



# CITY OF AUSTIN ENVIRONMENTAL RESOURCE INVENTORY FOR THE APPROXIMATELY 68.9-ACRE 4801 E. YAGER LANE TRACT

Travis County, Texas

February 2022

#### Submitted to:

River City Capital Partners, LLC 3003 Manchaca, Austin, TX 78704

### Prepared By:

aci Group, LLC 1001 Mopac Circle Austin, Texas 78746 TBPG Firm License No. 50260

aci Project No.: 22-19-040

#### **Environmental Resource Inventory**

For the City of Austin
Relating to the Land Development Code (LDC) Section 25-8, Title 30-5, ECM 1.3.0 & 1.10.0
Effective October 28, 2013

The ERI is required for projects that meet one or more of the criteria listed in (LDC) Section 25-8-121(A), Title 30-5-121(A).

1. SITE/PROJECT NAME: 4801 E. Yager Lane Tract 2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 247875 3. ADDRESS/LOCATION OF PROJECT: 4801 E. Yager Lane Harris Branch Watershed 4. WATERSHED: 5. THIS SITE IS WITHIN THE (Check all that apply) Edwards Aquifer Contributing Zone\*......□YES ☑No Edwards Aquifer 1500 ft Verification Zone\* ...... □YES ☑No Barton Spring Zone\* ......□YES ⊠No \*(as defined by the City of Austin – LDC 25-8-2) Note: If the property is over the Edwards Aquifer Recharge zone, the Hydrogeologic Report and karst surveys must be completed and signed by a Professional Geoscientist Licensed in the State of Texas. 6. DOES THIS PROJECT PROPOSE FLOODPLAIN MODIFICATION?......□YES\*\* ☒NO If yes, then check all that apply: (1) The floodplain modifications proposed are necessary to protect the public health and safety; (2) The floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health as prescribed by the Environmental Criteria Manual, or (3) The floodplain modifications proposed are necessary for development allowed in the critical water quality zone under Section 25-8-261 or 25-8-262 of the LDC. (4) The floodplain modifications proposed are outside of the Critical Water Quality Zone in an area determined to be in poor or fair condition by a functional assessment of floodplain health. \*\* If yes, then a functional assessment must be completed and attached to the ERI (see Section 1.7 and Appendix X in the Environmental Criteria Manual for forms and guidance) unless conditions 1 or 3 above 7. IF THE SITE IS WITHIN AN URBAN OR SUBURBAN WATERSHED, DOES THIS PROJECT PROPOSE A UTILITY LINE PARALLEL TO AND WITHIN THE CRITICAL WATER QUALITY ZONE? ......□YES\*\*\* ⊠NO \*\*\*If yes, then riparian restoration is required by Section 25-8-261(E) of the LDC and a functional assessment must be completed and attached to the ERI (see Section 1.5 and Appendix X in the **Environmental Criteria Manual for forms and guidance).** 8. There is a total of \_\_\_\_ (#'s) Critical Environmental Feature(s)(CEFs) on or within150 feet of the project site. If CEF(s) are present, attach a detailed **DESCRIPTION** of the CEF(s), color PHOTOGRAPHS, the CEF WORKSHEET and provide DESCRIPTIONS of the proposed CEF buffer(s) and/or wetland mitigation. Provide the number of each type of CEFs on or within 150 feet of the site (Please provide the number of CEFs):

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0	_ (#'s) Spring(s)/Seep(s)	0	_ (#'s) Point Recharge Feature(s)	0	_ (#'s) Bluff(s)
0	_ (#'s) Canyon Rimrock(s)	2	_ (#'s) Wetland(s)		

Note: Standard buffers for CEFs are 150 feet, with a maximum of 300 feet for point recharge features. Except for wetlands, if the standard buffer is <u>not provided</u>, you must provide a written request for an administrative variance from Section 25-8-281(C)(1) and provide written findings of fact to support your request. Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.

9. The following site maps are attached at the end of this report (Check all that apply and provide):

#### All ERI reports must include:

- Site Specific Geologic Map with 2-ft Topography
- **⋈** Historic Aerial Photo of the Site

Only if present on site (Maps can be combined):

- ☐ Edwards Aquifer Recharge Zone with the 1500-ft Verification Zone (Only if site is over or within 1500 feet the recharge zone)
- □ Edwards Aquifer Contributing Zone
- ☐ Water Quality Transition Zone (WQTZ)
- ☑ City of Austin Fully Developed Floodplains for all water courses with up to 64-acres of drainage
- 10. **HYDROGEOLOGIC REPORT** Provide a description of site soils, topography, and site specific geology below (Attach additional sheets if needed):

**Surface Soils** on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups\*. If there is more than one soil unit on the project site, show each soil unit on the site soils map.

Soil Series Unit Names, Infiltration Characteristics & Thickness							
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)					
See attachment Q10-1							

- \*Soil Hydrologic Groups Definitions (Abbreviated)
- A. Soils having a <u>high infiltration</u> rate when thoroughly wetted.
- B. Soils having a moderate infiltration rate when thoroughly wetted.
- C. Soils having a <u>slow infiltration</u> rate when thoroughly wetted.
- D. Soils having a <u>very slow</u> <u>infiltration</u> rate when thoroughly wetted.
- \*\*Subgroup Classification See <u>Classification of Soil Series</u> Table in County Soil Survey.

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#### Description of Site Topography and Drainage (Attach additional sheets if needed):

According to the City of Austin 2-foot Topographic contours, the elevation within the subject area varies from 640 feet to 592 feet above mean sea level. The elevation across the subject area generally slopes downward from the southwest to the northeast. According to the Austin East USGS topographic quadrangle there are no blue lines within the subject area.

Reference:

(Coa) City of Austin. 2012. Two Foot Topographic Lines. City of Austin; Austin, TX.

(USGS) US. Geologic Survey. 1996. Austin East, Texas Quadrangle. USGS--Dept. of the Interior: Denver, Co.

#### List surface geologic units below:

Geologic Units Exposed at Surface									
Group	Formation	Member							
Quaternary Alluvium (Qal)	NA	NA							
Taylor Group (Kta)	NA	NA							

#### Brief description of site geology (Attach additional sheets if needed):

#### See Attachment Q10-2

Quaternary Alluvium (Qal) - "Floodplain deposits, including indistinc t low terrace deposits; clay, silt, sand, and gravel; ~ silt and clay, calcareous to surface, dark gray to darlt brown; sand largely quartz; gravel, siliceous, mostly chert, quartzite, limestone, and petrified wood, along Colorado River much igneous and metamorphic rock, probably mostly reworked from terrace deposits; fluviotile morphology well preserved with point bars, oxbows, and abandoned channel segments"

Taylor Group (Kta) - "Clay, dark gray to green-gray, calcareous, montmorillonitic; generally more calcareous in mid-portion of unit"

#### References:

Garner, L.E., 1992. Geologic Map of the Austin Area, Texas. Reprinted 1995. Bureau of Economic Geology. Austin, Texas. Scale 1:62,000.

**Wells** – Identify all recorded and unrecorded wells on site (test holes, monitoring, water, oil, unplugged, capped and/or abandoned wells, etc.):

There are $\underline{0}$ (#) wells present on the project site and the locations are shown and labeled
(#'s)The wells are not in use and have been properly abandoned.
(#'s)The wells are not in use and will be properly abandoned.
(#'s)The wells are in use and comply with 16 TAC Chapter 76.
There are <sup>0</sup> (#'s) wells that are off-site and within 150 feet of this site.

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Attachment Q11-1	
There is woodland community on If yes, list the dominant species b	site⊠YES □ NO (C
Woo	dland species
Common Name	Scientific Name
Mesquite	Prosopis glandulosa
Black Willow	Salix nigra
Hackberry	Celtis occidentalis
Live Oak	Quercus fusiformis
Ashe Juniper	Juniperus ashei
There is grassland/prairie/savann f yes, list the dominant species b	a on site⊠YES □ NO <i>(Che</i> elow:  rairie/savanna species
Grassland/pr	
Grassland/pi Common Name	Scientific Name
-	Scientific Name Sorghum halepense
Common Name	

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Hydrophytic plant species									
Common Name Scientific Name Undicator Status									
Spike Rush	Eleocharis sp.	FacW							
Curly Doc	Rumex crispus	FacW							
Black Willow	Salix nigra	FacW+							
Rooseveltweed	Bacharris neglecta	Fac							
Smartweed	Polygonum sp.	Obl							

		76 1					
12. <b>W</b>	half feet above natural gra  ☐YES ☒ NO (Check one).	with a diameter of at least eight inchide level has been completed on the Provide the information requested b	e site.				
	Wastewater for the site wi	Il be treated by (Check of that Apply):					
	☐ On-site system(s)	<b>y</b> (** ** * * * * * * * * * * * * * * * *					
		ralized sewage collection system					
	☐ Other Centralized	collection system					
	Note: All sites that receive water Chapter 15-12 of Austin City Co	r or wastewater service from the Austin Wat de and wells must be registered with the Ci	er Utility must comply with ty of Austin				
	The site sewage collection system is designed and will be constructed to in accordance to all State, County and City standard specifications.  ⊠YES □ NO (Check one).						
	Calculations of the size of the end of this report or shape of the NO ⊠ Not App		tion area(s) are attached at				
		osed within the Critical Water Quali If yes, then provide justification belo	•				

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Print Name  Telephone madams@aci-group.net  Email Address  aci group, LLC TBPG Firm License No. 50260  Name of Company  Date  For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).	Is the project site is over the Edwards Aqu ☐YES ☒ NO <i>(Check one).</i>	ifer?
13. One (1) hard copy and one (1) electronic copy of the completed assessment have been provided.  Date(s) ERI Field Assessment was performed:  My signature certifies that to the best of my knowledge, the responses on this form accurately reflect all information requested.  Mark T. Adams  (512) 347-9000  Telephone  madams@aci-group.net  Signature  aci group, LLC TBPG Firm License No. 50260  Name of Company  Date  For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM  1.12.3(A).		
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My signature certifies that to the best of my knowledge, the responses on this form accurately reflect all information requested.  Mark T. Adams  Print Name  Telephone  madams@aci-group.net  Email Address  aci group, LLC TBPG Firm License No. 50260  Name of Company  Date  For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).		opy of the completed assessment have been
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reflect all information requested.  Mark T. Adams  Print Name  Signature  aci group, LLC TBPG Firm License No. 50260  Name of Company  Date  For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM  1.12.3(A).		Date(s)
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Name of Company  Date  For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).		madams@aci-group.net
Name of Company  Date  For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).	Signature	Email Address
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that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).	Name of Company	Date
	that I am a licensed Professional Geoscientist in t	

P.G. Seal

Print Form

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#### List of Attachments for the

#### **Environmental Resource Inventory Form**

Question 8:

Q8-1: Critical Environmental Features

Question 9:

Q9-1. Site Specific Geologic Map with 2ft Topography

Q9-2. Historic Aerial Photo of the Site (1996)

Q9-3. Site Soil Map

Q9-4. Critical Environmental Feature Map

Q9-5. Critical Water Quality Zone and City of Austin Fully Developed

#### Floodplain

Question 10:

Q10-1. Surface Soils

Q10-2. Site Geology

Q10-3. Wells

Question 11:

Q11-1. Vegetation Report



#### **Question 8 Attachments**

# City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

1	Project Name:	4801 E. Yager Lane Tract
2	Project Address:	4801 E. Yager Lane
3	Site Visit Date:	4/2/2019
4	Environmental Resource Inventory Date:	

5	Primary Contact Name:	Mark T. Adams, P.G.
6	Phone Number:	512-347-9000
7	Prepared By:	aci consulting
8	Email Address:	madams@aci-group.net

9	FEATURE TYPE {Wetland,Rimrock, Bluffs,Recharge	Wetland Rimrock, Rluffs Recharge   FEATURE ID   (WGS 1984 in Meters)   (WGS 1984 in Meters)			WETL DIMENSI		RIMROCK/BLUFF DIMENSIONS (ft)		RECHARGE FEATURE DIMENSIONS			Springs Est. Discharge			
	Feature,Spring}	(eg S-1)	coordinate	notation	coordinate	notation	Х	Υ	Length	Avg Height	Χ	Υ	Z	Trend	cfs
	Wetland	Wet-1	30.368954	DD	-97.629396	DD	285.41	285.41							
	Wetland	Wet-2	30.371145	DD	-97.627476	DD	277.67	277.67							

City of Austin Use Only CASE NUMBER:

For rimrock, locate the midpoint of the segment that describes the feature.



For wetlands, locate the approximate centroid of the feature and the estimated area.



For a spring or seep, locate the source of groundwater that feeds a pool or stream.



Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement.

MethodAccuracyGPSXsub-meterSurveyedmeter

Other > 1 meter X

Professional Geologists apply seal below

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#### **Q8-1 Critical Environmental Features**

Section 25-8-1 of the City of Austin LDC defines CEFs as "features that are of critical importance to the protection of environmental resources, and include bluffs, canyon rimrocks, caves, faults and fractures, seeps, sinkholes, springs, and wetlands."

Aerial photographs and topographic maps were utilized to orient surveyors in the field. If potential CEFs were identified in the field, they were carefully examined and recorded, and each potential feature was described, photographed and its location recorded using a handheld Garmin RINO 650T GPS unit.

Field reconnaissance on April 2, 2019, identified two potential Critical Environmental Features. The City of Austin (CoA) staff visited the site on April 8, 2021 to verify the features. The findings and comments from the CoA are reflected in this revised ERI report.

CEF type	Feature ID	Physical Dimensions	Buffer width/radius
Wetland	Wet-1	1.87-acres	150-feet
Wetland	Wet-2	1.77-acres	150-feet

#### REFERENCES

(CoA) City of Austin. 2022. Property Profile Tool. Accessed on February 24, 2022. Available at: https://www.austintexas.gov/GIS/PropertyProfile/



Wet-1

GPS: N. 30.368954 W. -97.629396

This feature is the wetland fringe surrounding a manmade stock pond within a natural intermittent stream. The total area of Wet-1 is 1.87 acre. Wet-1 contains reduced hydric soils, hydrophytic vegetation and hydrologic connectivity to a downstream Traditionally Navigable Waterway (TNW). Hydrophytic vegetation present includes spike rush, curly doc, meadow garlic, sumpweed, and black willow.

Recommendation: This feature will receive a buffer of 150ft



Photo of Wet-1: Wetland fringe along stock pond.



Wet-2

GPS: N. 30.371145 W. -97.627476

This feature is the wetland fringe surrounding three manmade stock ponds within two joined natural intermittent streams. Wet-2 is the downstream extent of Wet-1, the two CEF's segmented by metal culvert. The total area of Wet-2 is 1.77 acre. Wet-2 contains reduced hydric soils, hydrophytic vegetation and hydrologic connectivity to a downstream TNW. Hydrophytic vegetation present includes spike rush, curly doc, meadow garlic, sumpweed, soft-stem bullrush, and black willow.

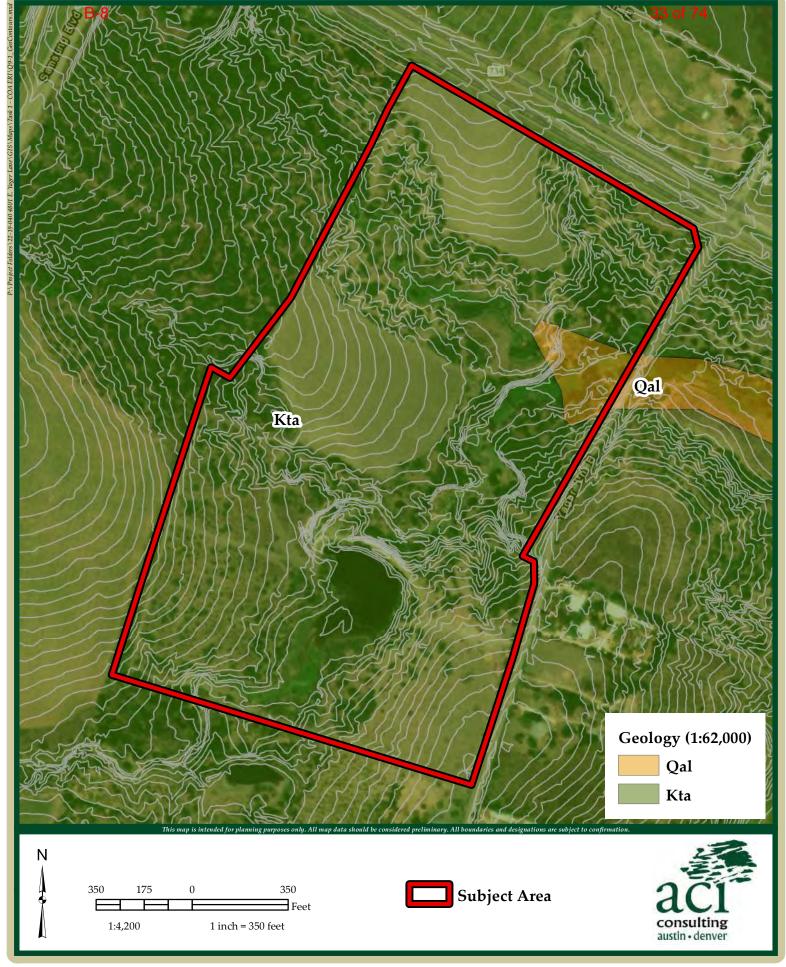
Recommendation: This feature will receive a buffer of 150ft



Photo of Wet-2: Wetland fringe along intermitten stream.



#### **Question 9 Attachments**



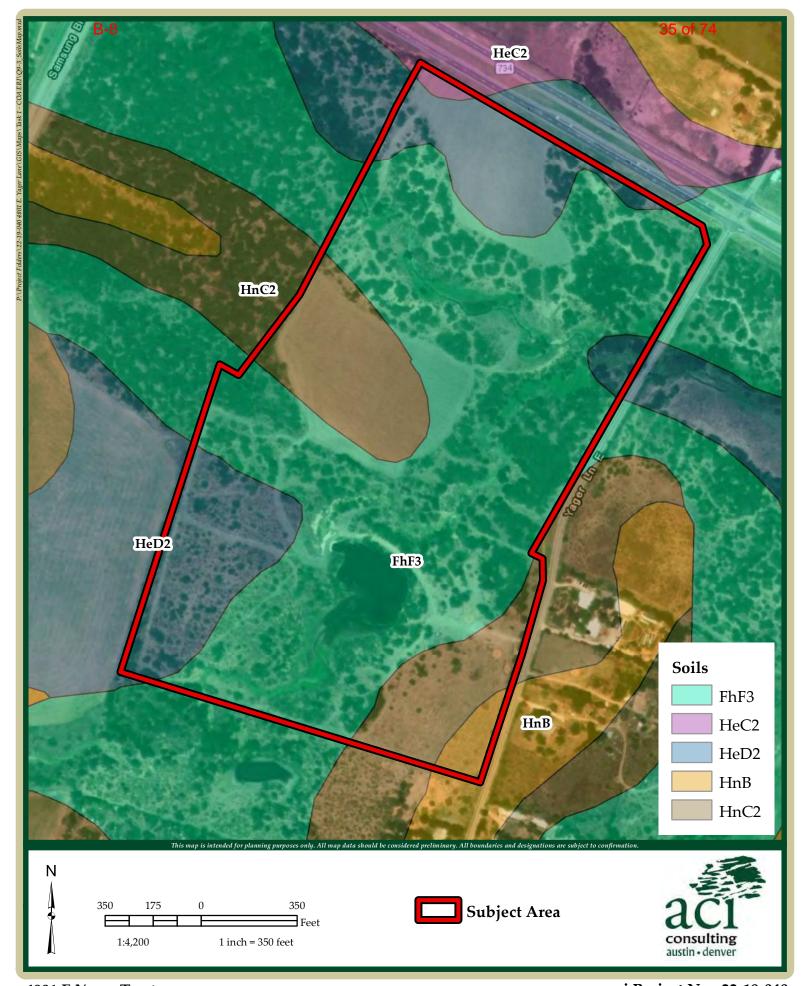
4801 E Yager Tract aci Project No.: 22-19-040
Figure Q9-1: Site Specific Geologic Map with 2-ft Topography February 2022



4801 E Yager Tract Figure Q9-2: Historic Aerial Photo of the Site (1996)

aci Project No.: 22-19-040

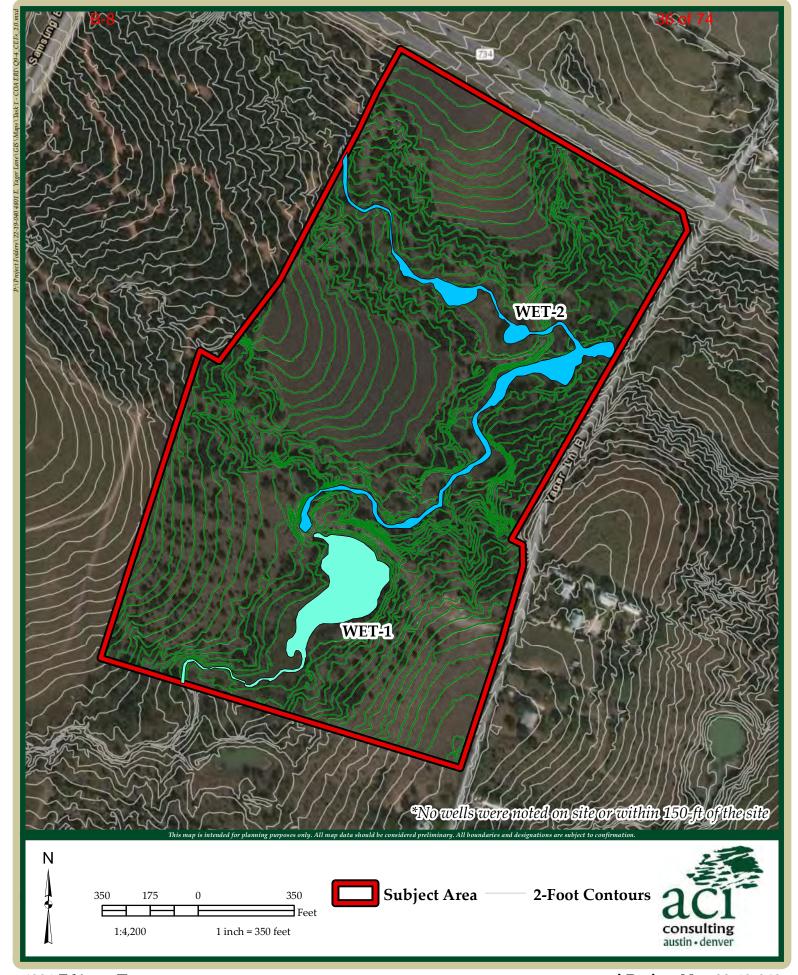
February 2022



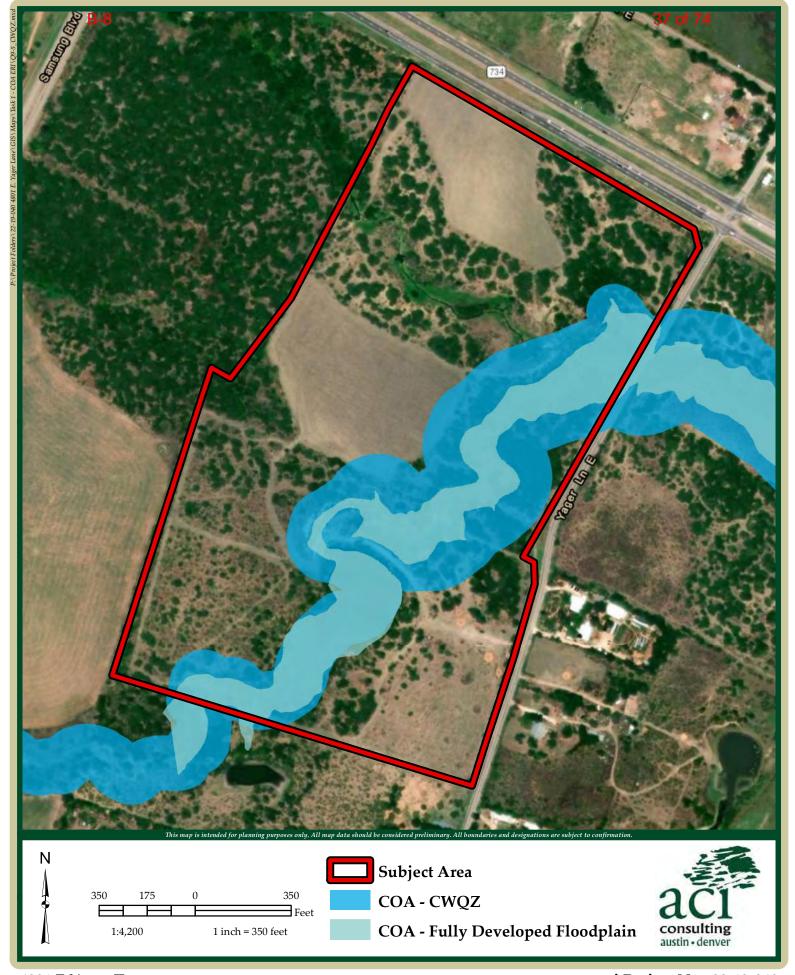
4801 E Yager Tract Figure Q9-3: Site Soils Map

aci Project No.: 22-19-040

February 2022



4801 E Yager Tract aci Project No.: 22-19-040
Figure Q9-4: Critical Environmental Features and Well Location Map February 2022



4801 E Yager Tract aci Project No.: 22-19-040
Figure Q9-5: Critical Water Quality Zone (CWQZ) and Fully Developed Floodplain February 2022



#### **Question 10 Attachments**



#### Q10-1. Surface Soils

Soils in this area are classified as the Houston Black-Heiden Association, which is described as deep, nearly level and gently sloping, calcareous, clayey soils overlying marl. (SCS 1983). Five soil units occur within the subject area:

Soil Type	Hydrologic Soil Group	Thickness (feet)		
FhF3 - Ferris-Heiden complex, 8 to 20 percent	D	5		
slopes, severely eroded	D	6.67		
HeC2—Heiden clay, 3 to 5 percent slopes, eroded	D	6.67		
HeD2—Heiden clay, 5 to 8 percent slopes, eroded	D	6.67		
HnB—Houston Black clay, 1 to 3 percent slopes	D	6.67		
HnC2—Houston Black clay, 3 to 5 percent slopes, moderately eroded	D	6.67		

#### **REFERENCES**

- (SCS) Soil Conservation Service. 1974. Soil Survey of Travis County, Texas. United States Department of Agriculture, Texas Agriculture Experiment Station.
- (USDA NCRS) U.S. Department of Agriculture Natural Resources Conservation Service. 2019. WebSoilSurvey.com. Soil Survey area: Travis County, Texas. Date accessed: April 29, 2019.



#### Q10-2. Site Geology

The subject area intersects two geologic units, the Quaternary Alluvium Group (Qal) and the Taylor Group (Kta).

**Quaternary Alluvium (Qal) -** "Floodplain deposits, including indistinct low terrace deposits; clay, silt, sand, and gravel; ~ silt and clay, calcareous to surface, dark gray to dark brown; sand largely quartz; gravel, siliceous, mostly chert, quartzite, limestone, and petrified wood, along Colorado River much igneous and metamorphic rock, probably mostly reworked from terrace deposits; fluviatile morphology well preserved with point bars, oxbows, and abandoned channel segments"

**Taylor Group (Kta) -** "Clay, dark gray to green-gray, calcareous, montmorillonitic; generally more calcareous in mid-portion of unit"

#### **REFERENCES**

Garner, L.E., 1992. Geologic Map of the Austin Area, Texas. Reprinted 1995. Bureau of Economic Geology. Austin, Texas. Scale 1:62,000.



#### Q10-3. Wells

No wells were identified within the subject area during field investigations by **aci consulting** personnel on April 2, 2019. Desktop review of aerial photographs and the Texas Water Development Board's web map of Well Driller's Logs (TWDB 2019) did not identify any well locations on site or within 150 feet of the subject area.

#### REFERENCES

(TWDB) Texas Water Development Board. 2019. Water Data Interactive Groundwater Data Viewer. Accessed on April 29, 2019. Available at: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer



#### **Question 11 Attachments**



#### Q11-1. Description of Site Plant Communities

The subject area lies completely within the "Crops" designation as noted on the Texas Parks and Wildlife Department "Vegetation Types of Texas" map. (McMahan et al. 1984). The subject area is consistent with this designation.

Vegetation identified within the subject area includes, but is not limited to: mesquite, hackberry, black willow, thistle sp., common ragweed, curly dock, hedge parsley, ragweed, poison ivy, and other native and non-native shrubs, grasses, and forbs.

#### **REFERENCES**

McMahan, C.A., R.G. Frye, and K.L. Brown. 1984. The Vegetation Types of Texas. Texas Parks and Wildlife Department. Austin, Texas.



# CITY OF AUSTIN ENVIRONMENTAL RESOURCE INVENTORY FOR THE APPROXIMATELY 15.18-ACRE 4841 YAGER LANE

Travis County, Texas

February 2020

#### Submitted to:

Jamison Civil Engineering LC 13812 Research Blvd. #B-2 Austin, Texas 78750

#### **Prepared By:**

aci Group, LLC 1001 Mopac Circle Austin, Texas 78746 TBPG Firm License No. 50260

aci Project No.: 22-20-001

#### **Environmental Resource Inventory**

For the City of Austin
Relating to the Land Development Code (LDC) Section 25-8, Title 30-5, ECM 1.3.0 & 1.10.0
Effective October 28, 2013

The ERI is required for projects that meet one or more of the criteria listed in (LDC) Section 25-8-121(A), Title 30-5-121(A).

1. SITE/PROJECT NAME: 4801 YAGER LANE 2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 247878 3. ADDRESS/LOCATION OF PROJECT: 4801 YAGER LANE Harris Branch 4. WATERSHED: 5. THIS SITE IS WITHIN THE (Check all that apply) Edwards Aquifer Contributing Zone\*......□YES ☑No Edwards Aquifer 1500 ft Verification Zone\* ...... □YES ☑No Barton Spring Zone\* ......□YES ⊠No \*(as defined by the City of Austin – LDC 25-8-2) Note: If the property is over the Edwards Aquifer Recharge zone, the Hydrogeologic Report and karst surveys must be completed and signed by a Professional Geoscientist Licensed in the State of Texas. 6. DOES THIS PROJECT PROPOSE FLOODPLAIN MODIFICATION?......□YES\*\* ☒NO If yes, then check all that apply: (1) The floodplain modifications proposed are necessary to protect the public health and safety; (2) The floodplain modifications proposed would provide a significant, demonstrable environmental benefit, as determined by a functional assessment of floodplain health as prescribed by the Environmental Criteria Manual, or (3) The floodplain modifications proposed are necessary for development allowed in the critical water quality zone under Section 25-8-261 or 25-8-262 of the LDC. (4) The floodplain modifications proposed are outside of the Critical Water Quality Zone in an area determined to be in poor or fair condition by a functional assessment of floodplain health. \*\* If yes, then a functional assessment must be completed and attached to the ERI (see Section 1.7 and Appendix X in the Environmental Criteria Manual for forms and guidance) unless conditions 1 or 3 above 7. IF THE SITE IS WITHIN AN URBAN OR SUBURBAN WATERSHED, DOES THIS PROJECT PROPOSE A UTILITY LINE PARALLEL TO AND WITHIN THE CRITICAL WATER QUALITY ZONE? ......□YES\*\*\* ⊠NO \*\*\*If yes, then riparian restoration is required by Section 25-8-261(E) of the LDC and a functional assessment must be completed and attached to the ERI (see Section 1.5 and Appendix X in the **Environmental Criteria Manual for forms and guidance).** 8. There is a total of 5 (#'s) Critical Environmental Feature(s)(CEFs) on or within 150 feet of the project site. If CEF(s) are present, attach a detailed **DESCRIPTION** of the CEF(s), color PHOTOGRAPHS, the CEF WORKSHEET and provide DESCRIPTIONS of the proposed CEF buffer(s) and/or wetland mitigation. Provide the number of each type of CEFs on or within 150 feet of the site (Please provide the number of CEFs):

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(#'s) Spring(s)/Seep(s)	(#'s) Point Recharge Feature(s)	(#'s) Bluff(s)
(#'s) Canyon Rimrock(s)	(#'s) Wetland(s)	

Note: Standard buffers for CEFs are 150 feet, with a maximum of 300 feet for point recharge features. Except for wetlands, if the standard buffer is <u>not provided</u>, you must provide a written request for an administrative variance from Section 25-8-281(C)(1) and provide written findings of fact to support your request. Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.

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- **⋈** Historic Aerial Photo of the Site

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- □ Edwards Aquifer Contributing Zone
- ☐ Water Quality Transition Zone (WQTZ)
- □ City of Austin Fully Developed Floodplains for all water courses with up to 64-acres of drainage
- 10. **HYDROGEOLOGIC REPORT** Provide a description of site soils, topography, and site specific geology below (Attach additional sheets if needed):

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Soil Series Unit Names, Infiltration Characteristics & Thickness									
Soil Series Unit Name & Subgroup**	Group*	Thickness (feet)							
Ferris-Heiden complex (FhF3)	D	5							
Heiden clay (HeD2)	D	6.6							
Houston Black clay (HnB)	D	6.6							
Houston Black clay (HnC2)	D	6.6							

- \*Soil Hydrologic Groups Definitions (Abbreviated)
- A. Soils having a <u>high infiltration</u> rate when thoroughly wetted.
- B. Soils having a moderate infiltration rate when thoroughly wetted.
- C. Soils having a <u>slow infiltration</u> rate when thoroughly wetted.
- D. Soils having a <u>very slow</u> infiltration rate when thoroughly wetted.
- \*\*Subgroup Classification See <u>Classification of Soil Series</u> Table in County Soil Survey.

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Description of Site Topography a	Ind Drainage (Attach additional sh	eets if needed):
According to the Austin East NE U.S. Geold City of Austin 2012 two-foot contours, the sea level (MSL) in the western portion to (COA) City of Austin. 2012. Two-foot Topo (USGS) U.S. Geologic Survey. 1988. Austin Interior: Denver, CO.	ogic Survey (USGS) 7.5-Minute Topog e elevation within the subject area ran 640 feet MSL across the subject area ographic Lines. City of Austin: Austin,	raphic Quadrangle and the nges from 616 feet above mean (USGS 1988). TX.
interior. Deriver, CO.		
List surface geologic units below	w:	
	ologic Units Exposed at Surface	
Group	Formation	Member
Navarro & Taylor Group undivided (Kr		
Brief description of site geology	(Attach additional sheets if needed):	
In areas where Pecan Gap Chalk is not pre	esent because of gradation to marl sin	nilar to that of the Marlbrook ar
Ozan Formations.		
Reference Section: Geologic Atlas of Texas. Reprinted 1981. A Economic Geology. https://txpub.usgs.gov	<del>-</del>	at Austin - Bureau of
Wells – Identify all recorded and u unplugged, capped and/or abando	nrecorded wells on site (test ho	oles, monitoring, water, oil,
There are $\frac{0}{1}$ (#) wells present on	• •	
	t in use and have been properl	
$\underline{}$ (#'s)The wells are no	t in use and will be properly ab	andoned.
$\underline{}$ (#'s)The wells are in	use and comply with 16 TAC C	hapter 76.

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There are \_\_\_\_ (#'s) wells that are off-site and within 150 feet of this site.

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#### 11. **THE VEGETATION REPORT** – Provide the information requested below:

vegetation is mixed deciduous and Ash vegetation identified consisted of, but v x palustris), honey mesquite (Prosopis g nsis), wild onion (Allium canadense), cr	munities (Attach additional sheets if needed): e juniper woodland interspersed with open grass was not limited to, Ashe juniper (Juniperus ashei glandulosa), hackberry (Celtis laevigata), hedge p ab grass (Digitaria Haller), common rush (Juncus  n site	i), spike ( arsley (T effusus)
Woo	dland species	
Common Name	Scientific Name	
Mesquite	Prosopis glandulosa	
Hackberry	Celtis laevigata	
Ashe Juniper	Juniperus ashei	
If yes, list the dominant species b		eck one).
Grassland/p	rairie/savanna species	
Common Name	Scientific Name	
Hedge Parsley	Torilis arvensis	
Spike Rush	Eleocharis palustris	
Wild Onion	Allium canadense	
Crab Grass	Digitaria haller	
Common Rush	Juncus effusus	
Cursed Crows Foot	Ranunculus sceleratus	
There is hydrophytic vegetation of the state	on site⊠YES □ NO <i>(Che</i>	eck one).

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		Hydrophytic plant species					
Comi	mon Name	Scientific Name	Wetland Indicator Status				
Spike Rush		Eleocharis palustris	OBL				
Common Rush		Juncus effusus	OBL				
Cursed crows	foot	Ranunculus sceleratus	OBL				
half fe	•	ees with a diameter of at least eight I grade level has been completed or one).		ind one			
12. WASTEW	ATER REPOR	T – Provide the information request	ed below.				
Waste	water for the sit	e will be treated by (Check of that Apply	<b>/</b> ):				
☐ On-site system(s)							
	Other Centraliz	zed collection system					
		water or wastewater service from the Austir ty Code and wells must be registered with the		th			
all Sta		ction system is designed and will be City standard specifications.  one).	constructed to in accord	dance to			
the en	d of this report	ze of the drainfield or wastewater in shown on the site plan.  Applicable (Check one).	rrigation area(s) are atta	ached a			
Wastewater lines are proposed within the Critical Water Quality Zone? ⊠YES ⊠ NO <i>(Check one)</i> . If yes, then provide justification below:							
Waste	water lines are des	igned to cross perpendicularly to minimize	impacts as much as possible.				

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Is the project site is over the Edw.  ☐YES ☒ NO (Check one).	ards Aquifer?
	ater disposal systems proposed for the site, its treatment ercourses or the Edwards Aquifer.
13. One (1) hard copy and one (1) electory	tronic copy of the completed assessment have been
Date(s) ERI Field Assessment was perfo	rmed: 02/04/2020
,	Date(s)
My signature certifies that to the best o reflect all information requested.	f my knowledge, the responses on this form accurately
Stephen Meyer	(512) 852-3860
Print Name	Telephone
	smeyer@aci-group.net
Signature	Email Address
aci Consulting	02/28/2020
Name of Company	Date

For project sites within the Edwards Aquifer Recharge Zone, my signature and seal also certifies that I am a licensed Professional Geoscientist in the State of Texas as defined by ECM 1.12.3(A).

P.G. Seal

Print Form

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# List of Attachments for the Environmental Resource Inventory Form

#### **Question 8:**

- Q8-1. CEF Worksheet
- Q8-2. CEF Description

#### **Question 9:**

- Q9-1. Site Specific Geologic Map with 2-ft Topography
- Q9-2. Historic Aerial Photo of the Site (1996)
- Q9-3. Site Soils Map
- Q9-4. Critical Environmental Features (CEF) current Aerial Photo with 2-ft Topography

1

- Q9-5. City of Austin Critical Water Quality Zones (CRQZ)
- Q9-6. FEMA Flood Hazard Zones

February 2020 aci Project No.: 22-20-001



## **Question 8 Attachments**

# City of Austin Environmental Resource Inventory - Critical Environmental Feature Worksheet

1	Project Name:	4841 Yager Lane
2	Project Address:	4841 Yager Lane, Austin 78754
3	Site Visit Date:	2/4/2020
4	Environmental Resource Inventory Date:	2/27/2020

5	Primary Contact Name:	Stephen Meyer
6	Phone Number:	512-8523860
7	Prepared By:	Gabriel Nejad
8	Email Address:	gnejad@aci-group.net

9	FEATURE TYPE {Wetland,Rimrock, Bluffs,Recharge	FEATURE ID			ID (WGS 1984 in Meters) (WGS 1984 in Meters) DIMENSIONS (ft)			RIMROCK/BLUFF DIMENSIONS (ft)			ECHA DIN	Springs Est. Discharge			
	Feature,Spring}	(eg S-1)	coordinate	notation	coordinate	notation	Х	Υ	Length	Avg Height	Χ	Υ	Z	Trend	cfs
	Wetland	WET-1	30.367806	DD	-97.631416	DD	120.03	27.71							
	Wetland	WET-2	30.367086	DD	-97.632167	DD	584.63	12.98							
	Wetland	WET-3	30.366934	DD	-97.63113	DD	89.12	83.46							
	Wetland	WET-4	30.66883	DD	-97.63048	DD	33.91	21.09							
	Wetland	WET-5	30.67142	DD	-97.63099	DD	86.26	5							

City of Austin Use Only
CASE NUMBER:

For rimrock, locate the midpoint of the segment that describes the feature.



For wetlands, locate the approximate centroid of the feature and the estimated area.



For a spring or seep, locate the source of groundwater that feeds a pool or stream.



Please state the method of coordinate data collection and the approximate precision and accuracy of the points and the unit of measurement.

Method Accuracy
GPS X sub-meter
Surveyed meter

Other > 1 meter X

Professional Geologists apply seal below

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### **Q8-2. CEF Description**

Section 25-8-1 of the City of Austin (COA) LDC defines Critical Environmental Features (CEF) as "features that are of critical importance to the protection of environmental resources, and include bluffs, canyon rimrocks, caves, faults and fractures, seeps, sinkholes, springs, and wetlands."

Aerial photographs and topographic maps were utilized to orient surveyors in the field. If potential CEFs were identified in the field, they were carefully examined and recorded, and each potential feature was described, photographed and its location recorded using a handheld Garmin GPS unit.

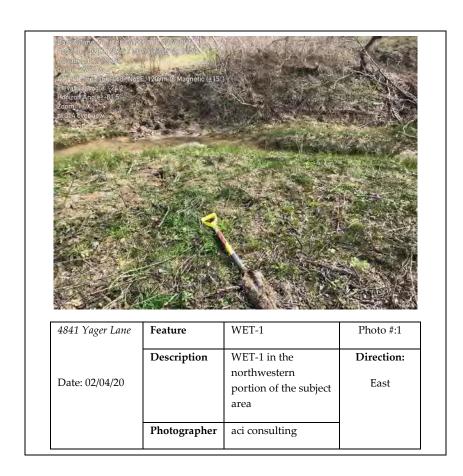
Field reconnaissance was conducted on February 2020. Five wetland CEF's, WET-1, WET-2, WET-3, WET-4, and WET-5 were identified within the subject area. Descriptions of each CEF area as follows.

4

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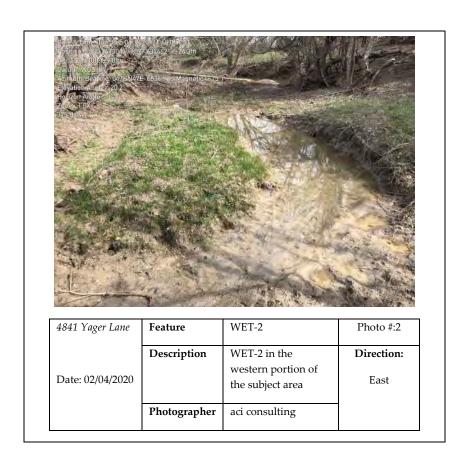


WET-1 is an emergent wetland fringe located along an intermittent stream in the northwestern portion of the subject area. WET-1 has wetland hydrology, hydric soils, and is dominated by hydric vegetation such as spike rush. The boundary between WET-1 and the adjacent non-wetland was identified based on changes in hydrology, dominant plant composition, and soils. The 100-year FEMA floodplain extends onto the subject area at WET-1. The total area of WET-1 is approximately 1,702 square feet (0.039 acre) within the subject area (Photo 1).





WET-2 is an emergent wetland fringe located along an intermittent stream in the western portion of the subject area. WET-2 has wetland hydrology, hydric soils, and is dominated by hydric vegetation such as spike rush and common rush. The boundary between WET-2 and the adjacent non-wetland was identified based on changes in hydrology, dominant plant composition, and soils. The 100-year FEMA floodplain extends onto the subject area at WET-2. The total area of WET-2 is approximately 2,391 square feet (0.054 acre) within the subject area (Photo 2).



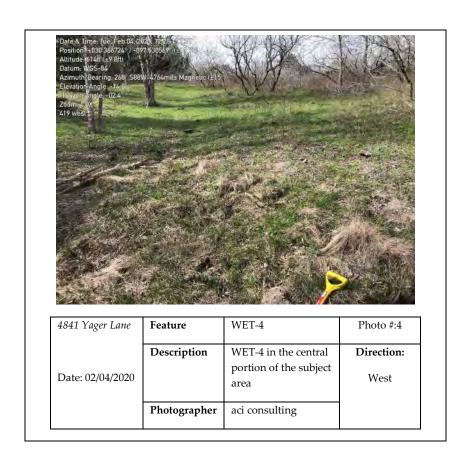


WET-3 is an emergent wetland fringe located around a stock pond in the central portion of the subject area. WET-3 has wetland hydrology, hydric soils, and is dominated by hydric vegetation such as spike rush. The boundary between WET-3 and the adjacent non-wetland was identified based on changes in hydrology, dominant plant composition, and soils. No FEMA Flood Hazard Zones extend onto the subject area at WET-3. The total area of WET-3 is approximately 2,768 square feet (0.063 acre) within the subject area (Photo 3).



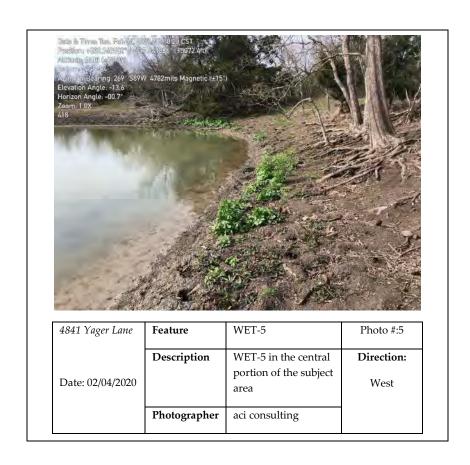


WET-4 is wetland fringe located around the stock pond in the central portion of the subject area. WET-4 has wetland hydrology, hydric soils, and is dominated by hydric vegetation such as spike rush. The boundary between WET-4 and the adjacent non-wetland was identified based on changes in hydrology, dominant plant composition, and soils. No FEMA Flood Hazard Zones extend onto the subject area at WET-4. The total area of WET-4 is approximately 520 square feet (0.011 acre) within the subject area (Photo 4).





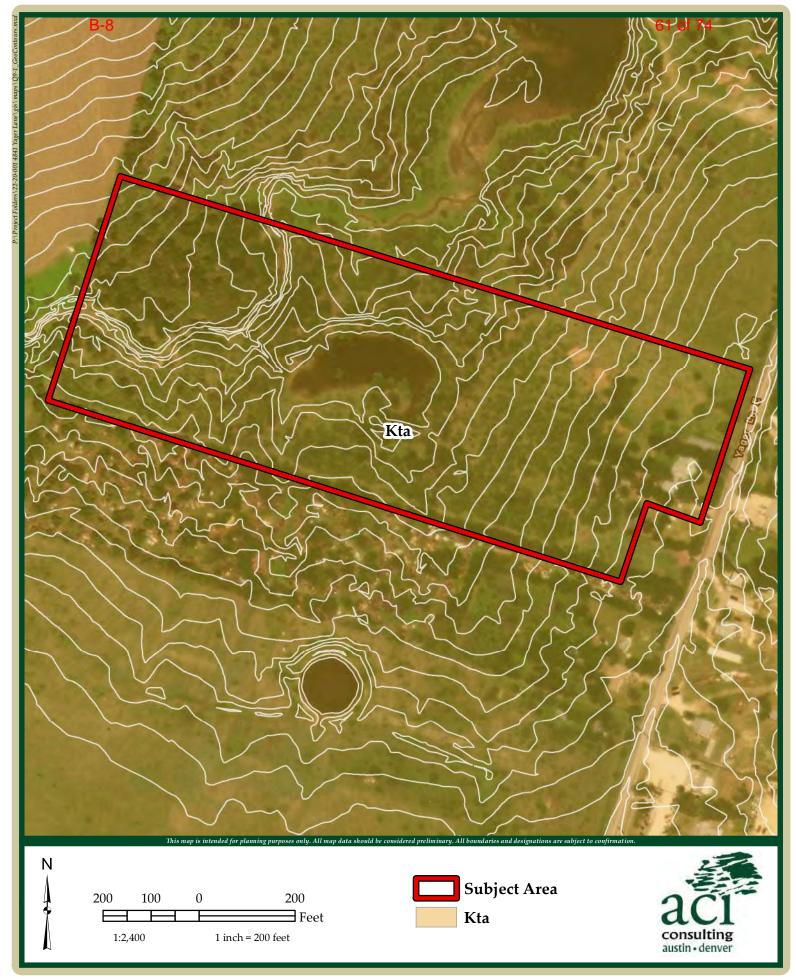
WET-5 is wetland fringe located around a stock pond in the central portion of the subject area. WET-5 has wetland hydrology, hydric soils, and is dominated by hydric vegetation such as cursed crow foot. The boundary between WET-5 and the adjacent non-wetland was identified based on changes in hydrology, dominant plant composition, and soils. FEMA Flood Hazard Zones extend onto the subject area at WET-5. The total area of WET-5 is approximately 164 square feet, or (0.003 acre) within the subject area (Photo 5).



9

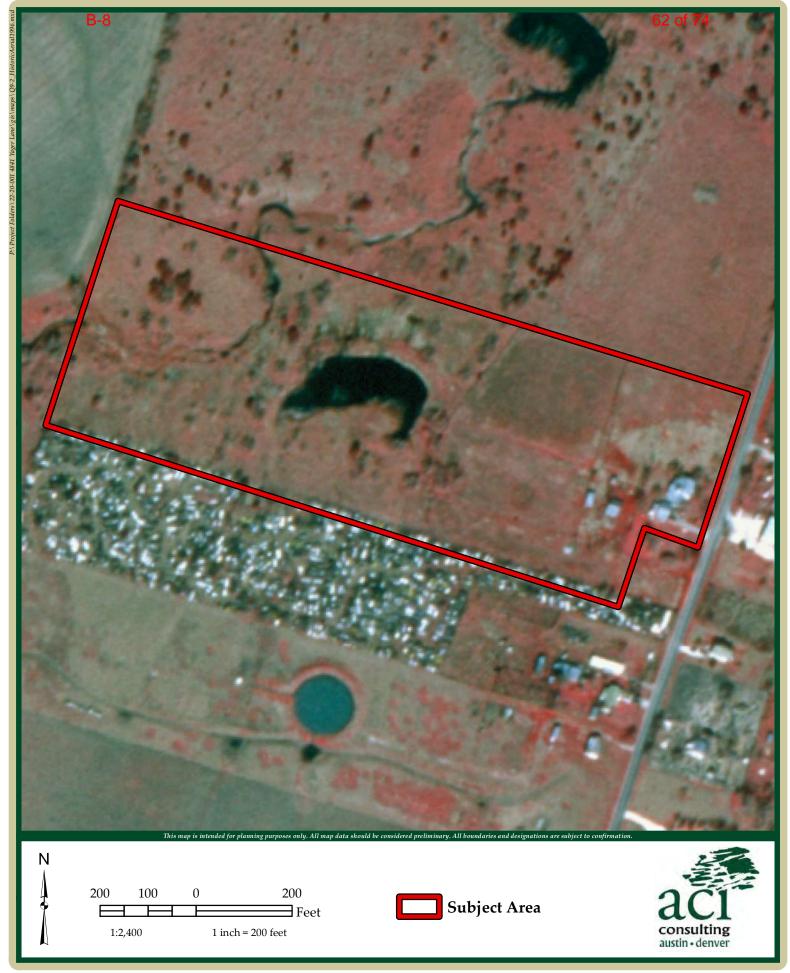


# **Question 9 Attachments**

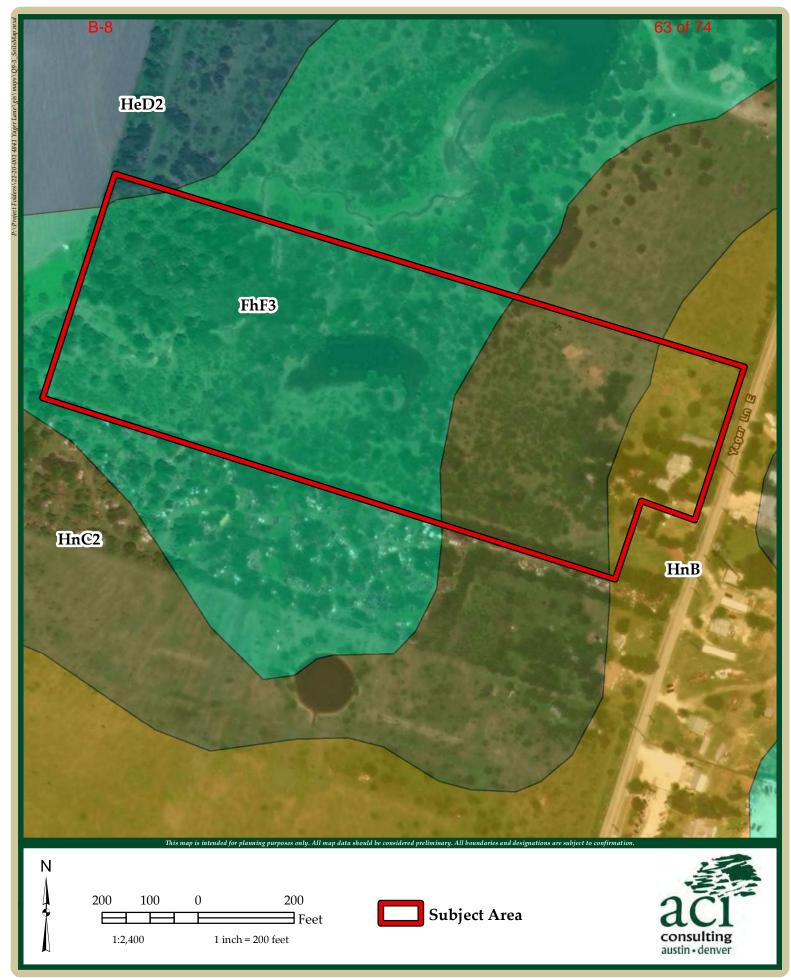


4841 Yager Lane Q9-1: Site Specific Geology with 2-ft Topography

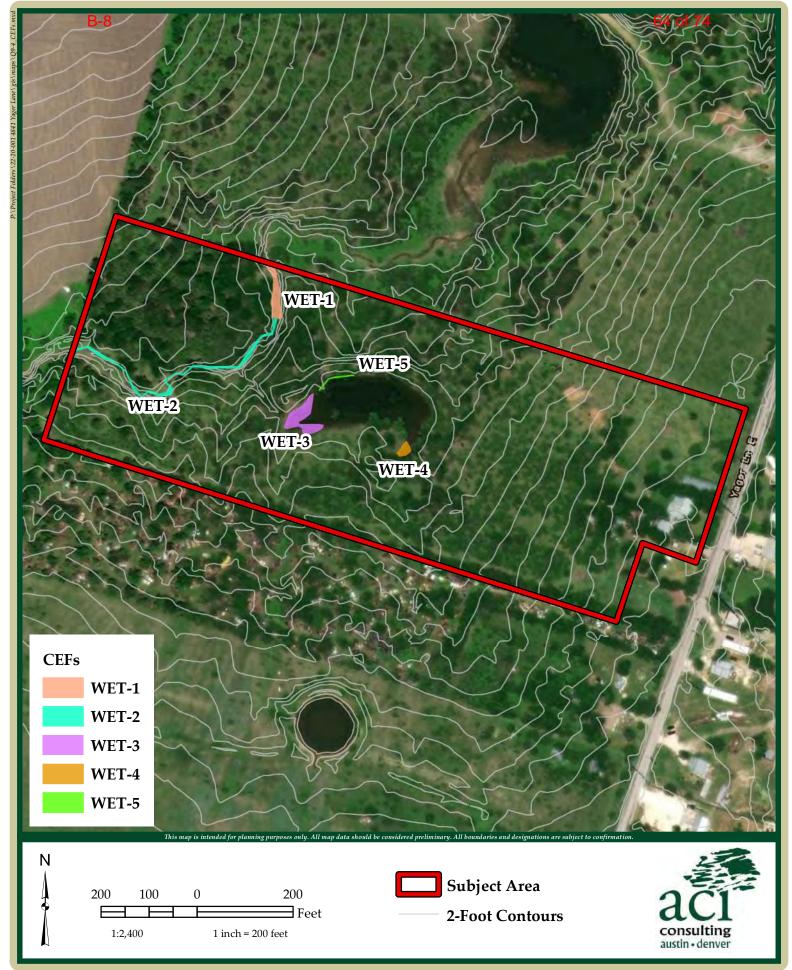
aci Project No.: 22-20-001



4841 Yager Lane Q9-2: 1996 Historic Aerial aci Project No.: 22-20-001



4841 Yager Lane Q9-3: Site Soils Map aci Project No.: 22-20-001



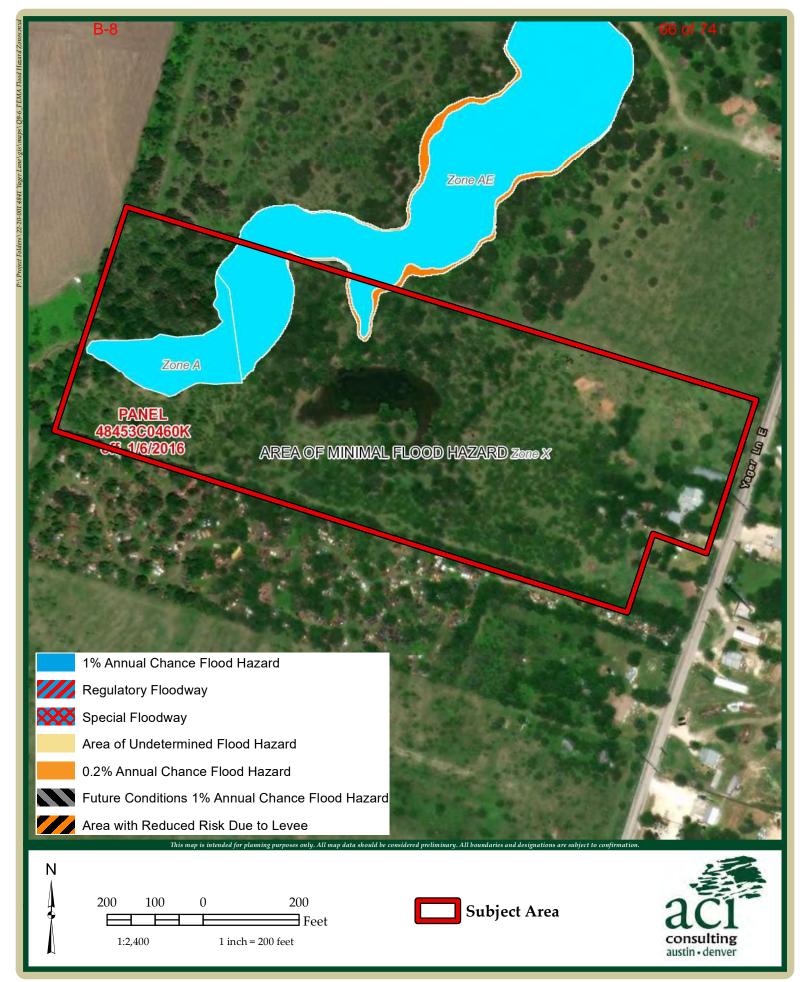
4841 Yager Lane aci Project No.: 22-20-001

Q9-4: Critical Environmental Features with 2-ft Topography February 2020



4841 Yager Lane
Q9-5: City of Austin Critical Water Quality Zone (CWQZ)

aci Project No.: 22-20-001



4841 Yager Lane Q9-6: FEMA Flood Hazard Zones aci Project No.: 22-20-001



## **Reference Section:**

(USDA NRCS) United States Department of Agriculture, Natural Resource Conservation Service. 2019. Web Soil Survey. Available at: http://websoilsurvey.nrcs.usda.gov/. Accessed on: February 27, 2020.

