



ITEM FOR ENVIRONMENTAL BOARD AGENDA

**BOARD MEETING
DATE REQUESTED:** JUNE 17, 2015

**NAME & NUMBER
OF PROJECT:** CASWELL ESTATES
C8-2014-0134.0A

**NAME OF APPLICANT
OR ORGANIZATION:** Wuest Group
(Scott Wuest, PE 512-394-1900)

LOCATION: 3336 Mount Bonnell Dr

PROJECT FILING DATE: July 16, 2014

**WPD/ENVIRONMENTAL
STAFF:** Sylvia Pope, P.G. 512-974-3429
Sylvia.pope@austintexas.gov

**PDR/
CASE MANAGER:** Don Perryman, 512-974-2786
don.perryman@austintexas.gov

WATERSHED: Huck's Slough Watershed and Lake Austin Watershed
Water Supply Suburban
Drinking Water Protection Zone

ORDINANCE: Watershed Protection Ordinance (current Code)

REQUEST: Variance requests are as follows:
1 - To allow a CEF within a residential lot [LDC 25-8-281(B)] and
2 - To reduce a CEF setback to 50 feet [LDC 25-8-281(C)(1)(a)]

STAFF RECOMMENDATION: Recommended with conditions.

**REASONS FOR
RECOMMENDATION:** Findings of fact have been met.



ENVIRONMENTAL BOARD VARIANCE APPLICATION TEMPLATE

Insert Applicant Variance Request Letter here.

PROJECT DESCRIPTION

Applicant Contact Information

Name of Applicant	Kenneth Kennedy Caswell, Jr. and Claire Caswell Cunningham
Street Address	c/o Charlie Quisenberry – 515 Congress Avenue, Ste. 2325
City State ZIP Code	Austin, Texas 78701
Work Phone	Cell: 512 587-1060
E-Mail Address	cquisenberry@edge-re.com

Variance Case Information

Case Name	Caswell Estates Subdivision
Case Number	C8-2014-0134.0A
Address or Location	3336 Mt. Bonnell Road
Environmental Reviewer Name	Mike McDougal
Applicable Ordinance	CWO - Current Code
Watershed Name	Huck's Sough and Lake Austin
Watershed Classification	<input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input checked="" type="checkbox"/> Water Supply Suburban <input type="checkbox"/> Water Supply Rural <input type="checkbox"/> Barton Springs Zone
Edwards Aquifer Recharge Zone	<input type="checkbox"/> Barton Springs Segment <input type="checkbox"/> Northern Edwards Segment <input checked="" type="checkbox"/> Not in Edwards Aquifer Zones

Edwards Aquifer Contributing Zone	Yes <input checked="" type="checkbox"/> No
Distance to Nearest Classified Waterway	Abutting Lake Austin and Huck's Slough
Water and Waste Water service to be provided by	City of Austin
Request	The variance request is as follows (Cite code references): LDC 25-8-281(b) - to allow for CEFs to be located on a residential lot.

	Existing	Proposed
Impervious cover square footage:	<u>10,019 sf</u>	<u>0 sf</u>
acreage:	<u>0.23 acres</u>	<u>0 acres</u>
percentage:	<u>27.7 %</u>	<u>0%</u>
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)	<p>The Property is currently developed with a single family house, accessory structure and associated drive. A portion of the house is located in the Lake Austin CWQZ. The dominant species on the site consists of Ashe juniper, plateau live oak, Texas oak, chinaberry, Texas mountain laurel, Chinese privet, poison ivy, flameleaf sumac and violet ruellia.</p> <p>The site ranges in elevation from approximately 490 to 520 feet above mean sea level, with the site sloping northwest towards Huck's Slough and west towards Lake Austin. As mapped by FEMA, portions of the site along Huck's Slough and adjoining Lake Austin are mapped as Zone X(shaded) and the remainder of the site is mapped as Zone X (unshaded).</p> <p>The site is underlain by the Speck-Tarrant Association, which consists of shallow, stony, loamy soils and very shallow, stony clay soils overlying limestone. ("Soil Survey of Travis County, Texas", USDA SCS, 1974).</p>	

Clearly indicate in what way the proposed project does not comply with current Code (include maps and exhibits)	The Property is located along Lake Austin and has been unplatted to date. Current code regulations require that a CEF not be located on a residential lot. However, the lot has been used since the early 1900's as a residential use, long before the CEFs were discovered and regulated. Therefore, a variance to the regulation to allow for CEFs to be located on a residential lot is requested.
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FINDINGS OF FACT

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: **Caswell Estates Subdivision (C8-2014-0134.OA)**

Ordinance: Comprehensive Watershed Ordinance – Huck's Slough and Lake Austin (Suburban)

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 - Strict application of the requirement would result in the property being undevelopable without a reduction in the CEF setback. The existing structure was built in the early 1900's. A 150 foot CEF setback not only encroaches in the existing development area, but largely covers the site and prevents renovation and/or redevelopment of the structure. The property is restricted by Huck's Slough, which affects the property and setbacks differently than similarly situated properties.

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 – The proposed variance is unique to the site given the proximity to Huck's Slough and the CEFs were recently discovered despite the existing development.

No additional development or redevelopment can be allowed on the site without waiving the restriction of not allowing CEFs on a residential lot.

- 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 – The proposed variance is unique to this property and is the minimum needed to allow for development and/or redevelopment on the property to allow for a reasonable use.

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

YES - The requested CEF setback reduction does not create a harmful environmental consequence as the CEFs will be protected by a 50 foot setback and a proposed masonry wall, which will deter existing drainage flows into the CEFs.

Additionally, the following mitigation measures will be taken as detailed in the request letter:

- 1) A masonry wall will be constructed around the CEF buffer; and
 - 2) Existing and native landscaping will be protected in the CEF buffer.
- 2. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

YES –any proposed development on the site that requires water quality controls will be required and met for current code.

- 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;

N/A – no new development is currently proposed in the CWQZ or the WQTZ.

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

N/A – no new development is currently proposed in the CWQZ or the WQTZ.

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

N/A – no new development is currently proposed in the CWQZ or the WQTZ.

****Variance approval requires all above affirmative findings.**



ENVIRONMENTAL BOARD VARIANCE APPLICATION TEMPLATE

Insert Applicant Variance Request Letter here.

PROJECT DESCRIPTION

Applicant Contact Information

Name of Applicant	Kenneth Kennedy Caswell, Jr. and Claire Caswell Cunningham
Street Address	c/o Charlie Quisenberry – 515 Congress Avenue, Ste. 2325
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Variance Case Information

Case Name	Caswell Estates Subdivision
Case Number	C8-2014-0134.0A
Address or Location	3336 Mt. Bonnell Road
Environmental Reviewer Name	Mike McDougal
Applicable Ordinance	CWO - Current Code
Watershed Name	Huck's Slough and Lake Austin
Watershed Classification	<input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input checked="" type="checkbox"/> Water Supply Suburban <input type="checkbox"/> Water Supply Rural <input type="checkbox"/> Barton Springs Zone
Edwards Aquifer Recharge Zone	<input type="checkbox"/> Barton Springs Segment <input type="checkbox"/> Northern Edwards Segment <input checked="" type="checkbox"/> Not in Edwards Aquifer Zones

Edwards Aquifer Contributing Zone	Yes <input checked="" type="checkbox"/> No
Distance to Nearest Classified Waterway	Abutting Lake Austin and Huck's Slough
Water and Waste Water service to be provided by	City of Austin
Request	<p>The variance request is as follows (Cite code references):</p> <p>LDC 25-8-281(C)(1)(a) - to reduce the Critical Environmental Feature (CEF) setback to 50 feet instead of 150 feet radius for canyon rimrock, R1, and spring, S4.</p>

Impervious cover square footage:	Existing <u>10,019 sf</u>	Proposed <u>0 sf</u>
acreage:	<u>0.23 acres</u>	<u>0 acres</u>
percentage:	<u>27.7%</u>	<u>0%</u>
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)	<p>The Property is currently developed with a single family house, accessory structure and associated drive. A portion of the house is located in the Lake Austin CWQZ. The dominant species on the site consists of Ashe juniper, plateau live oak, Texas oak, chinaberry, Texas mountain laurel, Chinese privet, poison ivy, flameleaf sumac and violet ruellia.</p> <p>The site ranges in elevation from approximately 490 to 520 feet above mean sea level, with the site sloping northwest towards Huck's Slough and west towards Lake Austin. As mapped by FEMA, portions of the site along Huck's Slough and adjoining Lake Austin are mapped as Zone X(shaded) and the remainder of the site is mapped as Zone X (unshaded).</p> <p>The site is underlain by the Speck-Tarrant Association, which consists of shallow, stony, loamy soils and very shallow, stony clay soils overlying limestone. ("Soil Survey of Travis County, Texas", USDA SCS, 1974).</p>	

Clearly indicate in what way the proposed project does not comply with current Code (include maps and exhibits)	The Property is located along Lake Austin and Huck's Slough and has been unplatted to date. Current code regulations require a 150 foot setback from CEFs, which severely limits the developable area of the site including the existing structure and the majority of the site. As such, relief from the CEF setback to allow for a 50 foot setback is requested.
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FINDINGS OF FACT

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: **Caswell Estates Subdivision (C8-2014-0134.OA)**

Ordinance: Comprehensive Watershed Ordinance –Huck's Slough and Lake Austin (Suburban)

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 - Strict application of the requirement would result in the property being undevelopable without a reduction in the CEF setback. The existing structure was built in the early 1900's. A 150 foot CEF setback not only encroaches in the existing development area, but largely covers the site and prevents renovation and/or redevelopment of the structure. The property is restricted by Huck's Slough, which affects the property and setbacks differently than similarly situated properties.

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 – The proposed variance is unique to the site given the proximity along Huck's Slough and the CEFs were recently discovered despite the existing

development. No additional development or redevelopment can be allowed on the property without a reduction in the standard CEF setback.

- 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 – The proposed variance is unique to this property and is the minimum needed to allow for development and/or redevelopment on the property to allow for a reasonable use.

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

YES - The requested CEF setback reduction does not create a harmful environmental consequence as the CEFs will be protected by a 50 foot setback and a proposed masonry wall, which will deter existing drainage flows into the CEFs.

Additionally, the following mitigation measures will be taken as detailed in the request letter:

- 1) A masonry wall will be constructed around the CEF buffer; and
 - 2) Existing and native landscaping will be protected in the CEF buffer.
- 2. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

YES –any proposed development on the site that requires water quality controls will be required and met for current code.

- 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;

N/A – no new development is currently proposed in the CWQZ or the WQTZ.

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

N/A – no new development is currently proposed in the CWQZ or the WQTZ.

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

N/A – no new development is currently proposed in the CWQZ or the WQTZ.

****Variance approval requires all above affirmative findings.**



April 27, 2015

Mr. Rodney Gonzales, Director
Development Review Department
City of Austin
505 Barton Springs Road
Austin, Texas 78704

Re: Caswell Estates Subdivision – Austin, Texas
Variance Request #1 to 25-8-281(B) (CEF on residential lot)

Dear Mr. Gonzales:

Please accept this letter on behalf of the owner and applicant to formally request a variance from the City of Austin Land Development Code Section 25-8-281(B), to allow for CEFs to be located on an existing residential lot.

The property is located at 3336 Mount Bonnell Road and consists of 3.01 acres located in the Huck's Slough and Lake Austin, Water Supply Suburban watersheds. The tract is currently developed with an existing single family residence, accessory structure and associated driveway.

The property has been unplatted to date, but with the application to plat the property, a canyon rimrock and a springs CEF were discovered. As noted above, the property has a residential house, which has been in existence since the early 1900's. Therefore, it is necessary to ask for a waiver of the requirement to not allow CEFs on the residential lot as the lot has already been established and constructed as a residential lot long before the CEF was discovered and regulated.

The required findings of fact per Chapter 25-8-41 are attached with the application. The following are the mitigation measures for the proposed variance, which include:

- 1) Masonry Wall: A masonry wall will be constructed around the CEF buffer, which will deter existing drainage flows into the CEFs; and
- 2) Native Landscaping: Existing and native landscaping will be protected in the CEF buffer.

Please do not hesitate to contact me should you have questions.

Sincerely,

Scott M. Wuest, P.E.

Owner

Firm Registration # 15324

cc: Charlie Quisenberry



April 27, 2015

Mr. Rodney Gonzales, Director
Development Review Department
City of Austin
505 Barton Springs Road
Austin, Texas 78704

Re: Caswell Estates Subdivision – Austin, Texas
Variance Request #2 to 25-8-281(C)(1)(a) (150 foot CEF setback)

Dear Mr. Gonzales:

Please accept this letter on behalf of the owner and applicant to formally request a variance from the City of Austin Land Development Code Section 25-8-281(B), to allow for a reduction in a required CEF setback from 150 feet to 50 feet for canyon rimrock R1 and spring S4.

The property is located at 3336 Mount Bonnell Road and consists of 3.01 acres located in the Huck's Slough and Lake Austin, Water Supply Suburban watersheds. The tract is currently developed with an existing single family residence, accessory structure and associated driveway.

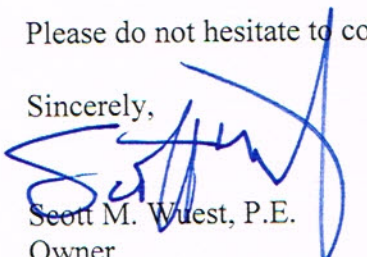
The property has been unplatted to date, but with the application to plat the property, a canyon rimrock and a springs CEF were discovered. As noted above, the property has a residential house, which has been in existence since the early 1900's. A 150 foot CEF setback not only encroaches in the existing development area, but largely covers the site and prevents renovation and/or redevelopment of the structure.

The required findings of fact per Chapter 25-8-41 are attached with the application. The following are the mitigation measures for the proposed variance, which include:

- 1) Masonry Wall: A masonry wall will be constructed around the CEF buffer, which will deter existing drainage flows into the CEFs; and
- 2) Native Landscaping: Existing and native landscaping will be protected in the CEF buffer.

Please do not hesitate to contact me should you have questions.

Sincerely,



Scott M. Wuest, P.E.
Owner
Firm Registration # 15324
cc: Charlie Quisenberry



MEMORANDUM

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

FROM: Sylvia Pope, P.G., Hydrogeologist
Watershed Protection Department

Mike McDougal, Environmental Review Specialist Senior
Development Services Department

DATE: June 17, 2015

SUBJECT: Caswell Estates – C8-2014-0134.0A

On the June 17th, 2015 agenda is a request for the consideration of two variances to allow a Critical Environmental Feature (CEF) to be located within a residential lot [LDC 25-8-281(B)] and to reduce a CEF setback to 50 feet [LDC 25-8-281(C)(1)(a)].

Property Location

The property is located at 3336 Mount Bonnell Drive (Exhibit 1 Location Map and Exhibit 2 Site Aerial). Adjacent uses include single family, commercial (Westwood Country Club), the Mayfield Nature Preserve, the Albert R. Davis Water Treatment Plant, Laguna Gloria Museum, and school facilities.

Watershed Data

The 3.01 acre property is located within the Huck's Slough Watershed and the Lake Austin Watershed (both are classified as Water Supply Rural) and is located within the Edwards Aquifer Recharge Zone. Surface water generally drains from east to northwest, west, and southwest, and south (Exhibit 3 Existing Conditions Map). City of Austin GIS shows a Critical Water Quality Zone associated with Lake Austin as well as a Critical Water Quality Zone and a Water Quality Transition Zone associated with Huck's Slough. Huck's Slough is located immediately west of the property (Exhibit 4 Critical Water Quality Zone and Water Quality Transition Zone Map).

Jurisdictional Data

The property is within the City of Austin full purpose jurisdiction and is zoned SF-3.

Trees / CEFs

Vegetation and Critical Environmental Features are described in the attached Environmental Resource Inventory (Exhibit 5 COA Environmental Resource Inventory).

Variance Request

An existing single family residence is located on the property. Travis Central Appraisal District records indicate the residence was constructed in the 1908. The Applicant is seeking a final plat for the property to create a legal lot. No construction is proposed with this application. A rimrock feature is located partially within the proposed lot and a spring is located adjacent to the proposed lot. LDC 25-8-281(B) states that a residential lot may not include a critical environmental feature or be located within 50 feet of a critical environmental feature. In addition, LDC 25-8-281(C)(1)(a) establishes a minimum 150 foot critical environmental feature setback. Therefore, the following variances to the Land Development Code (LDC) have been requested to allow the property to be platted as a single family lot:

- 1 – To allow a CEF on a single family residential lot [LDC 25-8-281(B)]
- 2 – To reduce a CEF buffer to 50 feet [LDC 25-8-281(C)(1)(a)] from the standard 150 feet distance.

Conditions for Staff Approval

Staff recommends approval of the above variances provided that:

1. The Applicant adds a plat note stating that except as otherwise allowed by the Land Development Code, development is limited to the Uplands and Water Quality Transition Zone.
2. The Applicant has provided the standard plat note regarding restrictions on activities within the Critical Environmental Feature buffer and a plat note regarding the presence of a protected area within the subdivision. At the time of any new development, the owner will provide water quality protective measures at the perimeter of the Critical Environmental Feature buffer. This may include a rock mortar wall, establishing native vegetation, or other measures.

Recommendation

The Findings of Fact have been met. Staff recommends approval of the variance with the above conditions.



**Watershed Protection Department
Staff Recommendations Concerning Required Findings
Water Quality Variances**

Project:	Caswell Subdivision, 3336 Mt. Bonnell Road – C8-2014-0134.0A
Ordinance Standard:	Land Development Code Section 25-8-281(B)
Variance Request:	To allow a single family residential lot to include or be located within 50 feet of two Critical Environmental Features (1 canyon rimrock and a spring).

Justification:

A. Land Use Commission variance determinations from Chapter 25-8, Subchapter A – Water Quality 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. This property has not been platted to date. The existing home was built in the early 1900's, prior to regulations requiring the identification or the protection of Critical Environmental Features. There are properties on Lake Austin that were previously platted that also have Critical Environmental Features, such as canyon rimrock or springs. Owners of these properties have sought variances to reduce the required Critical Environmental Feature (CEF) buffer width for boat dock construction or lake access. However, there are no other known cases in the vicinity where an owner had to obtain a variance for a CEF buffer for subdivision approval.

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. The applicant is platting the lot and there are two Critical Environmental Features (CEFs), a canyon rimrock and a spring, located at the western portion of the lot. The existing single family residential tract includes the CEFs. A second variance for this subdivision application seeks to establish a 50-foot wide CEF buffer that is compatible with existing structures and established vegetation. The inclusion of the CEFs within the single family lot is unavoidable due to the size of the tract and existing constraints.

- 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. The canyon rimrock and spring are located on the south bank of Huck's Slough approximately 100 feet east of the shoreline of Lake Austin. There is an existing chainlink fence that separates the wooded area adjacent to Huck's Slough from the lawn, house and driveway.

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

Yes. The proposed plat does not create a significant probability of harmful environmental consequences. Prior to any new development, the owner will be required to provide water quality protective measures at the perimeter of the CEF buffer. The intent is to prevent erosion of the area upslope of the CEFs.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

Yes. The existing vegetation within the proposed buffer width will continue to provide water quality benefits. The resulting water quality will be similar to that associated with the existing structures located within the area that would be encompassed within a standard 150-foot buffer.

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 above criteria for granting a variance are met;

N/A.

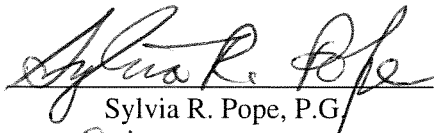
2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and

N/A.

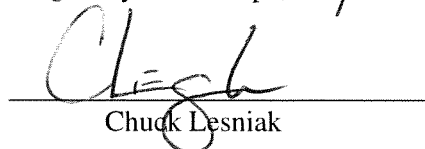
3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

N/A.

Environmental Reviewer:


Sylvia R. Pope, P.G.

Environmental Officer:


Chuck Lesniak

Date: 06/10/2015

Staff may recommend approval of a variance after answering all applicable determinations in the affirmative (YES).



**Watershed Protection Department
Staff Recommendations Concerning Required Findings
Water Quality Variances**

Project:	Caswell Subdivision, 3336 Mt. Bonnell Road – C8-2014-0134.0A
Ordinance Standard:	Land Development Code Section 25-8-281(C)(1)(A)
Variance Request:	To reduce the standard 150-foot width Critical Environmental Feature (1 canyon rimrock and a spring) buffer to 50 feet.

Justification:

A. Land Use Commission variance determinations from Chapter 25-8, Subchapter A – Water Quality 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. This property has not been platted to date. The existing home was built in the early 1900's, prior to regulations requiring the identification or the protection of Critical Environmental Features. There are properties on Lake Austin that were previously platted that also have Critical Environmental Features, such as canyon rimrock or springs. Owners of these properties have sought variances to reduce the required Critical Environmental Feature (CEF) buffer width for boat dock construction or lake access. However, there are no other known cases in the vicinity where an owner had to obtain a variance for a CEF buffer for subdivision approval.

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. The applicant is platting the lot and there are two Critical Environmental Features (CEFs), a canyon rimrock and a spring, located at the western portion of the lot. Establishing a CEF buffer of 150 feet will encompass most of the lot and all of the existing structures. Therefore, the applicant seeks a 50-foot wide CEF buffer that is compatible with existing structures and established vegetation.

- 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. The canyon rimrock and spring are located on the south bank of Huck's Slough approximately 100 feet east of the shoreline of Lake Austin. There is an existing chainlink fence that separates the wooded area adjacent to Huck's Slough from the lawn, house and driveway. A 50-foot wide buffer will reduce the size of the lawn in the area upslope of the canyon rimrock and spring. The reduction of lawn area and the installation of a diversion wall will provide water quality benefits.

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

Yes. The proposed plat does not create a significant probability of harmful environmental consequences. Prior to any new development, the owner will be required to provide water quality protective measures at the perimeter of the CEF buffer. The intent is to prevent erosion upslope of the CEFs.

3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.

Yes. The existing vegetation within the proposed buffer width will continue to provide water quality benefits. The resulting water quality will be similar to that associated with the existing structures located within the area that would be encompassed within a standard 150-foot buffer.

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 above criteria for granting a variance are met;

N/A.

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

N/A.

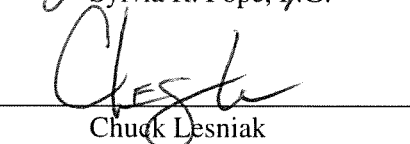
3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

N/A.

Environmental Reviewer:


Sylvia R. Pope, P.G.

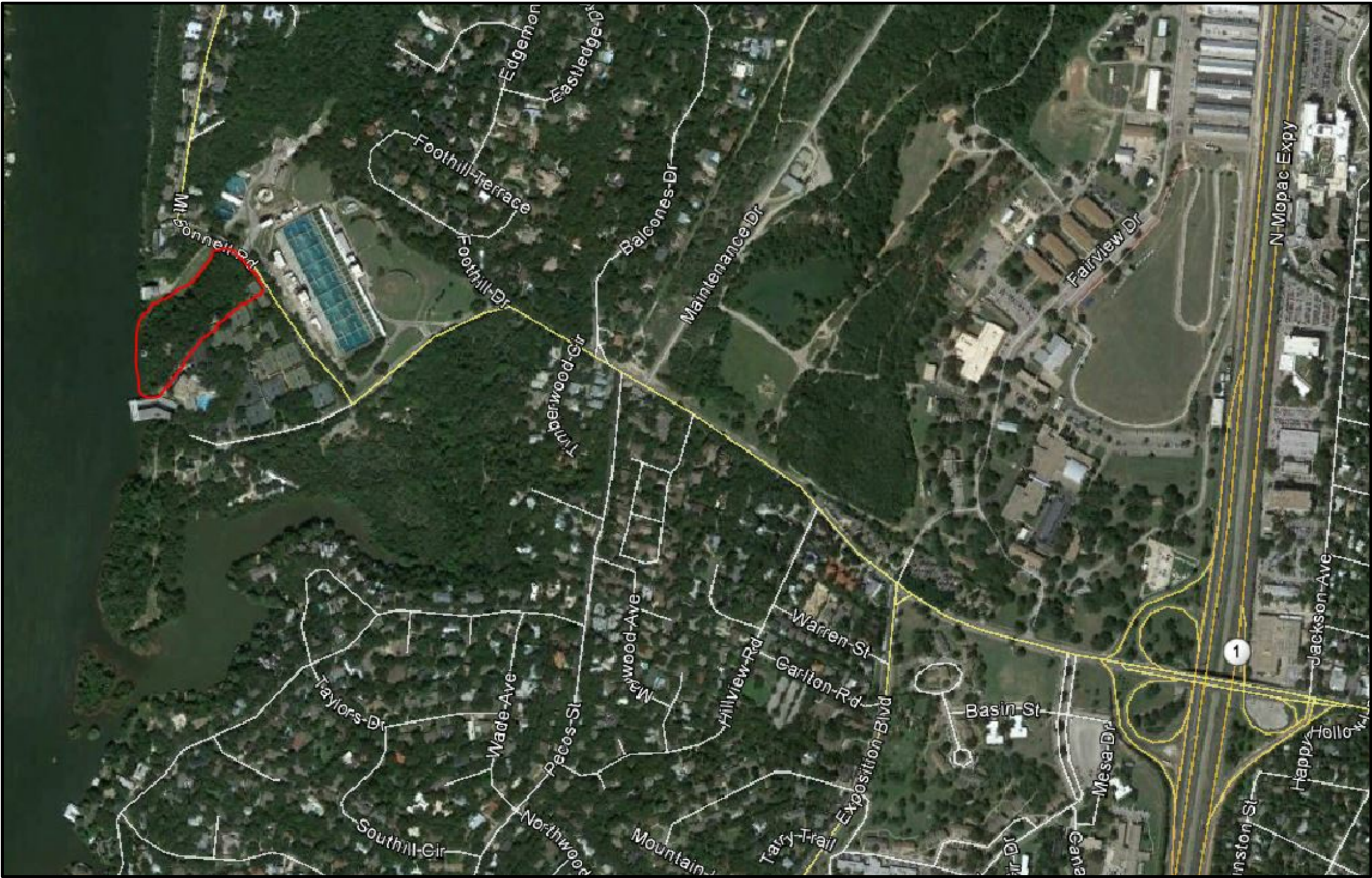
Environmental Officer:


Chuck Lesniak

Date: 06/10/2015

Staff may recommend approval of a variance after answering all applicable determinations in the affirmative (YES).

Exhibit 1 - Location Map



LOCATION MAP AERIAL
CASWELL ESTATES



ENGINEERING & DESIGN

FIRM # F-15324
2007 S 1ST STREET, SUITE 103
AUSTIN, TEXAS 78704
(512)394-1900



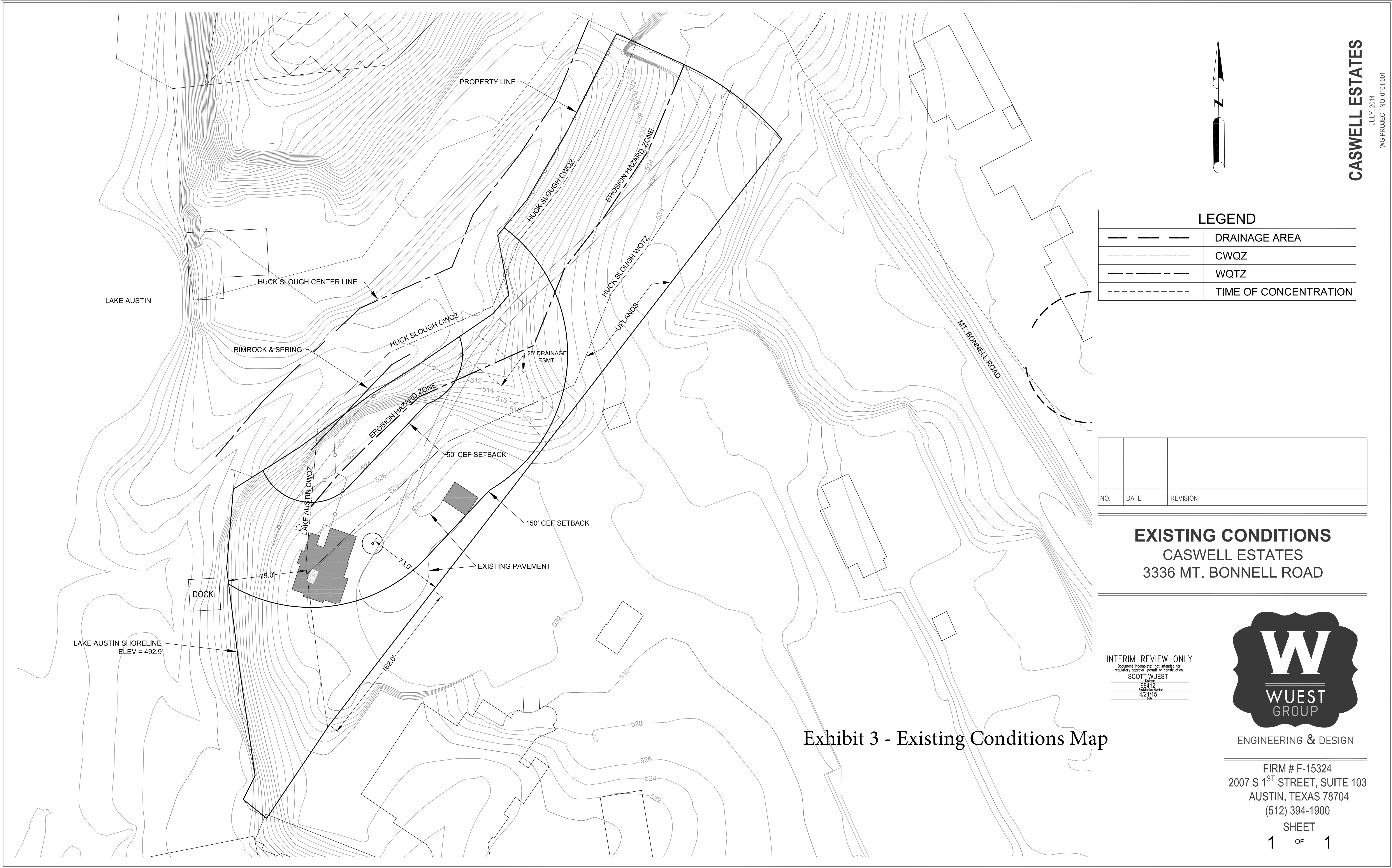
Exhibit 2 - Site Aerial

LOCATION MAP AERIAL
CASWELL ESTATES



ENGINEERING & DESIGN

FIRM # F-15324
2007 S 1ST STREET, SUITE 103
AUSTIN, TEXAS 78704
(512)394-1900



CASWELL ESTATES
JULY, 2014
WG PROJECT NO. 0101-001

LEGEND	
	DRAINAGE AREA
	CWQZ
	WQTZ
	TIME OF CONCENTRATION

NO.	DATE	REVISION

EXISTING CONDITIONS
CASWELL ESTATES
3336 MT. BONNELL ROAD

INTERIM REVIEW ONLY
Document incomplete: not intended for
regulatory approval, permit or construction.
SCOTT WUEST
98412
4/21/15
SMA



ENGINEERING & DESIGN

FIRM # F-15324
2007 S 1ST STREET, SUITE 103
AUSTIN, TEXAS 78704
(512) 394-1900

SHEET

1 OF 1

Exhibit 3 - Existing Conditions Map

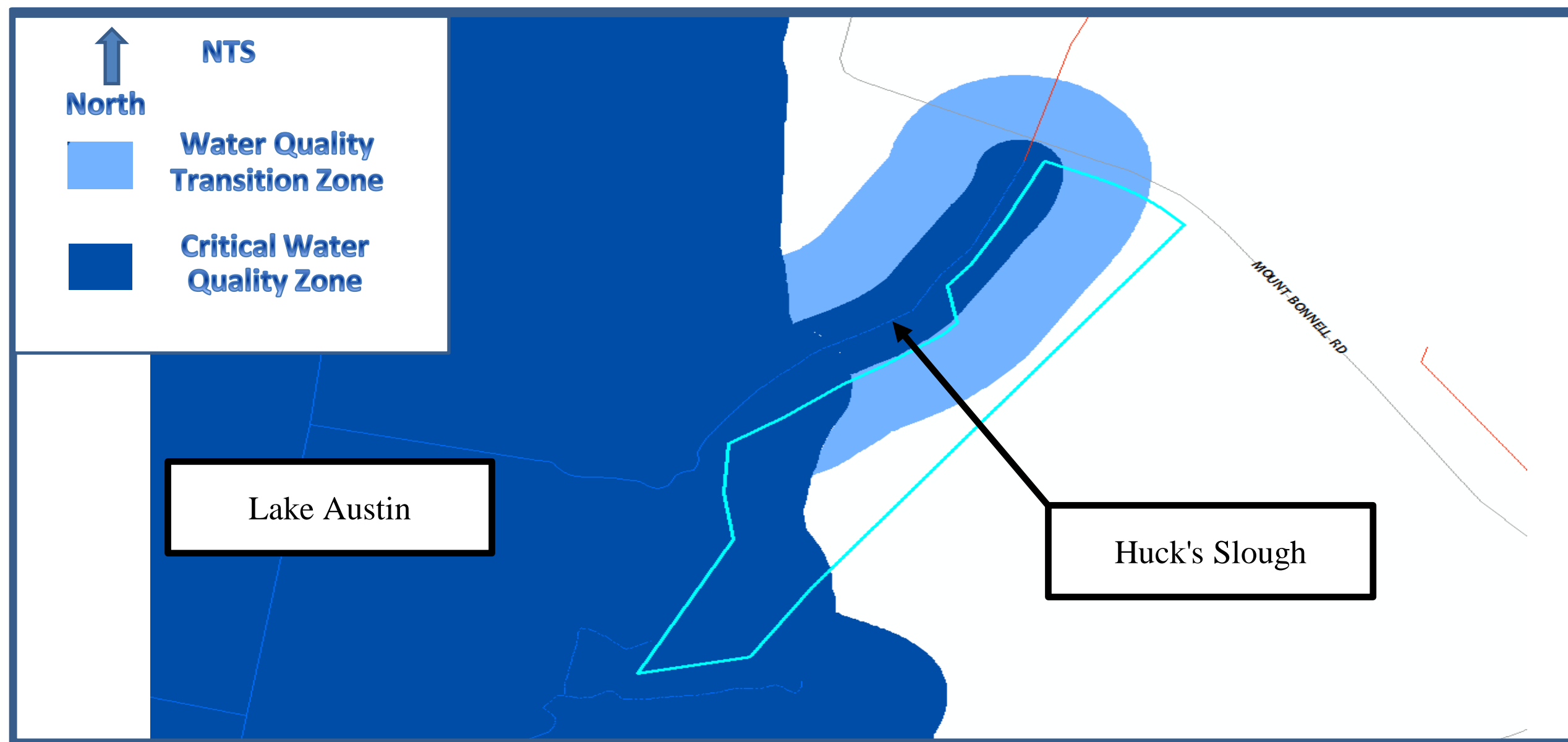


EXHIBIT 4
CWQZ AND WQTZ MAP

Exhibit 5

City of Austin Environmental Resource Inventory

Caswell Estates

Austin, Travis County, Texas

February 12, 2015

Terracon Project No. 96147465



Prepared for:

Wuest Group
Austin, Texas

Prepared by:

Terracon Consultants, Inc.
Austin, Texas

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials

February 12, 2015



Mr. Scott M. Wuest, PE
2007 South 1st Street, Suite 103
Austin, Texas 78746

Telephone: (512) 394-1900
Cell: (512) 789-5018
Email: jangil@wuestgroupptx.com

Re: Critical Environmental Feature and Hydrogeologic Portions of the City of Austin Environmental Resource Inventory
3336 Mount Bonnell Road
Austin, Travis County, Texas
Terracon Project No. 96147465

Dear Mr. Wuest:

Terracon Consultants, Inc. (Terracon) is pleased to provide this critical environmental feature (CEF) and hydrogeologic report portion of the City of Austin (COA) Environmental Resource Inventory (ERI).


The results of our consulting services are solely the professional opinion of Terracon based on the site conditions documented and observed at the time of the field assessment. It should be noted that some CEFs may be seasonal or ephemeral, indicating that their presence/absence and condition are dependent on various weather conditions (including rainfall) and other changes in the surrounding ecosystem. Terracon is not liable for ephemeral and/or seasonal CEFs that are exposed or created after Terracon's field assessment. Additionally, Terracon's opinion is based on the most current regulations; therefore, changes in regulations may require a re-evaluation of the findings of this report. It is recommended that if this report is not to be submitted promptly to the COA, an updated report (based on an additional field assessment) be prepared. We appreciate the opportunity to provide this report. Should you have any questions or require additional information, please call us at (512)442-1122.

Sincerely,


Terracon Consultants, Inc.



Arthur D. Potts
Field Environmental Scientist



Hilary D. Johns
Manager – Environmental Services



Russ C. Ford, P.G.
Senior Hydrogeologist

Terracon Consultants Inc. 5307 Industrial Oaks Blvd. Suite 160 Austin, TX 78735

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ENVIRONMENTAL RESOURCE INVENTORY
(Critical Environmental Feature and Hydrogeologic Elements)
CASWELL ESTATES
3336 MOUNT BONNELL ROAD
AUSTIN, TRAVIS COUNTY, TEXAS
Project No. 96147465
February 12, 2015

1.0 INTRODUCTION

This report presents Terracon Consultants, Inc.'s (Terracon) critical environmental feature (CEF) and hydrogeologic elements portion of the City of Austin (COA) Environmental Resource Inventory (ERI) prepared for the above-referenced site. The purpose of the ERI is to satisfy a COA, Land Development Code §25-8-121 *Environmental Resource Inventory Requirement*, which necessitates that an ERI be performed for any development: (1) over a karst aquifer; (2) within an area draining to a karst aquifer or reservoir; (3) in a water quality transition zone; (4) in a critical water quality zone; (5) in a floodplain; or (6) on a tract with a gradient of more than 15 percent.

Terracon personnel performed a field assessment of the site and surrounding areas (within approximately 150 feet of the site) on August 12, 2014, and a subsequent assessment on February 5, 2015. The field assessment was performed to evaluate the presence or absence of geologic, natural, or manmade features including: faults, fractures, riparian woodlands, water wells, borings, and excavations, as well as, COA CEFs (as defined by Land Development Code §25-8-1 *Definitions*) including: bluffs, canyon rimrocks, caves, sinkholes, springs, seeps, and wetlands. Terracon completed the assessment process by conducting a review of the existing literature. The following sections present the results of the ERI.

2.0 ENVIRONMENTAL SETTING

2.1 Site Description

The approximately 2.77-acre site is located at 3336 Mount Bonnell Road in Austin, Travis County, Texas. The site location (in relation to the surrounding area) is depicted on Figure 1, which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map (attached). The site is improved with a residence and a boat dock. A recent aerial photograph (Figure 2) and photographs depicting current site conditions are also attached.

2.2 Land Use

Based on a review of historical black and white and infrared aerial photographs (1951, 1966, 1973, 1980, 1988, 1996, 2004, 2012), the water level of Lake Austin appears to have remained relatively stable since at least the early 1950s. The on-site residence appears to have been present since prior to 1951. The surrounding properties remained generally undeveloped through the 1950s and development of the Westwood Country Club is apparent to the northwest, west, and south of the site

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by the mid-1960s. The site has been bounded by Mount Bonnell Road or its predecessors to the north since prior to 1951.

2.3 Vegetation

The site is located within the Edwards Plateau Region of Texas (Gould, 1960), and can be further described as being part of the Live Oak-Mesquite Savanna region of the Edwards Plateau physiographic province (Amos and Gehlbach, 1988). Dominant vegetation associated with this region includes Texas oak (*Quercus texana*), live oak (*Q. virginiana*), plateau live oak (*Q. fusiformis*), honey mesquite (*Prosopis glandulosa*), Indiangrass (*Sorghastrum nutans*), little bluestem (*Schizachyrium scoparium*), wild rye (*Elymus* sp.), and buffalograss (*Buchloë dactyloides*).

According to the TPWD's *Vegetation Types of Texas* maps, the site is located in an area designated as "Urban" (46). This vegetation type occurs in areas of heavy urban development which have drastically altered the local plant community. Dominant species associated with "Urban" areas include a mix of ornamental and native species.

Based on visual observations made during the field assessment, dominant species on the site consist Ashe juniper, plateau live oak, Texas oak, chinaberry (*Melia azedarach*), Texas mountain laurel (*Sophora secundiflora*), Chinese privet (*Ligustrum sinense*), poison ivy (*Toxicodendron radicans*), flameleaf sumac (*Rhus lanceolata*), and violet ruellia (*Ruellia nudiflora*). Overall canopy cover for the site is an estimated 95 percent.

2.4 Topography and Surface Water

This site is located within the Lake Austin and Huck's Slough Watersheds and is in the Suburban Zone. The site is not located within the Edwards Aquifer Recharge Zone as mapped by the City of Austin Development Web Map. Based on a review of the USGS Austin West, Texas 7.5 minute topographic map, the site ranges in elevation from approximately 490 to 520 feet above mean sea level, with the site sloping northwest towards Huck's Slough and west towards Lake Austin. Lake Austin (depicted as an impounded lake) forms the western site boundary, and Huck's Slough (depicted as an ephemeral stream) parallels the northwestern site boundary (off-site). A natural drainage channel was also observed which originates at the northeastern corner of the site and flows west into Huck's Slough. No other potential surface water bodies are depicted on or within 150 feet of the site.

As mapped by the Federal Emergency Management Agency (FEMA), portions of the site along Huck's Slough and adjoining Lake Austin are mapped as Zone X (shaded), which indicates areas of 0.2 percent annual chance flood, areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile, and areas protected by levees from the one percent annual chance flood. Lake Austin, to the adjoining west is mapped as Zone AE, which indicates areas where the Base Flood Elevation (water-surface elevation of the one percent annual chance flood) has been determined. The remainder of the site mapped as Zone X

(unshaded), which corresponds to areas outside of the 500-year floodplain.

As mapped by the National Wetland Inventory (NWI) map (prepared by the United States Fish and Wildlife Service [USFWS]), no potential wetlands are located on the site; however, Lake Austin, which is classified as L1OWHh (Lacustrine – Limnetic – Open Water/Unknown Bottom – Permanently Flooded – Diked/Impounded), is present to the adjoining west. No other potential wetlands are indicated on the site or in the immediate vicinity (within 150 feet of the site). Additionally, review of the City of Austin Development Web Map indicates that a 100 foot Critical Water Quality Zone (CWQZ) setback has been established along the Lake Austin corridor, which extends onto the majority of the site. A 100 foot Water Quality Transition Zone setback is has also been established along the Huck's Slough corridor and extends onto the site.

During the site assessment, Terracon personnel were able to observe the shoreline of Lake Austin for the presence of wetland vegetation. The shoreline was observed to be relatively steep and wetland vegetation was not present.

2.5 Geology

The surficial geologic unit present at the site has been identified as the Edwards Limestone. The Edwards consists of massive to thin bedded limestones and dolostones. The formation is characterized by honeycomb textures, collapse breccias and cavern systems, which account for most of the significant porosity within the strata that compose most of the aquifer. The site is not located within the recharge zone of the Edwards Aquifer as depicted on the official TCEQ Edwards Aquifer Recharge Zone Maps. However, it is located within the Recharge Zone as mapped by the City of Austin. A small, broken, vertical outcrop of Edwards Limestone strata is present along the western edge of the site. The outcrop measures about 3 feet high and extends along the steep, western slope for approximately 30 to 40 feet. No faulting was observed on the site, however, the nearest mapped fault is located about 50 feet immediately to the west of the site boundary. The fault, known as the Mount Bonnell fault, trends toward the north-northeast. The fault is the primary fault in the area and is associated with the Balcones Fault zone which represents the dominant structural trend in the vicinity of the site. Additionally, two named springs, the Mormon Spring and Taylor Springs, are mapped offsite, just south of the site and the Mormon Spring is mapped off-site, just north of the site. These springs could not be field verified at the time of the site reconnaissance. No significant recharge features were observed on the site.

2.6 Soils

As mapped by the Natural Resource Conservation Service's *Soil Survey of Travis County, Texas*, the site is underlain by the Speck-Tarrant Association, which consists of shallow, stony, loamy soils and very shallow, stony clay soils overlying limestone. Characteristics of specific on-site soils were obtained from the USDA's *Web Soil Survey* and are provided in the table below:

TABLE 1: SOILS

Soil Name	Soil Type	Soil Depth (FEET)	Underlying Material	Permeability	Available Water Capacity	Shrink-Swell Capacity	Hydric*
Brackett soils and Urban land, 12 to 30 percent slopes (BrF)	Gravelly clay loam	0 to 0.8	Interbedded limestone and marl	Moderately slow	Low	Low	No
Lincoln soils and Urban land (Lu)	Loamy sand	0 to 1.4	Stratified very pale brown and brown loamy sand or sandy loam	Slow	High	Low	No
Tarrant soils and Urban Land (TeF)	Stoney, clayey	0 to 0.5	Hard limestone	Moderately slow	Low	Low	No
Urban land and Brackett soils, 1 to 12 percent slopes (UuE)	Clay loam	0 to 0.6	Soft limestone	Varies	Varies	Low	No

*Please note that the hydric soil classification indicated above is determined by the USDA NCSS; however, localized hydric soils could be present in wetland areas (if applicable).

2.7 Water Wells and Other Man-made Excavations

A search was made for water wells, borings, and excavations on or within 150 feet of the site. Based on a review of Water Well Data (obtained from the Texas Water Development Board [TWDB] website), no water wells were recorded on or within 150 feet of the site; however, three springs were identified on adjoining properties to the north and south. Please refer to Section 3.0 for further discussion of the springs.

3.0 CRITICAL ENVIRONMENTAL FEATURES

During the site assessment, Terracon personnel observed that the shoreline along Lake Austin drops steeply into the water. As such, the abrupt landscape change does not provide adequate conditions to harbor hydrophytic vegetation, and wetland vegetation was not observed during the site assessment.

A rock outcrop was observed in the southern portion of the site. The feature exceeded 30-40 feet in length; however, due to the height of the feature, the feature does not appear to constitute a rimrock CEF as defined by the COA.

Review of the COA Development Web Map indicates that three springs are located within 150 feet of the site. Mount Bonnell Springs is located approximately 80 feet north of the site, beyond Huck's Slough, and notes indicated that the spring is located below the level of Lake Austin. Mormon

Spring is mapped as being located on-site; however, notes indicate that is located north of Laguna Gloria Art Museum and south of Mt. Bonnell Spring below docks of Westwood Country Club, which is to the adjacent south. Notes indicate that Taylor Springs is comprised of about 25 springs discharging from the Mount Bonnell Fault, and the springs are also located below Westwood Country Club docks on Lake Austin. Terracon personnel were unable to observe the springs during the site investigation.

During the submittal review process, COA personnel identified a spring (S4) and a rimrock feature (R1) on the adjacent COA water plant property to the north. During the initial site investigation, access to the property was restricted; however, access was coordinated with COA personnel to observed and record the features in a subsequent site visit.

No other bluffs, caves, sinkholes, seeps, springs, or wetlands (as defined by the COA) were identified on the site or within 150 feet of the site (as defined by the COA). Terracon's observation of the shoreline on adjoining properties was restricted by lack of site access; however, it appears the bulkheads are present on the adjoining properties.

Please note that the COA is the final authority on whether features are classified as CEFs. Therefore, the results of our consulting services are solely the professional opinion of Terracon based on conditions documented and observed at the time of the field assessment.

Terracon documented the approximate locations of potential CEFs on the site and within 150 feet of the site boundaries, which are provided in the table below. Additionally, approximate locations of the CEFs are also depicted on the attached aerial photograph (Exhibit 2).

TABLE 1: CRITICAL ENVIRONMENTAL FEATURES

CEF Type	Map ID	Latitude	Longitude	CEF Dimension (Average)	
ON-SITE		(WGS 1984 datum)		Width/Height (ft)	Length (ft)
Non-CEF Rock Outcrop	R1	30.313719	-97.74815	3	30-40
OFF-SITE		(WGS 1984 datum)		Width/Height (ft)	Length (ft)
Mount Bonnell Spring	S1	30.31444	-97.775	-	-
Mormon Spring	S2	30.313443	-97.774827	-	-
Taylor Springs	S3	30.31333	-97.77472	-	-
Spring	S4	30.314549	-97.774467	2	10
Rimrock	R1	30.314391	-97.774677	4	70

3.1 Proposed Protective Measures

Based on the results of the ERI, Terracon did not identify CEFs on the site. A rock-outcrop (R1) was observed in the southern portion of the site; however, it does not meet the height requirements to be

classified as a canyon rimrock CEF. Terracon recommends no setbacks from R1.

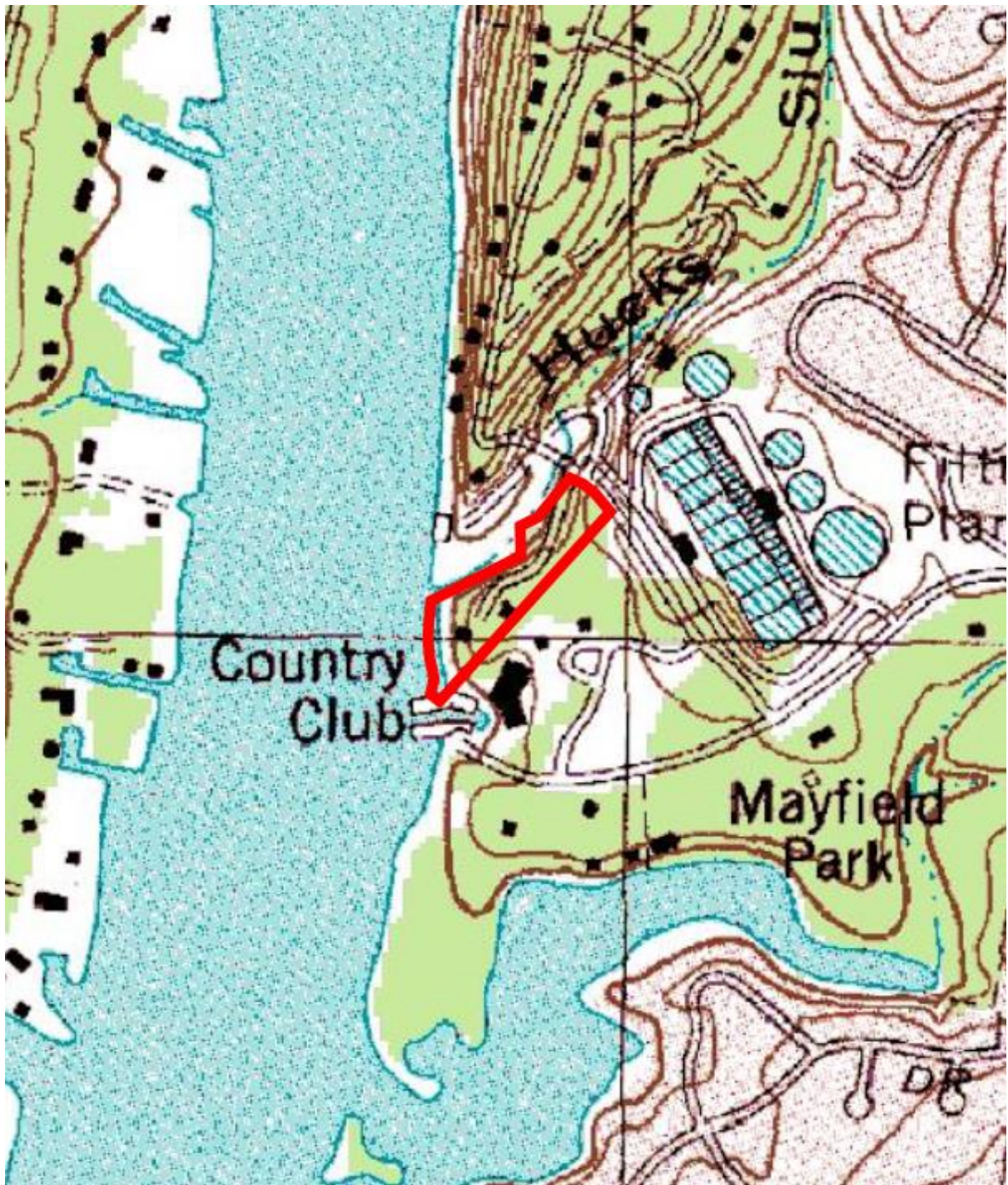
Review of available data and subsequent field investigations revealed four springs and one rimrock located within 150 feet of the site. Mount Bonnell Spring (S1) is located approximately 80 feet north of the site and is located below the level of Lake Austin. Mormon (S2) and Taylor (S3) springs are located beneath the docks at the Westwood Country Club to the adjacent south of the site. S4 is located approximately 40 feet to the northwest and on the southern bank of Huck's Slough. R1 is located approximately 20 feet northwest of the property. Additionally, all of the CEFs are all located within the CWQZ setback from Lake Austin. Terracon recommends no setback from the springs.

As discussed in Section 2.4, the COA has established a 100 foot CWQZ setback along the Lake Austin corridor and a 100 foot Water Quality Transition Zone along the corridor of Huck's Slough; however, the existing on-site residence and boat dock are constructed within the CWQZ setback. Additionally, observations indicate that structures exist within the CWQZ on many of the surrounding properties; therefore, Terracon recommends no setbacks be imposed on the site.

As noted above, Terracon did not identify evidence of significant recharge features or other voids during the field assessment; however, it should be noted that the COA has implemented Void and Water Flow Mitigation (Rule Nos. R161-08.04 through R161.08.06). If a void or cave is encountered during any future site excavation/development, construction activities should cease until a certified geologist can evaluate the feature and establish mitigation methods.

4.0 REFERENCES

- (Amos) Amos, B.B., and Gehlbach, F.R., Edwards Plateau Vegetation, Plant Ecological Studies in Central Texas, 1988.
- (COA) City of Austin Watershed Protection and Development Review Department, Environmental Resources Management Division. *City of Austin Development Web Map*.
- (Gould) Gould, F.W., G.O. Hoffman, and C.A. Rechenstien. *Vegetational Areas of Texas*, 1960. College Station: Texas Agricultural Extension Service, Texas A&M University.
- (FEMA) Federal Emergency Management Agency. Flood Insurance Rate Map, Travis County, Community Panel Number 48453C0445H (dated September 26, 2008).
- (TCEQ) Texas Commission on Environmental Quality, formerly the Texas Natural Resource Conservation Commission. Edwards Aquifer Recharge Zone Boundary Maps. 1996. Accessed August 2014.
- (TPWD) Texas Parks and Wildlife Department. *The Vegetation Types of Texas, Including Cropland*. 1984.
- (TWDB) Texas Water Development Board. Water Well Drillers' Records. Accessed August 2014.
- (USFWS) US Fish and Wildlife Service. National Wetland Inventory (NWI) Wetland Mapper, available on-line: www.fws.gov/wetlands/Data/Mapper.html. Accessed August 2014.
- (USGS) US Geological Service 7.5 minute Topographic Quadrangle Map, Oak Hill, Texas, 1988.
- (UT-BEG) University of Texas – Bureau of Economic Geology. *Geologic Atlas of Texas, Austin Sheet*. The University of Texas at Austin. Reprinted 1981.
- (UT-BEG) *Geologic Map of the Austin Area*. Revised 1992.
- (Werchan) Werchan, Leroy E., A.C. Lowther, and Robert N. Ramsey. *Soil Survey of Travis County, Texas*. US Department of Agriculture, Soil Conservation Service, in cooperation with the Texas Agricultural Experiment Station, 1974.



(property lines approximate)

Austin West, Texas

1988
USGS Topographic Quadrangle
7.5 Minute Series

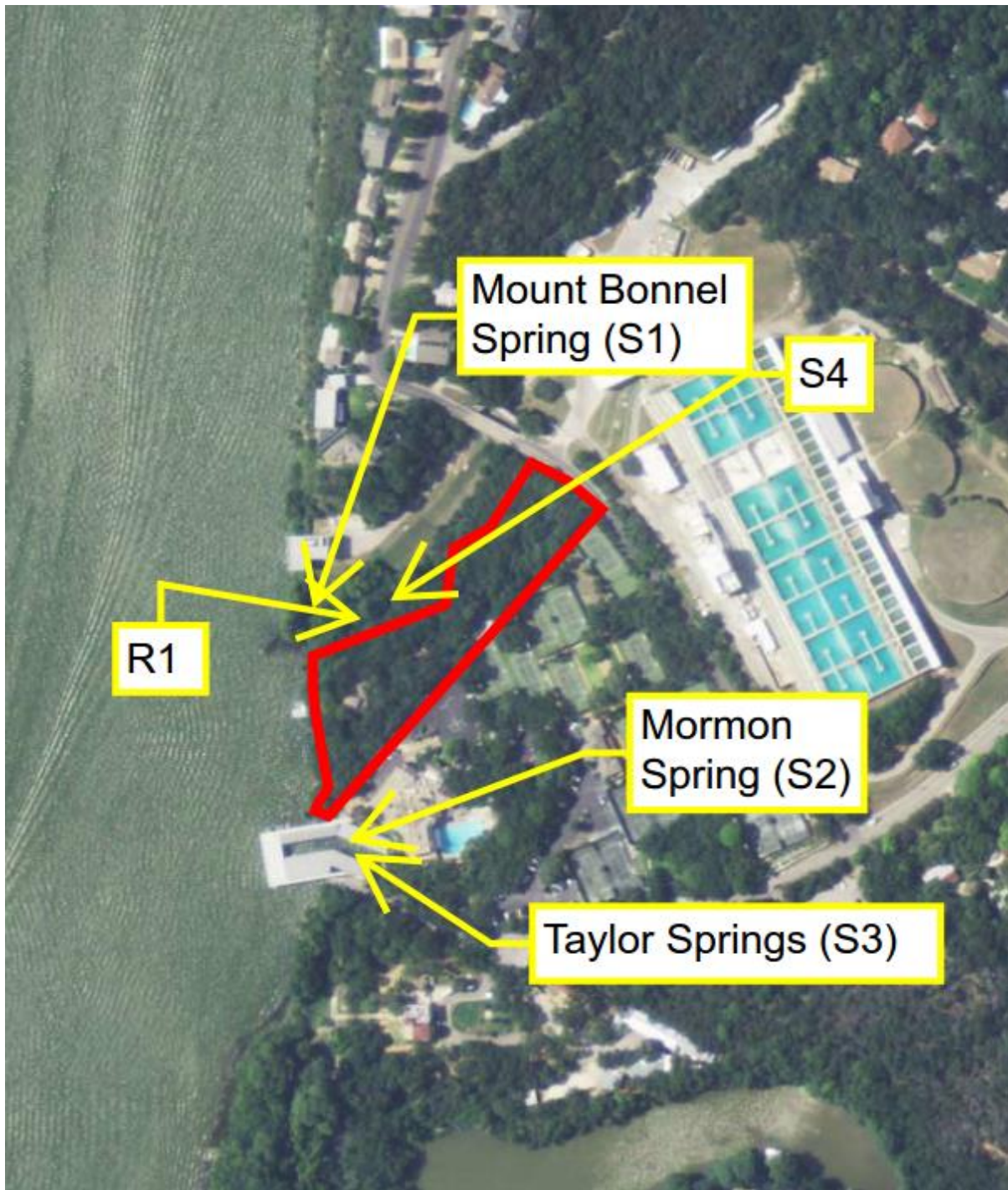
Scale: 1:24,000



Terracon

Caswell Estates
3336 Mount Bonnell Road
Austin, Travis County, Texas
Terracon Project No. 96137465

Figure 1



(property lines approximate)

DATE: 2012		<div>Terracon</div> <div>Caswell Estates</div> <div>3336 Mount Bonnell Road</div> <div>Austin, Travis County, Texas</div> <div>Terracon Project No. 96137465</div>
SOURCE: USDA Scale 1" = 500'	<div>↑</div> <div>N</div>	
Frame: N/A		
		Figure 2



Photo 1 On-site residence



Photo 2 Lake Austin to the adjoining west



Photo 3 Non-CEF rock outcrop observed in southern portion of the site



Photo 4 On-site tributary to Huck's Slough



Photo 5 View towards Huck's Slough to the adjoining northwest



Photo 6 View towards Huck's Slough to the adjoining northwest



Photo 7 R1 rimrock CEF to the adjacent north



Photo 8 R1 rimrock CEF to the adjacent north



Photo 9 S1 spring CEF to the adjacent north



Photo 10 S1 spring CEF to the adjacent north