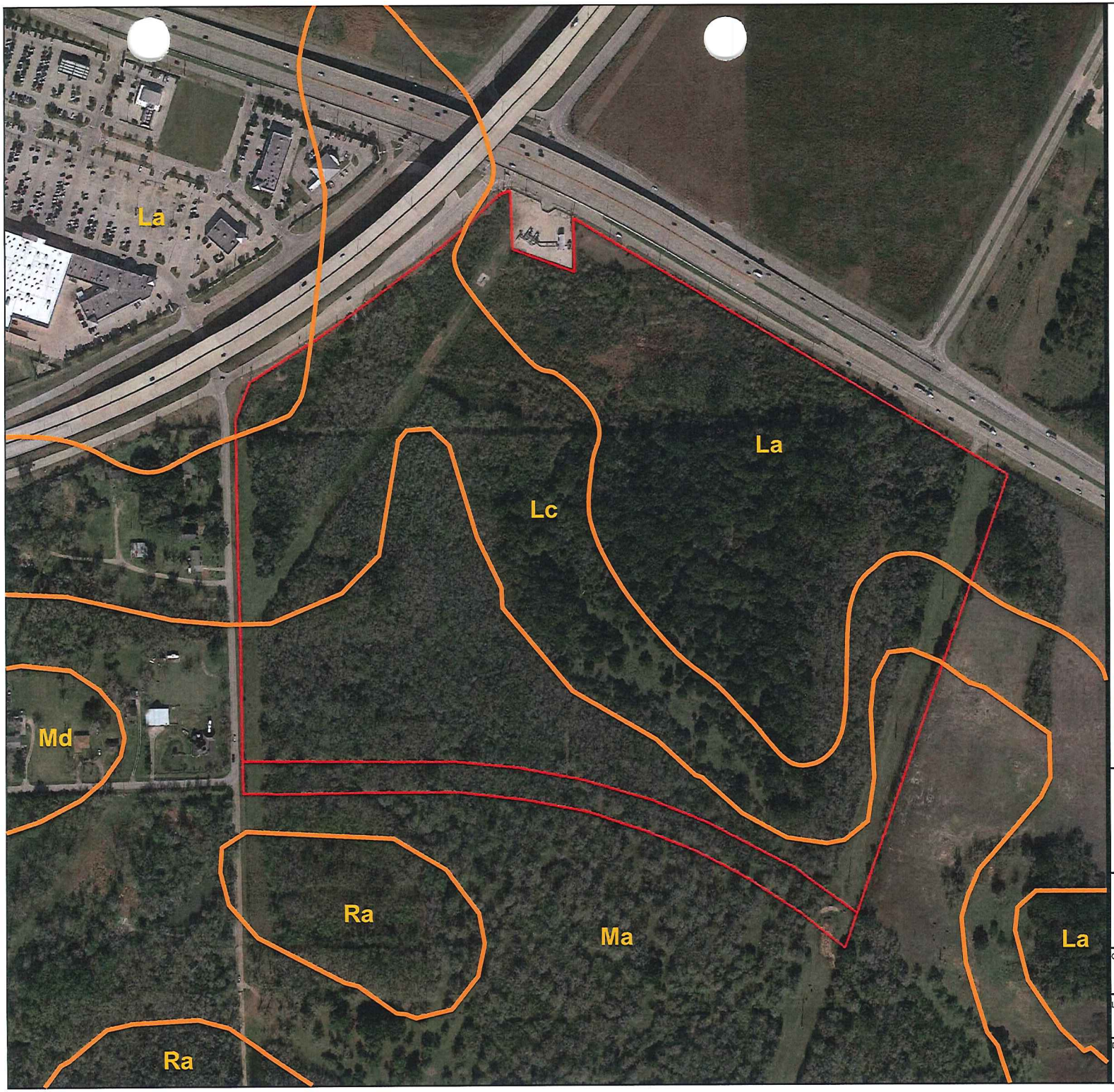
FEMA Flood Hazard Map

CLIENT: NewQuest Properties			PM: MFM
LOCATION: SEC Fort Bend Toll & Hwy 6 Missouri City, TX 77545			CHECKED:
DETAILED: 3/19/2020	DESIGNED: MFM	PROJECT NO: 320-223	FIGURE: 4



LEGEND

Property Boundary

N

0 400 800

Approximate Scale (Feet)

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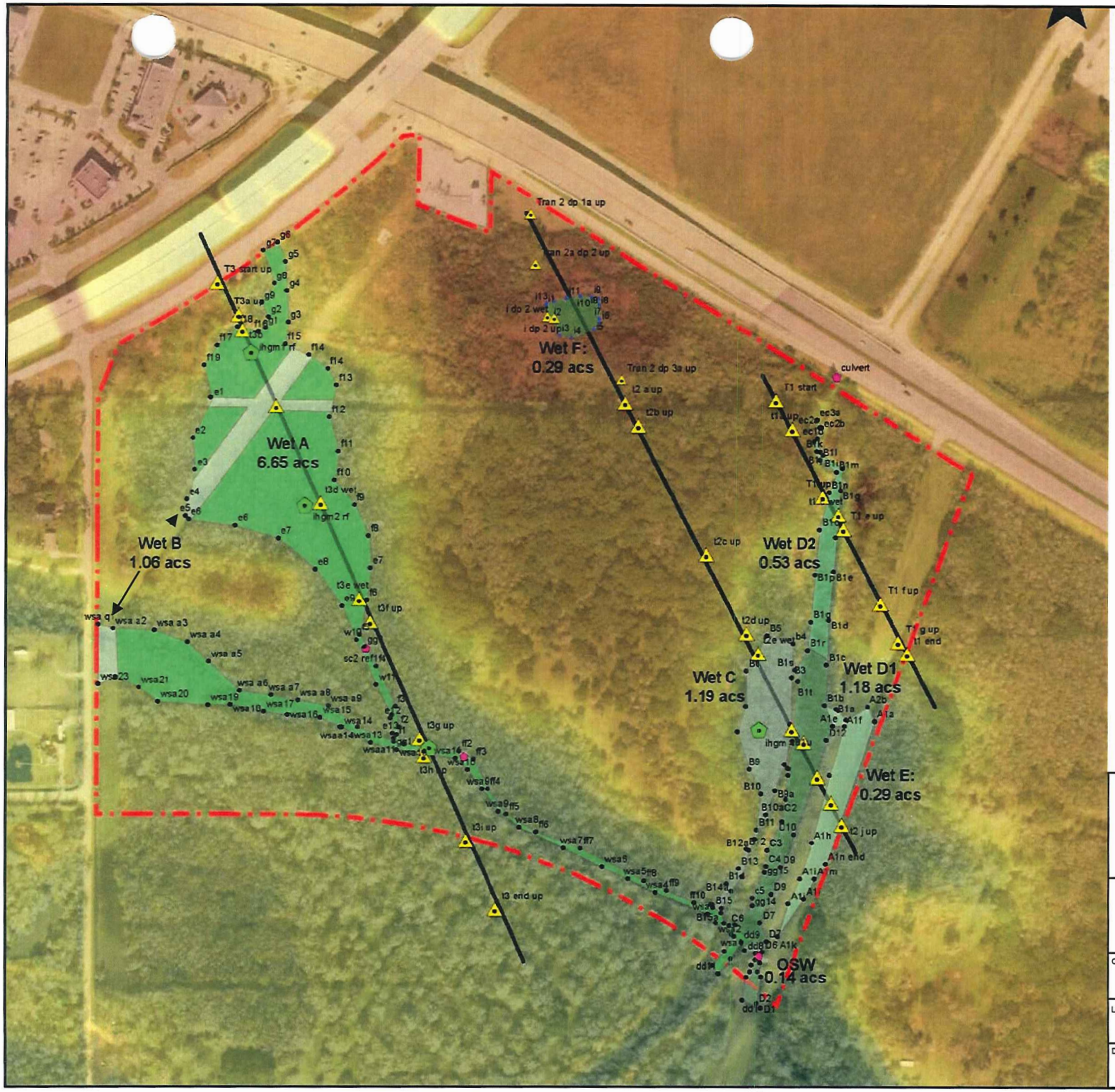
NRCS Soils Map

CLIENT:			PM:
NewQuest Properties			MFM
LOCATION:0	SEC Fort Bend Toll & Hwy 6 Missouri City, TX 77545		CHECKED:
DETAILED:	DESIGNED:	PROJECT NO:	FIGURE:
3/19/2020	MFM	320-223	5



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Wetland Delineation Map With Sampling Points

CLIENT: NewQuest Properties			PM: MFM
LOCATION:0 SEC Fort Bend Toll & Hwy 6 Missouri City, TX 77545			CHECKED:
DETAILED: 3/19/2020	DESIGNED: MFM	PROJECT NO: 320-223	FIGURE: 6