

ITEM FOR ENVIRONMENTAL BOARD AGENDA

BOARD MEETING

DATE REQUESTED:

May 6, 2015

NAME & NUMBER

OF PROJECT:

SUNFIELD PLANNED UNIT DEVELOPMENT

C814-2014-0083

NAME OF APPLICANT

Coats Rose, PC

OR ORGANIZATION:

John Joseph – Phone (512) 541-3593

LOCATION:

1901 Turnersville Road

PROJECT FILING DATE:

May 22, 2014

PDR/ENVIRONMENTAL

Jim Dymkowski, 974-2707

STAFF:

james.dymkowski@austintexas.gov

PDR/

Wendy Rhoades, 974-7719

CASE MANAGER:

wendy.rhoades@austintexas.gov

WATERSHED:

Onion, Rinard, and Plum Creek Watersheds (Suburban)

Desired Development Zone

ORDINANCE:

Watershed Protection Ordinance (WPO - current Code)

REQUEST:

Review and consider for recommendation the proposed Planned Unit

Development environmental code exception as requested.

1. Modify 25-8-42(D)(4) (Administrative Variances); for a variance described in Paragraph (B)(6) the cut or fill is not located on a slope with a gradient of more than 15 percent or within 100 feet of a classified waterway, except as required for the construction of proposed ponds within 100 feet of a classified waterway for stormwater pond construction.

STAFF RECOMMENDATIONS:

RECOMMEND FOR APPROVAL.

REASONS FOR RECOMMENDATION: THE PROPOSED PUD IS ENVIRONMENTALLY SUPERIOR TO THE

DEVELOPMENT THAT COULD OTHERWISE BE BUILT UNDER CURRENT

APPLICABLE REGULATIONS.



MEMORANDUM

TO: Mary Gay Maxwell, Chairperson and Members of the Environmental Board

FROM: Jim Dymkowski, Environmental Review Specialist Senior

Development Services Department

DATE: May 6, 2015

SUBJECT: Summary of Environmental Exception Requested by the Sunfield Planned Unit

Development - C814-2014-0083

This summary is being provided to the Environmental Board as a supplement to the overall Planning and Development Review recommendations for the Sunfield PUD. After numerous site visits and discussions with the applicant, the following is a description of the environmental aspects and considerations that have been addressed during Environmental Review of the proposed PUD, requested exception to the environmental code requirements, and the proposed environmental superiority exhibited in the PUD. Staff recommends approval of the project based on our finding that the proposed project is environmentally superior to what could be built without the PUD.

Description of Property

The PUD is located in the Onion, Rinard, and Plum Creek Watersheds. These watersheds are classified as Suburban. It is within the Desired Development Zone, and has already been annexed into the City of Austin limited purpose zoning jurisdiction. Prior to this PUD submittal, the entire PUD land area was reviewed and approved as a municipal utility district (MUD) with a predominately industrial and commercial use land plan. The current PUD land plan as well as concurrent revisions to the MUD proposes more single and multifamily uses with some commercial uses and additional open space areas required by current code. The PUD is not within the Edward's Aquifer Recharge or contributing zones.

Historically, this site was used for agriculture and still has some remnant ranch buildings on it. The PUD area is approximately 482.5 acres and is situated at the highpoint of all three watersheds within the PUD. With this location there are four minor classified waterways within the PUD boundaries. They consist of two unnamed tributaries of Rinard Creek to the north and two unnamed tributaries of Plum Creek to the south.

Per current code, buffer setbacks of 100 feet from the centerline of the creeks for the Critical Water Quality Zone are established on these waterways.

The PUD is not asking for any increases to the current code allowable impervious cover. In a Suburban Watershed the following impervious cover based on a gross site area calculation are allowed;

DESCRIPTION	ALLOWABLE % of gross site area
SF lots (> 5750 SF)	50%
SF lots (< 5750 SF)	55%
MF	60%
Commercial	80%

Existing Topography/Soil Characteristics/Vegetation

The site elevations range from 788-680 feet above mean sea level. The topography is characterized by moderate sloping hillside mainly from east to west across the property with those areas closest to the four tributaries sloping toward those waterways. Of the roughly 482.5 acre PUD area there are only 8.7 acres of slopes between 15-25%, 1.7 acre of slopes between 25-35%, and 0.64 acres of slopes greater than 35%.

The soils on the property are predominantly silty clay in nature. The plant communities within the PUD area are considered grassland/prairie/savanna species. The vegetation consists of mixed native and introduced grasses resulting from years of agricultural use keeping the site devoid of most woody vegetation. Trees are sporadic onsite mostly mesquite internally and some Hackberry along the perimeter fence lines.

Critical Environmental Features/Endangered Species

The 2014 environmental resource inventory identified eight critical environmental features within the subject area. These are all wetland features and consist of the existing stock ponds and those isolated wetland features found within the minor classified waterways. The PUD proposes current code buffering 150 feet or enhancement of these features if converted to a water quality feature.

Water/Wastewater

Water and wastewater service will be provided by the City of Austin. The environmental resource inventory identified one Texas Water Board Monitoring Device on an old well near the ranch buildings at the north side of the property closets to Turnersville Road.

Description of Project

The Project contains approximately 482.5 acres of mixed use development including:

- 222.6 acre of standard single family development
- 80.9 acres of multifamily and single family residential style development
- 18.3 acres of commercial development
- Approximately 136 acres of parks and open space.
- A fire station and reservoir site.

Environmental Code Exception Request

The one exception requested with the PUD is:

1. Modify 25-8-42(D) (4) (Administrative Variances); for a variance described in Paragraph (B) (6) the cut or fill is not located on a slope with a gradient of more than 15 percent or within 100 feet of a classified waterway, except as required for the construction of proposed ponds within 100 feet of a classified waterway for stormwater pond construction.

PUD Conditions for Environmental Superiority:

- 1. Restores currently degraded Critical Water Quality Zones along all classified waterways.
 - The condition of all Critical Water Quality Zones (CWQZ) shall be assessed using the Zone 2 functional assessment methodology described in Appendix X of the Environmental Criteria Manual. (Zone 2 is the area from the edge of the active channel to the edge of the CWQZ.) All CWQZs found to be in "Poor (1)" or "Fair (2)" condition shall be restored to "Good (3)" or "Excellent (4)" condition; CWQZs found to be in "Good (3)" or "Excellent (4)" condition shall not be disturbed except as otherwise allowed by code. The applicant shall prepare a Riparian Restoration Plan demonstrating that all parameters of the Appendix X "Scoring: Zone 2 Critical Water Quality Zone" table shall be raised to "Good (3)" or "Excellent (4)" condition. The Zone 2 functional assessment of existing conditions and the Riparian Restoration Plan shall be submitted, reviewed, and approved with each residential subdivision and commercial site plan.
- 2. A tree planting plan will be prepared during the final platting of lots to determine the proposed trees to be placed along the trail network. In addition, 150 trees will be planted throughout the trail segments outside of dedicated Park Land.
- 3. For commercial and multifamily sites, treat the entire lot as street yard for the purposes of tree requirements.
- 4. Upon reclaimed water being brought to the project, use reclaimed water for irrigation in open space areas where such use is economically feasible, subject to any applicable water use restrictions imposed by the City. Reclaimed water shall not be used for irrigation in CWQZ's, CEF buffers, or floodplain.
- 5. Use wet ponds instead of sedimentation filtration ponds for water quality controls. For tracts where the use of regional wet ponds is not feasible for water quality controls, green water quality controls may be utilized with approval from the city.
- 6. Additional open space, 23.4 acres, is provided in excess of the required open space, CWQZ's, floodplain, and CEF buffers.

Recommendations

Staff recommends approval of the environmental superiority of the proposed PUD and the exceptions to the Land Development Code sections as defined in the PUD documents because:

• It will provide critical water quality zone riparian restoration greater than the current code requirement for all degraded areas within the waterways even if that section is not being modified by adjacent construction.

- It will use preferred water quality methods (i.e. wet ponds) that provide a greater overall pollutant removal than the minimum code required sedimentation filtration method and green water quality controls (i.e. rain gardens) for tracts where the use of regional wet ponds is not feasible for water quality controls, green water quality controls may be utilized with approval from the city.
- It will exceed current commercial landscape requirements by providing additional trees to be planted along pedestrian trail sections and by using the full lot size of all multifamily and commercial lots to calculate the streetyard tree planting requirement.
- It will be providing for public and private parkland amenities exceeding standard requirement outside of the areas already included in the critical water quality zone, floodplain, and critical environmental feature buffer areas.

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Environmental	NEVIEWEL
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Jim Dymkowsk

Environmental Program Coordinator:

Sue Barnett

Environmental Officer:

Chuck Lesniak

Date: April, 27, 2015

Sunfield PUD - C814-2014-0083 Driving directions

Austin City Hall, TX 78704

Get on I-35 S from W Riverside Dr and S IH 35 Frontage Rd for (2.1 mi)

Follow I-35 S to S IH 35 Frontage Rd. Take exit 223 from I-35 S for (9.5 mi)

Get on TX-45 Toll for (0.8 mi)

Continue on TX-45 Toll to Turnersville Rd N. Take the North Turnersville Road exit from TX-45 Toll for (1.4 mi)

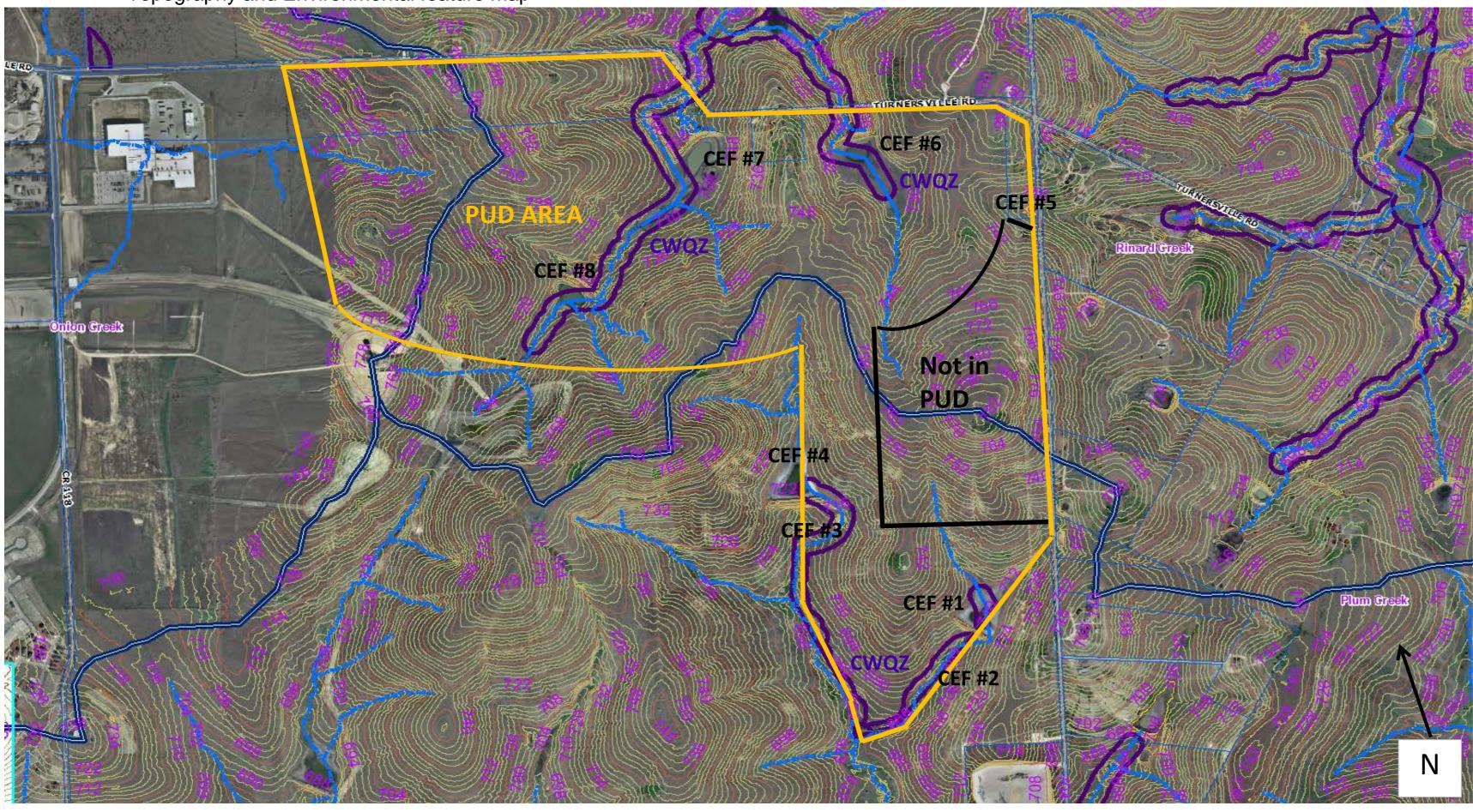
Drive to Turnersville Rd for (1.2 mi)

1901 Turnersville Rd Buda, TX 78610 will be on the right. 2244 West Lake Hills e University of Texas at Austin Lost Creek 360 969 (183) (11) Austin City Hall (343) 20 min 973 15 I miles SOUTHEAST AUSTIN 🖂 > 🖳 1 h 24 min ICLE C RANCH 2304 812 224 224 1626 1625 2430 257 812 2001 191 133 25 vogle 260

Sunfield PUD
C814-2014-0083
Existing Conditions and Surrounding Development



70 Pascal Lane SP-2014-0144DS Topography and Environmental feature map



8

Sunfield PUD C814-2014-0083 Site Photos





Both photos are PUD land area looking south into property

Sunfield PUD C814-2014-0083 Site Photos



Example of existing critical water quality zone riparian area on one of the minor classified waterways



Example of wetland critical environmental feature



PAMELA MADERE

pmadere@coatsrose.com Direct Dial 512.541.3594

April 22, 2015

VIA HAND DELIVERY

Jim Dymkowski Planning and Development Review Department City of Austin 505 Barton Springs; 4th Floor Austin, TX 78704

RE: Sunfield PUD (Case No. C814-2014-0083); Environmental Board PUD Exception Request Application

Dear Mr. Dymkowski:

On behalf of our clients, A&M Option 541, LLC and 2428 Partners, LLC (the "Applicants"), we formally submit to you our Environmental Board PUD Exception Request Application for the above-referenced project. The property on which the PUD will be placed is approximately 482.5 acres located south of Austin in the extra-territorial jurisdiction and is located in the city's desired development zone. It is largely located in Travis County; however, approximately 65.4 acres are in northern Hays County. The property is contained within Sunfield MUD #2 which was annexed for limited purposes on May 1, 2006. The property is currently zoned I-RR.

The PUD proposes a mix of uses such as single-family, multifamily, commercial, parkland, and significant amounts of parkland and open space. The Applicant is also dedicating 2.5 acres (more than what is required by the Applicant's Consent Agreement with the City of Austin) for a Fire/EMS station. The PUD is, among numerous other benefits, reducing impervious cover by approximately 106 acres, providing over 4,000 trees, transforming the ponds to sustain habitat, and will prepare a Riparian Restoration Plan demonstrating the existing conditions and the restoration plan. The PUD benefits the area economically by providing affordable housing, recreation facilities, employment, and consumer/public services in a single planned environment

In summary, the objective of the PUD is to allow for the creation of a more flexible, sustainable, walkable and environmentally friendlier community than would be feasible with conventional zoning. The proposed PUD will provide development far superior to development that would

Barton Oaks Plaza, 901 South MoPac Expressway, Building 1 Suite 500, Austin, Texas 78746 Phone: 512-469-7987 Fax: 512-469-9408

Web: www.coatsrose.com

occur under the existing approved land plan (which in large part is a mix of industrial and commercial uses) or conventional zoning and subdivision requirements. The PUD complies with all Tier One requirements and numerous Tier Two requirements as shown on the attached Exhibit "A".

Please contact me at (512) 541-3594 or pmadere@coatsrose.com if you have any questions.

Sincerely,

Pamela Madere

Sunfield PUD - C814-2014-0083 Basis for Superiority and Recommendation

Item	Code Requirement	PUD Proposal/Superiority
TER 1		2
General	 PUD: Tier 1A Meet the objectives of City Code PUD: Tier 1B Provide for development standards that achieve equal or greater consistency with general PUD intent and exceed standard Code regulations 	 Located near the Regional Center of the Image Austin Comprehensive Plan. Providing for environmental, community, design and regional goals that meet or exceed Code standards and encourages high quality mixed use in the Desired Development Zone with a public facility and open space. Providing for preservation of the natural and historical environment, encouraging high quality development extensive open space areas. Provides for a mixed-use project.
Open Space	PUD: Tier 1C • Provide open space at: 10% Residential 15% Industrial 20% Commercial	 Providing for parkland amenities at the increased parkland amount for MUD/PID Superiority - 10 x No. of Residents x Units. (57.4 acres required for MUD, 29.0 acres per standard requirement; 57.5 acres provided) Meets the requirements for open space (36.6 acres required; 136.1 acres provided including parkland) Parks with amenities and trail system to be owned, operated, and maintained by municipal utility district. Parks and trails will be accessible to the public.
Green Building Program	PUD: Tier 1D • Comply with the City Planned Unit Development Green Building Program	 Providing for 2-Star Green Building or comparable green building standard outside of Austin Energy service area.
Neighborhood Plans and Historic	 PUD: Tier 1E Be consistent with neighborhood plans, historic and surrounding uses. 	 The proposed design meets the requirements of compatibility with adjacent land uses and preserving historic features and monuments.
Compatibility		 Proposed land use ties in with overall Sunfield community and development to the south and west.

EXHIBIT "A"

Public Facilities PUD Tier 1G Provide for e	 Provide for environmental preservation 	applicable.
		2. Providing for compliance with the Commercial Landscape Ordinance, which applies to irrigation, landscaping and use of innovative water management options such as directing stormwater to on-site uses (e.g.,
		landscaping) and rainwater harvesting, etc. 3. Utilizing and enhancing existing agricultural ponds to create stormwater
		reatures to serve the development. Wet ponds maintained by municipal utility district.
• Frovide tof p		1. Utilizing Austin Water Utility as the retail water provider. 5. Extending approximately 4.3 miles of 24 inch water line to this
	 Provide for public facilities and services 	
		adhere to the proposed sizing and route of infrastructure noted in
		3469 will design and construct the improvements in accordance
		with the City's Utility Criteria Manual.
		 Dedicating 5.0 acre site and easements for the construction of a water reservoir to serve the Sunfield PUD and surrounding
		_,
		4. The water line extension, reservoir suc, and improvements win help create a new "Far South Pressure Zone" for Austin Water
		_
		Upon reclaimed water being brought to the project, use reclaimed water for irrigation in open space areas where such use is
		economically feasible, subject to any applicable water use
		 bonation of a 2.5 acre fire station site, which supports the 2-net buildable acre requirement by Austin Fire Department
Landscaping PUD Tier 1H		
• Exceed minir	 Exceed minimum landscaping requirements in City 	 Providing additional landscape butters throughout the community; For commercial and multi-family fracts, the entire lot will be treated
Code		

Open Space	► Provide at least 10% above the requirement	 10% additional open spaces provided within the development (38.6 acres required; 136.1 total acres provided) 	ded within the development acres provided)
Environmental / Drainage	• Provide various environmental options	 Complies with current code instead of asserting entitlement to follow older code provisions by application of law or agreement. Restores currently degraded Critical Water Quality Zones along all classified waterways. The condition of all Critical Water Quality Zones (CWQZ) shall be assessed using the Zone 2 functional assessment methodology described in Appendix X of the Environmental Criteria Manual. (Zone 2 is the area from the edge of the active channel to the edge of the CWQZ.) All CWQZs found to be in "Poor (1)" or "Fair (2)" condition shall be restored to "Good (3)" or "Excellent (4)" condition. CWQZs found to be in "Good (3)" or "Excellent (4)" condition shall not be disturbed except as otherwise allowed by code. The applicant shall prepare a Riparan Restoration Plan demonstrating that all parameters of the Appendix X "Scoring: Zone 2 - Critical Water Quality Zone" table shall be raised to "Good (3)" or "Excellent (4)" conditions and the Riparian Restoration Plan shall be submitted, reviewed, and approved with each residential subdivision and commercial site plan. Tree planting sue Central Texas native seed stock and with adequate soil volume. A tree planting plan will be prepared during the final platting of lots to determine the proposed trees to be planted ber lot. For single family residinteial lots, require threes trees to be planted per lot. For single family residinteial lots, require threes trees to be planted per lot. For single family residinteial lots, require three strees to be planted per lot. For onemercial and multifamily sites, treat the entire lot as streetyard for the purposes of tree requirements. Implementation of species diversity in any landscaping or revegetation requirement, using no more than 25% of any one species. Upon reclaimed water being brought to the project, use reclaimed water for inrigation in open space areas where such use is e	mplies with current code instead of asserting entitlement to low older code provisions by application of law or agreement. stores currently degraded Critical Water Quality Zones along classified waterways. The condition of all Critical Water Quality Zones (CWQZ) shall be assessed using the Zone 2 functional assessment methodology described in Appendix X of the Environmental Criteria Manual. (Zone 2 is the area from the edge of the active channel to the edge of the CWQZ). All CWQZs found to be in "Good (3)" or "Excellent (4)" condition shall not be disturbed except as otherwise allowed by code. The applicant shall prepare a Riparian Restoration Plan demonstrating that all parameters of the Appendix X "Scoring: Zone 2 – Critical Water Quality Zone" table shall be raised to "Good (3)" or "Excellent (4)" conditions and the Riparian Restoration Plan shall be submitted, reviewed, and approved with each residential subdivision and commercial site plan. The Zone 2 functional assessment of existing of so determine the proposed trees to be placed along the trail twork. In addition, 150 trees will be planted throughout the trail gments outside of dedicated Park Land. To commercial and multifamily sites, treat the entire lot as ectyard for the purposes of tree requirements. The planting plan will be prepared during threes trees to be mitted per lot. To commercial and multifamily sites, treat the entire lot as ectyard for the purposes of tree requirements. The planting in open space areas where such use is snon reclaimed water being brought to the project, use reclaimed ecies.

			Doctoring imposed by the City, Doctoined water shall not be
			used for irrigation in CWQZ's or CEF buffers.
		9.	Use wet ponds instread of seditation filtration ponds for water
			quality controls.
Community	PUD Tier 2	1. Pro	Providing a community center to serve residents.
Amenities	Provide for various community services and		Donation of a 2.5 acre fire station site, which supports the 2-net
	amenities	pn	buildable acre requirement by Austin Fire Department
		3. Pr	Providing a network of trails throughout the community. These trails
		wi	will also be provided adjacent to the proposed amenity ponds.
		4. Pa	Parks/open space will be within 1/2 mile of any proposed residence.
		·	A minimum of three trees selected from the City's appropriate
		ds	species list will be provided on each residential lot.
		6. Ag	Applicant has agreed to provide 10% at 60% of MFI for rental units,
		de	deed restricted for 40years. Applicant has agreed to provide 10% at
			170 ULIVIELLIOLOWIST-OCCUPICO.
		7. A	A tree planting plan will be prepared during life lillar plating of forse-
		S T	In addition, 150 trees will be planted throughout the trail segments
		i no	outside of dedicated Park Land.
		8. Re	Recycling services will be requested from the City of Austin or a
		3	contractor acceptable to the City of Austin.
Transportation	PUD Tier 2	1. Pr	Providing a trail and bicycle network throughout the community that
Johnson	Provide bicycle facilities that connect to existing or	3	connects to the existing and proposed trail system within the overall
	planned bicycle routes or provides other multi-modal		Sunfield community.
	transportation features not required by code.	2. Pr	Provide connectivity between the proposed trails and other trail
			systems.
		3. Bi	Bike lanes will be proposed along the main entry roads.
			Main Street will be constructed up to 1 urnersylle Road.
			Bicycle parking for amenity center(s) and mixed-use/committeed
			Colling City Code requirements.
		0. 10	Install ADA-compilant pedestrian/olcycle connectivity across main
		70	Sifeet to provide connectivity to pains and onica destinations without
		ci	crossing major roads within the project.

A Professional Corporation

PAMELA MADERE

pmadere@coatsrose.com Direct Dial 512.541.3594

April 22, 2015

VIA HAND DELIVERY

Jim Dymkowski Planning and Development Review Department City of Austin 505 Barton Springs; 4th Floor Austin, TX 78704

RE: Sunfield PUD (Case No. C814-2014-0083); Environmental Variance Request

Dear Mr. Dymkowski:

On behalf of our clients, A&M Option 541, LLC and 2428 Partners, LLC (the "Applicants"), we formally submit to you our request for one environmental exception to the Sunfield PUD:

1. Sec. 25-8-42(D)(4) is amended to state. "For a variance described in Paragraph (B)(6), the cut or fill is not located on a slope with a gradient of more than 15 percent, or within 100 feet of a classified waterway, except as required for the construction of proposed ponds within 100 feet of a classified waterway for stormwater pond construction."

The proposed Sunfield PUD is environmentally superior to what is currently required by the Land Development Code, and includes the following environmental superiority items:

1. Restores currently degraded Critical Water Quality Zones along all classified waterways. The condition of all Critical Water Quality Zones (CWQZ) shall be assessed using the Zone 2 functional assessment methodology described in Appendix X of the Environmental Criteria Manual. (Zone 2 is the area from the edge of the active channel to the edge of the CWQZ.) All CWQZs found to be in "Poor (1)" or "Fair (2)" condition shall be restored to "Good (3)" or "Excellent (4)" condition; CWQZs found to be in "Good (3)" or "Excellent (4)" condition shall not be disturbed except as otherwise allowed by code. The applicant shall prepare a Riparian Restoration Plan demonstrating that all parameters of the Appendix X "Scoring: Zone 2 – Critical Water Quality Zone" table shall be raised to "Good (3)" or "Excellent (4)" condition. The Zone 2 functional

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assessment of existing conditions and the Riparian Restoration Plan shall be submitted, reviewed, and approved with each residential subdivision and commercial site plan.

- 2. A tree planting plan will be prepared during the final platting of lots to determine the proposed trees to be placed along the trail network. In addition, 150 trees will be planted throughout the trail segments outside of dedicated Park Land.
- 3. For commercial and multifamily sites, treat the entire lot as street yard for the purposes of tree requirements.
- 4. Upon reclaimed water being brought to the project, use reclaimed water for irrigation in open space areas where such use is economically feasible, subject to any applicable water use restrictions imposed by the City. Reclaimed water shall not be used for irrigation in CWQZ's, CEF buffers, or floodplain.
- 5. Use wet ponds instead of sedimentation filtration ponds for water quality controls. For tracts where the use of regional wet ponds is not feasible for water quality controls, green water quality controls may be utilized with approval from the city.
- 6. Additional open space, 23.4 acres, is provided in excess of the required open space, CWQZ's, floodplain, and CEF buffers.

Please contact me at (512) 541-3594 or pmadere@coatsrose.com if you have any questions.

Pamela Madere



ENVIRONMENTAL BOARD VARIANCE APPLICATION TEMPLATE

PROJECT DESCRIPTION Applicant Contact Inform	
Name of Applicant	Coats Rose; Attn: Pamela Madere
Street Address	901 S. Mopac, Building 1, Suite 500
City State ZIP Code	Austin, TX 78746
Work Phone	(512) 541-3594
E-Mail Address	pmadere@coatsrose.com
Variance Case Informati	ion
Case Name	Sunfield PUD
Case Number	C814-2014-0083
Address or Location	1901 Turnersville Rd.
Environmental Reviewer Name	Jim Dymkowski
Applicable Ordinance	N/A
Watershed Name	Rinard, Plum, and Onion
Watershed Classification	□ Urban X Suburban□ Water Supply Suburban□ Water Supply Rural□ Barton Springs Zone
Edwards Aquifer Recharge Zone	☐ Barton Springs Segment ☐ Northern Edwards Segment X Not in Edwards Aquifer Zones
Edwards Aquifer Contributing Zone	☐ Yes X No

Distance to Nearest Classified Waterway	
Water and Waste Water service to be provided by	COA
Request	The variance request is as follows (Cite code references: 25-8-42(D)(4) - Modified to state, "For a variance described in Paragraph (B)(6), the cut or fill is not located on a slope with a gradient of more than 15 percent, or within 100 feet of a classified waterway, except as required for the construction of proposed ponds within 100 feet of a classified waterway for stormwater pond construction."

Impervious cover	Existing	Proposed	
square footage:	Undeveloped	<u>11,322,550.8</u>	
acreage:	482.5 Acres	<u>259.93</u>	
percentage:	N/A - Undeveloped	55%	
Provide general description of the property (slope range, elevation range, summary of vegetation / trees, summary of the geology, CWQZ, WQTZ, CEFs, floodplain, heritage trees, any other notable or outstanding characteristics of the property)	Sunfield PUD is a 482.5 acre tract located at Road and the proposed extension of Main S range from 788' MSL to 680' MSL. The site of trees. There is existing floodplain and CWQ Road. See attached ERI prepared by ACI Corregarding existing CEF's and geology on site	Street. The elevations on the property consists of native grasslands with few Z located just south of Turnersville insultants for additional information	

Clearly indicate in what	
way the proposed project	
does not comply with	

The exception with the PUD is requesting that Section 25-8-42(D)(4) will be amended to state "For a variance described in Paragraph (B)(6), the cut or fill is not located on a slope with a

current Code (include	gradient of more than 15 percent, or within 100 feet of a classified
maps and exhibits)	waterway, except as required for the construction of proposed
	ponds within 100 feet of a classified waterway for storm water
	pond construction."

FINDINGS OF FACT – NOT APPLICABLE SINCE THIS IS FOR A PUD

As required in LDC Section 25-8-41, in order to grant a variance the Land Use Commission must make the following findings of fact:

Include an explanation with each applicable finding of fact.

Project:

Ordinance:

- A. Land Use Commission variance determinations from Chapter 25-8-41 of the City Code:
 - 1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development.

Yes/No [summary of justification for determination]

2. The variance:

a) Is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance;

Yes/No [summary of basis for determination]

b) Is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property;

Yes/No [summary of basis for determination]

c) Does not create a significant probability of harmful environmental consequences; and

163/190 [Sullillary Of Dasis for determination	Yes/No	summary	v of basis	for determination
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3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

Yes/No [summary of basis for determination]

- B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-393 (Water Quality Transition Zone), Section 25-8-423 (Water Quality Transition Zone), Section 25-8-453 (Water Quality Transition Zone), or Article 7, Division 1 (Critical Water Quality Zone Restrictions):
 - 1. The criteria for granting a variance in Section A are met;

Yes/No [summary of basis for determination]

2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and

Yes/No [summary of basis for determination]

3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

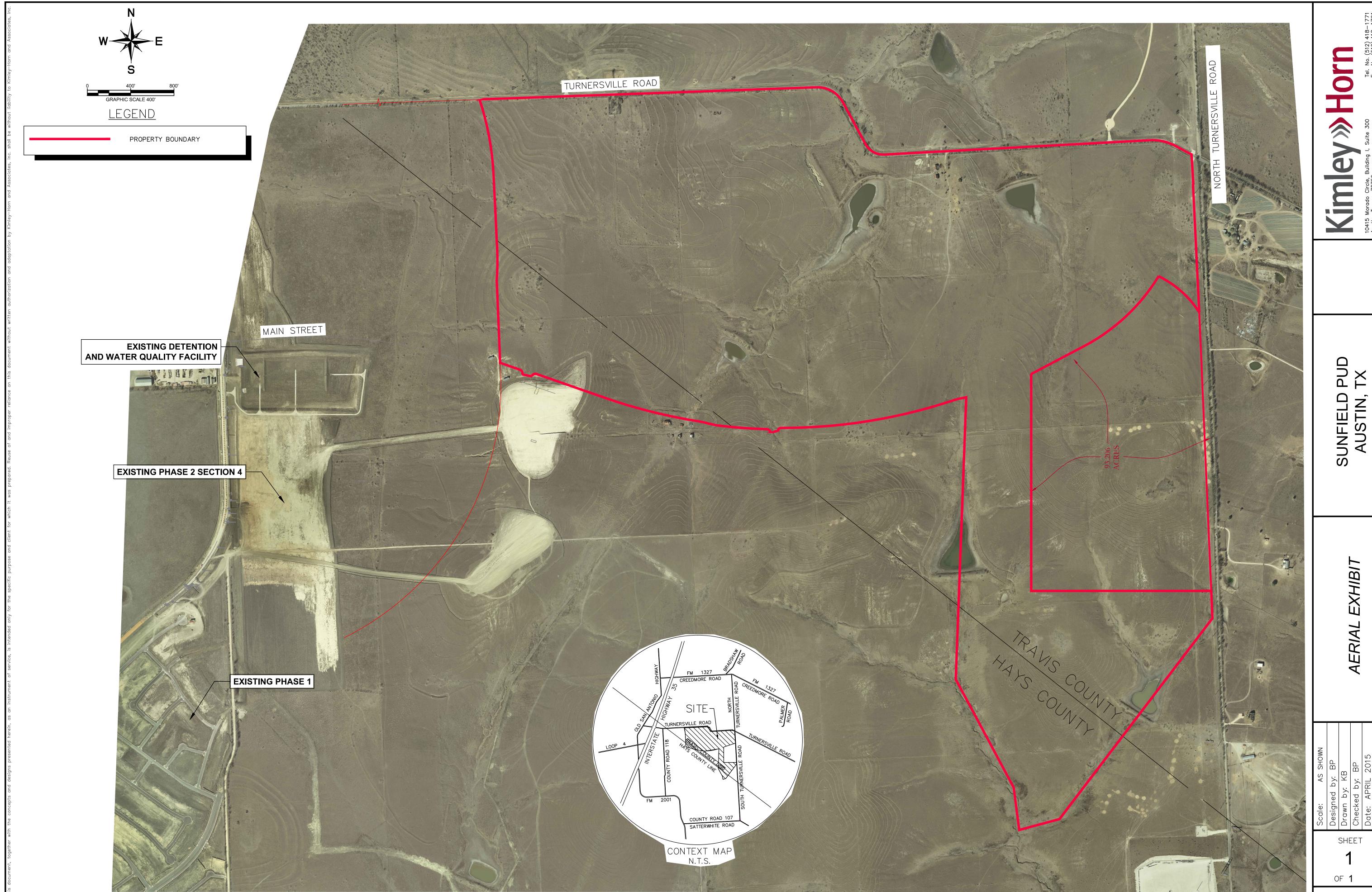
Yes/No [summary of basis for determination]

^{**}Variance approval requires all above affirmative findings.

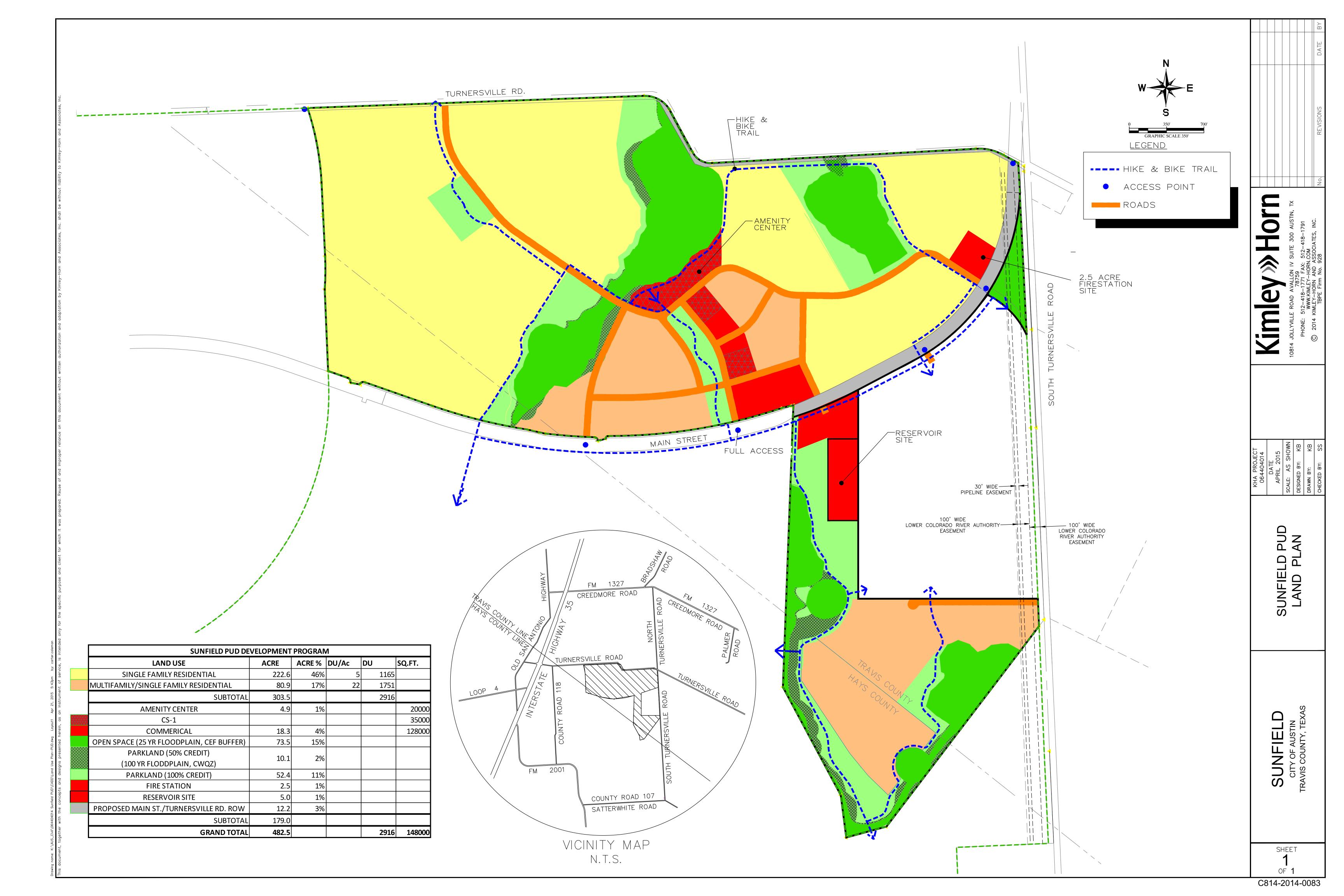
Exhibits for Board Backup and/or Presentation

Please attach and paginate.

- Aerial photos of the site (backup and presentation)
- Site photos (backup and presentation)
- Aerial photos of the vicinity (backup and presentation)
- Context Map—A map illustrating the subject property in relation to developments in the vicinity to include nearby major streets and waterways (backup and presentation)
- Topographic Map A topographic map is recommended if a significant grade change on the subject site exists or if there is a significant difference in grade in relation to adjacent properties. (backup and presentation)
- For cut/fill variances, a plan sheet showing areas and depth of cut/fill with topographic elevations. (backup and presentation)
- Site plan showing existing conditions if development exists currently on the property (presentation only)
- Proposed Site Plan- full size electronic or at least legible 11x17 showing proposed development, include tree survey if required as part of site or subdivision plan (backup and presentation)
- Environmental Map A map that shows pertinent features including Floodplain, CWQZ,
 WQTZ, CEFs, Setbacks, Recharge Zone, etc. (backup and presentation)
- An Environmental Assessment pursuant to ECM 1.3.0 (if required by 25-8-121) (backup only)
- Applicant's variance request letter (backup only)











CITY OF AUSTIN ENVIRONMENTAL RESOURCE INVENTORY FOR THE 575-ACRE SUNFIELD TRACT

Travis and Hays Counties, Texas

Submitted to:

Coats Rose 901 South Mopac Building 1, Suite 500 Austin, Texas 78746

By:

aci consulting 1001 Mopac Circle Austin, Texas 78746

aci Project No.: 19-11-092A

September 2014

Case No.:			
(City use only)			

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: 575-Acre Sunfield Tract 2. COUNTY APPRAISAL DISTRICT PROPERTY ID (#'s): 717759, 839824, 839820 3. ADDRESS/LOCATION OF PROJECT: Bound by Turnersville Road in Travis and Hays Counties, Texas 4. WATERSHED: Onion Creek, Rinard, and Plum Creek watersheds 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 \square (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 apply. 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 ____8 (#'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):

(#'s) Spring(s)/Seep(s)		_(#'s) Point Recharge Feature(s)	(#'s) Bluff(s)
(#'s) Canyon Rimrock(s)	8	_ (#'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. <u>Request forms for administrative variances from requirements stated in LDC 25-8-281 are available from Watershed Protection Department.</u>

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
- ⊠ Site Soil Map
- ☑ Critical Environmental Features and Well Location Map on current Aerial Photo with 2-ft Topography

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)	
Altoga silty clay, 3 to 6 percent slopes (AgC2)	В	5	
Heiden clay, 1 to 3 percent slopes (HeB)	С	4	
Heiden clay, 3 to 5 percent slopes (HeC2)	С	5	
Heiden clay, 5 to 8 percent slopes, eroded (HeD2)	С	5	
Houston Black Clay, 3 to 5 percent slopes (HnB)	С	8+	

- *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.

WPD ERM ERI-2014-01 Page 2 of 6

Description of Site Topogr	aphy and Drainage (Attach addition	nal sheets if needed):
	minute topographic quadrangle, the elev	
approximately 694 to 785 feet ab	ove mean sea level. The subject area in	cludes a mix of very gently rolling hills
bisected by low-lying tributaries a	and associated agricultural stock ponds.	
List surface geologic unit	s helow:	
=iot ourrade geologie ame	o below.	
	Geologic Units Exposed at Su	ırface
Group	Formation	Member
Taylor Group	Pecan Gap Chalk (Kpg)	(Not Available)
Taylor Group	Ozan (Sprinkle) (Ko)	(Not Available)
Brief description of site of	eology (Attach additional sheets if nee	ded):
Direct description of site g		<i>36u)</i> .
According to Barnes (1974), the si	urface geology of the subject area is con	nprised of Pecan Gap Chalk (Kpg) and
	orinkle Formation, "lower Taylor marl,"	
Wells - Identify all recorded	d and unrecorded wells on site (te	est holes, monitoring, water, oil.
unplugged, capped and/or a		, , , , , , , , , , , , , , , , , , , ,
There are 1 (#) wells press	ent on the project site and the loc	antions are about and labeled
	are not in use and have been pro	
(#'s)The wells	are not in use and will be proper	ly abandoned.
(#'s)The wells	are in use and comply with 16 Ta	AC Chapter 76.
There are (#'s) wells tha	it are off-site and within 150 feet o	of this site.

WPD ERM ERI-2014-01 Page 3 of 6

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

ation consists of mixed native or intro nunties resulting from clearing of woo	are considered grassland/prairie/savanna species. The oduced grasses and forbs on grassland sites or mixed he ody vegetation.
	n site□YES ⊠ NO <i>(Check o</i>
f yes, list the dominant species l	pelow.
Woo	odland species
Common Name	Scientific Name
here is grassland/prairie/savan f yes, list the dominant species	na on site⊠YES ☐ NO <i>(Check one</i> below:
f yes, list the dominant species l	
f yes, list the dominant species l	below:
f yes, list the dominant species Grassland/p	below: prairie/savanna species
f yes, list the dominant species l Grassland/p Common Name	prairie/savanna species Scientific Name
Grassland/p Common Name honey mesquite	Scientific Name Prosopis glandulosa
f yes, list the dominant species Grassland/p Common Name honey mesquite common ragweed	Scientific Name Prosopis glandulosa Ambrosia artemisiifolia
Grassland/p Common Name honey mesquite common ragweed bermudagrass	prairie/savanna species Scientific Name Prosopis glandulosa Ambrosia artemisiifolia Cynodon dactylon
Grassland/p Common Name honey mesquite common ragweed bermudagrass dallisgrass	prairie/savanna species Scientific Name Prosopis glandulosa Ambrosia artemisiifolia Cynodon dactylon Paspalum dilatatum

WPD ERM ERI-2014-01 Page 4 of 6

Hydrophytic plant species			
Common Name	Scientific Name	Wetland Indicator Status	
frogfruit	Phyla nodiflora	FAC	
pondweed	Potomogeton sp.	OBL	
barnyardgrass	Echinochloa crus-galli	FAC	
spikerush	Eleocharis sp.	FACW	
annual marshelder	Iva annua	FAC	
black willow	Salix nigra	FACW	

	half fe	e survey of all trees with a diameter of at least eight inches measured four and one- set above natural grade level has been completed on the site. S ☑ NO (Check one).
12. W	ASTEW	VATER REPORT – Provide the information requested below.
	Waste	ewater for the site will be treated by (Check of that Apply):
		On-site system(s)
		City of Austin Centralized sewage collection system
	X	Other Centralized collection system
		all sites that receive water or wastewater service from the Austin Water Utility must comply with r 15-12 of Austin City Code and wells must be registered with the City of Austin
	all Sta	ite sewage collection system is designed and will be constructed to in accordance to ite, County and City standard specifications. S \square NO (Check one).
	the en	lations of the size of the drainfield or wastewater irrigation area(s) are attached at of this report or shown on the site plan. S \boxtimes NO \square Not Applicable (Check one).
		ewater lines are proposed within the Critical Water Quality Zone? S 🗵 NO (Check one). If yes, then provide justification below:

WPD ERM ERI-2014-01

for the site, its treatmenter.
assessment have beer
on this form accurately
up.net
L4

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



List of Attachments for the Environmental Resource Inventory Form

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Q8-1. City of Austin Critical Environmental Features (CEF) Sheet

Question 9:

- Q9-1. Site Specific Geologic Map with 2ft Topography
- Q9-2. Historic Aerial Photo of the Site
- Q9-3. Site Soil Map
- Q9-4. Critical Environmental Features on Current Aerial with 2ft Topography
- Q9-5. Well Location Map on Current Aerial with 2ft Topography
- Q9-6. Critical Water Quality Zone

Question 10:

- Q10-1. Surface Soils
- Q10-2. Description of Site Geology

Question 11:

Q11-1. Description of Site Plant Communities



Question 8 Attachments

City of Austin Site Review Critical Environmental Feature Worksheet

	YES	CEFS Located? (yes no)	œ	9/4/2014	Environmental Assessment Date	4
Jean Devlin		Prepared By:	7	9/5/2014	Date	w
(512) 852-3870		Phone Number:	6	SW Intersection of Turnersville & N/S Turnersville	Project Address	2
Jenny Wallgren		Primary Contact Name	(h	Sunfield 575-acre Tract	Project Name:	-

				 									9
				wetland	wetland	welland	wetland	wetland	wetland	wetland	welland	3,	FEATURE TYPE (Wetland Rimrock Recharge Feature Seen Sonno)
				WET 8	WET 7	WET 6	WET 5	WET 4	WET 3	WET 2	WET 1	1 0 0	FEATURE ID
				-97,795918 DD	-97 792198 DD	-97,787379 DD	-97,781971 DD	-97.78916 DD	-97,787877 DD	-97.785408 DD	-97 78352 DD	coordinale	FEATURE LONGITUDE (WGS 1984 in Meters)
l.				8	00	00	8	8	00	00	8	notation	·s) F
				30.088042		30.091834	30 090221	30 083525	30.081568	30.077221	30 079078	coordinate	FEATURE LATITUDE (WGS 1984 in Meters)
				DO	DD	DO	DD	DD	DD	DD	DD	notation	
				225	423	282	78	253	66	30	318	×	WETI
				501	997	753	68	713	66	30	500	~	WETLAND DIMENSIONS (ft)
												Length	RIMROCK DIMENSIONS (ft)
												Avg Height	OCK ONS (ft)

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

City of Austin Use Only WPDRD CASE NUMBER



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.



Date Taken 09/04/2014

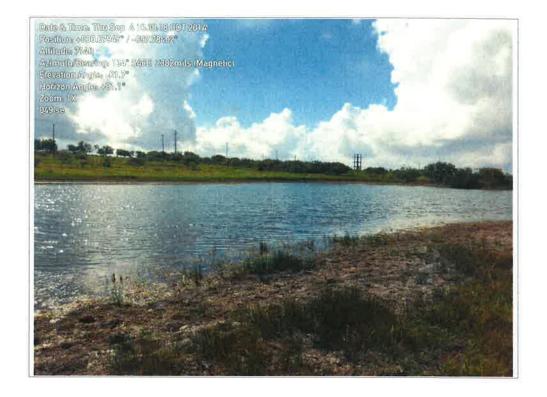
Photo # 049

Direction

Southeast

Location

N. 30.078899 W. -97.783697



Description

WET 1 is an agricultural stock pond located at the southeastern boundary of the subject area and is approximately 3.63 acres. A portion of WET 1 extends beyond the subject area. Water was present at the time of field investigations, although water levels were atypically low due to ongoing drought conditions. Vegetation associated with WET 1 includes, but is not limited to: honey mesquite (*Prosopis glandulosa*), frog fruit (*Phyla nodiflora*), annual marsh elder (*Iva annua*), and spikerush (*Eleocharis* sp.) The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 1 is 150 feet, which is considered the standard buffer for City of Austin CEFs.



Date Taken 09/04/2014

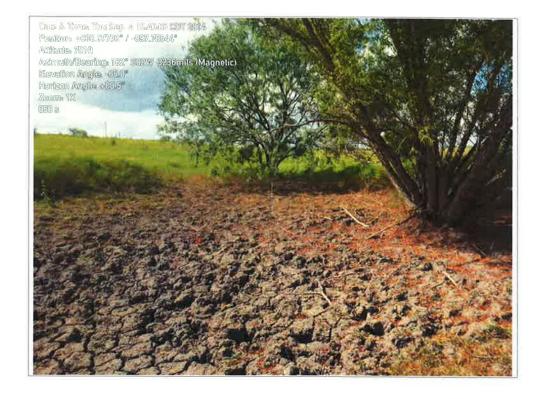
Photo # 050

Direction

South

Location

N. 30.077261, W. -97.785393



Description

WET 2 is an agricultural stock pond located in the southern portion of the subject area and is approximately 0.02 acre. Water was not present during field investigations; however, the sparsely vegetated concave surface and surface soil cracks are indicative of wetland hydrology. Vegetation associated with WET 2 includes, but is not limited to: black willow (Salix nigra), common ragweed (Ambrosia artemisiifolia), barnyardgrass (Echinochloa crus-galli), annual marsh elder, frog fruit, common broomweed (Amphiachyris dracunculoides), and rough cocklebur (Xanthium strumarium). The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 2 is 150 feet, which is considered the standard buffer for City of Austin CEFs.



Date Taken 09/04/2014

Photo # 052

Direction

East

Location

N. 30.081507 W. -97.787949



Description

WET 3 is an agricultural stock pond located in the southwestern portion of the subject area and is approximately 0.09 acre. Water was present during field investigations, although water levels were low due to ongoing drought conditions. Vegetation associated with WET 3 includes, but is not limited to: Pondweed (*Potomogeton* sp.), annual marsh elder, dallisgrass (*Paspalum dilatatum*), and common broomweed. The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 3 is 150 feet, which is considered the standard buffer for City of Austin CEFs.



Date Taken 09/04/2014

Photo # 053

Direction

West

Location

N. 30.082722 W. -97.789128



Description

WET 4 is an agricultural stock pond located along the southwestern boundary of the subject area and is approximately 4.26 acres. A portion of the pond extends beyond the subject area. Water was present at the time of field investigations, although water levels were low due to ongoing drought conditions. Evidence of aquatic invertebrates was observed at WET 4. Vegetation associated with WET 4 includes, but is not limited to: spikerush, annual marsh elder, honey mesquite, snow on the prairie (*Euphorbia bicolor*), common ragweed, and common broomweed. The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 4 is 150 feet, which is considered the standard buffer for City of Austin CEFs.



Date Taken 09/04/2014

Photo # 046

Direction

East

Location

N. 30.090154 W. -97.781875



Description

WET 5 is an agricultural stock pond located along the northeastern boundary of the subject area and is approximately 0.1 acre. Water was present during field investigations, although water levels were low due to ongoing drought conditions. Vegetation associated with WET 5 includes, but is not limited to: common broomweed, annual marsh elder, frog fruit, and peppervine (*Ampelopsis arborea*). The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. An alternate setback is proposed for this feature.



Date Taken 09/04/2014

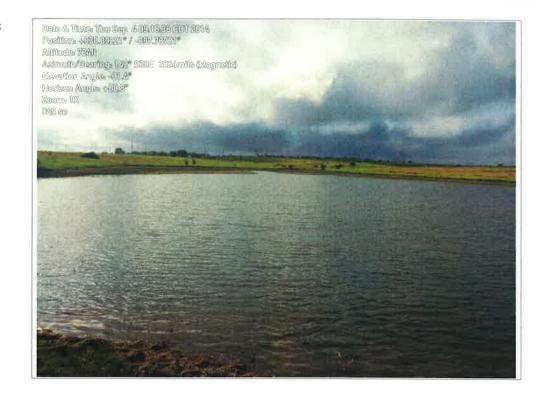
Photo # 045

Direction

South

Location

N. 30.091333 W. -97.786841



Description

WET 6 is an agricultural stock pond located in the northeastern portion of the subject area and is approximately 3.35 acres. Water was present at the time of field investigations, although water levels were low due to ongoing drought conditions. Vegetation associated with WET 6 includes, but is not limited to: common broomweed, spikerush, frog fruit, and honey mesquite. The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 6 is 150 feet, which is considered the standard buffer for City of Austin CEFs.

The depression south of WET 6 was also reviewed for wetland indicators. Water was not observed in the depression during the time of field investigations. Vegetation associated with the area consisted of predominantly facultative and upland species including, but not limited to: common broomweed, honey mesquite, and snow on the prairie. Based on field investigations, the area along the depression outside of WET 6 was determined as unlikely to be considered a City of Austin CEF wetland.



Date Taken 09/04/2014

Photo # 038

Direction

West

Location

N. 30.091226 W. -97.792236



Description

WET 7 is an agricultural stock pond located along the northern boundary of the subject area and is approximately 5.51 acres. Water was present at the time of field investigations, although water levels are atypically low due to the ongoing drought. Included in this feature is a smaller 200 foot by 130 foot bermed pond, in which water was present during the time of field investigations. Vegetation associated with WET 7 includes, but is not limited to: peppervine, spikerush, woolly croton (*Croton capitatus*), and bermudagrass. The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 7 is 150 feet, which is considered the standard buffer for City of Austin CEFs.

The area surrounding WET 7 was also reviewed for wetland characteristics. The dominant vegetation associated with the surrounding area consisted of predominantly facultative and upland species including, but not limited to: frog fruit, common broomweed, snow on the prairie, King Ranch bluestem (*Bothriochloa ischaemum*), and bermudagrass.

An area approximately 90 feet north of WET 7 appears to have formed by a leaking overflow valve off WET 7. This area is approximately 0.26 acre. Water was present during the time of field investigations. Vegetation associated with the area includes, but is not limited to: spikerush, mayflower marshpennywort (*Hydrocotyle umbellata*), common broomweed, and snow on the prairie. Although wetland vegetation was present during the time of field investigations, and the feature did not have hydric soils or the hydrology consistent with a wetland.



Date Taken 09/04/2014

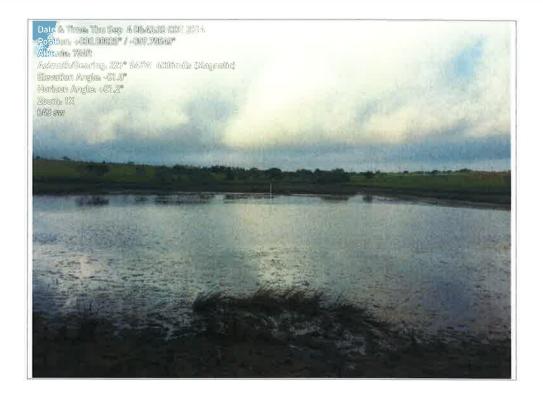
Photo # 043

Direction

Southwest

Location

N. 30.087939 W. -97.795809



Description

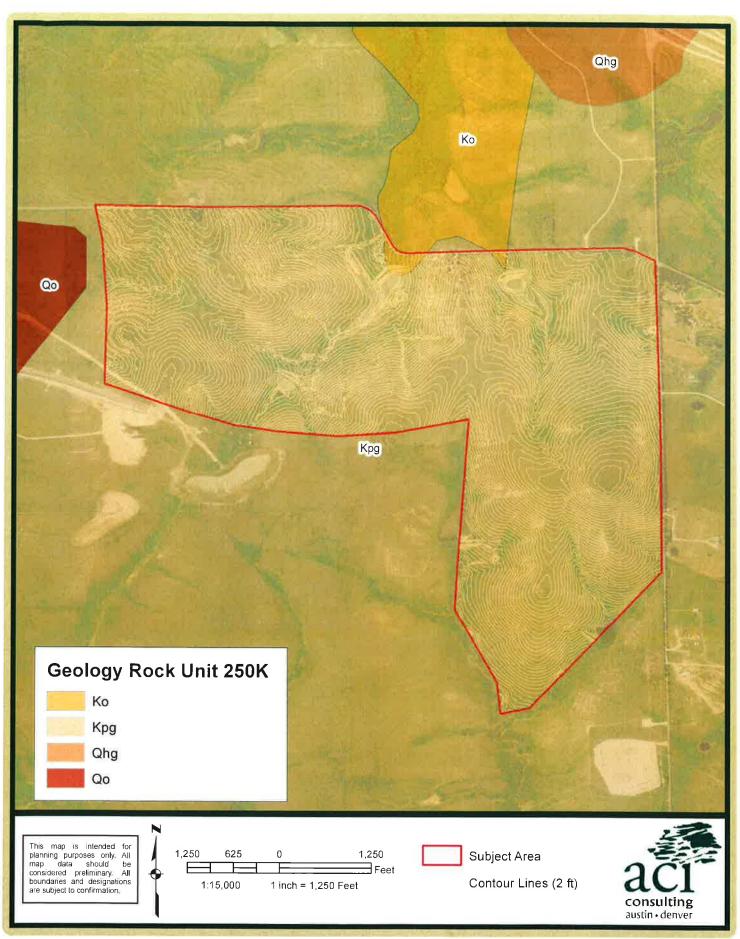
WET 8 is an agricultural stock pond located in the northwestern portion of the subject area and is approximately 1.37 acres. Water was present at the time of field investigations, although water levels are atypically low due to the ongoing drought. Vegetation associated with WET 8 includes, but is not limited to: common broomweed, spikerush, honey mesquite, and frog fruit. Evidence of aquatic invertebrates was observed at WET 8. The fringe boundary of this pond is likely to be considered a City of Austin CEF wetland. The proposed buffer for WET 8 is 150 feet, which is considered the standard buffer for City of Austin CEFs.

The area surrounding WET 8 was also reviewed for wetland characteristics. Water was not observed in the drainage during field investigations. The vegetation associated with the drainage consisted of predominantly facultative and upland species including but not limited to: common broomweed, snow on the prairie, and honey mesquite. Based on field investigations, the area along the tributary outside of WET 8 boundaries was determined as unlikely to be considered a City of Austin CEF.

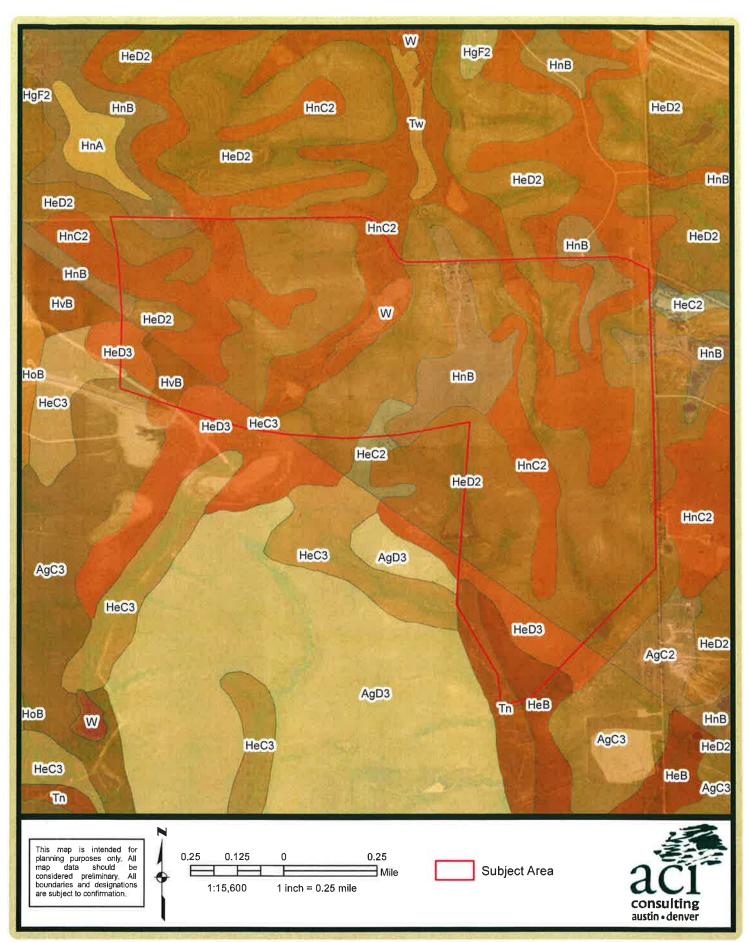




Question 9 Attachments







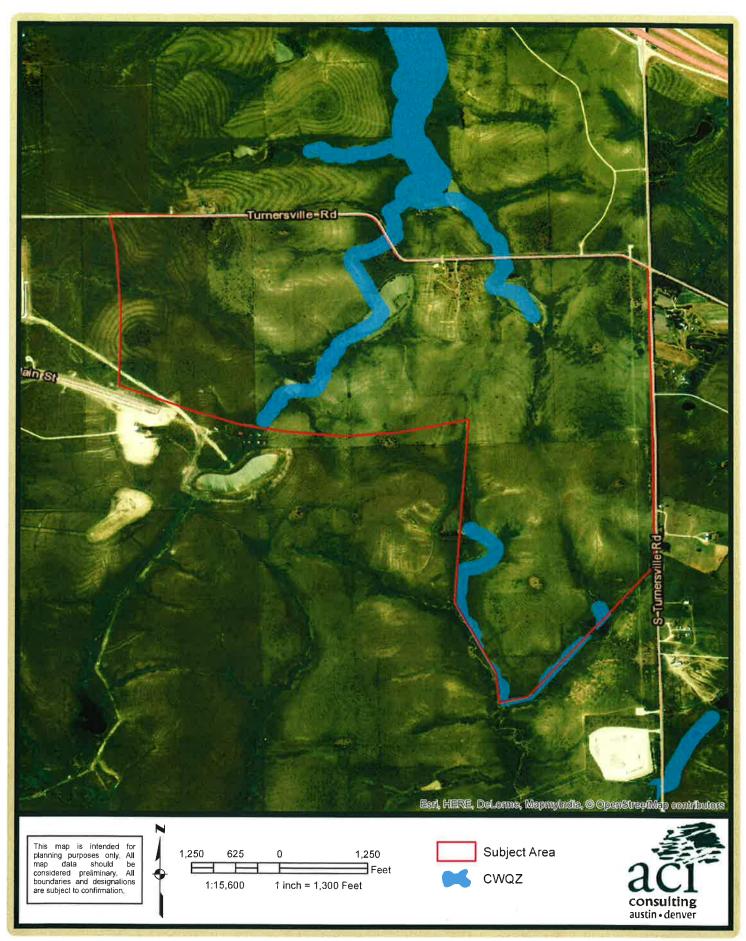


Sunfield CoA ERI Q9-4. Critical Environmental Features on Current Aerial with 2ft Topography



Sunfield CoA ERI

Q9-5. Texas Water Development Board Monitoring Device on Current Aerial with 2ft Topography



Sunfield CoA ERI Q9-6. Critical Water Quality Zone



Question 10 Attachments



Q10-1. Surface Soils

Soils in this area are classified as Houston Black-Heiden association, which are described as deep, nearly level and gently sloping, calcareous, clayey soils overlaying marl (SCS 1974, 1984). Seven soil units occur within the subject area:

- Altoga silty clay, 3 to 6 percent slopes, eroded (AgC2) This soil typically occurs as long, narrow areas paralleling major streams. The surface layer is light brownish-gray silty clay about five inches thick. The second layer consists of very pale brown silty clay loam about 24 inches thick. The third layer is pale-yellow silty clay loam approximately 60 inches in thickness. Permeability is moderate, and the available water capacity is high.
- Heiden clay, 1 to 3 percent slopes (HeB) This soil type occupies narrow ridges or foot slopes mostly in long and narrow areas ranging in size from 30 to 100 acres. The surface layer is dark grayish-brown clay about 18 inches thick and the next layer to a depth of about 48 inches is grayish-brown clay mottled with olive yellow. This soil has moderate erosion hazard and is used mostly for crops and pastures.
- Heiden clay, 3 to 5 percent slopes, eroded (HeC2) This soil type occupies side slopes on gently undulating topography in areas ranging from 20 to 50 acres. The surface layer is dark grayish-brown clay, and below this is mottled yellow silty clay for 60 inches. This soil consists of well-drained, deep clay soil that has a high water capacity and slow permeability.
- Heiden clay, 5 to 8 percent slopes, eroded (HeD2) This soil is typically found on gently rolling slopes in long and narrow areas from 20 to 40 acres in size. The surface layer is dark grayish-brown clay about 14 inches thick followed by a 48 inch grayishbrown clay layer. The underlying material is 60 inches deep and consists of yellow silty clay. This soil is an erosional hazard. It consists of well-drained, deep clay soil that has a high water capacity and slow permeability.
- Houston Black clay, 1 to 3 percent slopes (HnB) This soil typically occupies smooth ridges or foot slopes in long and narrow and irregular shaped areas. The surface layer is very dark gray clay about 24 inches thick. The following layer is dark-gray clay that goes as deep as 38 inches followed by a grayish-brown clay that extends 80 inches deep. The underlying material is 104 inches of mottled clay. This soil type is moderately well drained and slowly permeable with a low available water capacity.
- Houston Black clay, 3 to 5 percent slopes, eroded (HnC2) This soil typically occupies long, narrow areas. The surface layer is dark gray clay about 30 inches thick. The following layer is gray clay that has yellowish mottles in the lower portion. There is a moderately severe hazard of erosion associated with this soil. The drainage is moderate and this unit is slowly permeable with a low available water capacity.
- Tinn series (Tn) This soil consists of deep, somewhat poorly drained, nearly level clayey soils on flood plains and was formed in calcareous clayey alluvium. Soils in this series consist of calcareous, moderately alkaline, dark gray clay that are frequently flooded.



REFERENCES

- (SCS) Soil Conservation Service. 1974. Soil Survey of Travis County, Texas. United States Department of Agriculture, Texas Agriculture Experiment Station.
- (SCS) Soil Conservation Service. 1984. Soil Survey of Comal and Hays Counties, Texas. United States Department of Agriculture, Texas Agriculture Experiment Station.



Q10-2. Description of Site Geology

REFERENCES

Barnes, V.E. 1974. Geologic Atlas of Texas, Austin Sheet. Bureau of Economic Geology, University of Texas at Austin.



Question 11 Attachments



Q11-1. Description of Site Plant Communities

The subject area lies within "Other Native or Introduced Grasses" as noted on the Texas Parks and Wildlife "Vegetation Types of Texas" map (McMahan et al. 1984). This vegetation type generally consists of mixed native or introduced grasses and forbs on grassland sites or mixed herbaceous communities resulting from the clearing of woody vegetation. The subject area is consistent with this designation.

Typical vegetation within the subject area includes but is not limited to: mesquite (*Prosopis glandulosa*), Chinese tallow (*Triadica sebifera*), osage orange (*Maclura pomifera*), black willow (*Salix nigra*), hackberry (*Celtis reticulata*), Roosevelt weed (*Baccharis neglecta*), common ragweed (*Ambrosia artemisiifolia*), groundcherry (*Physalis* sp.), elegant gayfeather (*Liatris elegans*), bermudagrass (*Cynodon dactylon*), and various native grasses and forbs.

The subject area is located in Sector 19 of the City of Austin Biological Resource Sector Map and is not designated as priority or other significant woodlands.

REFERENCES

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