DAVIS WATER TREATMENT PLANT – ZEBRA MUSSEL MITIGATION PROJECT

3352 MOUNT BONNELL ROAD SPC-03-0414(R1)

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And

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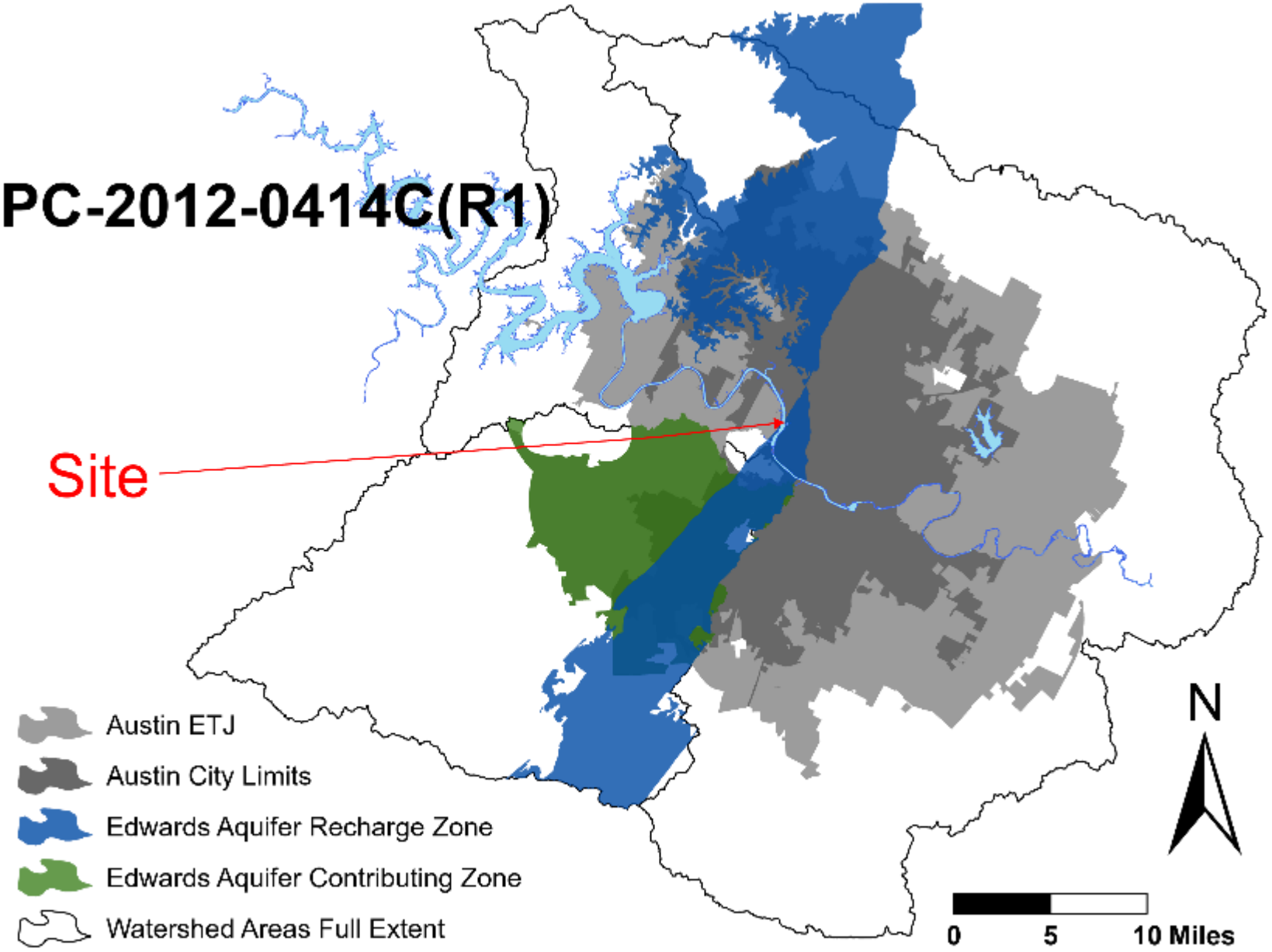
SPC-2012-0414C(R1)



PROPERTY DATA

- Lake Austin Watershed
- Water Supply Suburban &Rural Classification
- Drinking Water Protection Zone
- Full Purpose
- Over Edwards Aquifer Recharge Zone
- Critical Environmental Features on site
- Council District 10

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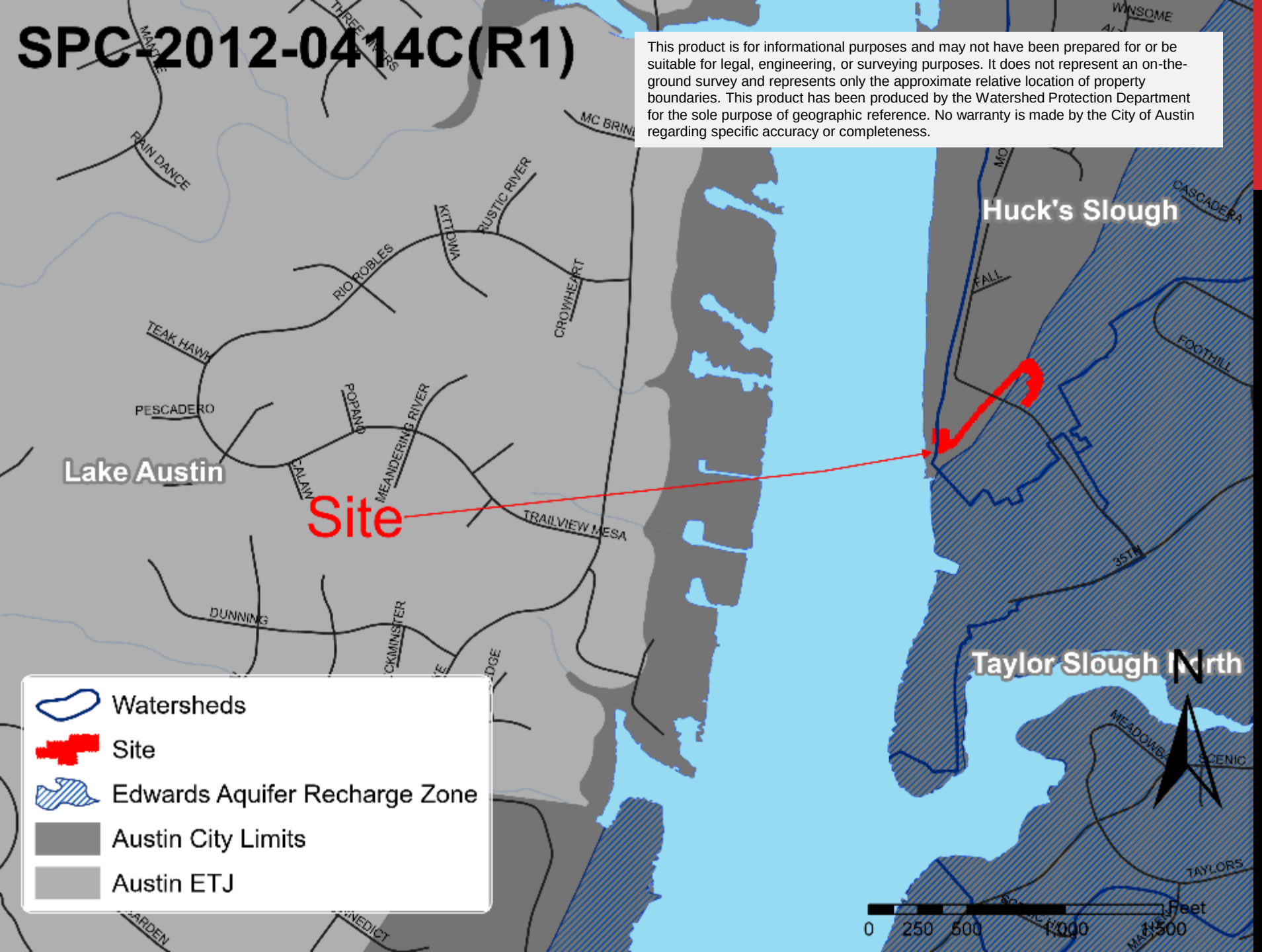
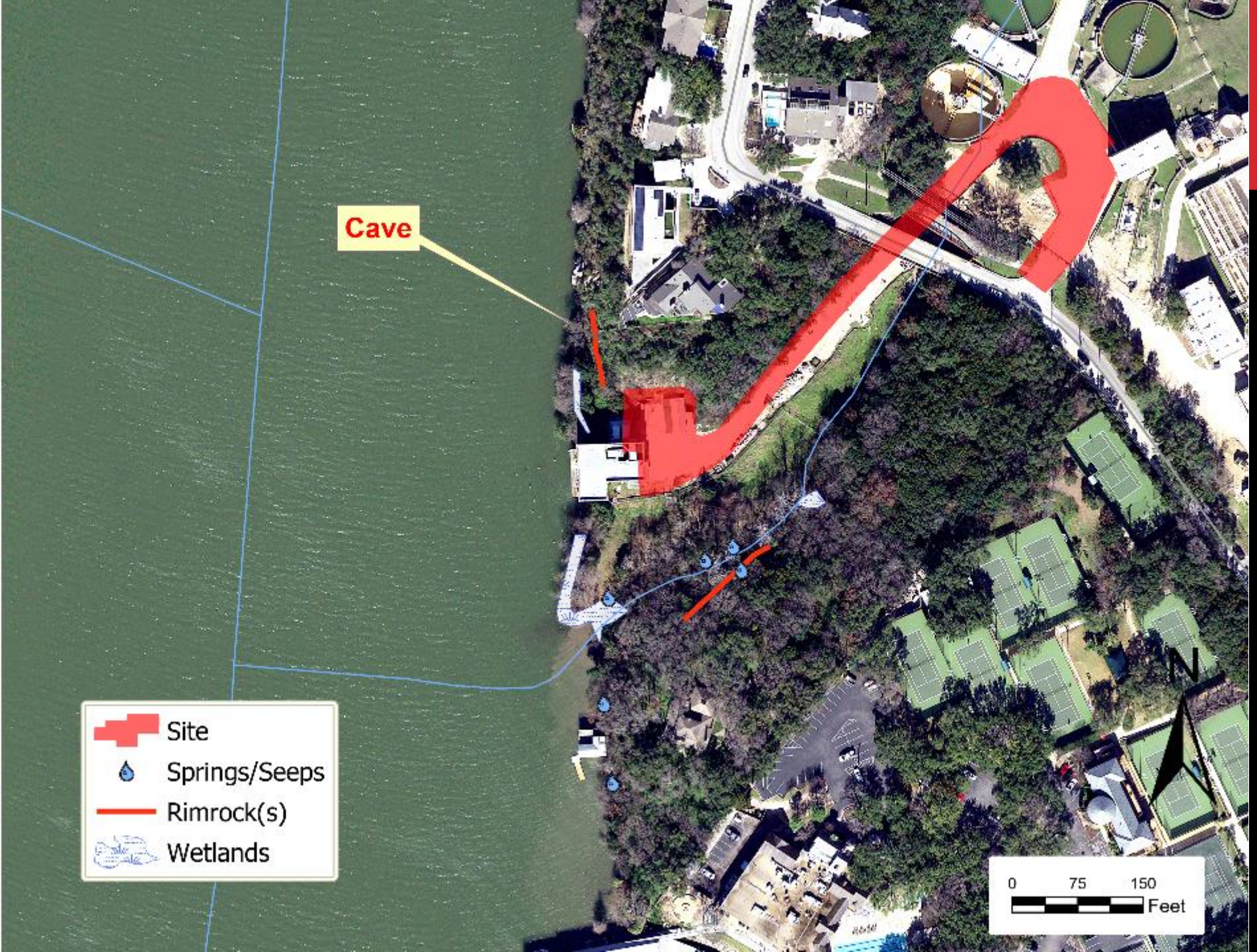
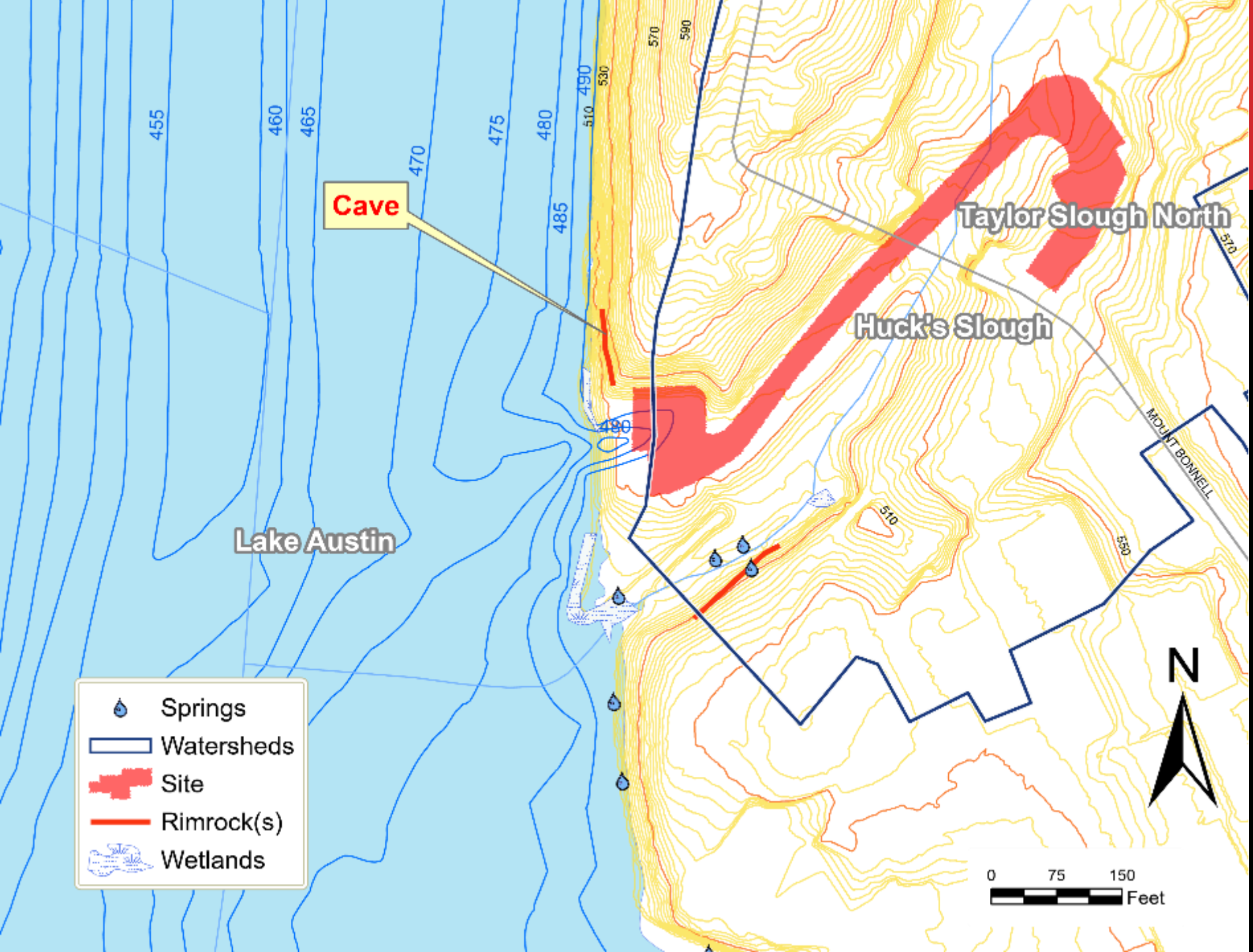



Cave
Site
Springs/Seeps
Rimrock(s)
Wetlands
N
0
75
150
Feet


Cave
Taylor Slough North
Huck's Slough
Lake Austin
MOUNT BONNELL
455
460
465
470
475
480
485
490
510
530
570
590
550
Springs
Watersheds
Site
Rimrock(s)
Wetlands
N
0
75
150
Feet

BACKGROUND

- To provide Zebra Mussel Mitigation at the raw water in-take using low concentration of copper sulfate pentahydate ($CuSO_4 \cdot 5H_2O$).
- Double-walled chemical storage, canopy and metering system to the low service pump station (LSPS).

CODE REFERENCE

Title 25 – Land Development Code, Chapter 25-8-281(C)(2)(b) and 25-8-341.

VARIANCE REQUEST

1. Request to vary from LDC 25-8-281(C)(2)(b) to allow the construction Zebra Mussel Mitigation System within 150-foot Critical Environmental Feature (CEF) buffers.
2. Request to vary from LDC 25-8-341 to allow cut exceeding 4 feet, to 5.5 feet.

VARIANCE RECOMMENDATION

Finding of Facts have been met.

Approval of variance with following condition:

- Additional wetland mitigation will be installed per Code, no special conditions.

Photograph 10: Rimrock RR-1/Cave – View of cave entrance within RR-1. Photographer is facing north.

Photograph 11: Cave – Closer view of cave entrance.

Photograph 8: S-2 – Closer view of one of several seeps, indicated by photographer.

Photograph 9: Rimrock RR-1 – Beginning of rimrock north of Davis Lower Service Pump Station.

Photograph 13: "R1" and "Huck's Slough Spring" – Water flowing from base of rimrock south of Huck's Slough. Flow is indicated by blue arrow.

The requirement will deprive the applicant of a privilege available to owners of similarly situated property with approximately contemporaneous development subject to similar code requirements.

Yes. Other City of Austin water treatment plants have the same chemical feed system in place to help control zebra mussel infestations in the raw water transmission main. Chemical treatment is necessary to control zebra mussel infestations in raw water transmission mains.

Is not necessitated by the scale, layout, construction method, or other design decision made by the applicant, unless the design decision provides greater overall environmental protection than is achievable without the variance;

Yes. The variance is not necessitated by the design. No alternative locations are available on site for a Zebra Mussel Mitigation System. The system must be placed in or near the existing intake pump house. There is not enough room in the existing pump station to house the entire system, such as the chemical storage. All the proposed construction coincides within areas of existing impervious cover. Minimal additional impervious cover is being added.

Is the minimum deviation from the code requirement necessary to allow a reasonable use of the property;

Yes. The variance is a minimum deviation from the code requirement and is allowing for a reasonable use of the property. No new impervious cover is proposed. The Zebra Mussel Mitigation System and the associated construction activities is in areas, or adjacent to areas, with existing impervious cover or development. The piping for the chemical storage and metering station is the shortest and most direct route to the existing building, and the system is located where there is already an asphalt driveway or development.

Does not create a significant probability of harmful environmental consequences.

Yes. The variance with the staff recommended conditions does not create a probability of significant harmful environmental consequences. Construction is within existing structures or where there is existing impervious cover. The chemical tank and piping are double contained. The equipment pad is curbed and covered with a canopy. The pump metering station includes a virtual day tank and there are automated valves at the pump bay that close if the pumps fail or when the pumps are not running. No new impervious cover is being added. As part of the Stormwater Pollution Prevention Plan, temporary sedimentation and erosion controls will be installed prior to the start of construction activities. The applicant is providing wetland plantings along the shoreline that will reduce shoreline erosion and reduce the possibility of sediment-laden surface runoff from entering the lake.

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

Yes, the variance will result in water quality that is at least equal to the water quality achievable without the variance. The proposed construction will not impact existing water quality. No new impervious cover is proposed. During construction, Stormwater Pollution Prevention Plan best practices will be employed to prevent construction sediment and debris from entering the stormwater runoff, and additional wetland plants along the shoreline will be provided to enhance the water quality of surface water runoff.