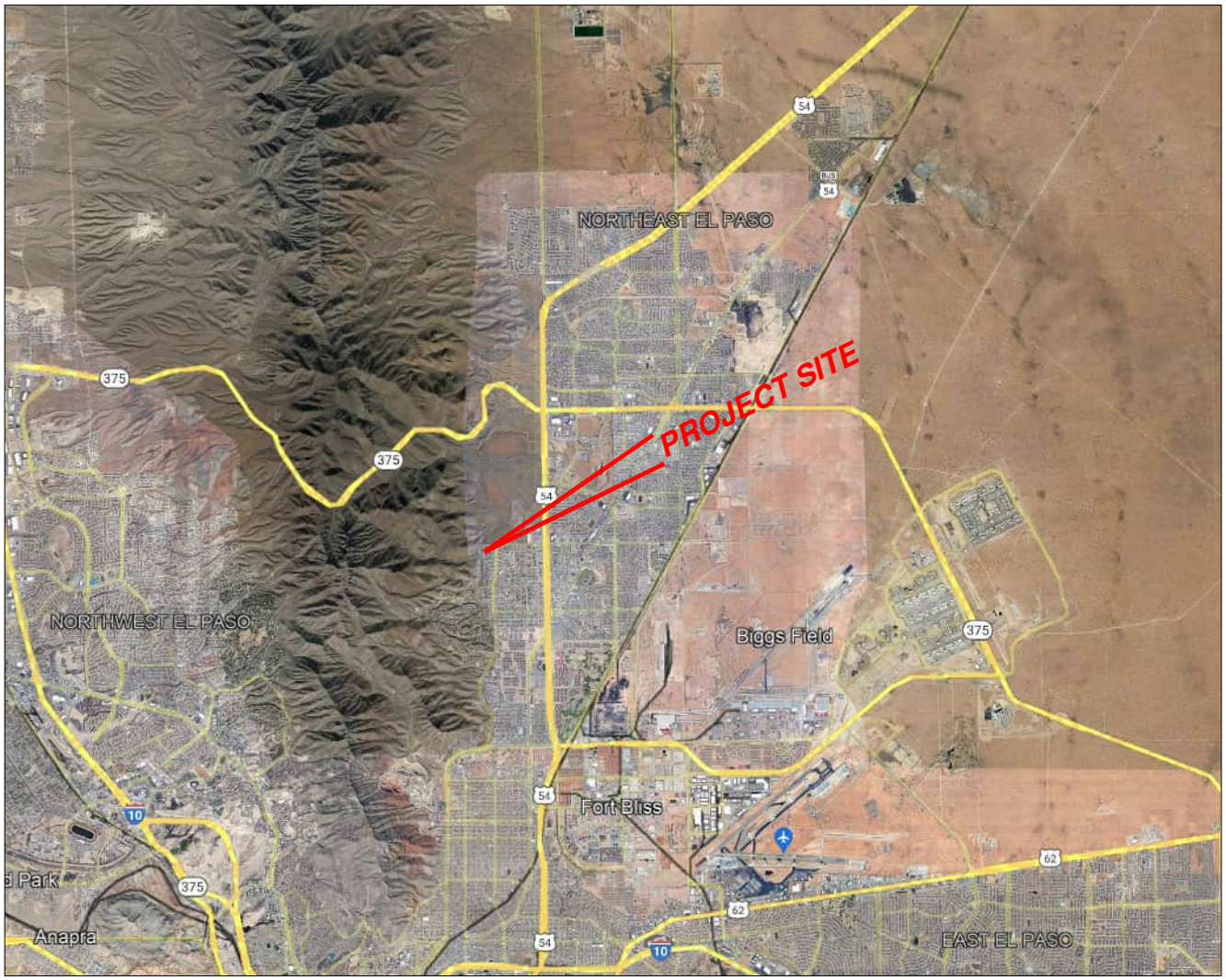
APPENDIX A

STANDARD MAPS

A-1 – Site Location Map
A-2 – Site Plan Map/Project Footprint
A-3 – Geologic Map
A-4 – USGS Topographic Map
A-5 – Aerial Maps
A-6 – Flood Zones Map
A-7 – National Wetlands Inventory Map

A-1 – Site Location Map

1:175644



SOURCE: GOOGLE EARTH IMAGE: SEPTEMBER 2023

Project No.
EPWU 23-15
Date: November 2024
Scale: 1:175644
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Site Location Map

ESSCO ENVIRONMENTAL
1000 Newman St.
El Paso, Texas 79902
Ph: (915) 533-1102
Fx: (915) 533-1103

Sheet No.

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A-2 – Site Plan Map/Project Footprint

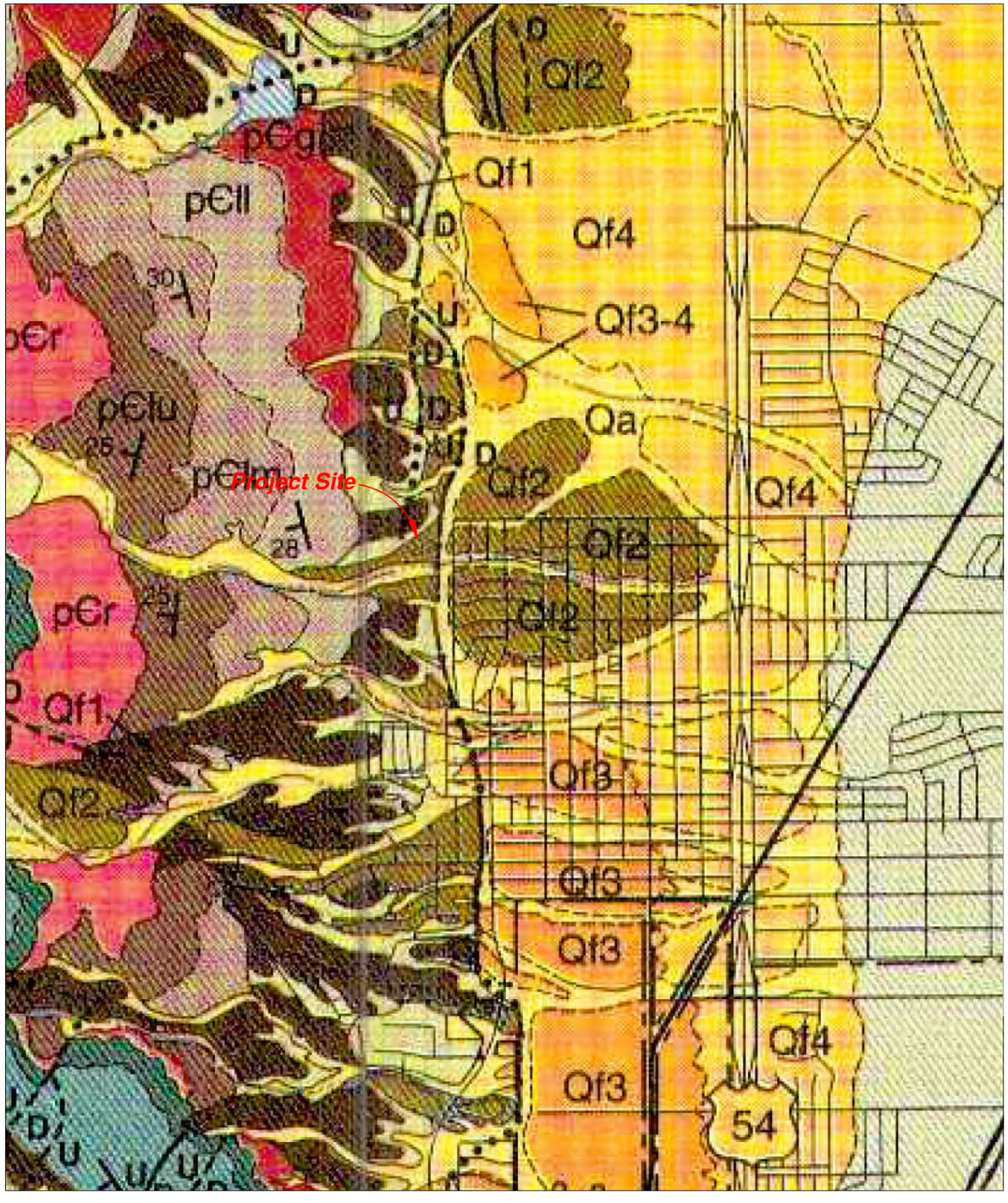
1: 3120

SOURCE: GOOGLE EARTH IMAGE: August 2023

Project Site

Project No. EPWU 23–15 Date: November 2024 Scale: 1:3120 dwg by: ESSCO designed by: ESSCO	***Northgate Diversion Channel Environmental Assessment El Paso, Texas*** ***Site Plan Map/Project Footprint***	ESSCO ENVIRONMENTAL 1000 Newman St. El Paso, Texas 79902 Ph: (915) 533–1102 Fx: (915) 533–1103	Sheet No. ***A - 2***

A-3 – Geologic Map



LEGEND

QUATERNARY

Holocene–Upper Pleistocene (approximate)

Qws | Qws2 | Qwsd | Qac

Qws—Windblown sand

Qws2—Windblown-sand area of partly vegetated, stabilized to partly stabilized dunes

Qwsd—Active sand dunes

Qac—Slope wash alluvium and/or colluvium

Basin and mountain front

Qa | Qa+Qws

Qa—Undivided alluvium of drainageways, young fans (Qf4), and young arroyo terraces (Qf4)

Qa+Qws—Undivided Qa alluvium and Qws windblown sand

Qf4 | Qf3-4 | Qf3-4+Qws

Qf4—Alluvium of young fans

Qf3-4—Undivided Qf3 and Qf4 alluvium

Qf3-4+Qws—Undivided Qf3 and Qf4 alluvium and Qws windblown sand

Qf3 | Qf3+Qws

Qf3—Piedmont alluvium of alluvial fans, incised alluvial fans, and bajadas

Qf3+Qws—Undivided Qf3 alluvium and Qws windblown sand

Qf2 | Qf2-3 | Qf3+2

Qf2—Piedmont alluvium of alluvial fans, incised fans, and bajadas

Qf2-3—Undivided Qf2 and Qf3 alluvium

Rio Grande valley and valley margin

Qarg

Qarg—Alluvium of Rio Grande floodplain

Qf4rg | Qf4rg+Qws | Qf4rg+Qws2 | Qavb | Qavb+Qws | Qf4+Qarg

Qf4rg—Alluvium of young terraces and fans along the Rio Grande valley border

Qf4rg+Qws—Undivided Qf4rg alluvium and Qws windblown sand

Qf4rg+Qws2—Undivided Qf4rg alluvium and Qws2 windblown sand

Qavb—Undivided alluvium of drainageways, young fans, and young arroyo terraces located along the Rio Grande valley border

Qavb+Qws—Undivided Qavb alluvium and Qws windblown sand

Qf4+Qarg—Undivided Qf4 and Qarg alluvium

Upper Pleistocene (approximate)

Qf3rg | Qf3rg+Qws2

Qf3rg—Alluvium of terraces and alluvial fans located along Rio Grande valley border

Qf3rg+Qws2—Undivided Qf3rg alluvium and Qws2 windblown sand

Upper Pleistocene to Middle Pleistocene (approximate)

Qf2rg | Qf2rg+Qws2

Qf2rg—Alluvium of terraces and alluvial fans along Rio Grande valley border

Qf2rg+Qws2—Undivided Qf2rg alluvium and Qws2 windblown sand

Large arroyo

Qal+Qws

Qal+Qws—Undivided alluvium of large arroyos (Qal) and windblown sand (Qws)

Qf3

Qf3—Alluvium of terraces within large arr

Qf2 | Qf2+Qws

Qf2—Alluvium of terraces along large arr

Qf2+Qws—Undivided Qf2 alluvium and C windblown sand

PRECAMBRIAN

pCb | pCg | pCr | pCl | pCll | pClm | pCmc

pCb—Basic igneous rocks

pCg—Undivided porphyritic granite, biotite granite, biotite-hornblende granite, riebeckite granite, and associated pegmatite, aplite, and basalt dikes. Includes granites of Red Bluff Granite complex.

pCr—Undivided Thunderbird Group

pCl—Undivided Lanoria Quartzite

pClu—Upper Lanoria unit

pClm—Middle Lanoria unit

pCll—Lower Lanoria unit

pCmc—Undivided Mundy Breccia and Castner Limestone

SCALE: 1: 22500

FIGURE IS FOR GRAPHICAL REPRESENTATION ONLY.

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EPW 23-15
Date: November 2024
Scale: 1:22500
dwg by: ESSCO
designed by: ESSCO

ESSCO
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Environmental Assessment
Northgate Diversion Channel
El Paso, Texas

Geologic Map

REVISIONS

Sheet No.

A-3

A-4 – USGS Topographic Map

1: 7200

SOURCE: USGS TOPO EL PASO 2012

Project No.
EPWU 23–15
Date: November 2024
Scale: 1:7200
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

USGS Topographic Map

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Sheet No.

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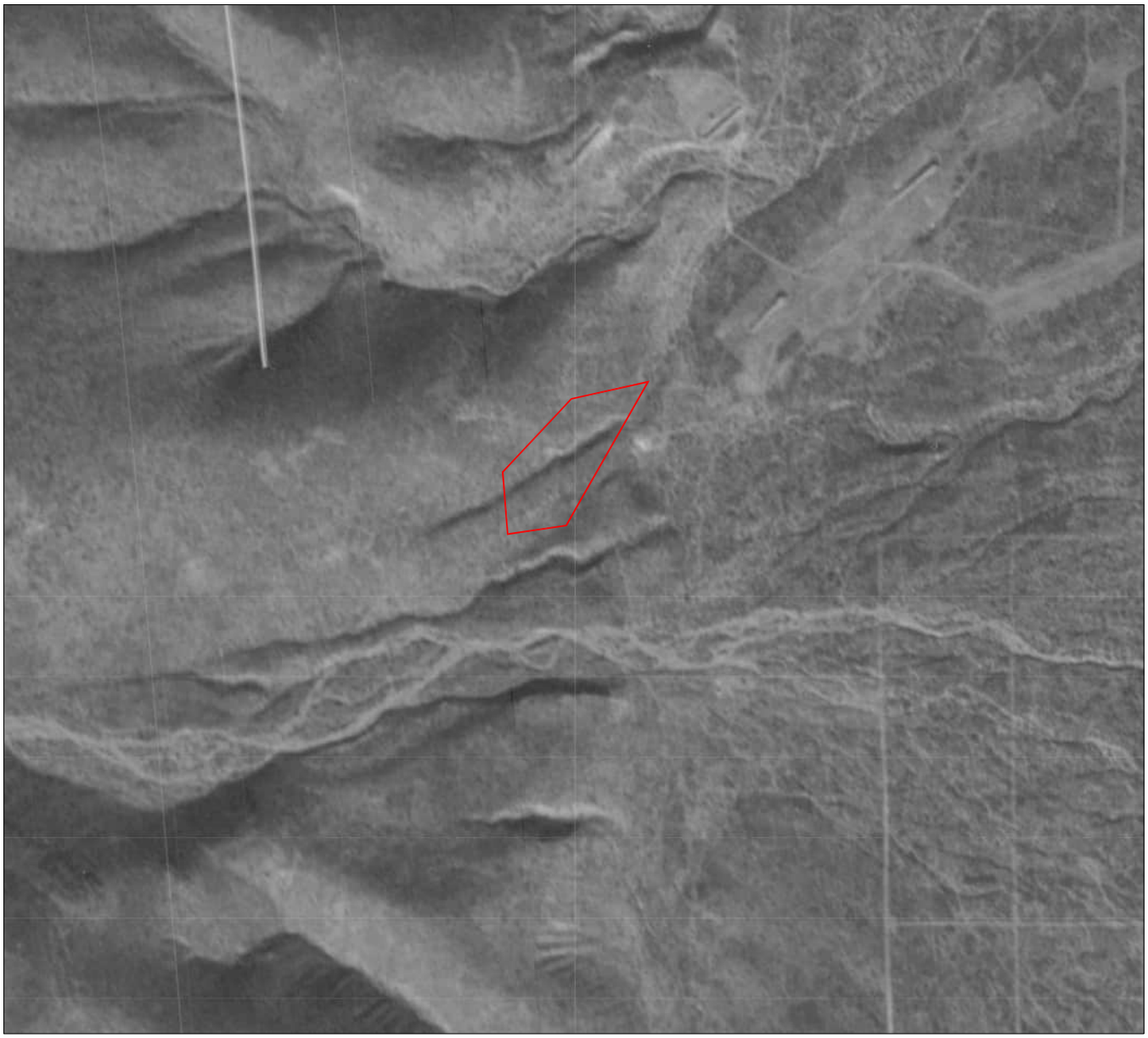
A-5 – Aerial Maps

NOT TO SCALE



SOURCE: BANKS

Project No.
EPWU 23-15
Date: February 2024
Scale: NTS
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph
1936

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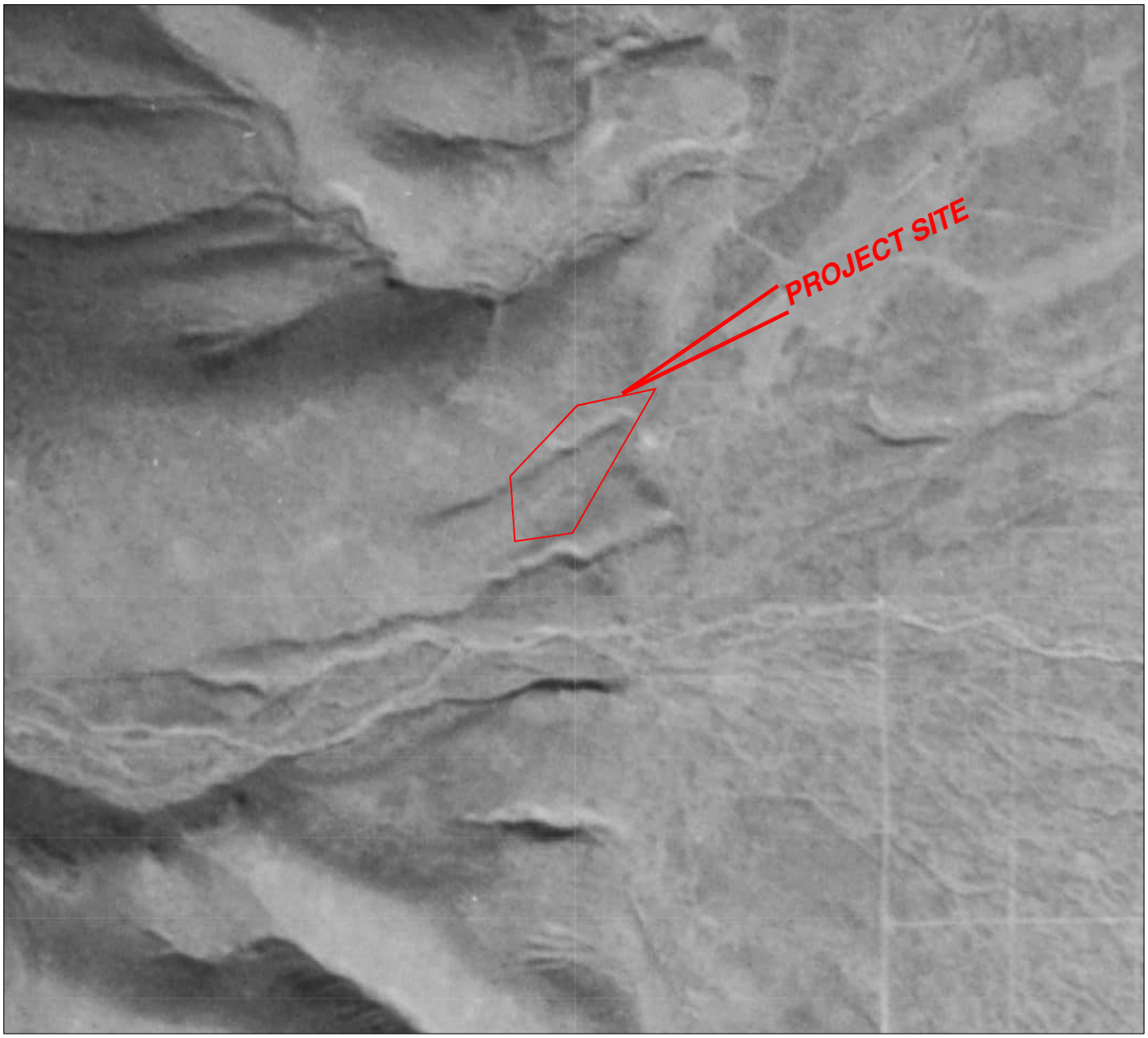
Sheet No.

1 OF 11

NOT TO SCALE



SOURCE: BANKS

Project No.
EPWU 23-15
Date: February 2024
Scale: NTS
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph 1942

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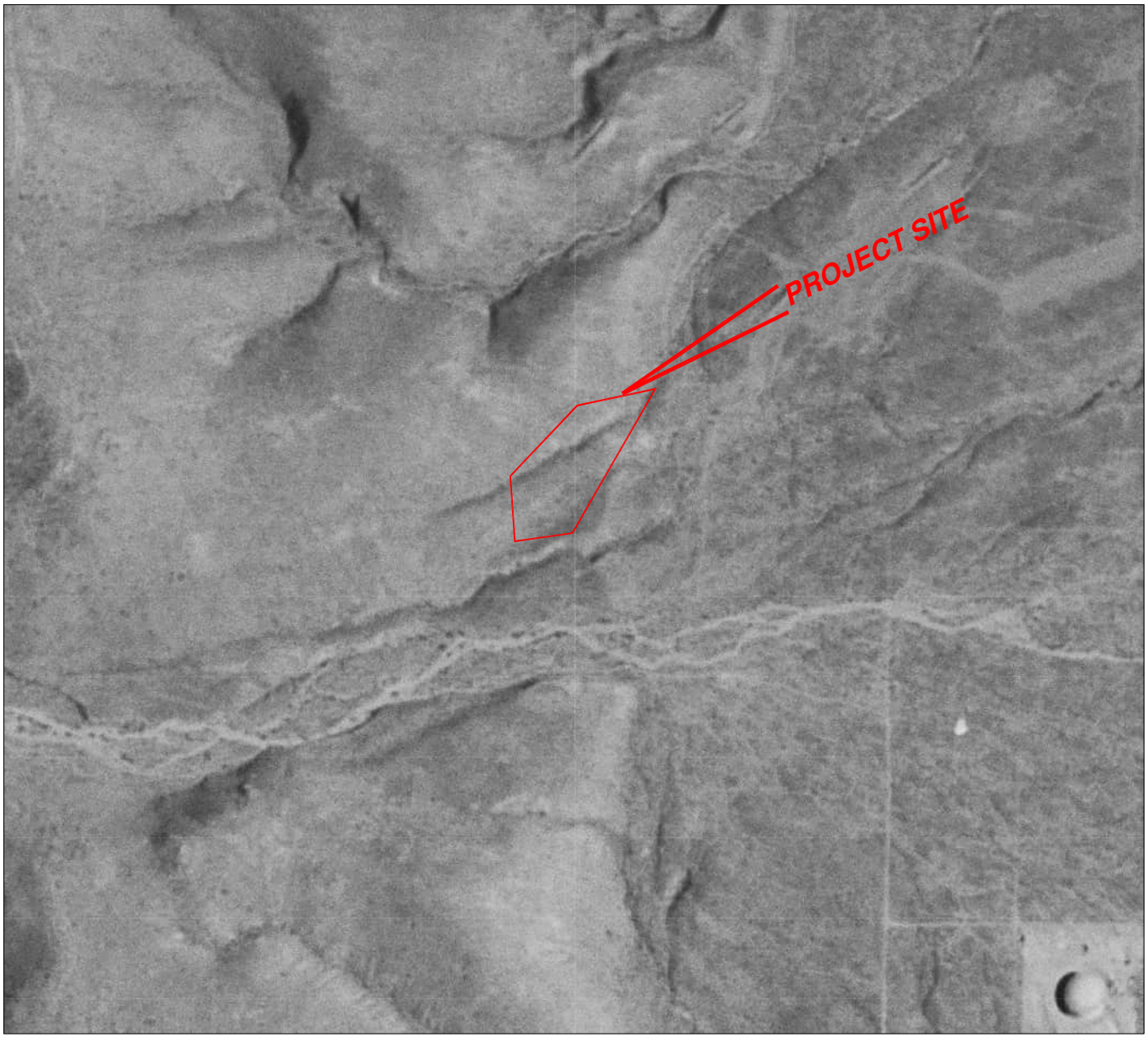
NOT TO SCALE



SOURCE: BANKS

Project No.
EPWU 23-15
Date: February 2024
Scale: NTS
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Northgate Diversion Channel
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El Paso, Texas

Aerial Photograph
1957

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3 OF 11

NOT TO SCALE

SOURCE: BANKS

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EPWU 23-15
Date: February 2024
Scale: NTS
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Aerial Photograph
1967

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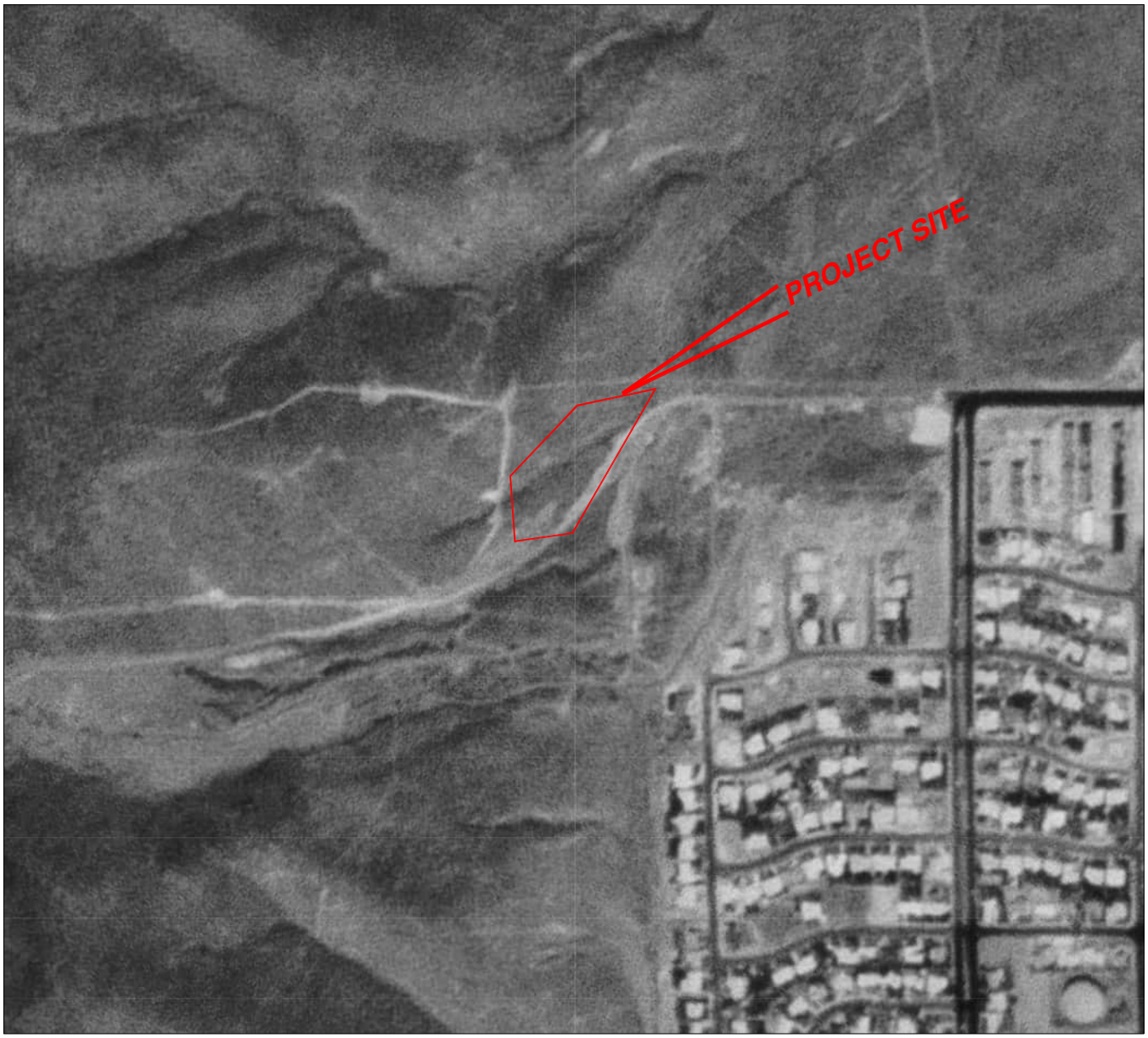
NOT TO SCALE



SOURCE: BANKS

Project No.
EPWU 23–15
Date: February 2024
Scale: NTS
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Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph 1972

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SOURCE: BANKS

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EPWU 23-15
Date: February 2024
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Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph
1984

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SOURCE: BANKS

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EPWU 23-15
Date: February 2024
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Northgate Diversion Channel
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El Paso, Texas

Aerial Photograph
1995

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Sheet No.

7 OF 11

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SOURCE: BANKS

Project No.
EPWU 23-15
Date: February 2024
Scale: NTS
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph 2004

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Fx: (915) 533-1103

NOT TO SCALE

SOURCE: BANKS

Project No.
EPWU 23–15
Date: February 2024
Scale: NTS
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph 2010

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Ph: (915) 533–1102
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Sheet No.

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SOURCE: BANKS

Project No.
EPWU 23-15
Date: February 2024
Scale: NTS
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph 2016

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Sheet No.

NOT TO SCALE

SOURCE: BANKS

Project No.
EPWU 23-15
Date: February 2024
Scale: NTS
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Environmental Assessment
El Paso, Texas

Aerial Photograph 2022

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Sheet No.

11 OF 11

A-6 – Flood Zones Map

SCALE: 1:1940

FIGURE IS FOR GRAPHICAL REPRESENTATION ONLY.

LEGEND

Flood Zone

Project No.	EPW 23-13
Date:	November 2024
Scale:	1:1940
dwg by:	ESSCO
designed by:	ESSCO

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1000 Newman St, El Paso, Texas 79902
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Environmental Assessment
Northgate Diversion Channel
El Paso, Texas

Flood Zones Map

REVISIONS

Sheet No.

A-6

A-7 – National Wetlands Inventory Map

U.S. Fish and Wildlife Service

National Wetlands Inventory

Northgate Wetland Map

November 19, 2024

Wetlands

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

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the *Wetlands Mapper web site*.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

1: 3762

Project No.	EPW 23-13
Date:	November 2024
Scale:	1:3762
dwg by:	ESSCO
designed by:	ESSCO

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1000 Newman St
El Paso, Texas 79902
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Fx: (915) 533-1103

Environmental Assessment
Northgate Diversion
El Paso, Texas

National Wetlands Map

Revisions

Sheet No.

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APPENDIX B

ENVIRONMENTAL SETTING AND IMPACTS ATTACHMENTS

B-1 – NRCS Soil Survey & Prime and Important Farmland
B-2 – Photographic Documentation
B-3 – Cultural Resources
B-4 – U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) Report
B-5 – Biological Resources (Biological Survey)
B-6 – Banks Environmental Database
B-7 – Public Review
B-8 – Contacted Tribes

B-1 – NCRS Soil Survey & Prime and Important Farmland

Map Scale: 1:1,640 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:24,000 to 1:31,700.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County, Texas (Main Part)
Survey Area Data: Version 22, Sep 5, 2023

Soil Survey Area: Fort Bliss Military Reservation, New Mexico and Texas
Survey Area Data: Version 19, Sep 7, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Nov 11, 2020—Nov 16, 2020

MAP LEGEND

MAP INFORMATION

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

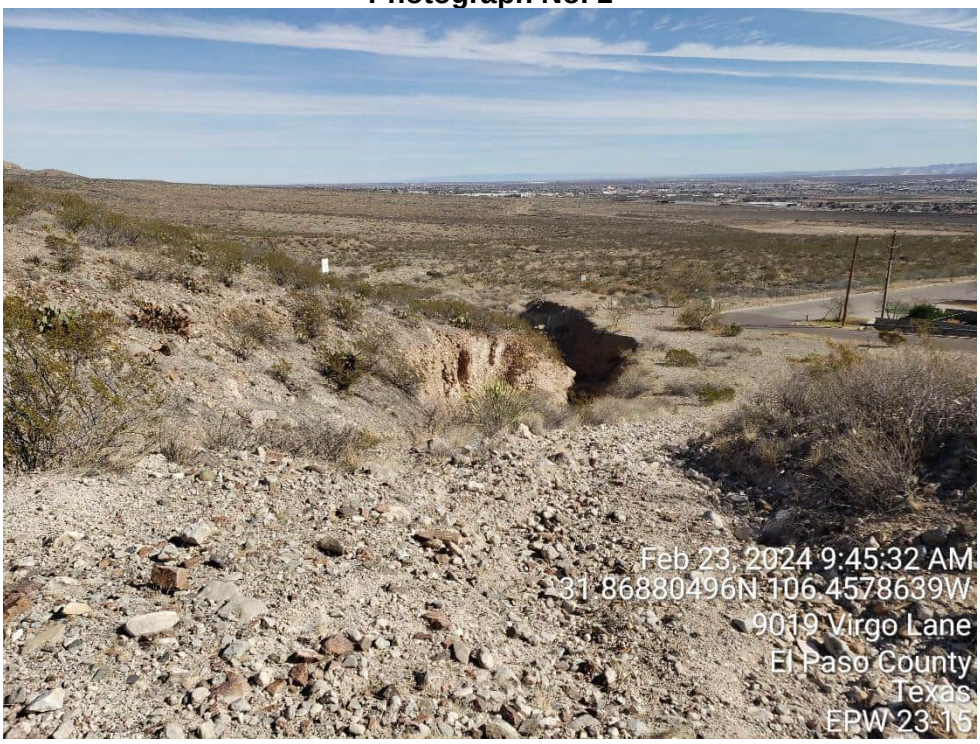
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
IN	Igneous rockland-Brewster association	6.5	99.8%
Subtotals for Soil Survey Area		**6.5**	**99.8%**
Totals for Area of Interest		**6.5**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
111	Sotol gravelly loam, 15 to 35 percent slopes	0.0	0.2%
Subtotals for Soil Survey Area		**0.0**	**0.2%**
Totals for Area of Interest		**6.5**	**100.0%**

B-2 – Photographic Documentation

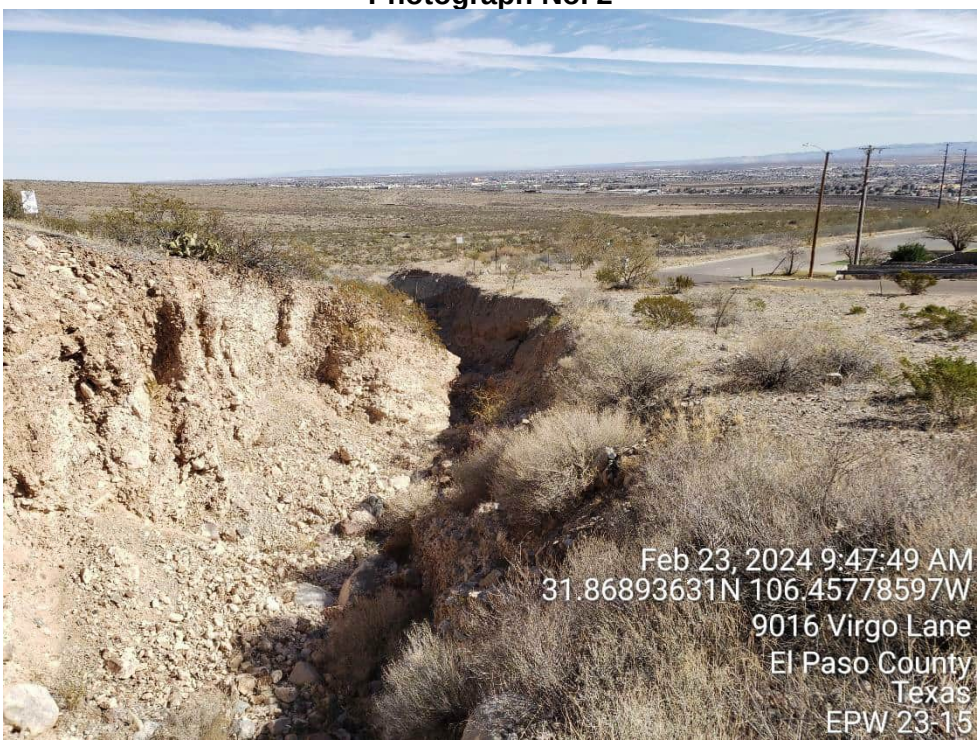
PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 1



View facing northeast towards near lower portion the Project Site.

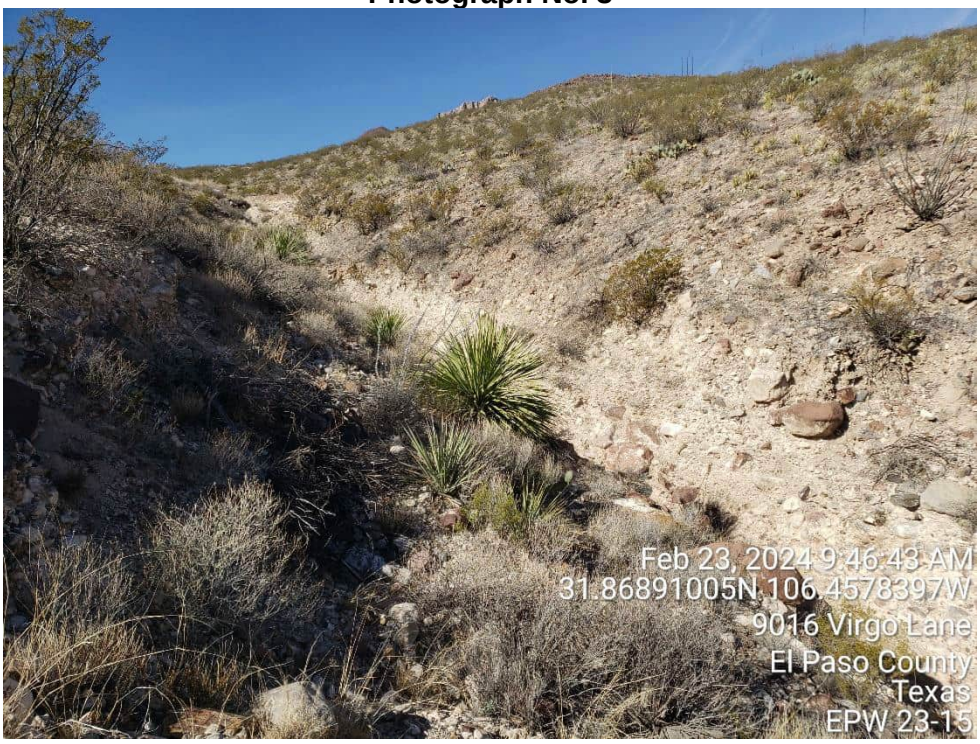
Photograph No. 2



View facing northeast near middle portion of the Project Site.

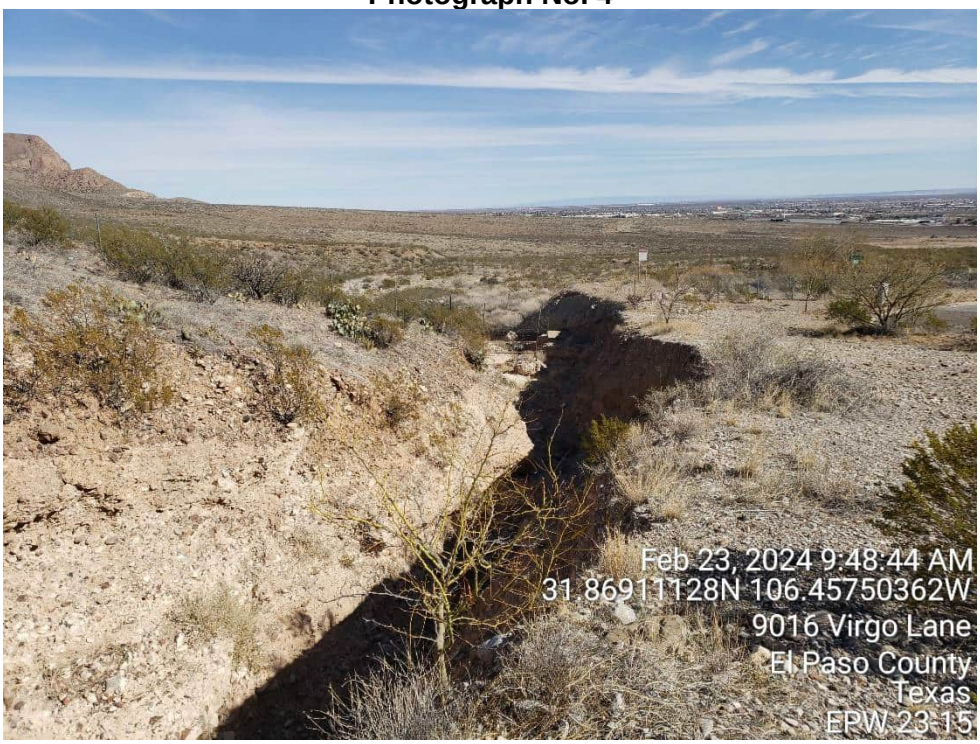
PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 3



View facing southwest depicting typical vegetation within the Project Site (Yucca Plant visible).

Photograph No. 4



View northeast near upper portion of Project Site (Ephedra Visible).

PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 5

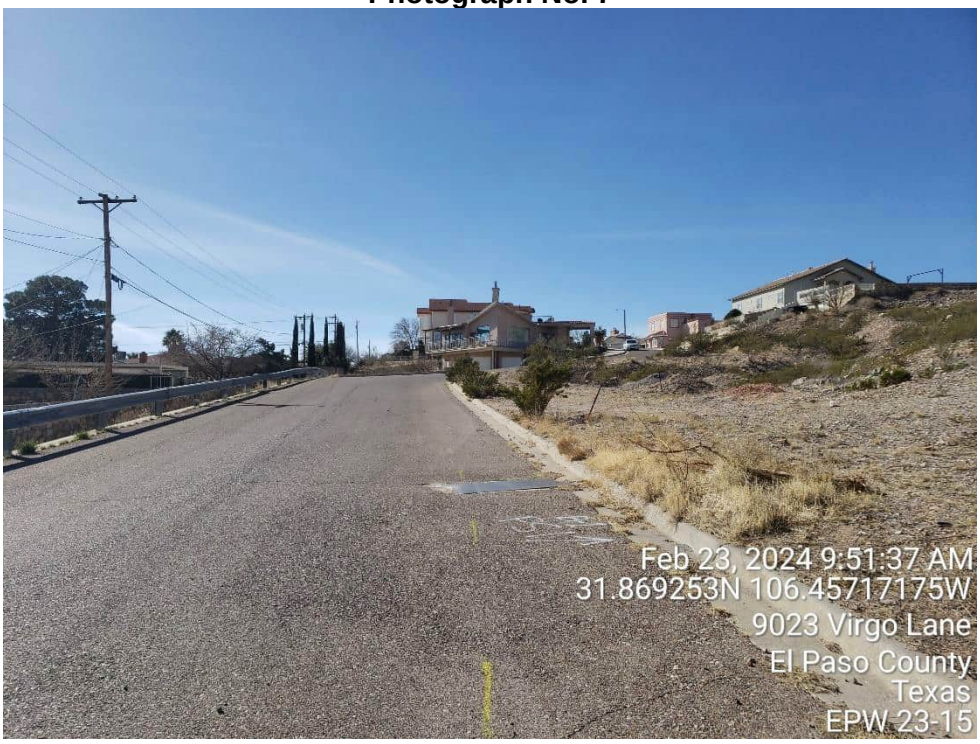
View showing buried natural gas line near Project Site along Virgo Lane.

Photograph No. 6

View showing vacant area with non-native vegetation to the east of the Project Site.

PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 7



View facing south along Virgo Lane.

Photograph No. 8

View facing southwest along Virgo Lane towards Project Site (beyond soil piles and residential dwellings).

B-3 – Cultural Resources

Rick Venegas

From: noreply@thc.state.tx.us
Sent: Tuesday, October 17, 2023 9:15 AM
To: rvenegas@esscogroup.org; reviews@thc.state.tx.us
Subject: Northgate Diversion Channel Improvements

TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: Project Review under Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas
THC Tracking #202400619
Date: 10/17/2023
Northgate Diversion Channel Improvements
9017 Virgo Lane
El Paso,TX 79904

Description: Improvements to the Northgate Diversion Channel in El Paso, Texas

Dear Rick Venegas:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC), pursuant to review under Section 106 of the National Historic Preservation Act and the Antiquities Code of Texas.

The review staff, led by Caitlin Brashear and Drew Sitters, has completed its review and has made the following determinations based on the information submitted for review:

Above-Ground Resources

- No historic properties are present or affected by the project as proposed. However, if historic properties are discovered or unanticipated effects on historic properties are found, work should cease in the immediate area; work can continue where no historic properties are present. Please contact the THC's History Programs Division at 512-463-5853 to consult on further actions that may be necessary to protect historic properties.

Archeology Comments

- No historic properties affected. However, if cultural materials are encountered during construction or disturbance activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.

We have the following comments: Given the size (

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this review process, and for your efforts to preserve the irreplaceable heritage of Texas. If the project changes, or if new historic properties are found, please contact the review staff. If you have any questions concerning our review or if we can be of further assistance, please email the following reviewers: caitlin.brashear@thc.texas.gov, drew.sitters@thc.texas.gov.

This response has been sent through the electronic THC review and compliance system (eTRAC). Submitting your project via eTRAC eliminates mailing delays and allows you to check the status of the review, receive an electronic response, and generate reports on your submissions. For more information, visit http://thc.texas.gov/etrac-system.

Sincerely,

for Mark Wolfe, State Historic Preservation Officer
Executive Director, Texas Historical Commission

Please do not respond to this email.

B-4 – U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) Report

NORTHGATE DIVERSION CHANNEL

BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Zakk Holguin (zholguin@esscogroup.org)

March 28, 2025

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under Section 7 of the Endangered Species Act (16 U.S.C. 1536 (c)).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of March 25, 2025.

Prepared using IPaC version 6.124.0-rc6

NORTHGATE DIVERSION CHANNEL BIOLOGICAL ASSESSMENT

TABLE OF CONTENTS

1 DESCRIPTION OF THE ACTION

1.1 PROJECT NAME

Northgate Diversion Channel

1.2 EXECUTIVE SUMMARY

El Paso Water (EPW) contracted ESSCO Environmental, Inc. (ESSCO) to conduct a Biological Survey for the project identified as the Northgate Diversion Channel in the northeastern portion of El Paso, Texas, along the foothills of the Franklin Mountains. The purpose of this project is to identify and describe any federal - and state- listed threatened or endangered species, or their habitat, within or adjecent to the Project Site and to assess potential impacts under Department of the Interior 50 CFR 424.12. ESSCO understands EPW plans to improve the existing earthen channel by grading it and lining it with concrete to more capably handle significant precipitation events. The Project Site experienced significant soil erosion during the 2006 monsoon season and currently experiences extensive flooding along the westernmost portion of Hondo Pass Drive. It should be noted that there are no critical habitats for the USWFS federally listed species in the project area, however, there is potential for the Northern Alpomido Falcon to fly over/through the area. It should also be noted that construction activities may take place during the Migratory Bird Nesting Season (March15-September 15), during which no active nests may be disturbed under the Migratory Bird Treaty Act (MBTA).

1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Mexican Spotted Owl	Strix occidentalis lucida	Threatened	No	NE
Monarch Butterfly	Danaus plexippus	Proposed Threatened	Excluded from analysis	Excluded from analysis
Northern Aplomado Falcon	Falco femoralis septentrionalis	Endangered	No	NE
Piping Plover	Charadrius melodus	Threatened	No	NE
Rufa Red Knot	Calidris canutus rufa	Threatened	No	NE
Sneed Pincushion Cactus	Coryphantha sneedii var. sneedii	Endangered	No	NE
Yellow-billed Cuckoo	Coccyzus americanus	Threatened	No	NE

1.4 PROJECT DESCRIPTION

1.4.1 LOCATION

LOCATION
El Paso County, Texas

1.4.2 DESCRIPTION OF PROJECT HABITAT

The Project Site is located to the west of the terminus of Hando Pas Drive and Virgo Lane at the foothills of the Franklin Mountains (latitude 31.8688053, longitude -106.4580162). The Project Site contains a north-south oriented berm constructed to divert stormwater flow from the Franklin Mountains along an existing dirt arroyo towards the Northgate Dam to the northeast. These features are surrounded by chihuahuan desert shrub land which has been graded and moderately altered in some areas.

1.4.3 PROJECT PROPONENT INFORMATION

Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.

REQUESTING AGENCY

Department of Defense

Army Corps of Engineers

FULL NAME

Zakk Holguin

STREET ADDRESS

1000 Newman Street

CITY	STATE	ZIP
El Paso	TX	79902

PHONE NUMBER	E-MAIL ADDRESS
9155331102	zholguin@esscogroup.org

LEAD AGENCY

Department of Defense

Army Corps of Engineers

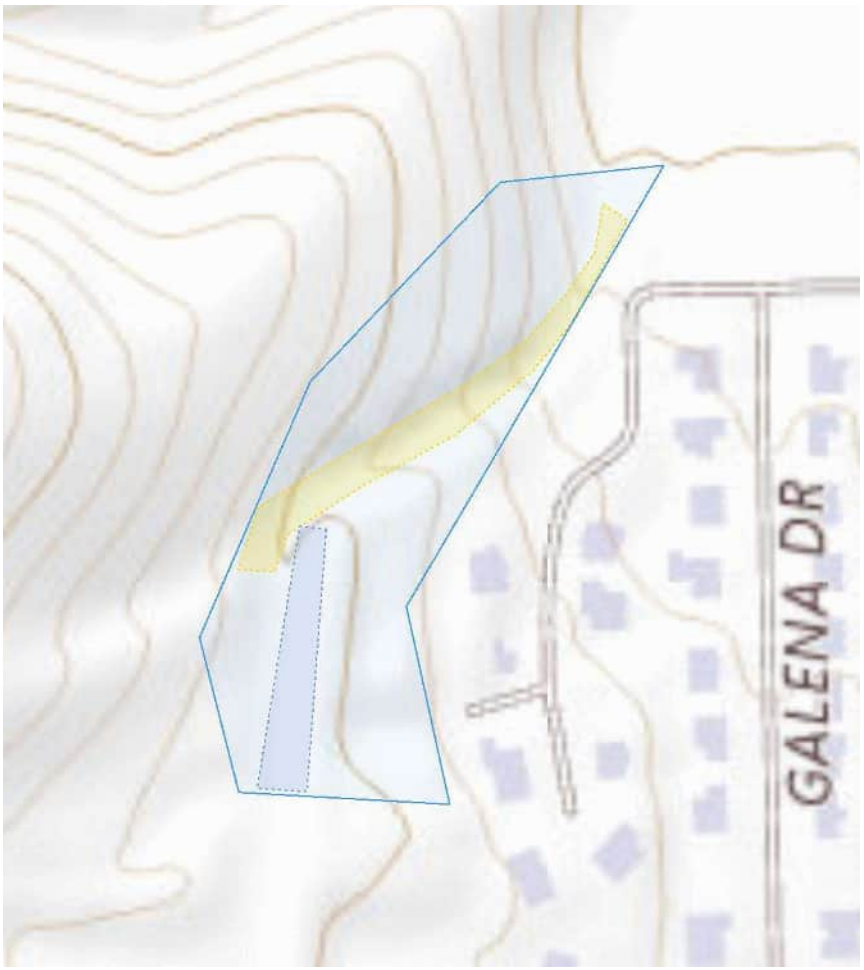
1.4.4 PROJECT PURPOSE

Flooding during the 2006 storm event in the El Paso region caused excessive erosion within the Project Site affecting down gradient properties. El Paso Waster wants to improve the existing channel to prevent this from happening during future storms of similar magnitudes.

1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a flood risk management project.

1.4.5.1 PROJECT MAP



LEGEND

Project footprint

Channel: Construct permanent drainage diversions, channelized stream section (structure)

Layer 2: Berm / levee (structure)

1.4.5.2 BERM / LEVEE

STRUCTURE COMPLETION DATE
May 26, 2025

REMOVAL/DECOMMISSION DATE (IF APPLICABLE)
Not applicable

STRESSORS
This activity is not expected to have any impact on the environment.

DESCRIPTION
No improvements will be made to the berm/levee, only the adjacent earthen channel.

1.4.5.3 CHANNELIZED STREAM SECTION

STRUCTURE COMPLETION DATE
May 26, 2025

REMOVAL/DECOMMISSION DATE (IF APPLICABLE)
Not applicable

STRESSORS
This activity is not expected to have any impact on the environment.

DESCRIPTION
The existing earthen channel will be graded and cemented.

1.4.5.4 CONSTRUCT PERMANENT DRAINAGE DIVERSIONS

ACTIVITY START DATE
May 26, 2025

ACTIVITY END DATE
Unspecified

STRESSORS
This activity is not expected to have any impact on the environment.

DESCRIPTION
The existing earthen channel will be graded and cemented.

1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS

Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.

1.5 ACTION AREA

LEGEND

Project footprint

Stressor location

1.6 CONSERVATION MEASURES

Describe any proposed measures being implemented as part of the project that are designed to reduce the impacts to the environment and their resulting effects to listed species. To avoid extra verbiage, don't list measures that have no relevance to the species being analyzed.

No conservation measures have been selected for this project.

1.7 PRIOR CONSULTATION HISTORY

A biology report was conducted and is included for reference at various points throughout this report. Said report contains consultation with the Texas Parks and Wildlife Department.

1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES

El Paso Water

(915) 594 - 5500

1.9 OTHER REPORTS AND HELPFUL INFORMATION

See attached Biology Report.

RELEVANT DOCUMENTATION

- Bio Report November 2024

2 SPECIES EFFECTS ANALYSIS

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

2.1 MEXICAN SPOTTED OWL

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and species was not found. No suitable habitat was found in the proposed project area.

2.2 MONARCH BUTTERFLY

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and species was not found.

2.3 NORTHERN APLOMADO FALCON

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and the species was not found. There is potential for the species to fly over the project area, however habitat is not suitable for nesting.

2.4 PIPING PLOVER

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and the species was not found.

2.5 RUFA RED KNOT

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and the species was not found.

2.6 SNEED PINCUSHION CACTUS

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and the species was not found.

2.7 YELLOW-BILLED CUCKOO

This species has been excluded from analysis in this environmental review document.

RELEVANT DOCUMENTATION

- Bio Report November 2024

JUSTIFICATION FOR EXCLUSION

Biology survey was conducted and the species was not found.

3 CRITICAL HABITAT EFFECTS ANALYSIS

No critical habitats intersect with the project action area.

4 SUMMARY DISCUSSION AND CONCLUSION

4.1 SUMMARY DISCUSSION

During the proposed project, the area will be graded, excavated to an extent, and cemented. No further disturbance is anticipated following the project activities.

4.2 CONCLUSION

The project has no effect to federally listed species and moderate to high probability to affect state listed and T&E species. A qualified professional should perform daily biological surveys prior to any ground-disturbing activities to inspect and monitor for threatened and endangered species. Avoid clearing vegetation during bird nesting season (March 15 - September 15) or conduct a bird nesting survey prior to any clearing any vegetation.

B-5 – Biological Resources (Biological Survey)

Northgate Diversion Channel

El Paso, Texas

BIOLOGICAL SURVEY

Prepared for

El Paso Water Utilities

And

United States Army Corps of Engineers

Albuquerque District

Prepared by

ESSCO ENVIRONMENTAL, INC.

April 2025

TABLE OF CONTENTS

LIST OF ATTACHMENTS

LIST OF APPENDICES

1.0 EXECUTIVE SUMMARY

El Paso Water (EPW) contracted **ESSCO Environmental, Inc. (ESSCO)** to conduct a Biological Survey for the project identified as the Northgate Diversion Channel in the northeastern portion of the city of El Paso, Texas, along the foothills of the Franklin Mountains.

The purpose of this project is to identify and describe any federal- and state-listed threatened or endangered species, or their habitat, within or adjacent to the Project Site and to assess potential impacts under Department of the Interior 50 CFR 424.12.

ESSCO understands EPW plans to improve the existing dirt arroyo to more capably handle significant precipitation events. The Project Site experienced significant soil erosion during the 2006 monsoon season and currently experiences extensive flooding along the westernmost portion of Hondo Pass Drive. It should be noted that a critical habitat for three (3) threatened and endangered species has been identified within the limits of the Project Site and construction activities in the area may affect, directly or indirectly, each species. It should also be noted that construction activities may take place during the Migratory Bird Nesting Season (March 15-September 15), during which no active nests may be disturbed under the The Migratory Bird Treaty Act (MBTA).

Based on the findings presented in this report, the project has a minimum to moderate probability to affect threatened or endangered species as well as federally protected species. Based on the findings presented in this report and directives from the TPWD, **ESSCO** recommends the following:

- A qualified professional should perform daily biological surveys prior to any ground-disturbing activities to inspect and monitor for threatened and endangered species.
- The contractor should be made aware of the recommendations stipulated by the TPWD;
- Avoid clearing vegetation during bird nesting season (March 15 – September 15) or conduct a bird nesting survey prior to any clearing any vegetation.

Based on the findings presented within this report, **ESSCO** recommends a qualified professional perform daily biological surveys prior to any ground disturbing activities to monitor for threatened and endangered species.

This Executive Summary is provided solely for the purpose of an overview and is not meant to be relied upon as the primary source of information regarding the attached report, including all attachments.

2.0 INTRODUCTION

El Paso Water (EPW) contracted **ESSCO Environmental, Inc. (ESSCO)** to conduct a Biological Survey for the project identified as the Northgate Diversion Channel in the Northeastern portion of the City of El Paso, Texas, hereon referred to as the Project Site.

ESSCO understands EPW plans to improve the existing dirt arroyo to more capably handle significant precipitation events. The Project Site experienced significant soil erosion during the 2006 monsoon season and currently experiences extensive flooding along the westernmost portion of Hondo Pass Drive.

The State of Texas Endangered Species Regulations passed in 1973 established a state regulatory vehicle for the management and protection of threatened and endangered species. The Texas Parks and Wildlife Department (TPWD) regulates the taking, possessing, transporting, exporting, processing, selling/offering for sale, or shipping of endangered or threatened species of fish, wildlife, and plants. There are no statutes or regulations for critical habitat on a state-listed data set of threatened or endangered species. However, as presented by the Endangered Species Act of 1973, a Critical Habitat is defined as:

> "Areas containing physical or biological factors essential to the conservation of the species and that may require special management considerations or protection."

ESSCO submitted a consultation request to TPWD for the Project Site and mobilized to the site to survey for critical habitats. As the Texas Horned Lizard, Mountain Short Horned Lizard, and Sneed's pincushion cactus, all endangered species, are known to occupy environments consistent with the Project Site, TPWD recommended a biologist be physically present to perform monitoring during any ground-disturbing activities.

Copies of the regulatory agency consultations are contained in Appendix A.

2.1. Purpose

The purpose of this project is to identify any federal and state listed Threatened and/or Endangered Species and their habitats within or adjacent to the Project Site and to assess potential impacts from proposed construction activities for the purposes of regulation under the Department of the Interior 50 CFR 424.12, which describes critical habitat as 'areas important for population growth, food and water resources, shelter, breeding and recovery sites of threatened and endangered species'.

2.2. Special Terms and Conditions

The findings and conclusions presented in this report apply only to the Project Site and do not include the evaluation of additional areas not specifically detailed in the approved proposal or that may have been encountered during the course of this project, unless expressly indicated and approved by EPW.

2.3. Limitations and Exceptions of Assessment

The work performed during the preparation of this report has been prepared in accordance with generally accepted methodologies detailed by the TPWD and with the degree of skill and care ordinarily exercised under similar conditions by reputable members of the profession practicing in the region, and contains all of the limitations inherent in these methodologies. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included within this report.

No assessment can eliminate all uncertainty. Professional judgment and interpretation are inherent in the process and uncertainty is an inevitable portion in the development and conducting an assessment. Even when an assessment is executed with appropriate site-specific standard of care, certain conditions and uncertainties remain present. Such conditions may include, but are not limited to, complex geological settings, physical limitations imposed by the location of anthropogenic objects (i.e., roads, fences, structures), historic land use, and the limitation of assessment techniques.

There is a median at which the cost of information obtained, and the time required to obtain it outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. This evaluation includes an opinion on the existence of threatened and/or endangered species of flora and fauna and their respective habitats, and cultural significance by environmental professionals, and is based upon field observations and research through regulatory agencies and other databases. The findings and conclusions presented are based upon the information obtained, past experience on similar projects, and professional judgment pursuant to generally accepted industry practices in the region.

3.0 BACKGROUND

3.1. Proposed Project Description

ESSCO understands that EPW plans to improve the existing earthen channel by grading the surface and lining it with concrete. Vegetation situated within the existing arroyo will be cleared and the surface is expected to be graded prior to commencement of construction activities.

3.2. Site Description and Features

The Project Site is located to the west of the terminus of Hondo Pass Drive and Virgo Lane at the foothills of the Franklin Mountains (latitude 31.8688053°, longitude -106.4580162°). The Project Site consists of an arroyo and north-south orientated berm, constructed to divert stormwater flow from the Franklin Mountains towards the Northgate Damn to the northeast.

3.3. Regional Geological Setting

The El Paso region is underlain by a series of Pre-Cambrian sediments that date 1,200 million years old to 980 million years old, which form the basal units of the Franklin Mountains and the basement structure in the region. The Franklin Mountains are a horst block, linear 23-mile long and less than 5 mile wide, north-south trending mountain range, situated near the eastern margin of the Basin and Range Physiographic Province, within the Rio Grande Rift, a compilation of an echelon extensional basins extending from central Colorado, through New Mexico, and potentially into northern Mexico. Thick sequences of Paleozoic and Cenozoic deposits overlie the Pre-Cambrian sediments while Mesozoic deposits appear as sedimentary outcrops at select locations. Cenozoic sediments in the El Paso region include volcanic intrusions and fluvial/lacustrine deposited sediments.

The Project Site is located in El Paso County just west of the southwestern portion of the Hueco Bolson, east of the Franklin Mountains. Approximately 20 million years ago, the ancestral Rio Grande flowed eastward, north of the Franklin Mountains, and into the Hueco Bolson where sediment loads were deposited up to 10,000 feet thick. Subsequent uplift along the Franklin Mountains altered the course of the Rio Grande to the western side of the mountain range and into the Mesilla Bolson.

Basin filling sediments derived from the Rio Grande deposition is collectively named the Santa Fe Group and are encountered along the entire length of the Rio Grande and associated basins. In the El Paso Region, the Santa Fe Group Sediments are divided into the underlying Fort Hancock sediments and the overlying Camp Rice sediments. During the Pliocene, Lake Cabeza de Vaca formed in the Mesilla Bolson, along the southern portion of the Franklin Mountains and into the Hueco Bolson, and even into the northern adjacent basin (Tularosa Basin). At its greatest extent, Lake Cabeza de Vaca extended from Carrizozo, NM to Presidio, TX. The lake was an ephemeral playa lake and sediment deposits are dominated by lacustrine and fluvial environments that are collectively named the Fort Hancock Sediments and are as much as 9,000 feet thick.

The Camp Rice sediments are dominated by fluvial deposition from aggrading stream channels and are entrenched into the Fort Hancock sediments. The age of the Pliocene-Pleistocene (Fort Hancock and Camp Rice) sediments range from 2.5 to 0.6 million years old. Approximately 1

million years ago, the Rio Grande breached the last intermontane basin and became a through flow stream to the Gulf of Mexico.

3.4. Site Geology

According to the *Geological Map of the West Hueco Bolson; El Paso Region, Texas 2000,* the Project Site is situated on Piedmont alluvium of alluvial fans, incised fans, and bajadas (Qf2) as well as Undivided alluvium of drainageways, young fans (Qf4) and young arroyo terraces (Qt4).

The geomorphic setting of the Project Site presents a naturally occurring arroyo that has been partially reworked to divert stormwater runoff away from the Mountain Hills Estates subdivision to the east. An alluvial fan is situated just down gradient from the Project Site which has largely been graded and developed into single family residential dwellings. The Project Site is mostly underlain by bedrock and marks the (approximate) eastern edge of the Franklin Mountains fault escarpment along a normal fault boundary.

Native and invasive species of vegetation (i.e. Cottonwood Trees, Salt Cedar Trees, Cat Tails, etc) are allowed to grow freely with the exception of the unimproved roads surrounding the site which are kept graded.

3.5. Site Soils

Based on the *United States Department of Agriculture (USDA) Soil Survey of El Paso County*, the soils located on the Project Site consist of Igneous Rock Land (IN), primarily granitic in composition. Additionally **ESSCO** observed surface soils comprised of poorly sorted gravels of igneous and sedimentary origin, as well as loosely consolidated windblown sands.

3.6. Climate Setting

The Project Site is in the Chihuahuan Desert of North America, a semi-arid, warm desert climate with hot summers and mild, dry winters. Precipitation averages 8.74-inches per year, mainly occurring July through August, with small amounts of frozen precipitation occurring December though January. Summer high temperatures typically range in the upper 90 degrees Fahrenheit (^{o}F) with an average high of 97^{o}F (36^{o}C) to an average low of 68^{o}F (20^{o}C). Winters are mild with average highs of 55^{o}F (13^{o}C) to average lows of 28^{o}F (-2^{o}C). Predominantly southwesterly winds are a mechanism for aeolian transportation of sediment resulting in strong dust storms during the spring season. Fall typically has mild temperatures and little wind.

3.7. Summary of Previous Assessments

A drainage study of the Project Site and surrounding area was conducted by Dorado Engineering, INC dated 2007. The study concluded that, “The existing condition of the arroyo presents serious safety concerns to adjacent properties if not corrected.”

4.0 EVALUATION METHODS

4.1. Regulatory Agency Records and Literature Review

Prior to conducting any field work, **ESSCO** complied and reviewed datasets from U.S. Fish and Wildlife Service (USFWS), United States Geological Society (USGS), Texas Parks and Wildlife Department (TPWD), and other scientific publications to assess the potential for occurrences of threatened and/or endangered species in or around the Project Site.

Few species maintaining a threatened and/or endangered classification have the potential to occur in or around the Project Site. Table 4.1 identifies the federally listed Threatened/Endangered species that have a potential to occur on the Project Site.

Table 4.1 State and Federally Listed Threatened/Endangered Species with potential to occur in vicinity of the Project Site

	Species Genus[1]	Status[2]	
		Federal	State
Birds	American Peregrine Falcon *Falco peregrinus anatum*		T
	Gray Hawk *Buteo plagiatus*		T
	Mexican Spotted Owl *Strix occidentalis lucida*	LT	T
	Southwestern Willow Flycatcher *Empidonax traillii extimus*	LE	E
	Western Yellow-billed Cuckoo *Coccyzus americanus Occidentalis*	LT	
	White-faced Ibis *Plegadis chihi*		T
Reptiles	Mountain Short-horned Lizard *Phrynosoma hernandesi*		T
	Texas Horned Lizard *Phrynosoma cornutum*		T
Plants	Pima Pineapple Cactus *Coryphantha scheeri var. robustispina*	LE	
	Sneed's Pincushion Cactus *Escobaria sneedii var sneedii*	LE	E

LEGEND:

1. Data compiled from Texas Parks & Wildlife Department Dated October 1, 2021. Web Address: http://tpwd.texas.gov/gis/rtest/

2. Legend Key:

LE, LT	Federally Listed Endangered/Threatened
PE, PT	Federally Proposed Endangered/Threatened
SAE, SAT	Federally Listed Endangered/Threatened by Similarity of Appearance
C	Federal Candidate for Listing; formerly Category 1 Candidate
DI, PDL	Federally Delisted/Proposed for Delisting
NL	Not Federally Listed
E, T	State Listed Endangered/Threatened
NT	Not tracked or no longer tracked by the State

A request for consultation was submitted to Texas Parks and Wildlife Department (TPWD) for available information and guidance for the Project Site. The following sections detail their recommendations.

4.1.1. Texas Parks & Wildlife Department

A response from the TPWD was received on September 13, 2023, with several recommendations concerning construction activities at the Project Site. Recommendations include:

- Excluding vegetation clearing activities during the general bird nesting season (March 15 - September 15) or surveying for active nests if vegetation clearing activities are unavoidable. TPWD recommends a 100-foot radius buffer of vegetation for active nests which are not to be disturbed during the nesting season;
- Avoiding disturbance of the Texas horned lizard, its burrows, and colonies of its primary food source, the harvester ant, during clearing and construction as well as having a licensed biologist present during construction to relocate and Texas horned lizards found;
- Review Rare, Threatened, and Endangered Species of Texas online application for El Paso County as rare and protected species could be present in the Project Site The United States Fish and Wildlife Service (USFWS) can be contacted for guidance and further recommendation;
- Education of on-site personal of potential occurrences of rare and protected species within the Project Site; and
- Minimal grading/removal of native vegetation.

A copy of the TPWD response is provided in Appendix A-2.

Additionally, based on **ESSCO** experience in the region, it is understood several rare animal and plant species as well as federally protected animal species of concern may be present in the Project Site. The following species are described as:

- Desert Night-Blooming Cereus (*Peniocereus greggii var. greggii*) - Chihuahuan Desert shrublands or shrub invaded grasslands in alluvial or gravelly soils at lower elevations, on slopes, benches, arroyos, flats, and washes.
- Western Burrowing Owl (*Athene cunicularia hypugaea*) - open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows and man-made structures, such as culverts.
- Western Box Turtle (*Terrapene ornata*) - typically in open habitats such as prairie grasslands, pastures, fields, sandhills, and open woodlands, for shelter, they burrow into soil, or enter burrows made by other species, active spring through fall.
- Roundtail Horned Lizard (*Phrynosoma modestum*) - this species seems to prefer rocky or gravelly substrates in open areas that are sparsely vegetated.
- Gray-checkered Whiptail (*Aspidoscelis dixoni*) - inhabits rocky plains, dry washes, canyon bottoms, and desert scrub (ocotillo, creosote bush, opuntia).

- Western Rattlesnake (*Crotalus viridis*) - inhabits grasslands, both desert and prairie, as well as shrub desert rocky hillsides, can also be found at the edges of arid and semi-arid river breaks.

4.2. State Listed Threatened and Endangered Species

4.2.1. Texas Horned Lizard and Mountain Short-horned Lizard

The Texas Horned Lizard (*Phrynosoma cornutum*) shares the same habitat as the Mountain short-horned Lizard and can be found in arid to semi-arid habitats with open area where sparse vegetation is present. The lizard digs a burrow for nesting, hibernating, or insulation purposes and are most commonly found in loose sand or loamy soils.

4.3. Field Methods

An environmental professional and technician physically inspected the Project Site to survey flora and fauna and document any evidence of potential threatened and endangered species. The following sections detail the methodology.

4.3.1. Pedestrian Walking Survey

ESSCO mobilized to the Project Site on August 28, 2023 and February 23, 2024, to conduct Pedestrian Walking Surveys of the Project Site and adjacent areas for potentially Threatened and/or Endangered Species and/or their habitat. No Threatened or Endangered Species or potential food sources were observed during each survey, however, due to the abundance of crevices and loose boulders observed within the Project Site, the presence of Threatened and Endangered Species cannot be out ruled.

A vegetation density survey and resident species was also performed. Much of the Project Site was observed to be covered in gravel and loose rocks, however, various grasses including Broom Snakeweed and Black Grama Grass were observed in abundance along with Creosote Bush. Isolated areas of Yucca and Prickly Pear were observed as well.

An additional survey was conducted on March 11, 2025 to evaluate the Project Site for the presence of Sneed's Pincushion Cactus. The aforementioned was not identified.

4.3.2. Daily Monitoring Activities

Daily Monitoring Activities were not conducted at the time of this report, however pursuant to Texas Parks and Wildlife Department requirements, biological monitoring should be performed whenever ground disturbing activities are scheduled. The area where ground disturbing activities are scheduled to occur should be inspected for potential Threatened and Endangered Species, such as the Texas Horned Lizard (Target Species), or evidence of their presence (i.e., trackways, scat) or their primary food source (i.e., Red Harvester Ants).

5.0 EXISTING CONDITIONS

The following sections describe the results of the pedestrian walking survey and conditions observed on the Project Site:

5.1. Landscape Settings

The Project Site is situated at foothills of the Franklin Mountains at the upper portion of a historic alluvial fan. A large arroyo comprises much of the Project Site which has been reworked to divert stormwater runoff away from down gradient residential dwellings towards the Northgate Damn. Vegetation consisted of typical native Chihuahuan Desert in mountainous regions (i.e. Creosote, Prickly Pear Cactus, Black Grama Grass, Yucca Plant, and Ephedra).

The surficial covering of the Project Site consisted mostly gravel and alluvial sand with fallen rock occupying the lowest areas along a partially reworked naturally occurring arroyo. Vegetation occupied primarily the sides of the arroyo growing in between crevices and was scarce within reworked areas of the Project Site.

5.2. Hydrologic Setting and Conditions

Surface water was not observed during the course of each visit to the Project Site, however, the Project Site is primarily comprised of a reworked naturally occurring arroyo which transports stormwater runoff from the up-gradient slopes of the Franklin Mountains towards the Northgate Dam to the northeast. Groundwater beneath the surface of the Project Site is anticipated to drain eastward into the Hueco Bolson just beyond the Project Site, however, during periods of high precipitation, perched zones of groundwater may exist.

5.3. Vegetation

A pedestrian walking survey was conducted by **ESSCO** to observe and document the flora species on the Project Site. Vegetation located on the southernmost portion of the Project Site consisted mostly of typical Chihuahuan Desert Wetland Vegetation such as Cottonwood trees (Populus deltoides), Cattail grass (Typha angustifolia), and Salt Cedar trees (Tamarix ramosissima). The following table presents the observed vegetation species and approximate density across the Project Site:

Table 5.3 Observed Plant Species

Common Name	Sci. Name	Coverage %	Threatened or Endangered?
Creosote bush	Larrea tridentata	45%	No
Mesquite	Leguminosae	11%	No
Russian thistle	Salsola kali	4.5%	No
Four-wing saltbush	Atriplex canescens	<1%	No
Black Grama Grass	Bouteloua Eriopoda	47%	No
Broom Snakeweed	Gutierrezia Sarothrae	<1%	No
Sacred Datura	Datura wrightii	<1%	No

No threatened or endangered species of vegetation were observed on the Project Site.

5.4. Wildlife

During the survey, the only wildlife actively observed consisted of birds mid/flight above the Project Site. As much of the wildlife in the El Paso region is nocturnal, it is anticipated many animals occupying the Project Site were confined to their burrows, resting areas at the time of the survey.

5.5. Habitat

A habitat is defined as the zone where a living organism can find shelter, food and protection. Three (3) State Listed species reside in favorable habitat exhibited in the Project Site. Each species with favorable habitat present at the Project Site is discussed in the following sections:

5.5.1. Mountain Short-horned Lizard Habitat

The Mountain Short-horned Lizard (*Phrynosoma hernandesi*) resides in the rocky areas of western Texas. Due to the proximity of the Project Site to this known habitat, the Mountain Short-horned Lizard may potentially reside within the limits of the Project Site.

No activity from The Mountain Short-horned Lizard or any potential food source was observed.

5.5.2. Texas Horned Lizard Habitat

The Texas Horned Lizard (*Phrynosoma cornutum*) resides in arid to semi-arid habitats with open areas where sparse vegetation is present. The Project Site exhibits characteristics of this habitat; hence, there is high probability the Texas Horned Lizard resides within the limits of the Project Site.

No activity from The Texas Horned Lizard was observed on the Project Site.

5.5.3. Sneeds Pincushion Cactus

Sneed's Pincushion Cactus (*Escobaria sneedii var sneedii)* occurs on exposed areas of steep, sloping limestone in the shrublands or grasslands of the Chihuahuan Desert. The Project Site is situated just down-gradient of areas which exhibit charitaristics of this habitat. A survey was conducted March 11, 2025 to search for the Project Site for the aforementioned species and the species was not identified.

6.0 FINDINGS

6.1. Effects Determination

Based upon data obtained and physical inspections performed, **ESSCO** believes this project has a minimum probability to adversely affect federal- or state-listed species. However, Project Site conditions are subject to change; it is possible other wildlife species that typically inhabit the Project Site were not observable or burrowing during field surveys conducted for this report.

6.2. Conclusions and Recommendations

Based on the findings presented in this report, the project has a minimum probability to affect threatened or endangered species as well as federally protected species. Based on the findings presented in this report and directives from the TPWD, **ESSCO** recommends the following:

- A qualified professional should perform daily biological surveys prior to any ground-disturbing activities to inspect and monitor for threatened and endangered species.
- The contractor should be made aware of the recommendations stipulated by the TPWD;
- Avoid clearing vegetation during bird nesting season (March 15 – September 15) or conduct a bird nesting survey prior to any clearing any vegetation.

7.0 CLOSURE

This report has been prepared for the sole use of El Paso Water during the development of the Project Site. This report may not be relied upon by any other person or entity without the express written consent of **ESSCO** and El Paso Water.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding this report, please contact Mr. Zakk Holguin (zholguin@esscogroup.org) or Yvette Pereyra (ypereyra@esscogroup.org).

Respectfully Submitted,

Zakk Holguin, G.I.T.
Project Geologist
ESSCO Environmental, Inc.

Yvette Pereyra, P.G., CAPM
Project Manager
ESSCO Environmental, Inc.

REFERENCES AND SOURCES OF INFORMATION

The following references may have been used in the preparation of this report.

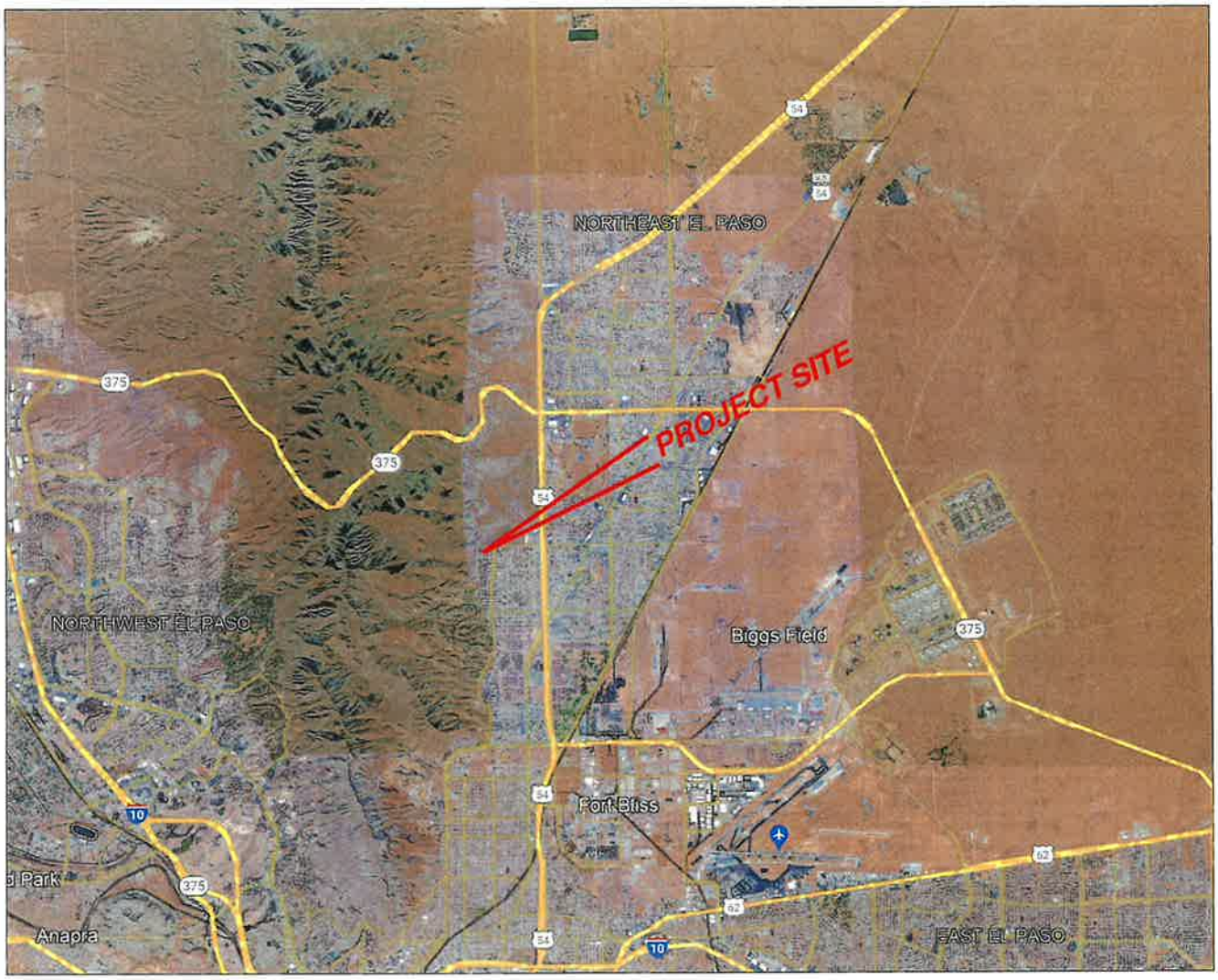
- Geological Map of West Hueco Bolson, El Paso Region, Texas; Bureau of Economic Geology, The University of Texas at Austin (2000)
- Soil Survey of El Paso County; U.S. Department of Agriculture Soil Conservation Service, 1971
- Overview of Hueco Bolson: El Paso Water.
- Texas Natural Diversity Database (TxNDD): (www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species)
- Texas Parks & Wildlife Department: (http://gis.tpwd.state.tx.us/TpwEndangeredSpecies/DesktopDefault.aspx?tabindex=0&tabid=9&type=countylist&parm=El%20Paso)
- Texas Commission on Environmental Quality: (www.tceq.texas.gov)
- U.S. Fish and Wildlife Service (FWS) National Wetland Inventory (NWI) Interactive Map system: (http://www.fws.gov/wetlands)
- U.S. Fish and Wildlife Services, Status Assessment and Conservation Plan for the Western Burrowing owl in the United States, Biological Technical Publication BTP-R6001-2003

ATTACHMENT I

FIGURES
Site Location Map
Topographic Map
Site Plan Map

ENGINEERING & SCIENCE SERVICES COMPANY
1000 NEWMAN ST., EL PASO, TEXAS 79902
PH: (915) 533-1102; FX: (915) 533-1103

1:175644



SOURCE: GOOGLE EARTH IMAGE: SEPTEMBER 2023

Project No.
EPWU 23-15
Date: November 2024
Scale: 1:175644
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Biological Survey
El Paso, Texas

Site Location Map

ESSCO ENVIRONMENTAL
1000 Newman St.
El Paso, Texas 79902
Ph: (915) 533-1102
Fx: (915) 533-1103

Sheet No.

1 OF 3

1: 7200

SOURCE: USGS TOPO EL PASO 2012

Project No.
EPWU 23–15
Date: November 2024
Scale: 1:7200
dwg by: ESSCO
designed by: ESSCO

Northgate Diversion Channel
Biological Survey
El Paso, Texas

Topographic Map

ESSCO ENVIRONMENTAL
1000 Newman St.
El Paso, Texas 79902
Ph: (915) 533-1102
Fx: (915) 533-1103

Sheet No.

2 OF 3

1: 3120

SOURCE: GOOGLE EARTH IMAGE: August 2023

Project Site

Project No. EPWU 23–15 Date: November 2024 Scale: 1:3120 dwg by: ESSCO designed by: ESSCO	***Northgate Diversion Channel Biological Survey El Paso, Texas*** ***Site Plan Map***	ESSCO ENVIRONMENTAL 1000 Newman St. El Paso, Texas 79902 Ph: (915) 533–1102 Fx: (915) 533–1103	Sheet No. *3* OF *3*

APPENDIX A

TEXAS PARKS AND WILDLIFE DEPARTMENT CONSULTATION

ENGINEERING & SCIENCE SERVICES COMPANY
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Dick Scott
Wimberley

Lee M. Bass
Chairman-Emeritus
Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

David Yoskowitz, Ph.D.
Executive Director

December 14, 2023

Mr. Rick Venegas
ESSCO Environmental, Inc.
1000 Newman St.
El Paso, TX 79902

RE: Proposed Improvements to the Northgate Diversion Channel

Dear Mr. Venegas:

Texas Parks and Wildlife Department (TPWD) has received the request for review of the proposed project referenced above. TPWD staff has reviewed the information provided and offers the following comments and recommendations concerning this project. For tracking purposes, please refer to TPWD project number 51658 in any return correspondence regarding this project.

Project Description

El Paso Water is partnered with the U.S. Army Corps of Engineers to improve the Northgate Diversion Channel.

Federal Laws

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits taking, attempting to take, capturing, killing, selling, purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts, or nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Potential impacts to migratory birds may occur during site preparation and grading activities through the disturbance of existing vegetation (grass, trees, and shrubs) and bare ground that may be occupied by active bird nests.

Recommendation: TPWD recommends excluding vegetation clearing activities during the general bird nesting season, March 15 through September 15, to avoid adverse impacts to birds. If clearing vegetation during the migratory bird nesting season is unavoidable, TPWD recommends surveying the area proposed for disturbance to ensure that no nests with eggs or young will be disturbed by construction. Nest surveys should be conducted not more than five days prior to clearing activities to maximize detection of active nests. TPWD generally recommends a 100-foot radius buffer of vegetation

remain around active nests until the eggs have hatched and the young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional USFWS office.

State Laws

State Law: Marl, Sand, Gravel, Shell or Mudshell Permits

Under PWC Chapter 86 and 31 Texas Administrative Code (TAC) Chapter 69, TPWD regulates the disturbance or take of sedimentary material within state designated navigable streams, state owned streams, and certain other perennial streams. Activities potentially requiring a permit within jurisdictional streams include mining, dam construction, bank or channel alteration, streambank stabilization or restoration (including mitigation activities), or any other disturbance of the bed or banks.

Recommendation: The proposed project activities may require a Marl, Sand, Gravel, Shell or Mudshell Permit from TPWD. The TPWD Aquatic Resources Permitting and Consultations Program can be contacted at sand.gravel@tpwd.texas.gov for additional information. Information regarding these permits may also be found on the TPWD website.

Parks and Wildlife Code – Chapter 64, Birds

Texas Parks and Wildlife Code (PWC) Section 64.002, regarding protection of nongame birds, provides that no person may catch, kill, injure, pursue, or possess a bird that is not a game bird. PWC Section 64.003, regarding destroying nests or eggs, provides that, no person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl.

Recommendation: Please review the *Federal Law: Migratory Bird Treaty Act* section above for recommendations as they are also applicable for PWC Chapter 64 compliance.

Parks and Wildlife Code, Section 68.015

PWC Section 68.015 regulates state listed threatened and endangered animal species. The capture, trap, take, or killing of state listed threatened and endangered animal species is unlawful unless expressly authorized under a permit issued by USFWS or TPWD. A copy of *TPWD Guidelines for Protection of State-Listed Species*, which includes a list of penalties for take of species, can be

found on the TPWD website. State listed species may only be handled by persons with appropriate authorization from the TPWD Wildlife Permits Office. For more information, please contact the Wildlife Permits Office at (512) 389-4647.

Texas horned lizard (*Phrynosoma cornutum*) – state listed threatened

The Texas horned lizard can be found in open, arid, and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush, or scrubby trees. If present in the project area, the Texas horned lizard could be impacted by ground disturbing construction activities. Horned lizards may hibernate on site in the loose soils a few inches below ground during the cool months from September/October to March/April. Construction in these areas could harm hibernating lizards. Horned lizards are active above ground when temperatures exceed 75 degrees Fahrenheit. If horned lizards (nesting, gravid females, newborn young, lethargic from cool temperatures or hibernation) cannot move away from noise and approaching construction equipment in time, they could be affected by construction activities. Suitable habitat for this species may occur in the proposed project area.

Recommendation: TPWD recommends avoiding disturbance of the Texas horned lizard, its burrows, and colonies of its primary food source, the harvester ant (*Pogonomyrmex* spp.), during clearing and construction. TPWD recommends a permitted biological monitor be present during construction to relocate Texas horned lizards, if found. If the presence of a biological monitor during construction is not feasible, Texas horned lizards observed during construction should be allowed to safely leave the project site.

A mixture of cover, food sources, and open ground is important to the Texas horned lizard and harvester ant. Disturbed areas within suitable habitat for the Texas horned lizard should be re-vegetated with site-specific native, patchy vegetation rather than sod-forming grasses.

Species of Concern/Special Features

In addition to state and federally protected species, TPWD tracks species considered to be Species of Greatest Conservation Need (SGCN) that, due to limited distributions or declining populations, face threat of extirpation or extinction but currently lack the legal protections given to threatened or endangered species. Special landscape features, natural plant communities, and SGCN are rare resources for which TPWD actively promotes conservation, and TPWD considers it important to minimize impacts to such resources to reduce the

likelihood of endangerment and preclude the need to list SGCN as threatened or endangered in the future. These species and communities are tracked in the Texas Natural Diversity Database (TXNDD). The most current and accurate TXNDD data can be requested from the TXNDD website.

Please note that the absence of TXNDD information in the proximity does not imply that a species is absent from the project area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare and protected species, data from the TXNDD does not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data or be substituted for on the ground surveys.

Recommendation: TPWD recommends reviewing the Rare, Threatened, and Endangered Species of Texas online application for El Paso County, as rare and protected species could be present in the project area, depending upon habitat availability. The USFWS can be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally listed species. For USFWS threatened and endangered species lists, please see the USFWS Information for Planning and Consultation website.

Determining the actual presence of a species in an area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency, and population density (both wildlife and human). The absence of a species can only be established with repeated negative observations and consideration of all factors contributing to the lack of detectable presence.

Recommendation: TPWD recommends providing information prior to construction to educate personnel of the potential occurrence of rare and protected species within the project area, and the relevant rules and regulations that protect plants, fish, and wildlife. If encountered during construction, measures should be taken to avoid impacting wildlife.

General Construction Recommendations

TPWD would like to provide the following general construction recommendations to assist in project planning.

Recommendation: TPWD recommends that the removal of native vegetation during construction be minimized to the extent feasible. Unavoidable removal of vegetation should be mitigated by revegetating disturbed areas with site specific plant species where feasible. The replacement of native plants will help control erosion, provide habitat for wildlife, and provide native species an opportunity to compete with undesirable, non-native, invasive plant species.

TPWD recommends the judicious use and placement of sediment control fence to exclude wildlife from the construction area. In many cases sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife access to construction areas. The exclusion fence should be buried at least six inches and be at least 24 inches high. Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.

TPWD recommends that any open trenches or excavation areas be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Excavation areas should be inspected for trapped wildlife prior to refilling.

For soil stabilization and/or revegetation of disturbed areas, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding due to a reduced risk to wildlife.

Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends avoiding the use of plastic mesh matting. If erosion control blankets or mats containing netting must be used, the netting should be loosely woven, natural fiber material

where the mesh design allows the threads to move, therefore allowing expansion of the mesh openings.

TPWD strives to respond to requests for project review within a 45-day comment period. Responses may be delayed due to workload and lack of staff. Failure to meet the 45-day review timeframe does not constitute a concurrence from TPWD that the proposed project will not adversely impact fish and wildlife resources. Please contact me at Richard.Hanson@tpwd.texas.gov or (806) 761-4930 ext. 4936 if you have any questions.

Sincerely,

Rick Hanson

Rick Hanson
Ecological and Environmental Planning Program
Wildlife Division
RH: 51658

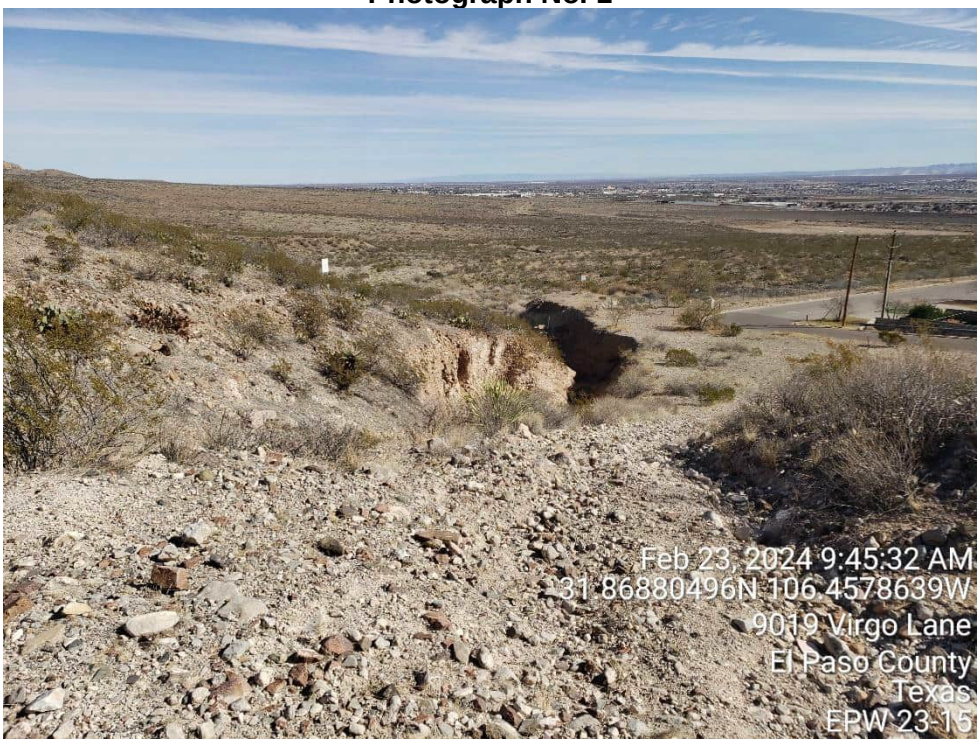
APPENDIX B

PHOTOGRAPHIC DOCUMENTATION

ENGINEERING & SCIENCE SERVICES COMPANY
1000 NEWMAN ST., EL PASO, TEXAS 79902
PH: (915) 533-1102; FX: (915) 533-1103

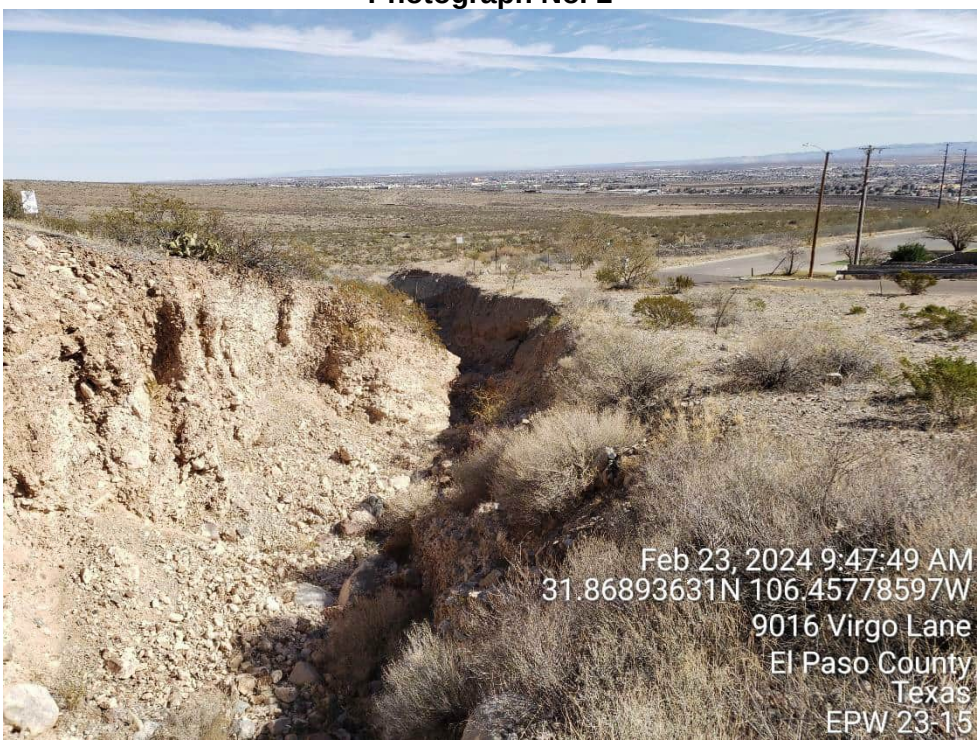
PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 1



View facing northeast towards near lower portion the Project Site.

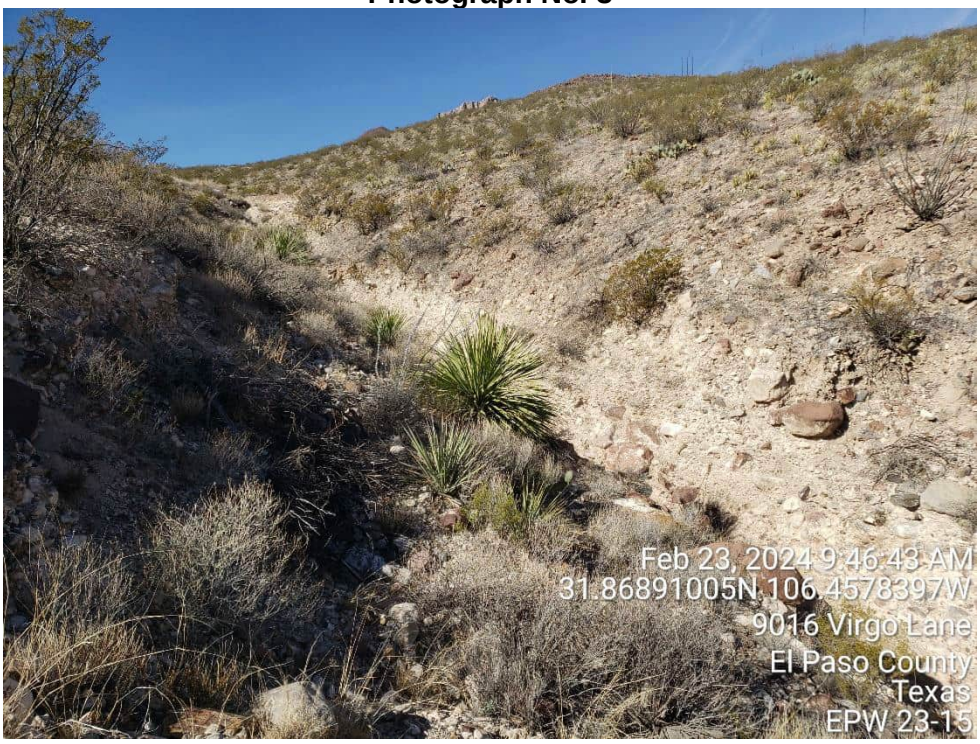
Photograph No. 2



View facing northeast near middle portion of the Project Site.

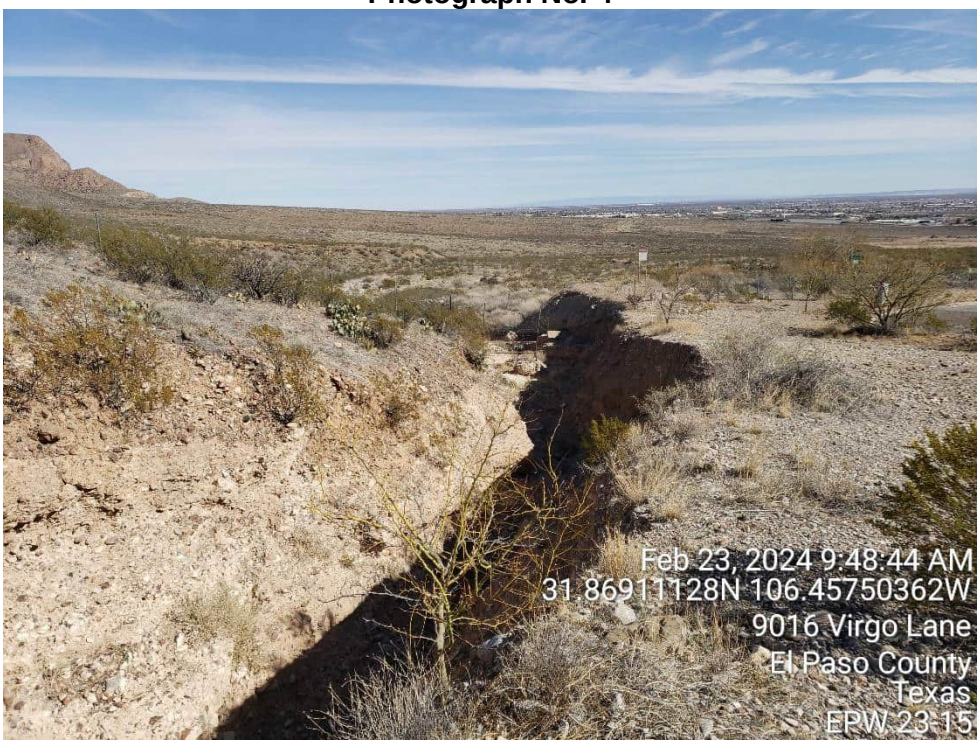
PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 3



View facing southwest depicting typical vegetation within the Project Site (Yucca Plant visible).

Photograph No. 4



View northeast near upper portion of Project Site (Ephedra Visible).

PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 5

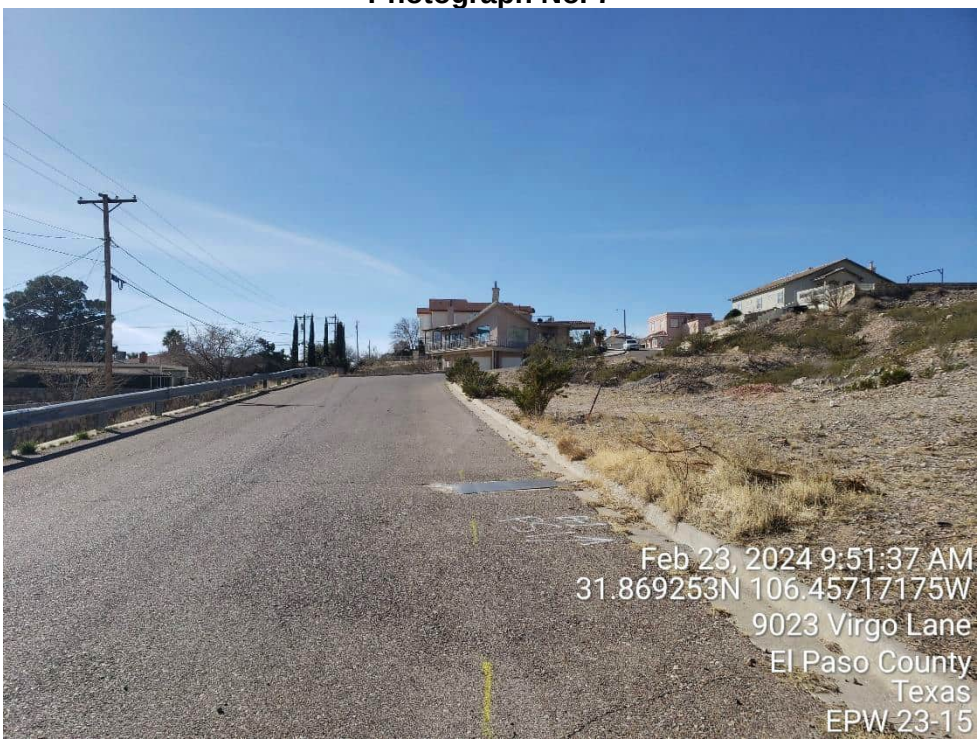
View showing buried natural gas line near Project Site along Virgo Lane.

Photograph No. 6

View showing vacant area with non-native vegetation to the east of the Project Site.

PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 7



View facing south along Virgo Lane.

Photograph No. 8

View facing southwest along Virgo Lane towards Project Site (beyond soil piles and residential dwellings).

PHOTOGRAPHIC REPORTING DATA SHEET

Photograph No. 9

View depicting channel vegetation during Sneed's Pincushion Cactus survey.

Photograph No. 10

View depicting vegetation adjacent to channel during Sneed's Pincushion Cactus survey.

APPENDIX C

EL PASO COUNTY THREATENED AND ENDANGERED SPECIES LIST

ENGINEERING & SCIENCE SERVICES COMPANY
1000 NEWMAN ST., EL PASO, TEXAS 79902
PH: (915) 533-1102; FX: (915) 533-1103

Last Update: 7/17/2019

EL PASO COUNTY

AMPHIBIANS

Woodhouse's toad *Anaxyrus woodhousii*

Extremely catholic up to 5000 feet, does very well (except for traffic) in association with man.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: SU

BIRDS

American peregrine falcon *Falco peregrinus anatum*

Year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4T4	State Rank: S2B

Franklin's gull *Leucophaeus pipixcan*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S2N

gray hawk *Buteo plagiatus*

Locally and irregularly along U.S.-Mexico border; mature riparian woodlands and nearby semiarid mesquite and scrub grasslands; breeding range formerly extended north to southernmost Rio Grande floodplain of Texas

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: GNR	State Rank: S2B

Mexican spotted owl *Strix occidentalis lucida*

Remote, shaded canyons of coniferous mountain woodlands (pine and fir); nocturnal predator of mostly small rodents and insects; day roosts in densely vegetated trees, rocky areas, or caves

Federal Status: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3G4T3T4	State Rank: S1B

southwestern willow flycatcher *Empidonax traillii extimus*

Thickets of willow, cottonwood, mesquite, and other species along desert streams

Federal Status: LE	State Status: E	SGCN: N
Endemic: N	Global Rank: G5T2	State Rank: S1B

EL PASO COUNTY

BIRDS

western burrowing owl *Athene cunicularia hypugaea*

Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T4	State Rank: S2

western yellow-billed cuckoo *Coccyzus americanus occidentalis*

Status applies only to western population beyond the Pecos River Drainage; breeds in riparian habitat and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation; deciduous woodlands with cottonwoods and willows; dense understory foliage is important for nest site selection; nests in willow, mesquite, cottonwood, and hackberry; forages in similar riparian woodlands; breeding season mid-May-late Sept.

Federal Status: LT	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T2T3	State Rank: S4S5B

white-faced ibis *Plegadis chihi*

Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4B

FISH

Chihuahua catfish *Ictalurus sp. 1*

Native to the Rio Grande and Davis Mountains in west Texas; it inhabits the middle to upper parts of moderate to large rivers and also occurs in small, headwater creeks and springs over gravel, rubble, rocks, boulders and mud substrates.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G1G2	State Rank: S1

longnose dace *Rhinichthys cataractae*

Can only be found in the Big Bend portion of the Rio Grande. Occasionally taken in lakes and clear pools of rivers but prefers clear, flowing water in gravelly riffles.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2

speckled chub *Macrhybopsis aestivalis*

Found throughout the Rio Grande and lower Pecos River but occurs most frequently between the Río Conchos confluence and the Pecos River. Flowing water over coarse sand and fine gravel substrates in streams; typically found in raceways and runs.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3S4

EL PASO COUNTY

INSECTS

American bumblebee *Bombus pensylvanicus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G3G4	State Rank: SNR

No accepted common name *Isoperla jewetti*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G1	State Rank: S1

No accepted common name *Cibolacris samalayucae*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G2?	State Rank: S2?

MAMMALS

American badger *Taxidea taxus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

big brown bat *Eptesicus fuscus*

Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

big free-tailed bat *Nyctinomops macrotis*

Habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G5	State Rank: S3

black-tailed prairie dog *Cynomys ludovicianus*

Dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle; live in large family groups

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S3

EL PASO COUNTY

MAMMALS

cave myotis bat *Myotis velifer*

Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S4

desert pocket gopher *Geomys arenarius*

Cottonwood-willow association along the Rio Grande in El Paso and Hudspeth counties; does not tolerate clayey or gravelly soils characteristic of the other Geomys species; common along irrigation ditches in the sandy river bottom area.Lives underground, but build large and conspicuous mounds; life history not well documented, but presumed to eat mostly vegetation, be active year round, and bear more than one litter per year.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S2

eastern red bat *Lasiurus borealis*

Found in a variety of habitats in Texas. Usually associated with wooded areas. Found in towns especially during migration.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S4

hoary bat *Lasiurus cinereus*

Known from montane and riparian woodland in Trans-Pecos, forests and woods in east and central Texas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S4

kit fox *Vulpes macrotis*

Open desert grassland; avoids rugged, rocky terrain and wooded areas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S1S2

long-legged myotis bat *Myotis volans*

Found in pine-oak woodland to grassland ecotone, higher elevations of Trans-Pecos.High, open woods and mountainous terrain; nursery colonies (which may contain several hundred individuals) form in summer in buildings, crevices, and hollow trees; apparently does not use caves as day roosts, but may use such sites at night; single offspring born June-July.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S4

long-tailed weasel *Mustela frenata*

Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

EL PASO COUNTY

MAMMALS

Mexican free-tailed bat *Tadarida brasiliensis*

Roosts in buildings in east Texas. Largest maternity roosts are in limestone caves on the Edwards Plateau. Found in all habitats, forest to desert.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

Mexican long-tongued bat *Choeronycteris mexicana*

Only Texas record is from riparian forest; in general--neotropical nectivorous species roosting in caves, mines, and large crevices found in deep canyons along the Rio Grande ; also found in buildings and often associated with big-eared bats (Plecotus spp.); single TX record from Santa Ana NWR

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S1

mountain lion *Puma concolor*

Rugged mountains & riparian zones.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2S3

Pecos River muskrat *Ondatra zibethicus ripensis*

Creeks, rivers, lakes, drainage ditches, and canals; prefer shallow, fresh water with clumps of marshy vegetation, such as cattails, bulrushes, and sedges; live in dome-shaped lodges constructed of vegetation; diet is mainly vegetation; breed year round

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T3T4	State Rank: S2S3

pronghorn *Antilocapra americana*

Prefers hilly & plateau areas of open grassland, desert-grassland, & desert-scrub, where it frequents south-facing slopes & other sheltered areas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

rock mouse *Peromyscus nasutus*

Rocky areas and talus slopes above 6000 feet. General vegetation associations include madrone, oak, maple, juniper, pinyon and ponderosa pine.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4

Townsend's big-eared bat *Corynorhinus townsendii*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S3?

western hog-nosed skunk *Conepatus leuconotus*

EL PASO COUNTY

MAMMALS

Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. telmalestes

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

western small-footed myotis bat *Myotis ciliolabrum*

Mountainous regions of the Trans-Pecos, usually in wooded areas, also found in grassland and desert scrub habitats; roosts beneath slabs of rock, behind loose tree bark, and in buildings; maternity colonies often small and located in abandoned houses, barns, and other similar structures; apparently occurs in Texas only during spring and summer months; insectivorous

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

western spotted skunk *Spilogale gracilis*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

western yellow bat *Lasiurus xanthinus*

Forages over water both perennial and intermittent sources, found at low elevations (< 6,000 feet), roosts in vegetation (yucca, hackberry, sycamore, cypress, and especially palm); also hibernates in palm; locally common in residential areas landscaped with palms in Tuscon and Phoenix, Arizona; young born in June; insectivore

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S1

MOLLUSKS

Franklin Mountain talus snail *Sonorella metcalfi*

Terrestrial; bare rock, talus, scree; inhabits igneous talus most commonly of rhyolitic origin

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S1

Franklin Mountain wood snail *Ashmunella pasonis*

Terrestrial; bare rock, talus, scree; talus slopes, usually of limestone, but also of rhyolite, sandstone, and siltstone, in arid mountain ranges

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G2G3	State Rank: S1?

Huecos Mountains talus snail *Sonorella huecoensis*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1?

EL PASO COUNTY

REPTILES

Big Bend slider *Trachemys gaigeae*

Almost exclusively aquatic, sliders (Trachemys spp.) prefer quiet bodies of fresh water with muddy bottoms and abundant aquatic vegetation, which is their main food source; will bask on logs, rocks or banks of water bodies; breeding March-July

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

Chihuahuan Desert lyre snake *Trimorphodon vilkinsonii*

Rocky areas with plenty of crevices and fissures. Desert flats, succulent and scrub, and mountain canyons to about 6000 feet. Mostly crevice-dwelling in predominantly limestone-surfaced desert northwest of the Rio Grande from Big Bend to the Franklin Mountains, especially in areas with jumbled boulders and rock faults/fissures; secretive; egg-bearing; eats mostly lizards.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

common garter snake *Thamnophis sirtalis*

Irrigation canals and riparian-corridor farmlands in west; marshy, flooded pastureland, grassy or brushy borders of permanent bodies of water; coastal salt marshes.

Federal Status:	State Status:	SGCN: N
Endemic:	Global Rank: G5	State Rank: S2

gray-checkered whiptail *Aspidoscelis dixoni*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S2

massasauga *Sistrurus tergeminus*

Quite common in gently rolling prairie occasionally broken by creek valley or rocky hillside.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3S4

mountain short-horned lizard *Phrynosoma hernandesi*

Diurnal, usually in open, shrubby, or openly wooded areas with sparse vegetation at ground level; soil may vary from rocky to sandy; burrows into soil or occupies rodent burrow when inactive; eats ants, spiders, snails, sowbugs, and other invertebrates; inactive during cold weather; breeds March-September

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2

EL PASO COUNTY

REPTILES

Texas horned lizard *Phrynosoma cornutum*

Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area. Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S3

western box turtle *Terrapene ornata*

Ornate or western box trutles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al. 2002) or enter burrows made by other species; winter burrow depth was 0.5-1.8 meters in Wisconsin (Doroff and Keith 1990), 7-120 cm (average depth 54 cm) in Nebraska (Converse et al. 2002). Eggs are laid in nests dug in soft well-drained soil in open area (Legler 1960, Converse et al. 2002). Very partial to sandy soil.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

western hognose snake *Heterodon nasicus*

Habitat consists of areas with sandy or gravelly soils, including prairies, sandhills, wide valleys, river floodplains, bajadas, semiagricultural areas (but not intensively cultivated land), and margins of irrigation ditches (Degenhardt et al. 1996, Hammerson 1999, Werler and Dixon 2000, Stebbins 2003). Also thornscrub woodlands and chaparral thickets. Seems to prefer sandy and loamy soils, not necessarily flat. Periods of inactivity are spent burrowed in the soil or in existing burrows. Eggs are laid in nests a few inches below the ground surface (Platt 1969).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4

western rattlesnake *Crotalus viridis*

Grassland, both desert and prairie; shrub desert rocky hillsides; edges of arid and semi-arid river breaks.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

PLANTS

Alamo beardtongue *Penstemon alamosensis*

Rocky soils derived from limestone (in Texas), usually in sheltered sites, often on north facing slopes and in mesic canyon bottoms, occasionally in rock crevices or among unbrowsed shrubs; flowering late April-June

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S1

Bigelow's desert grass *Blepharidachne bigelovii*

Restricted to xeric limestone or various gypsum-influenced habitats; Perennial; Flowering March-Dec; Fruiting March-Dec

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S3

EL PASO COUNTY

PLANTS

Comal snakewood *Colubrina stricta*

In El Paso County, found in a patch of thorny shrubs in colluvial deposits and sandy soils at the base of an igneous rock outcrop; the historic Comal County record does not describe the habitat; in Mexico ,found in shrublands on calcareous, gravelly, clay soils with woody associates; flowering late spring or early summer

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S1

dense cory cactus *Escobaria dasyacantha var. dasyacantha*

Lechuguilla-sotol or creosote bush shrublands, grasslands, and oak-juniper woodlands on gravelly, rocky, and/or loamy soils over igneous or limestone substrates at moderate elevations 750-1800 m (2450-5900 ft) in the Chihuahuan Desert; flowering March-May (-July), fruiting (May-) June-August

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3T3	State Rank: S3

desert night-blooming cereus *Peniocereus greggii var. greggii*

Chihuahuan Desert shrublands or shrub invaded grasslands in alluvial or gravelly soils at lower elevations, 1200-1500 m (3900-4900 ft), on slopes, benches, arroyos, flats, and washes; flowering synchronized over a few nights in early May to late June when almost all mature plants bloom, flowers last only one day and open just after dark, may flower as early as April

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4T2	State Rank: S2

fleshy tidestromia *Tidestromia carnosa*

Occurs in saline or gypseous soils in open situations; Annual; Flowering March-Nov; Fruiting April-Nov

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

great sage *Salvia summa*

Limestone cliffs and slopes in the Guadalupe and Franklin Mountains; Perennial; Flowering April-June; Fruiting May-Oct

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3?	State Rank: S2

Hueco rock-daisy *Perityle huecoensis*

North-facing or otherwise mostly shaded limestone cliff faces within relatively mesic canyon system; flowering spring-fall

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1

lyreleaf twistflower *Streptanthus carinatus ssp. carinatus*

Occurs on igneous and limestone slopes and alluvial fans (Carr 2015).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T3T4	State Rank: S3

EL PASO COUNTY

PLANTS

Mt. Davis brickellbush *Brickellia parvula*

Occurs on rocky slopes and ridges in the mountains of the southwestern U.S. at elevations between 1200 and 2100 m; Perennial; Flowering Aug-Sept; Fruiting Sept-Oct

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S1

Payson's hiddenflower *Cryptantha paysonii*

Rocky limestone slopes in mountains; Perennial; Flowering May; Fruiting May-June

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S1

Pima pineapple cactus *Coryphantha scheeri var. robustispina*

Habitat description is not available at this time.

Federal Status: LE	State Status:	SGCN: N
Endemic: N	Global Rank: G4T2Q	State Rank: SNA

Plank's catchfly *Silene plankii*

Franklin Mountains of El Paso County, occurring in crevices on shaded igneous cliff faces above ca. 5000 ft.; Perennial; Flowering summer-early autumn

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S1

resin-leaf brickellbush *Brickellia baccharidea*

Mixed desert shrublands on bajada slopes and in arroyos on sandy or gravelly soils derived from limestone, but also known from igneous substrates; flowering September-April

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S1

sand prickly-pear *Opuntia arenaria*

Deep, loose or semi-stabilized sands in sparsely vegetated dune or sandhill areas, or sandy floodplains in arroyos; flowering May-June

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S2

Scheer's cory cactus *Coryphantha scheeri var. uncinata*

Rocky hillsides (Carr 2015).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4TUQ	State Rank: S2

EL PASO COUNTY

PLANTS

smooth bur-cucumber *Sicyos glaber*

Mesic canyons in the Chisos and Guadalupe Mountains (Carr 2015).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S1

Sneed's pincushion cactus *Escobaria sneedii var. sneedii*

Xeric limestone outcrops on rocky, usually steep slopes in desert mountains, in the Chihuahuan Desert succulent shrublands or grasslands; flowering April-September (peak usually in April, sometimes opportunistically after summer rains; fruiting August - November

Federal Status: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G2G3QT2Q	State Rank: S2

Stebbin's desert dandelion *Malacothrix stebbinsii*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3?	State Rank: S1

Texas false saltgrass *Allolepis texana*

Sandy to silty soils of valley bottoms and river floodplains, not generally on alkaline or saline sites; Perennial; Flowering (May-) July-October depending on rainfall

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S1

Vasey's bitterweed *Hymenoxys vaseyi*

Occurs on xeric limestone cliffs and slopes at mid- to high elevations in desert shrublands.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S1

Waterfall's milkvetch *Astragalus waterfallii*

Rocky limestone slopes; Perennial; Flowering Feb-May; Fruiting April- May

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3?	State Rank: S3

Wheeler's spurge *Euphorbia geyeri var. wheeleriana*

Sparingly vegetated, loose eolian quartz sand on reddish sand dunes or coppice mounds; flowering and fruiting at least August-September, probably earlier and later, as well

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T2	State Rank: S1

EL PASO COUNTY

PLANTS

Wright's fishhook cactus *Mammillaria wrightii var. wrightii*

Franklin Mountains (Carr 2015)

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T3	State Rank: S1

B-6 – Banks Environmental Database

Prepared for:
ESSCO ENVIRONMENTAL, INC.
1000 Newman St.
El Paso, TX 79902

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

Regulatory Database Report

ASTM E1527-21/AAI Compliant

EPW-23-15

TX

ES-143520

Thursday, February 08, 2024

Table of Contents

Geographic Summary

Location
TX
Target location is 3.17 acres, 0.005 square miles, and has a 0.32 mile perimeter

Coordinates (centroid)	
Lat/Long in Degrees Minutes Seconds	31° 52' 7.46", -106° 27' 28.67"
Lat/Long in Decimal Degrees	31.868738405029802, -106.4579633507615
X/Y in NAD83 / UTM Zone 13N	362085.568240369, 3526813.01174507

Elevation (centroid)
4278.28 ft

Zip Codes Searched	
Search Distance (mi)	**Zip Codes**
Subject Property	79904, 79934
0.25 miles	79904, 79934
0.5 miles	79904, 79934
1.0 miles	79904, 79924, 79934

Topos Searched	
Search Distance	**Topo Name**
Subject Property	El Paso (1973)
0.25 miles	El Paso (1973)
0.5 miles	El Paso (1973), North Franklin Mountain (1973)
1.0 miles	El Paso (1973), North Franklin Mountain (1973)

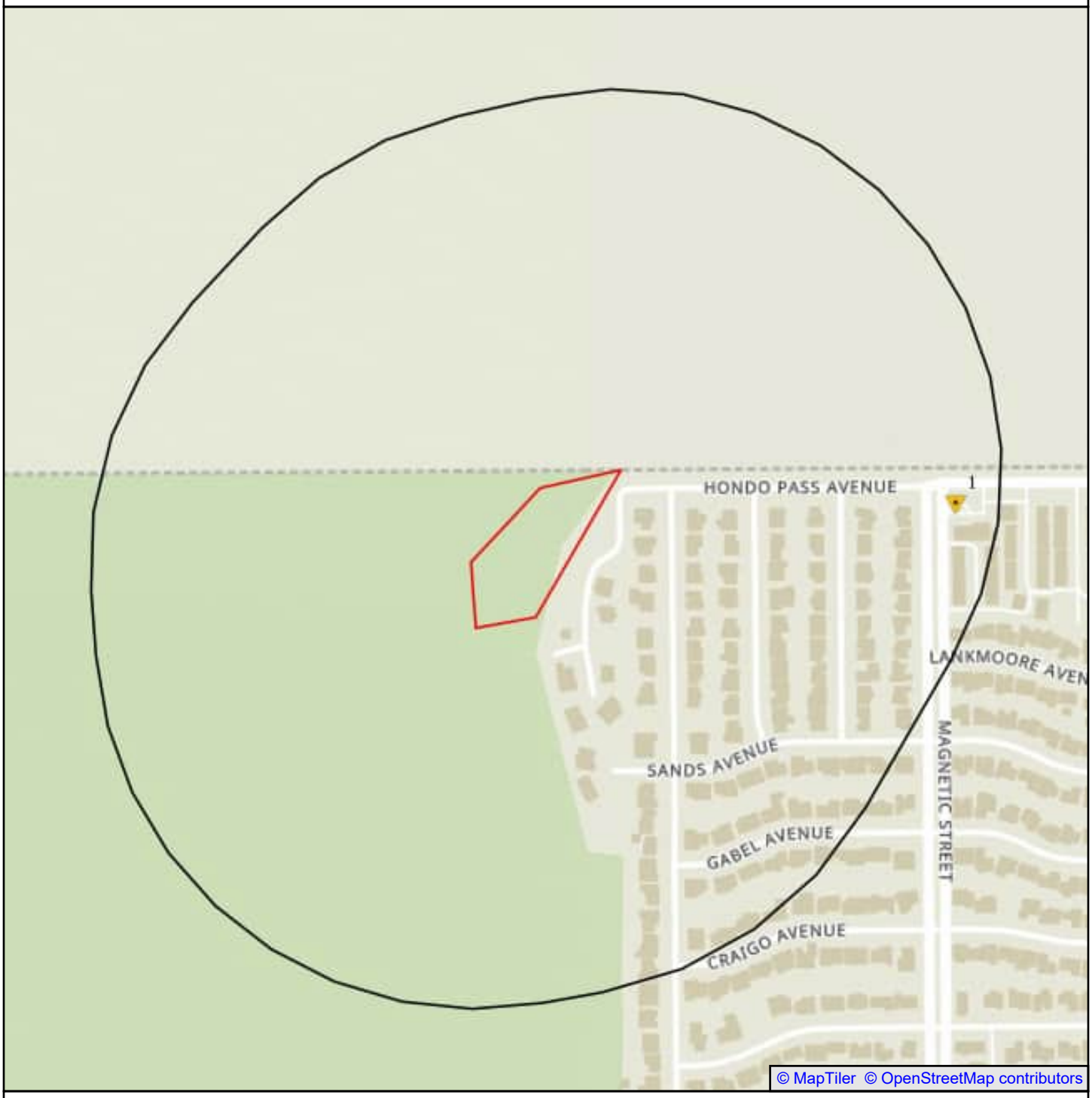
Dataset Summary

Datasets Searched	Distance	Mapped	Unmapped	Total
Federal - ASTM 1527-21/AAI Required				
CERCLIS - National Priority List (CER NPL)	1.0	0	0	0
CERCLIS - Delisted National Priority List (CER DNPL)	0.5	0	0	0
CERCLIS (CER)	0.5	0	0	0
CERCLIS - No Further Remedial Action Planned (CER NFRAP)	0.5	0	0	0
RCRA - Corrective Actions (RCRA COR)	1.0	0	0	0
RCRA - Treatment, Storage, Disposal (RCRA TSD)	0.5	0	0	0
RCRA - Very Small Quantity Generators (RCRA VSG)	0.25	0	0	0
RCRA - Small Quantity Generators (RCRA SQG)	0.25	0	0	0
RCRA - Large Quantity Generators (RCRA LQG)	0.25	0	0	0
Federal Brownfield (FED BF)	0.5	0	0	0
Federal Institutional Control (FED IC)	0.5	0	0	0
Federal Engineering Control (FED EC)	0.5	0	0	0
Emergency Response Notification System (ERNS)	0.25	0	0	0
RCRA (RCRA)	0.25	0	0	0
Tribal - ASTM 1527-21/AAI Required				
Tribal Region 6 - Leaking Petroleum Storage Tank (LPST)	0.5	0	0	0
Tribal Region 6 - Petroleum Storage Tank (PST)	0.25	0	0	0
State - ASTM 1527-21/AAI Required				
State National Priority List (ST PL)	1.0	0	0	0
State CERCLIS (ST CER)	0.5	0	0	0
Solid Waste (SW)	0.5	0	0	0

Dataset Summary

Leaking Petroleum Storage Tank (LPST)		0.5	2	2	4
Petroleum Storage Tank (PST)		0.25	1	1	2
State Institutional Control (IC)		0.25	0	0	0
State Engineering Control (EC)		0.5	0	0	0
Voluntary Cleanup Program (VCP)		0.5	0	2	2
State Brownfield (BF)		0.5	0	0	0
Hazardous Waste (HW)		0.5	0	4	4
Dry Cleaner (DRYC)		0.25	0	0	0
Municipal Setting Designation (MSD)		0.25	0	0	0
Local - Non-ASTM 1527-21/AAI Required					
Leaking Petroleum Storage Tank (LPST)		0.5	0	0	0
Petroleum Storage Tank (PST)		0.25	0	0	0
Total Sites Found			**3**	**9**	**12**

Summary Map - 0.25 Mile Radius



EPW-23-15

PST	LPST	
Single site (below)	Single site (below)	Single site (below)
Single site (same)	Single site (same)	Single site (same)
Single site (above)	Single site (above)	Single site (above)
Cluster site (below)	Cluster site (below)	Cluster site (below)
Cluster site (same)	Cluster site (same)	Cluster site (same)
Cluster site (above)	Cluster site (above)	Cluster site (above)
Polygon site	Polygon site	Polygon site

Subject Site

Search Buffer

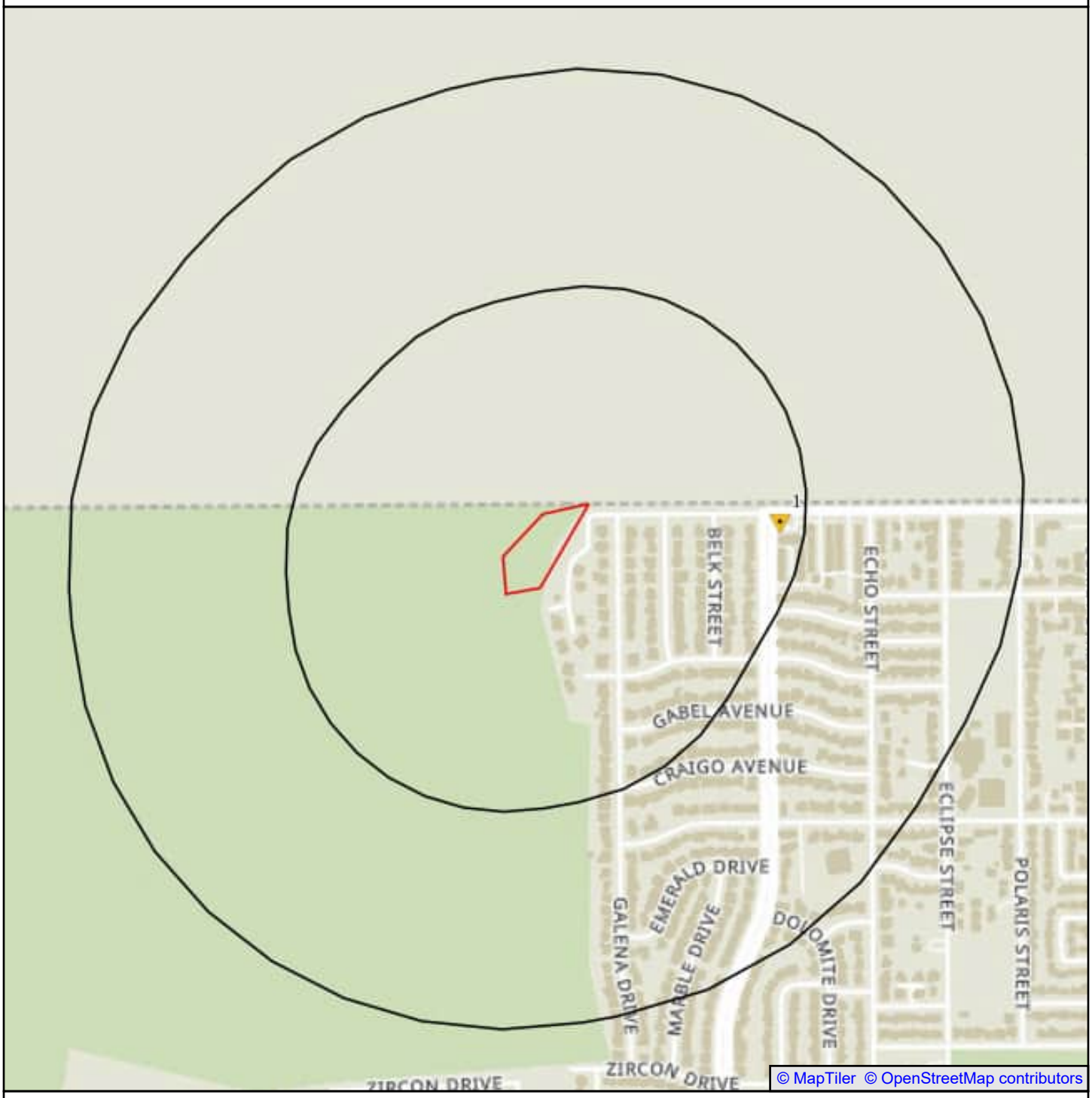
0' 333' 667'

1:6000
1 in = 500 ft
1 in = 0.095 mi
1 cm = 60 m
1 cm = 0.060 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Summary Map - 0.5 Mile Radius



EPW-23-15

PST	LPST	
Single site (below)	Single site (below)	Single site (below)
Single site (same)	Single site (same)	Single site (same)
Single site (above)	Single site (above)	Single site (above)
Cluster site (below)	Cluster site (below)	Cluster site (below)
Cluster site (same)	Cluster site (same)	Cluster site (same)
Cluster site (above)	Cluster site (above)	Cluster site (above)
Polygon site	Polygon site	Polygon site

Subject Site

Search Buffer

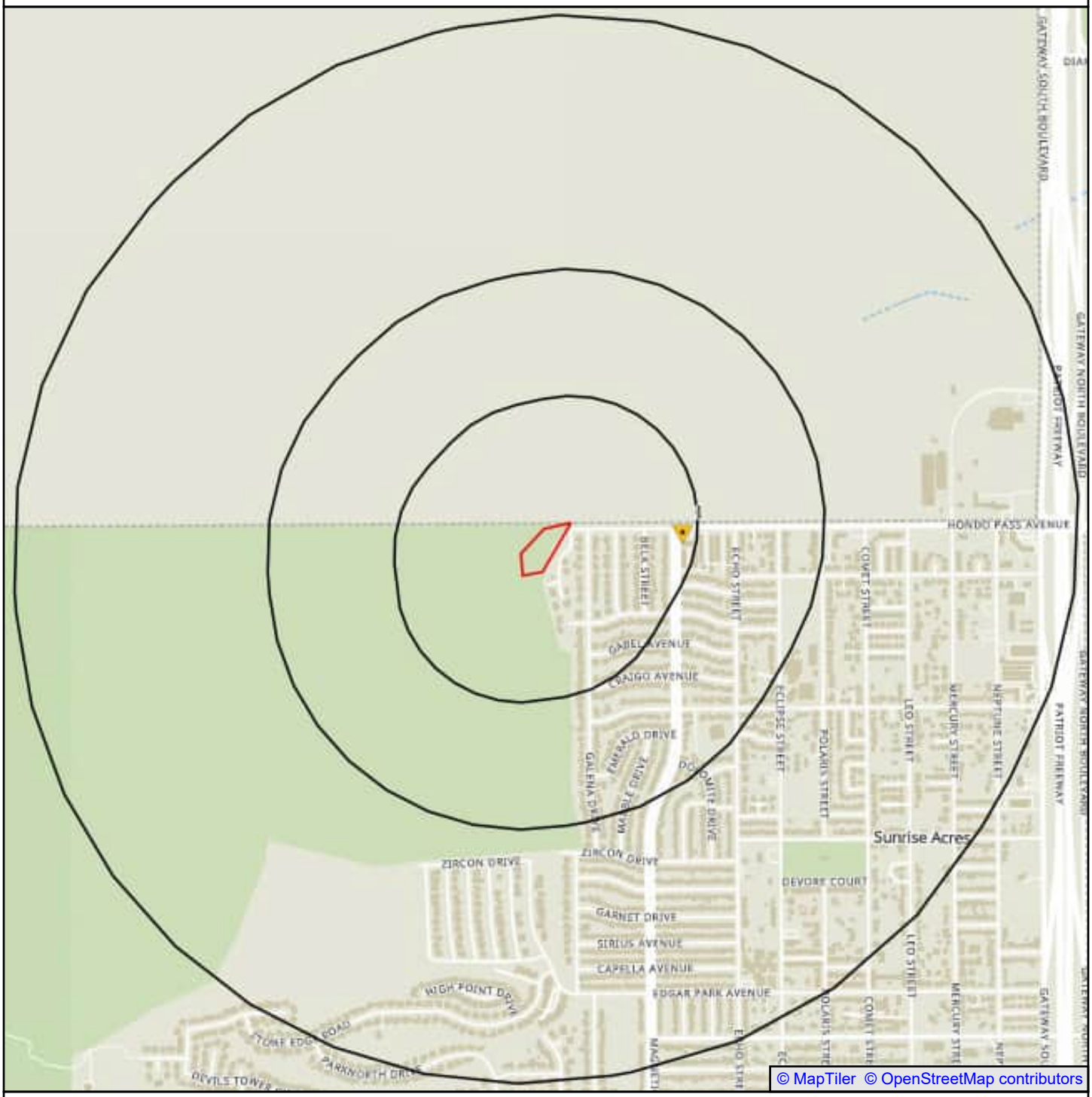
0' 583' 1167'

1:10500
1 in = 875 ft
1 in = 0.166 mi
1 cm = 105 m
1 cm = 0.105 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Summary Map - 1.0 Mile Radius



EPW-23-15

PST	LPST	
Single site (below)	Single site (below)	Single site (below)
Single site (same)	Single site (same)	Single site (same)
Single site (above)	Single site (above)	Single site (above)
Cluster site (below)	Cluster site (below)	Cluster site (below)
Cluster site (same)	Cluster site (same)	Cluster site (same)
Cluster site (above)	Cluster site (above)	Cluster site (above)
Polygon site	Polygon site	Polygon site

Subject Site

Search Buffer

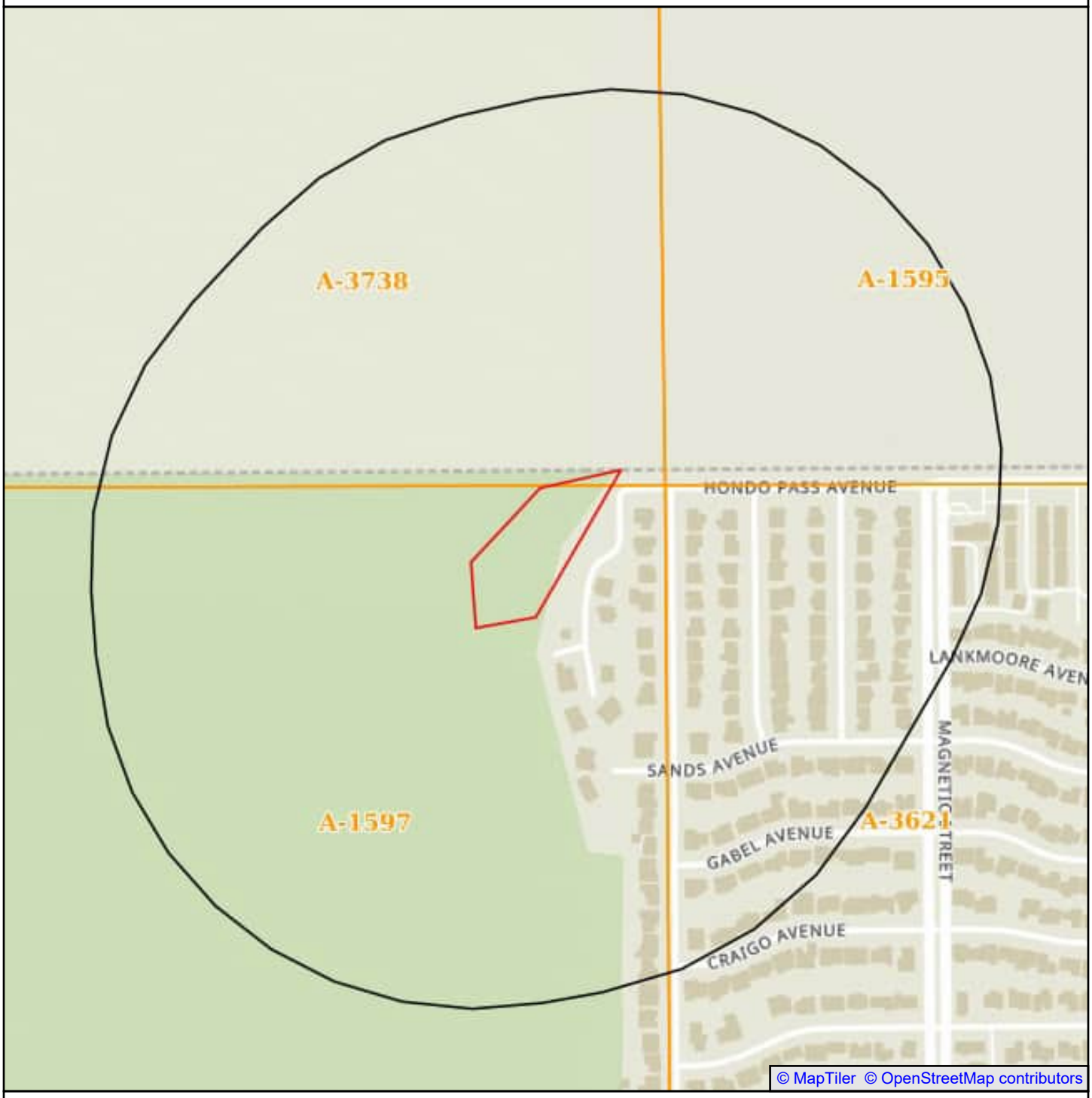
0' 1000' 2000'

1:18000
1 in = 1500 ft
1 in = 0.284 mi
1 cm = 180 m
1 cm = 0.180 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Water/Oil & Gas Wells Map - 0.25 Mile Radius



EPW-23-15

Single Water Well
Water Well Cluster
Single Oil/Gas Well
Oil/Gas Well Cluster

Subject Site
Search Buffer
Land Survey

0' 333' 667'

1:6000
1 in = 500 ft
1 in = 0.095 mi
1 cm = 60 m
1 cm = 0.060 km

N

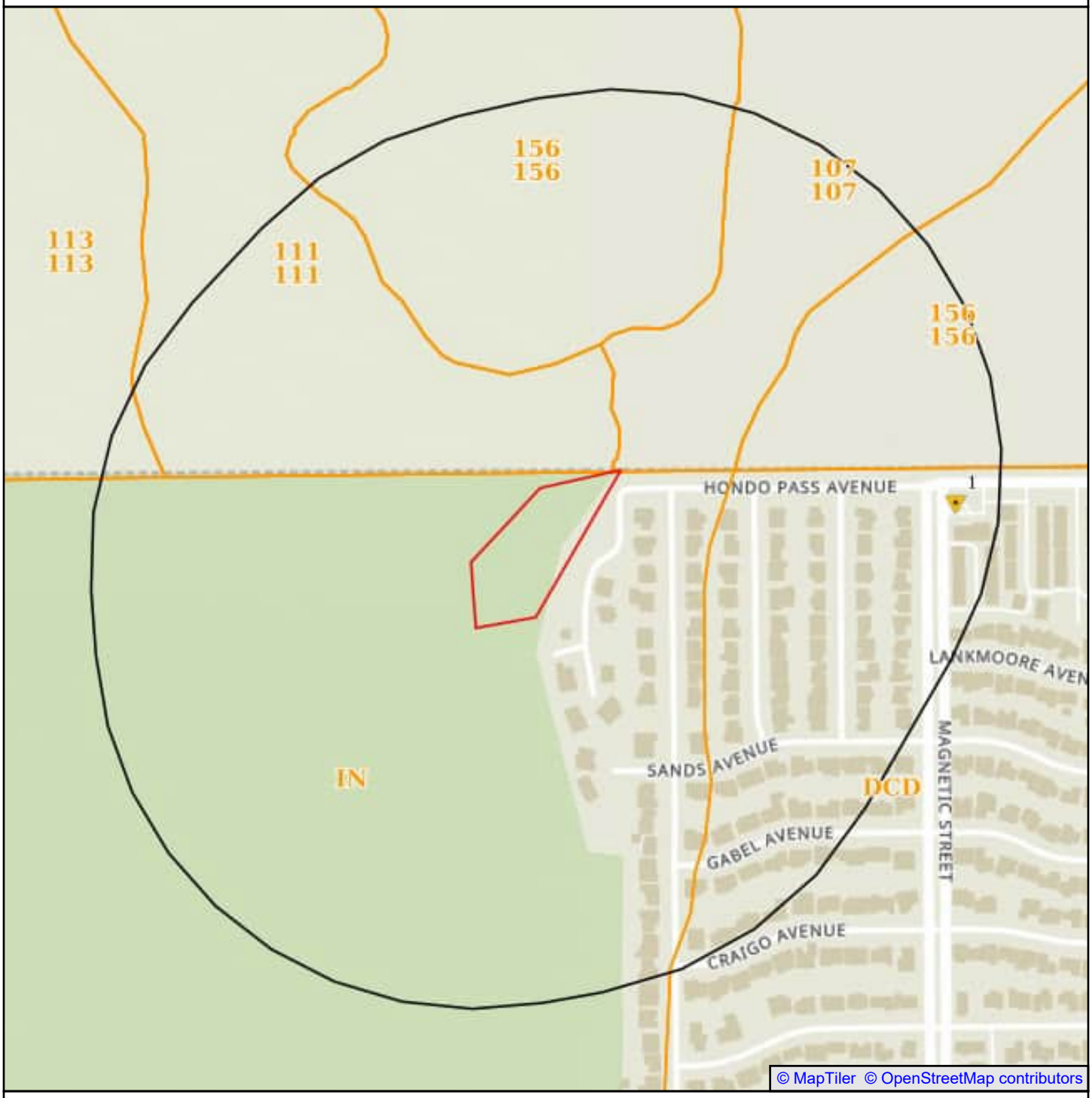
NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

This well scan searched for state and federal wells currently digitized in our geospatial database. No wells were found, but more wells could exist within the search area.

Source
U.S. Geological Survey, Texas Water Development Board (GW and Submitted Driller's Report), Texas Commission of Environmental Quality (PWS), Railroad Commission of Texas (Production Data)

Disclaimer
This well scan from Banks Environmental Data, Inc. has included a digital search of state and federal wells currently digitized in our geospatial database. Since this scan includes only well data that is currently mapped in our geospatial database, more wells could exist within the search area. For a complete well search or to locate more details, please contact Banks to obtain a full Water Well Report or Oil & Gas Well/Pipeline Search Report. More detailed individual well records can also be obtained from Banks for an additional cost, please reference a Well ID # from this well scan. All well locations are based on information obtained from state and federal sources. Although Banks performs quality assurance and quality control on all data, inaccuracies of the records and mapped locations could possibly be traced to the specific regulatory authority or individual well driller. Banks Environmental Data, Inc. cannot fully guarantee the accuracy of the data or well location(s) of the maps and records maintained by the state and federal agencies.

Soil Survey Map - 0.25 Mile Radius



EPW-23-15

PST	LPST	
Single site (below)	Single site (below)	Single site (below)
Single site (same)	Single site (same)	Single site (same)
Single site (above)	Single site (above)	Single site (above)
Cluster site (below)	Cluster site (below)	Cluster site (below)
Cluster site (same)	Cluster site (same)	Cluster site (same)
Cluster site (above)	Cluster site (above)	Cluster site (above)
Polygon site	Polygon site	Polygon site

- Subject Site
- Search Buffer
- Soils Boundary

0' 333' 667'

1:6000
1 in = 500 ft
1 in = 0.095 mi
1 cm = 60 m
1 cm = 0.060 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Soils Details

Soil Types Found	
Subject Property	107, 111, IN
Within 0.25 miles of Subject Property	113, 156, DCD

Soil Type Descriptions

107 - Chipotle extremely gravelly sandy clay loam, 0 to 3 percent slopes

Percent Hydric	0
Minimum Depth to Bedrock	

Chipotle (85%)	
Hydrologic Group	Moderately low runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
2C1	Extremely gravelly sandy loam	10 cm	43 cm	A-2	GW-GC, GC
3C2	Extremely gravelly sand	43 cm	132 cm	A-1	GC-GM, GW
4C3	Very cobbly sandy clay loam	132 cm	163 cm	A-2, A-6	CL, SC
5C4	Extremely gravelly sandy loam	163 cm	203 cm	A-2	GW-GC, GC
A	Extremely gravelly sandy clay loam	0 cm	10 cm	A-2	GW-GC, GC

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Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
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A	Extremely gravelly sandy clay loam	0 cm	10 cm	A-2	GW-GC, GC

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3C2	Extremely gravelly sand	43 cm	132 cm	A-1	GC-GM, GW
4C3	Very cobbly sandy clay loam	132 cm	163 cm	A-2, A-6	CL, SC
5C4	Extremely gravelly sandy loam	163 cm	203 cm	A-2	GW-GC, GC
A	Extremely gravelly sandy clay loam	0 cm	10 cm	A-2	GW-GC, GC

Crotalus (9%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Crotalus (9%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Crotalus (9%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Crotalus (9%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Missile (6%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Missile (6%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Missile (6%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Missile (6%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

111 - Sotol gravelly loam, 15 to 35 percent slopes	
Percent Hydric	0
Minimum Depth to Bedrock	81

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Soils Details

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-2, A-7	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-2, A-7	GC
C	Very gravelly clay	46 cm	81 cm	A-2, A-7	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-7, A-2	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-7, A-2	GC
C	Very gravelly clay	46 cm	81 cm	A-7, A-2	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-7, A-2	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-7, A-2	GC
C	Very gravelly clay	46 cm	81 cm	A-7, A-2	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Soils Details

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-7, A-2	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-7, A-2	GC
C	Very gravelly clay	46 cm	81 cm	A-7, A-2	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-7, A-2	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-7, A-2	GC
C	Very gravelly clay	46 cm	81 cm	A-7, A-2	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-2, A-7	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-2, A-7	GC
C	Very gravelly clay	46 cm	81 cm	A-2, A-7	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-2, A-7	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-2, A-7	GC
C	Very gravelly clay	46 cm	81 cm	A-2, A-7	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Sotol (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A	Gravelly loam	0 cm	8 cm	A-6	GC, CL
Bt1	Very gravelly clay loam	8 cm	20 cm	A-2, A-7	GC
Bt2	Very gravelly clay	20 cm	46 cm	A-2, A-7	GC
C	Very gravelly clay	46 cm	81 cm	A-2, A-7	CH, GC
Cr	Bedrock	81 cm	97 cm		
R	Bedrock	97 cm	203 cm		

Brewster (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Brewster (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Brewster (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Brewster (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Crotalus (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Crotalus (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Crotalus (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Crotalus (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Reduff (3%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Reduff (3%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Reduff (3%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Reduff (3%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chuzzie (2%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chuzzie (2%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chuzzie (2%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chuzzie (2%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

IN - Igneous rockland-Brewster association	
Percent Hydric	0
Minimum Depth to Bedrock	0

Rock outcrop, igneous (60%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
H1	Bedrock	0 cm	203 cm		

Brewster (30%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
H1	Stony clay loam	0 cm	25 cm	A-2, A-4, A-6	GC
H2	Bedrock	25 cm	102 cm		

Unnamed (10%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

113 - Rock outcrop-Brewster complex, 65 to 90 percent slopes	
Percent Hydric	0
Minimum Depth to Bedrock	20

Rock outcrop (50%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Rock outcrop (50%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Rock outcrop (50%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Rock outcrop (50%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Brewster (40%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A1	Extremely gravelly loam	0 cm	10 cm	A-6, A-2	GC
A2	Extremely gravelly loam	10 cm	20 cm	A-6, A-2	GC
R	Bedrock	20 cm	203 cm		

Brewster (40%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A1	Extremely gravelly loam	0 cm	10 cm	A-2, A-6	GC
A2	Extremely gravelly loam	10 cm	20 cm	A-2, A-6	GC
R	Bedrock	20 cm	203 cm		

Brewster (40%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A1	Extremely gravelly loam	0 cm	10 cm	A-2, A-6	GC
A2	Extremely gravelly loam	10 cm	20 cm	A-2, A-6	GC
R	Bedrock	20 cm	203 cm		

Brewster (40%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
A1	Extremely gravelly loam	0 cm	10 cm	A-6, A-2	GC
A2	Extremely gravelly loam	10 cm	20 cm	A-6, A-2	GC
R	Bedrock	20 cm	203 cm		

Soils Details

Rotagilla (8%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Rotagilla (8%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Rotagilla (8%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Rotagilla (8%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Chuzzie (2%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Chuzzie (2%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Chuzzie (2%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Chuzzie (2%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

156 - Missile very gravelly fine sandy loam, 3 to 15 percent slopes	
Percent Hydric	0
Minimum Depth to Bedrock	

Missile (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
2Bk1	Gravelly loam	30 cm	51 cm	A-6	CL, GC
2Bk2	Loam	51 cm	66 cm	A-6	CL
2Bk3	Cobbly loam	66 cm	112 cm	A-6	CL, GC
2Bk4	Gravelly loam	112 cm	203 cm	A-6	CL, GC
A	Very gravelly fine sandy loam	0 cm	5 cm	A-2, A-4	SM, SC, SC-SM
Bk	Extremely gravelly sandy loam	5 cm	20 cm	A-2	GC, GW-GC
Bkm	Cemented material	20 cm	30 cm		

Missile (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
2Bk1	Gravelly loam	30 cm	51 cm	A-6	CL, GC
2Bk2	Loam	51 cm	66 cm	A-6	CL
2Bk3	Cobbly loam	66 cm	112 cm	A-6	CL, GC
2Bk4	Gravelly loam	112 cm	203 cm	A-6	CL, GC
A	Very gravelly fine sandy loam	0 cm	5 cm	A-2, A-4	SM, SC, SC-SM
Bk	Extremely gravelly sandy loam	5 cm	20 cm	A-2	GC, GW-GC
Bkm	Cemented material	20 cm	30 cm		

Missile (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Soils Details

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
2Bk1	Gravelly loam	30 cm	51 cm	A-6	CL, GC
2Bk2	Loam	51 cm	66 cm	A-6	CL
2Bk3	Cobbly loam	66 cm	112 cm	A-6	CL, GC
2Bk4	Gravelly loam	112 cm	203 cm	A-6	CL, GC
A	Very gravelly fine sandy loam	0 cm	5 cm	A-2, A-4	SM, SC, SC-SM
Bk	Extremely gravelly sandy loam	5 cm	20 cm	A-2	GC, GW-GC
Bkm	Cemented material	20 cm	30 cm		

Missile (85%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
2Bk1	Gravelly loam	30 cm	51 cm	A-6	CL, GC
2Bk2	Loam	51 cm	66 cm	A-6	CL
2Bk3	Cobbly loam	66 cm	112 cm	A-6	CL, GC
2Bk4	Gravelly loam	112 cm	203 cm	A-6	CL, GC
A	Very gravelly fine sandy loam	0 cm	5 cm	A-2, A-4	SM, SC, SC-SM
Bk	Extremely gravelly sandy loam	5 cm	20 cm	A-2	GC, GW-GC
Bkm	Cemented material	20 cm	30 cm		

Chipotle (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chipotle (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chipotle (5%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Chipotle (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Piquin (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Piquin (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Piquin (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Piquin (5%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Brewster (4%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Brewster (4%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Soils Details

Brewster (4%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Brewster (4%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Sotol (1%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Sotol (1%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Sotol (1%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

Sotol (1%)
Hydrologic Group
Soil Drainage Class
Corrosion Potential - Uncoated Steel
Depth to Restrictive Feature

DCD - Delnorte-Canutio association hilly	
Percent Hydric	0
Minimum Depth to Bedrock	

Soils Details

Delnorte (60%)	
Hydrologic Group	High runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Moderate
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
H1	Very gravelly loam	0 cm	15 cm	A-1-b, A-2, A-4, A-6	GC, GC-GM, SC, SC-SM
H2	Very gravelly loam	15 cm	25 cm	A-2, A-1-a, A-1-b	GC, GC-GM, GM, GP-GM
H3	Cemented material	25 cm	76 cm		
H4	Extremely gravelly fine sand	76 cm	203 cm	A-1-a, A-1-b, A-2	GC, GC-GM, SC, SC-SM

Canutio (20%)	
Hydrologic Group	Low runoff potential
Soil Drainage Class	Well drained
Corrosion Potential - Uncoated Steel	Low
Depth to Restrictive Feature	

Horizon	Soil Texture	Upper Boundary	Lower Boundary	AASHTO	Unified
H1	Very gravelly sandy loam	0 cm	28 cm	A-1, A-2, A-2-4, A-4	GC, GC-GM, GP-GC, SC
H2	Very cobbly sandy loam	28 cm	114 cm	A-1, A-2, A-4	GC, GC-GM, GP-GC, SC

Unnamed (20%)	
Hydrologic Group	
Soil Drainage Class	
Corrosion Potential - Uncoated Steel	
Depth to Restrictive Feature	

Soils Descriptions

AASHTO Classification Definitions	
A-1, A-1-a, A-1-b	Granular materials (35% or less passing No. 200 sieve), sonte fragments, gravel and sand
A-2, A-2-4, A-2-5, A-2-6, A-2-7	Granular materials (35% or less passing No. 200 sieve), silty or clayey gravel and sand
A-3	Granular materials (35% or less passing No. 200 sieve), fine sand
A-4	Silt-Clay materials (more than 35% passing No. 200 sieve), silty soils
A-5	Silt-Clay materials (more than 35% passing No. 200 sieve), silty soils
A-6	Silt-Clay materials (more than 35% passing No. 200 sieve), clayey soils
A-7, A-7-5, A-7-6	Silt-Clay materials (more than 35% passing No. 200 sieve), clayey soils
A-8	Silt-Clay materials (more than 35% passing No. 200 sieve), clayey soils

Unified Classification Definitions	
CH	Fine-grained soils, silts and clays (liquid limit is 50% or more), Fat Clay
CL, CL-A (proposed), CL-K (proposed), CL-ML, CL-O (proposed), CL-T (proposed)	Fine-grained soils, silts and clays (liquid limit is less than 50%), Lean Clay
GC, GC-GM	Coarse-grained soils, Gravels, gravel with fines, Clayey Gravel
GM	Coarse-grained soils, Gravels, gravel with fines, Silty Gravel
GP, GP-GC, GP-GM	Coarse-grained soils, Gravels, clean gravels, Poorly Graded Gravel
GW, GW-GC, GW-GM	Coarse-grained soils, Gravels, clean gravels, Well-Graded Gravel
MH, MH-A, MH-K, MH-O, MH-T	Fine-grained soils, silts and clays (liquid limit is 50% or more), Elastic Silt
ML, ML-A (proposed), ML-K (proposed), ML-O (proposed), ML-T (proposed)	Fine-grained soils, silts and clays (liquid limit is less than 50%), Silt
OH, OH-T (proposed)	Fine-grained soils, silts and clays (liquid limit is 50% or more), Organic Clay or Organic Silt
OL	Fine-grained soils, silts and clays (liquid limit is less than 50%), Organic Clay or Organic Silt
PT	Highly organic soils, Peat
SC, SC-SM	Coarse-grained soils, Sands, sands with fines, Clayey Sand
SM	Coarse-grained soils, Sands, sands with fines, Silty Sand
SP, SP-SC, SP-SM	Coarse-grained soils, Sands, clean sands, Poorly Graded Sand
SW, SW-SC, SW-SM	Coarse-grained soils, Sands, clean sands, Well-Graded Sand

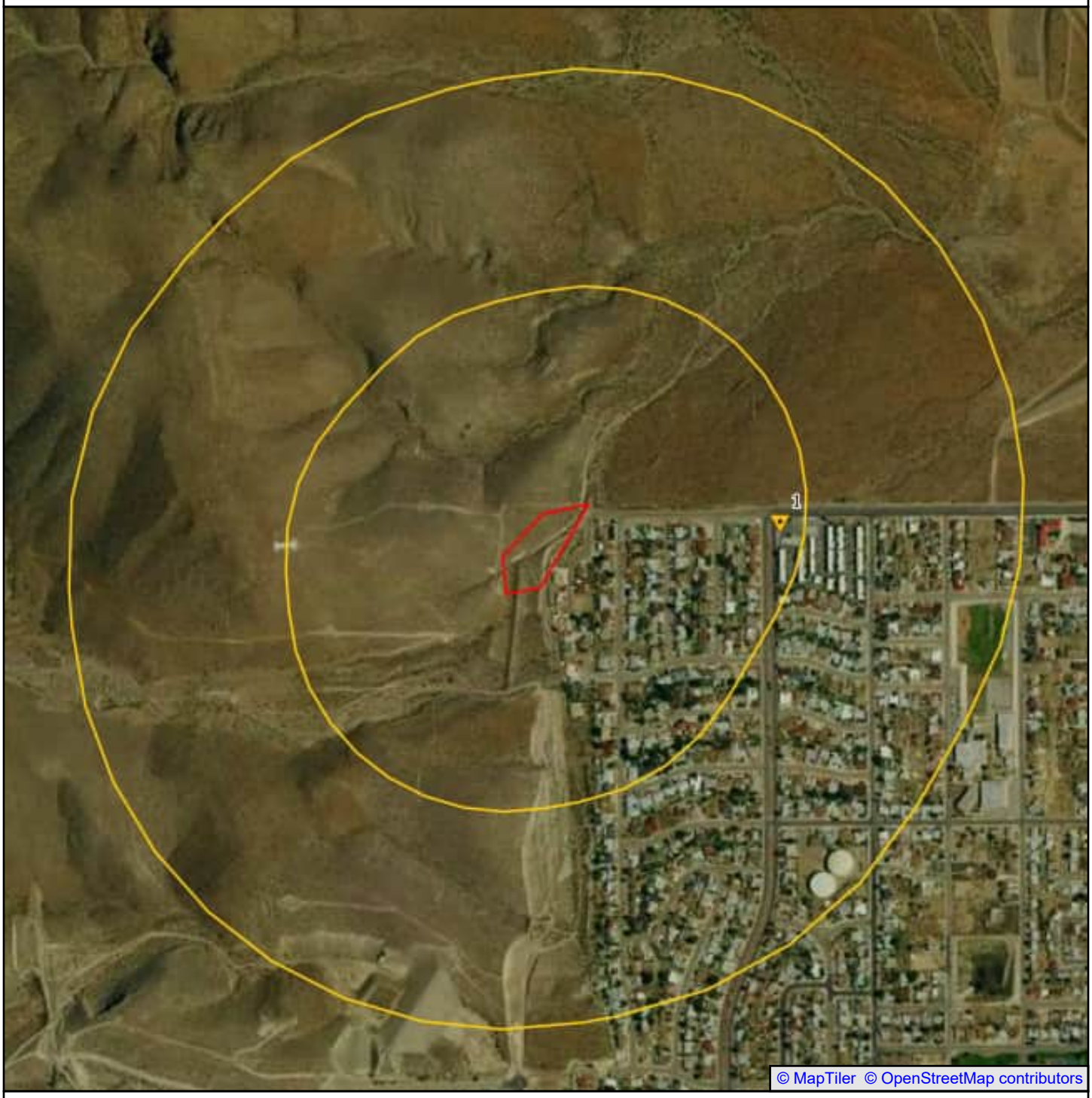
Source
Natural Resources Conservation Service, Soil Survey Geographic (SSURGO) Database.

Disclaimer

This Soils Survey from Banks Environmental Data, Inc. has searched Natural Resources Conservation Service (NRCS) and the Soil Survey Geographic Database (SSURGO). All soil data presented on the map and in the details section are based on information obtained from NRCS. Although Banks performs quality assurance and quality control on all data, inaccuracies of the data and mapped locations could possibly be traced to the source. Banks Environmental Data, Inc. cannot fully guarantee the accuracy of the SSURGO database maintained by NRCS.

Current Imagery Overlay Map - 0.5 Mile Radius

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



EPW-23-15

PST	LPST	
Single site (below)	Single site (below)	Single site (below)
Single site (same)	Single site (same)	Single site (same)
Single site (above)	Single site (above)	Single site (above)
Cluster site (below)	Cluster site (below)	Cluster site (below)
Cluster site (same)	Cluster site (same)	Cluster site (same)
Cluster site (above)	Cluster site (above)	Cluster site (above)
Polygon site	Polygon site	Polygon site

Subject Site

Search Buffer

0' 583' 1167'

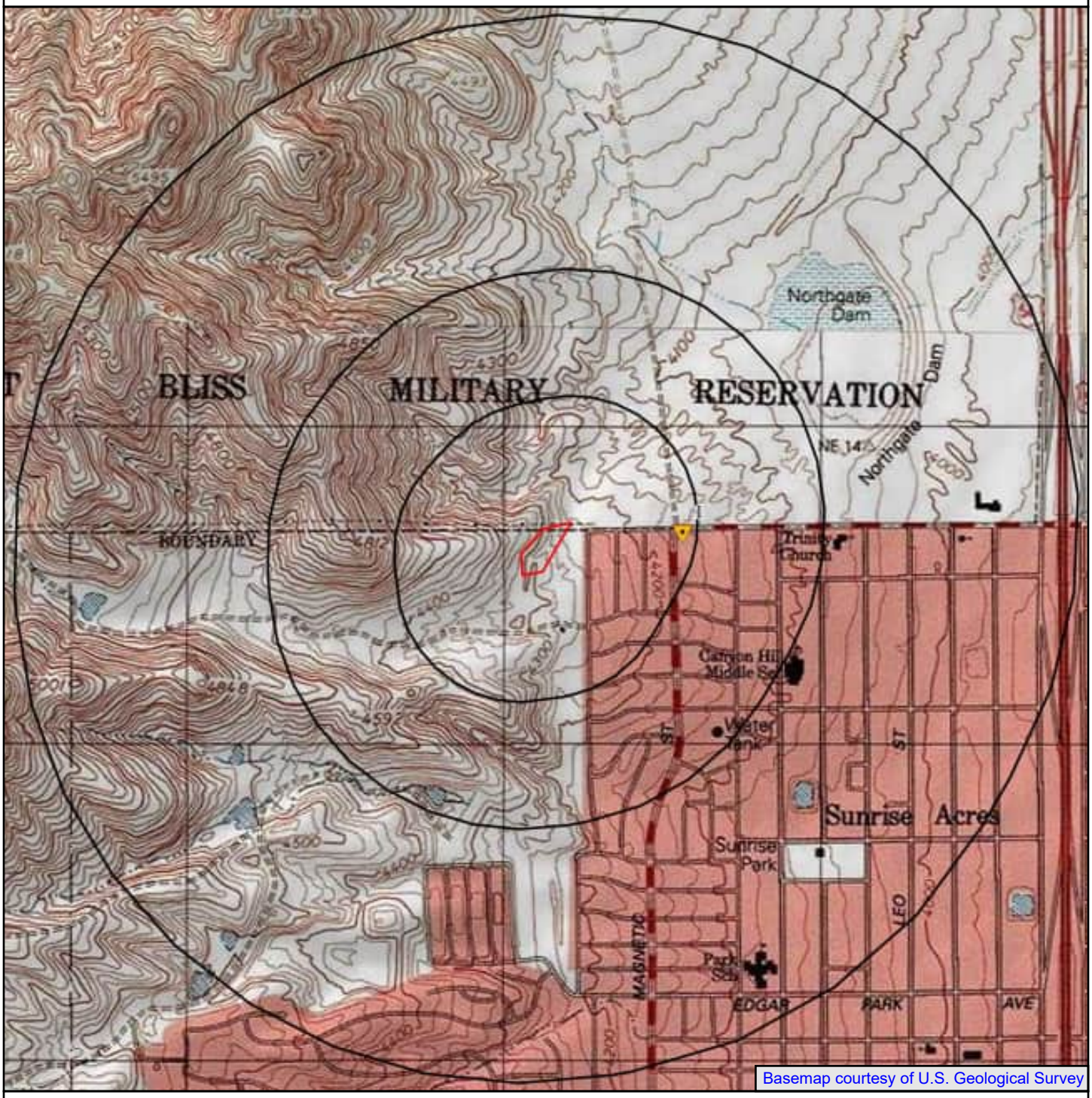
1:10500
1 in = 875 ft
1 in = 0.166 mi
1 cm = 105 m
1 cm = 0.105 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Topographic Overlay Map - 1.0 Mile Radius

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP



Basemap courtesy of U.S. Geological Survey

EPW-23-15

PST	LPST	
Single site (below)	Single site (below)	Single site (below)
Single site (same)	Single site (same)	Single site (same)
Single site (above)	Single site (above)	Single site (above)
Cluster site (below)	Cluster site (below)	Cluster site (below)
Cluster site (same)	Cluster site (same)	Cluster site (same)
Cluster site (above)	Cluster site (above)	Cluster site (above)
Polygon site	Polygon site	Polygon site

Subject Site

Search Buffer

Subject Property Quad Name(s)
El Paso (1973)

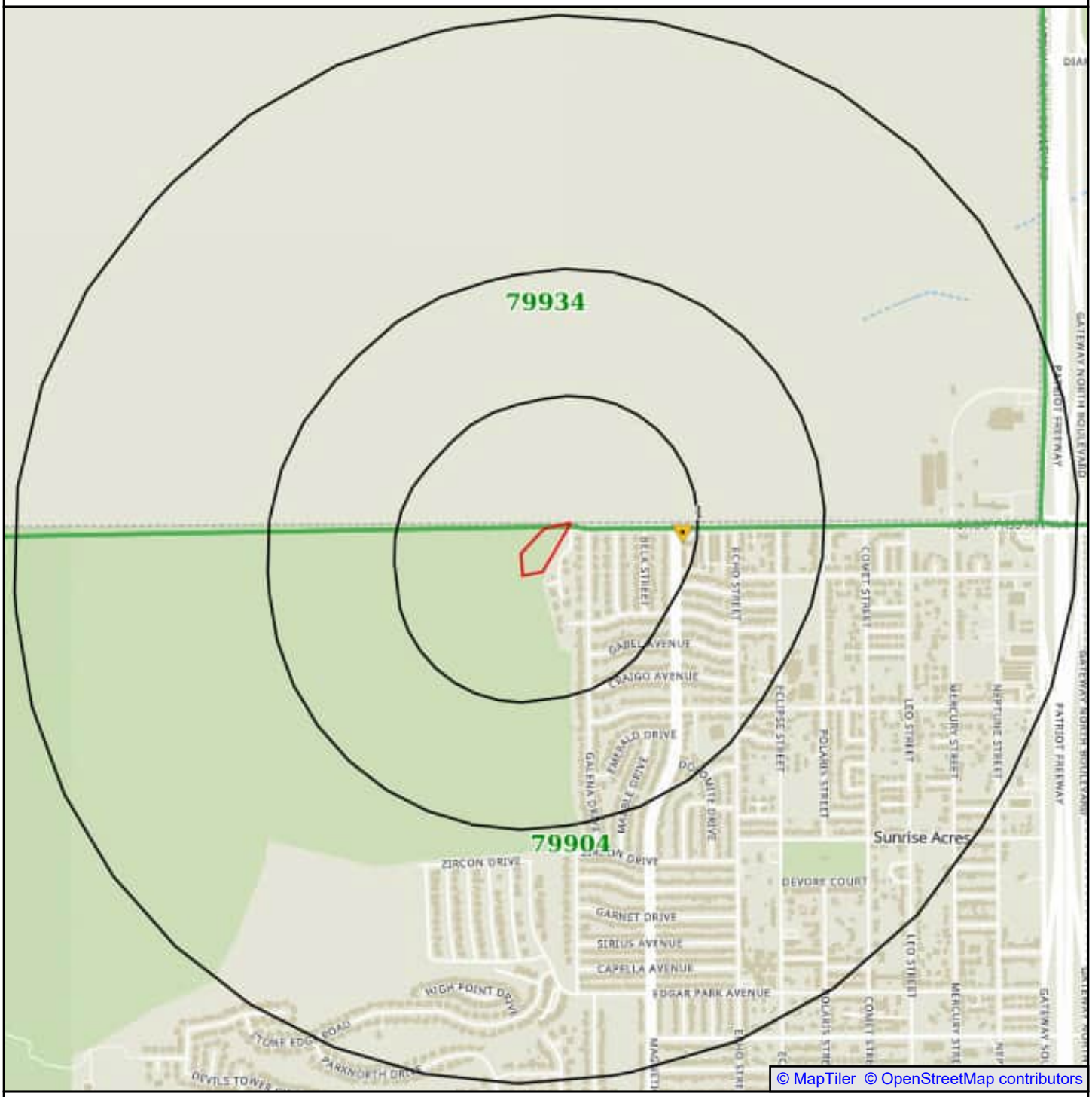
0' 1000' 2000'

1:18000
1 in = 1500 ft
1 in = 0.284 mi
1 cm = 180 m
1 cm = 0.180 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Zip Code Map - 1.0 Mile Radius



EPW-23-15

- Single site (below)
- Single site (same)
- Single site (above)
- Cluster site (below)
- Cluster site (same)
- Cluster site (above)
- Polygon site

PST

- Single site (below)
- Single site (same)
- Single site (above)
- Cluster site (below)
- Cluster site (same)
- Cluster site (above)
- Polygon site

LPST

- Single site (below)
- Single site (same)
- Single site (above)
- Cluster site (below)
- Cluster site (same)
- Cluster site (above)
- Polygon site

- Subject Site
- Search Buffer
- Zip Code Boundary

0' 1000' 2000'

1:18000
1 in = 1500 ft
1 in = 0.284 mi
1 cm = 180 m
1 cm = 0.180 km

N

NAD83 / UTM Zone 13N
North American Datum 1983
Western Meridian: 108 0' 00" West
Eastern Meridian: 102 0' 00" West
Latitude of Origin: 0 0' 00" North

Mapped Sites Summary

Dataset	Distance	Elevation	Map ID	Facility Site Name	Facility Site Address	Details Page #
PST	0.22mi E	-111.61 ft	1	DK 321	3400 HONDO PASS DR, EL PASO 79904	34
LPST	0.22mi E	-111.61 ft	1	GOOD TIME STORE 21	3400 HONDO PASS DR, EL PASO 79904	35
LPST	0.22mi E	-111.61 ft	1	GOOD TIMES STORE 21	3400 HONDO PASS DR, EL PASO 79904	36

*Sites are sorted by database tier, dataset, and distance from the subject property.

End of Mapped Sites Summary

Unmapped Sites Summary

Dataset	Facility Site Name	Facility Site Address	Details Page #
VCP	LANDFILL/OLD AUTO PARTS		37
VCP	MADDOX SUBDIVISION		38
PST	PARKER BROTHERS	SLAG PIT	39
HW	UNITED PETROLEUM TRANSPORTS	COMMON CARRIER	40
HW	DIVERSIFIED CREDIT PROPERTIES EL PASO	EL PASO	41
HW	UNITED PETROLEUM TRANSPORTS EL PASO	EL PASO	42
HW	CASTNER RANGE	CASTNER FUDS LIES WTHIN EL PASO CITY LIMITS	43
LPST	DIESEL 1		44
LPST	GHOST TANK		45

End of Unmapped Sites Summary

Map ID 1: PST - 3400 HONDO PASS DR

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

PST - Petroleum Storage Tank

Map ID: 1		**Source: TCEQ**
Facility #: 2556	**PST - Petroleum Storage Tank**	**Banks ID: 2556**
DK 321		**Rel. Loc.: 0.22mi E**
3400 HONDO PASS DR, EL PASO, 79904		**Elevation: 4166.67 ft (-111.61 ft)**

Facility Type:	RETAIL
Facility Begin Date:	1978-07-01
Facility Status:	ACTIVE
Facility Exempt Status:	N
Ust Financial Assurance Required:	Y
Number Of Usts:	3
Number Of Asts:	
Contact Name:	SCOTT PRALL
Contact Phone:	4324386241

Underground Storage Tanks

Ust Id	Facility Number	Tceq Customer Id	Tank Id	Tank Installation Date	Tank Capacity
6276	2556	41016	1	1978-07-01	8000
6275	2556	41016	2	1978-07-01	8000
6277	2556	41016	3	1978-07-01	8000

Tank Status	Tank Status Begin Date	Piping Type	Substance Stored	Tank Materials
TEMP OUT OF SERVICE	2020-03-17	Pressurized	EMPTY	Steel
TEMP OUT OF SERVICE	2007-08-01	Pressurized	EMPTY	Steel
IN USE	2007-08-01	Pressurized	GASOLINE	Steel

Piping Materials	Tank Corrosion Protection Method
FRP - fiberglass reinforced plastic	Cathodic Protection - Field Installation
FRP - fiberglass reinforced plastic	Cathodic Protection - Field Installation
FRP - fiberglass reinforced plastic	Cathodic Protection - Field Installation

Sites in Map ID 1 Cluster

Dataset	Facility Site Name	Facility Site Address	Page #
PST	DK 321	3400 HONDO PASS DR, EL PASO 79904	34
LPST	GOOD TIME STORE 21	3400 HONDO PASS DR, EL PASO 79904	35
LPST	GOOD TIMES STORE 21	3400 HONDO PASS DR, EL PASO 79904	36

End of PST Section

Map ID 1: LPST - 3400 HONDO PASS DR

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

LPST - Leaking Petroleum Storage Tank

Map ID: 1	**LPST - Leaking Petroleum Storage Tank**	**Source: TCEQ**
LPST ID: 111050		**Banks ID: 111050**
GOOD TIME STORE 21		**Rel. Loc.: 0.22mi E**
3400 HONDO PASS DR, EL PASO, 79904		**Elevation: 4166.67 ft (-111.61 ft)**

Reference Number:	RN102028883
Tceq Region:	REGION 06 - EL PASO
Nearest City Name:	EL PASO
Project Manager:	IMP
Leak Discovered Date:	
Leak Reported Date:	
Leak Entered Date:	1996-05-22
Leak Closure Date:	2002-01-03
Priority Status:	4.2 - NO GW IMPACT NO APPARENT THREATS OR IMPACTS TO RECEPTORS
Corrective Action Status:	6A - FINAL CONCURRENCE ISSUED

Sites in Map ID 1 Cluster

Dataset	Facility Site Name	Facility Site Address	Page #
PST	DK 321	3400 HONDO PASS DR, EL PASO 79904	34
LPST	GOOD TIME STORE 21	3400 HONDO PASS DR, EL PASO 79904	35
LPST	GOOD TIMES STORE 21	3400 HONDO PASS DR, EL PASO 79904	36

Map ID 1: LPST - 3400 HONDO PASS DR

Map ID: 1	**LPST - Leaking Petroleum Storage Tank**	**Source: TCEQ**
LPST ID: 102584		**Banks ID: 102584**
GOOD TIMES STORE 21		**Rel. Loc.: 0.22mi E**
3400 HONDO PASS DR, EL PASO, 79904		**Elevation: 4166.67 ft (-111.61 ft)**

Reference Number:	RN102028883
Tceq Region:	REGION 06 - EL PASO
Nearest City Name:	EL PASO
Project Manager:	PJW
Leak Discovered Date:	1992-04-08
Leak Reported Date:	1992-04-09
Leak Entered Date:	1992-05-01
Leak Closure Date:	1993-06-30
Priority Status:	4A - SOIL CONTAMINATION ONLY REQUIRES FULL SITE ASSESSMENT RAP
Corrective Action Status:	6A - FINAL CONCURRENCE ISSUED

Sites in Map ID 1 Cluster

Dataset	Facility Site Name	Facility Site Address	Page #
PST	DK 321	3400 HONDO PASS DR, EL PASO 79904	34
LPST	GOOD TIME STORE 21	3400 HONDO PASS DR, EL PASO 79904	35
LPST	GOOD TIMES STORE 21	3400 HONDO PASS DR, EL PASO 79904	36

End of LPST Section

End of Mapped Sites Details Section

Unmapped Site: VCP (1313)

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

Unmapped Site		Source: TCEQ
VCP Program ID: 1313	VCP - Voluntary Cleanup Program	Banks ID: 1313
LANDFILL/OLD AUTO PARTS EL PASO, TX		

Assoc Vcp Id:	2284; 1313
Pca Number:	33413
Project Number:	334130
Current Facility Type:	WASTE MGMT SERVICES/LANDFILL; VACANT PROPERTY
Site Addr Desc:	ZARAGOSA RD EAST OF DIAMOND HEAD - LANDFILL NO ADDRESS
Near City Name:	EL PASO
Project Manager:	KBRANDT
Project Phase:	INVESTIGATION
Administrative Status:	ACTIVE
Cashier Received Date:	2001-02-02
Application Received Date:	2001-02-05
Application Acceptance Date:	2001-02-14
Vcp Application Accepted:	
Region Notified Of Application:	02/05/2001
Tceq Region Name:	REGION 06 - EL PASO
Swr Number:	
Groundwater Target Coc Class:	
Sediment Target Coc Class:	
Soils Target Coc Class:	METALS; PCBS; TPH
Surface Water Target Coc Class:	
Lpst Id:	
Iop Id:	
Epa Txd Cerclis Number:	
Site Size In Acres:	10
Type Of Remedy:	
Air Rem Method:	
Gw Rem Method:	
Soil Rem Method:	
Surf Water Rem Method:	
Coc Date:	
Ccoc Date:	
Contact Name:	LEE, TOMMY
Org Name:	TAX LOANS USA LTD
Contact Phone Num:	(817) 500-5009
Rn Number:	RN101460855
Controls:	

Unmapped Site: VCP (2284)

BANKS ENVIRONMENTAL DATA
A DIVISION OF THE BANKS GROUP

Unmapped Site		Source: TCEQ
VCP Program ID: 2284	VCP - Voluntary Cleanup Program	Banks ID: 2284
MADDOX SUBDIVISION EL PASO, TX		

Assoc Vcp Id:	1313; 2284
Pca Number:	34477
Project Number:	344770
Current Facility Type:	
Site Addr Desc:	ZARAGOSA RD EAST OF DIAMOND HEAD - LANDFILL NO ADDRESS
Near City Name:	EL PASO
Project Manager:	DCHRISTI
Project Phase:	TERMINATED
Administrative Status:	INACTIVE
Cashier Received Date:	2009-09-21
Application Received Date:	2009-09-23
Application Acceptance Date:	
Vcp Application Accepted:	
Region Notified Of Application:	09/23/2009
Tceq Region Name:	REGION 06 - EL PASO
Swr Number:	
Groundwater Target Coc Class:	
Sediment Target Coc Class:	
Soils Target Coc Class:	
Surface Water Target Coc Class:	
Lpst Id:	
Iop Id:	
Epa Txd Cerclis Number:	
Site Size In Acres:	10
Type Of Remedy:	
Air Rem Method:	
Gw Rem Method:	
Soil Rem Method:	
Surf Water Rem Method:	
Coc Date:	
Ccoc Date:	
Contact Name:	
Org Name:	
Contact Phone Num:	
Rn Number:	RN101460855
Controls:	

Unmapped Site: PST (18303)

Unmapped Site		Source: TCEQ
Facility #: 18303	PST - Petroleum Storage Tank	Banks ID: 18303
PARKER BROTHERS SLAG PIT, EL PASO, TX		

Facility Type:	UNKNOWN
Facility Begin Date:	1986-09-02
Facility Status:	INACTIVE
Facility Exempt Status:	N
Ust Financial Assurance Required:	N
Number Of Usts:	
Number Of Asts:	
Contact Name:	F LICON
Contact Phone:	9155321611

Underground Storage Tanks

Ust Id:	47448
Facility Number:	18303
Tceq Customer Id:	56237
Tank Id:	1
Tank Installation Date:	1974-01-01
Tank Capacity:	4800
Tank Status:	REMOVED FROM GROUND
Tank Status Begin Date:	1988-09-28
Piping Type:	
Substance Stored:	DIESEL
Tank Materials:	Steel
Piping Materials:	Steel
Tank Corrosion Protection Method:	
Piping Corrosion Protection Method:	

Unmapped Site: HW (RN103894564)

Unmapped Site **Source: TCEQ**

Regulated Entity Number:
RN103894564 **HW - Hazardous Waste** **Banks ID: RN103894564**

UNITED PETROLEUM TRANSPORTS

COMMON CARRIER, EL PASO, TX

Customer Number:	CN600525547
Customer Name:	UNITED PETROLEUM TRANSPORTS INC
Business Type:	
Mailing Address:	12926 MONTANA AVE
Mailing City:	EL PASO
Mailing State:	TX
Mailing Zip Code:	79938-9633
Workplan Activity Code:	PSTCOMCAR, BD05
Tceq Region:	REGION 06 - EL PASO

Violations

Violation Track Number	Tceq Docket Number	Regulated Entity Number	Customer Number
508551	2013-1532-AIR-E	RN103894564	CN600525547
708873	2019-0435-PST-E	RN103894564	CN600525547

Investigation Number	Polluted Media	Noe Date	Violation Category	Violation Status
1103826	AIR	2013-07-30	A	RESOLVED
1552116	WASTE	2019-03-19	A	URESOSCHED

Rule Citation	Violation Allegation
115.252(2), 382.085(b)	Failure to comply with Reid Vapor Pressure (RVP) Fuel requirement
26.3467(d), 334.5(b)(1)(A)	Respondent deposited a regulated substance into a regulated UST system that was not covered by a valid, current TCEQ delivery certificate. Specifically, the Respondent made one fuel deposit at a facility located at 11101 Gateway Boulevard West, El Paso, El Paso County, Texas on December 3, 2018. At the time of the fuel deposit, the facility did not possess a valid, current TCEQ delivery certificate.

Violation Resolution	Docket Effective Date	Contact Name
By August 23, 2013, the Respondent had: a. Retrained fleet managers to ensure they are receiving the correct product loading account information for their customers; b. Retrained drivers to verify account numbers when possible at the loading facility before they begin to load and/or carefully review the bill of lading information after they finish loading to ensure the product(s) meet the required Reid Vapor Pressure ("RVP") standards; c. Updated order requests for new customers that will require the customer to confirm the ordered product(s) will meet the RVP standard requirements for the particular delivery site; and d. Continued to discuss RVP standards during monthly safety meetings.	2014-01-25	REYES, TONY
	2019-11-05	PRICE, GREGORY

Contact Title	State Program	Case Number	Customer Name	Order Date
OPERATIONS MANAGER				
PRESIDENT	PETROLEUM STORAGE TANKS	57471.0	UNITED PETROLEUM TRANSPORTS, INC.	2019-11-05

Penalty Assessed	Penalty Deferred	Payable Amount	Sep Offset
1255.0	251.0	1004.0	0.0

Unmapped Site: HW (T1569)

Unmapped Site		Source: TCEQ
Program ID: T1569	HW - Hazardous Waste	Banks ID: T1569

DIVERSIFIED CREDIT PROPERTIES EL PASO

EL PASO, TX

Rn Num:	RN104675749
Admin Status:	INACTIVE
Admin Status Dt:	2003-05-20 00:00:00
Project Phase:	COMPLETED WORKLOAD
Phase Status Date:	2002-11-20 00:00:00
Soil Coc Class:	
Soil Remediation:	
Gw Coc Class:	
Gw Remediation:	
Waste Description:	

Unmapped Site: HW (T1659)

Unmapped Site		Source: TCEQ
Program ID: T1659	HW - Hazardous Waste	Banks ID: T1659

UNITED PETROLEUM TRANSPORTS EL PASO

EL PASO, EL PASO, TX

Rn Num:	RN104921499
Admin Status:	INACTIVE
Admin Status Dt:	2001-11-05 00:00:00
Project Phase:	COMPLETED WORKLOAD
Phase Status Date:	2002-11-22 00:00:00
Soil Coc Class:	
Soil Remediation:	
Gw Coc Class:	
Gw Remediation:	
Waste Description:	

Unmapped Site: HW (T2372)

Unmapped Site		Source: TCEQ
Program ID: T2372	HW - Hazardous Waste	Banks ID: T2372

CASTNER RANGE

CASTNER FUDS LIES WTHIN EL PASO CITY LIMITS, EL PASO, TX

Rn Num:	RN105735500
Admin Status:	ACTIVE
Admin Status Dt:	2009-05-22 00:00:00
Project Phase:	ONGOING WORKLOAD
Phase Status Date:	2009-05-22 00:00:00
Soil Coc Class:	
Soil Remediation:	
Gw Coc Class:	
Gw Remediation:	
Waste Description:	

Unmapped Site: LPST (94594)

Unmapped Site LPST ID: 94594	LPST - Leaking Petroleum Storage Tank	Source: TCEQ Banks ID: 94594
DIESEL 1 **EL PASO, TX**		

Reference Number:	RN106974694
Tceq Region:	REGION 06 - EL PASO
Nearest City Name:	EL PASO
Project Manager:	JROBINSO
Leak Discovered Date:	1990-02-08
Leak Reported Date:	1990-02-09
Leak Entered Date:	1990-02-09
Leak Closure Date:	2000-11-15
Priority Status:	3.2 - IMPACTED GW W/IN 500ft-0.25mi TO SW USED BY HUMANENDGR SPEC
Corrective Action Status:	6A - FINAL CONCURRENCE ISSUED

Unmapped Site: LPST (116556)

Unmapped Site LPST ID: 116556	LPST - Leaking Petroleum Storage Tank	Source: TCEQ Banks ID: 116556
GHOST TANK **EL PASO, TX**		

Reference Number:	RN105014989
Tceq Region:	REGION 06 - EL PASO
Nearest City Name:	EL PASO
Project Manager:	MBRATBER
Leak Discovered Date:	2005-03-30
Leak Reported Date:	2005-04-01
Leak Entered Date:	2005-07-18
Leak Closure Date:	2011-06-27
Priority Status:	4.0 - ASSESSMENT INCOMPLETE NO APPARENT RECEPTORS IMPACTED
Corrective Action Status:	6A - FINAL CONCURRENCE ISSUED

End of Unmapped Sites Details Section

Dataset Descriptions and Sources

Dataset	Source	Dataset Description	Update Schedule	Requested Date	Received Date	Update Date	Source Update Date
RCRA COR - RCRA - Corrective Actions (FED)	EPA	These sites are registered hazardous waste generators or handlers that fall under the Resource Conservation and Recovery Act (RCRA) and subject to corrective action activity.	Quarterly	2023-01-18	2023-01-18	2023-01-24	2023-01-16
RCRA TSD - RCRA - Treatment, Storage, Disposal (FED)	EPA	This database lists all treatment, storage and disposal of hazardous material sites that fall under the Resource Conservation and Recovery Act (RCRA). All hazardous waste TSD facilities are required to notify EPA of their existence.	Quarterly	2023-01-18	2023-01-18	2023-01-24	2023-01-16
RCRA - RCRA (FED)	EPA	This database lists all sites that fall under the Resource Conservation and Recovery Act (RCRA) and are not classifiable as treatment, storage, disposers of hazardous material, hazardous waste generator or subject to corrective action activity.	Quarterly	2023-01-18	2023-01-18	2023-01-24	2023-01-16
CER NPL - CERCLIS - National Priority List (FED)	EPA	NPL is the list of high priority hazardous waste sites in the United States eligible for long-term remedial action financed under the federal Superfund program or SEMS database (formerly known as the CERCLIS database). The EPA will only add sites to the NPL list based upon completion of the Hazard Ranking System (HRS) screening, public solicitation of comments about the proposed site, and after all comments have been addressed.	Quarterly	2024-01-03	2024-01-03	2024-01-03	2023-12-26
CER - CERCLIS (FED)	EPA	The EPA maintains the SEMS database to track sites under the Comprehensive Environmental Response, Compensation, and Liability Act, a federal law designed to clean up abandoned hazardous waste sites. These sites are either proposed, listed or under review currently to be a part of the National Priority List.	Quarterly	2024-01-03	2024-01-03	2024-01-03	2023-12-26
CER NFRAP - CERCLIS - No Further Remedial Action Planned (FED)	EPA	From the Superfund Enterprise Management System (SEMS) database No Further Remedial Action Planned or NFRAP have been removed from the listing. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the site being placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.	Quarterly	2024-01-03	2024-01-03	2024-01-03	2023-12-26
CER DNPL - CERCLIS - Delisted National Priority List (FED)	EPA	DNPL is a list of all sites that have been deleted from the EPA NPL list (SEMS database). These sites are taken off the NPL list usually due to no further response or remedial action being required on them. Notices to delete NPL sites are published in the Federal Register and become effective unless the EPA receives significant adverse or critical comments during the 30-day public comment period.	Quarterly	2024-01-03	2024-01-03	2024-01-03	2023-12-26
FED BF - Federal Brownfield (FED)	EPA	A listing of sites that assist the EPA in collecting, tracking, and updating information of sites in relation to the Small Business Liability Relief and Brownfields Revitalization Act. These sites are real property that is either abandoned or underutilized where redevelopment or expansion is complicated by real or perceived environmental contamination.	Quarterly	2024-01-15	2024-01-15	2024-01-24	2024-01-15

Dataset Descriptions and Sources

Dataset	Source	Dataset Description	Update Schedule	Requested Date	Received Date	Update Date	Source Update Date
RCRA LQG - RCRA - Large Quantity Generators (FED)	EPA	The EPA regulates all Hazardous Waste Generators subject to the Resource Conservation and Recovery Act (RCRA). They are classified by the quantity of hazardous waste generated. A Large Quantity Generator (LQG) generates over 1,000 kg of waste per month.	Quarterly	2023-01-18	2023-01-18	2023-01-24	2023-01-16
RCRA VSG - RCRA - Very Small Quantity Generators (FED)	EPA	The EPA regulates all Hazardous Waste Generators subject to the Resource Conservation and Recovery Act (RCRA). They are classified by the quantity of hazardous waste generated. A Very Small Quanity Generator (VSG) generates less than 100 kg of waste per month.	Quarterly	2023-01-18	2023-01-18	2023-01-24	2023-01-16
FED IC - Federal Institutional Control (FED)	EPA	This is a listing of Brownfield Management System (BMS) sites that have had Institutional Controls (ICs) placed on them. ICs are administrative restrictions, such as legal controls, that help minimize the potential for human exposure to known contamination by ensuring appropriate land or resource use. ICs are meant to supplement Engineering Controls and will rarely be the sole remedy at a site. ICs are a type of Activity and Use Limitation (AUL).	Quarterly	2024-01-15	2024-01-15	2024-01-24	2024-01-15
FED EC - Federal Engineering Control (FED)	EPA	This is a listing of Brownfield Management System (BMS) sites that have had Engineering Controls (ECs) placed on them. ECs are physical methods or modifications put into place on a site to reduce or eliminate the possibility of human exposure to known contamination. ECs are a type of Activity and Use Limitation (AUL).	Quarterly	2024-01-15	2024-01-15	2024-01-24	2024-01-15
ERNS - Emergency Response Notification System (FED)	EPA/National Response Center	ERNS is a national database used to store information on unauthorized releases of oil and hazardous substances that have been reported to the National Response Center since 2001. The NRC is the sole federal point of contact for reporting oil and chemical spills. Prior to 2001 this information was maintained by the EPA.	Annually	2024-01-24	2024-01-24	2024-01-29	2024-01-24
RCRA SQG - RCRA - Small Quantity Generators (FED)	EPA	The EPA regulates all Hazardous Waste Generators subject to the Resource Conservation and Recovery Act (RCRA). They are classified by the quantity of hazardous waste generated. A Small Quantity Generator (SQG) generates between 100kg and 1,000 kg of waste per month.	Quarterly	2023-01-18	2023-01-18	2023-01-24	2023-01-16
ST PL - State National Priority List (TX)	TCEQ	This database contains sites determined by the TCEQ that may constitute an imminent and substantial endangerment to public health and safety or to the environment due to a release or threatened release of hazardous substances into the environment.	Quarterly	2023-07-10	2023-07-10	2024-01-23	2023-07-10
LPST - Leaking Petroleum Storage Tank (TX)	TCEQ	This database contains information on leaking storage tanks, equipment failures, compliance, and releases in the state.	Quarterly	2023-06-09	2023-03-01	2024-01-25	2023-03-01
VCP - Voluntary Cleanup Program (TX)	TCEQ	This database contains sites from the Voluntary Cleanup Program (VCP). The VCP records contain information on contaminated sites that private parties have cleaned up through assistance from the State in the form of administrative, technical, and legal incentives.	Quarterly	2023-07-10	2023-07-12	2024-01-23	2023-07-12

Dataset Descriptions and Sources

Dataset	Source	Dataset Description	Update Schedule	Requested Date	Received Date	Update Date	Source Update Date
VCP - Voluntary Cleanup Program (TX)	TCEQ	This database contains sites from the Innocent Operator Program (IOP). The IOP records are sites that have received certificates from the State acknowledging that their property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the property, and they did not cause or contribute to the source or sources of contamination.	Quarterly	2023-07-10	2023-07-12	2024-01-23	2023-07-12
VCP - Voluntary Cleanup Program (TX)	RRC	The Railroad Commission of Texas Voluntary Cleanup Program provides an incentive to remediate Oil & Gas related pollution by participants as long as they did not cause or contribute to the contamination.	Quarterly	2023-05-04	2023-05-09	2024-01-25	2023-05-09
BF - State Brownfield (TX)	RRC	The Railroad Commission of Texas' Voluntary Cleanup Program (RRC-VCP) provides an incentive to remediate Oil & Gas related pollution by participants as long as they did not cause or contribute to the contamination. Applicants to the program receive a release of liability to the state in exchange for a successful cleanup.	Quarterly	2023-05-04	2023-05-09	2024-01-25	2023-05-09
BF - State Brownfield (TX)	TCEQ	Brownfield sites are former industrial properties that lie dormant or underutilized due to liability associated with real or perceived contamination. In Texas, the TCEQ, in close partnership with the EPA and other federal, state, and local redevelopment agencies, and stakeholders, is facilitating cleanup, transferability, and revitalization of Brownfield's through the development of regulatory, tax, and technical assistance tools.	Quarterly	2023-05-04	2023-05-04	2024-01-23	2023-05-04
SW - Solid Waste (TX)	TCEQ	The SWLF database contains records of municipal solid waste facilities that may accept various types of municipal solid waste for processing or disposal, depending on the type of facility. A Municipal Solid Waste facility may also accept certain special wastes and non-hazardous industrial solid wastes if approved by the TCEQ executive director.	Quarterly	2023-05-04	2023-05-04	2024-01-23	2023-04-28
SW - Solid Waste (TX)	TCEQ	This database is a listing of closed and abandoned municipal solid waste landfills. The sites included are either unauthorized (UNUM_) or permitted (PERMAPP_).	Historical	2011-03-06	2011-03-06	2011-03-06	2011-03-06
VCP - Voluntary Cleanup Program (TX)	RRC	The Operator Cleanup Program (OCP) under the Site Remediation Section is tasked with oversight of complex pollution cleanups performed by the oil and gas industry. Complex sites include those that occur in sensitive environmental areas as defined by 16 TAC3.91 (SWR 91) and may require site specific cleanup levels based on risk.	Quarterly	2023-08-02	2023-08-02	2024-01-23	2023-08-02
VCP - Voluntary Cleanup Program (TX)	TCEQ	The Texas Groundwater Protection Committee (TGPC) Joint Groundwater Monitoring and Contamination Report, SFR-56 lists all active and inactive groundwater contamination cases in the state and their enforcement status	Quarterly	2023-08-14	2023-08-14	2024-01-23	2023-08-14
LPST - Leaking Petroleum Storage Tank (TR6)	EPA	The Tribal LUST database (maintained by EPA Region 6) provides information on leaking underground storage tank on tribal lands in Louisiana, Arkansas, Oklahoma, New Mexico and Tribal Nations.	Quarterly	2024-02-01	2024-02-01	2024-02-02	2024-10-25

Dataset	Source	Dataset Description	Update Schedule	Requested Date	Received Date	Update Date	Source Update Date
MSD - Municipal Setting Designation (TX)	TCEQ	TCEQ defines a Municipal Settings Designation (MSD) as an official state designation given to a property within a municipality or its extraterritorial jurisdiction that certifies that designated groundwater at the property is not used as potable water, and is prohibited from future use as potable water because that groundwater is contaminated in excess of the applicable potable-water protective concentration level. The prohibition must be in the form of a city ordinance, or a restrictive covenant that is enforceable by the city and filed in the property records.	Quarterly	2023-06-09	2023-06-12	2024-01-23	2023-06-12
DRYC - Dry Cleaner (TX)	TCEQ	Dry Cleaner data houses both the DCRP Program information and PERC information released by the TCEQ. The DCRP database contains records funded for state-lead clean up of dry cleaner related contaminated sites. The DCRP administers the Dry Cleaning Facility Release Fund to assist with remediation of contamination caused by dry cleaning solvents. There are two listings from this program: LIST#1 - A historic listing of any facility that registered with the DCRP indicating whether or not the facility has used Perchloroethylene (PERC) in the past. LIST#2 - A Prioritization list of dry cleaner sites Facilities on this list will be investigated in order to determine the existence and or extent of possible contamination. Facilities which are not current on their DCRP payments get dropped from the program.	Quarterly	2023-06-09	2023-06-09	2024-01-23	2022-09-01
PST - Petroleum Storage Tank (TX)	TCEQ	This database contains information on above and underground storage tanks, compliance, and releases in the state.	Quarterly	2024-01-02	2024-01-02	2024-01-23	2023-12-07
HW - Hazardous Waste (TX)	TCEQ	The mission of the TCEQ's industrial and hazardous waste (IHW) corrective action program is to oversee the cleanup of sites contaminated from industrial and municipal hazardous and industrial nonhazardous wastes.	Quarterly	2023-07-10	2023-04-06	2024-01-23	2023-03-31
HW - Hazardous Waste (TX)	TCEQ	This database contains information on facilities which store, process, or dispose of hazardous waste as maintained by the Industrial and Hazardous Waste Permits section of the TCEQ.	Quarterly	2023-05-04	2023-05-04	2024-01-23	2023-04-11
IC - State Institutional Control (TX)	RRC	The Railroad Commission of Texas Voluntary Cleanup Program provides an incentive to remediate Oil & Gas related pollution by participants as long as they did not cause or contribute to the contamination.	Quarterly	2023-05-04	2023-05-09	2024-01-25	2023-05-09
EC - State Engineering Control (TX)	TCEQ	This database includes Voluntary Cleanup Program (VCP) or Innocent Operator Program (IOP) sites that have been remediated and have had Engineering Controls (ECs) placed on them. ECs are physical methods or modifications put into place on a site to reduce or eliminate the possibility of human exposure to known contamination.	Quarterly	2023-07-10	2023-07-12	2024-01-23	2023-07-12
HW - Hazardous Waste (TX)	TCEQ	This dataset lists various court orders affecting a site, including Notices of Enforcement and Administrative Orders.	Quarterly	2023-08-11	2023-08-11	2024-01-23	2023-07-15

Dataset Descriptions and Sources

Dataset	Source	Dataset Description	Update Schedule	Requested Date	Received Date	Update Date	Source Update Date
IC - State Institutional Control (TX)	TCEQ	This database includes Voluntary Cleanup Program (VCP) or Innocent Operator Program (IOP) sites that have been remediated and have had Institutional Controls (ICs) placed on them. ICs are administrative restrictions, such as legal controls, that help minimize the potential for human exposure to known contamination by ensuring appropriate land or resource use.	Quarterly	2023-07-10	2023-07-12	2024-01-23	2023-07-12
PST - Petroleum Storage Tank (TR6)	EPA	The Tribal UST database (maintained by EPA Region 6) provides underground storage tank information on tribal lands in Louisiana, Arkansas, Oklahoma, New Mexico and Tribal Nations.	Quarterly	2024-02-01	2024-02-01	2024-02-02	2024-10-24

Disclaimer

The Banks Environmental Data Regulatory Database Report was prepared based upon data obtained from State, Tribal, and Federal sources known to Banks Environmental Data at the time the data was obtained. Great care has been taken by Banks in obtaining the best available data from the best available sources. However, there is a possibility that there are sources of data applicable or pertaining to this report's target property, and/or surrounding properties, to which Banks does not have access or has not accessed. Furthermore, although Banks Environmental Data performs quality assurance and quality control on all data, including data it obtains, Banks recognizes that inaccuracies in data from these sources may, and do, exist; accordingly, inaccurate data may have been used or relied upon in the preparation of this report. Even though Banks Environmental Data performs a thorough and diligent search to locate and fix any inaccuracies in the data relied upon in the preparation of this report, Banks cannot guarantee or warrant the accuracy of the locations, information, data, or report. The purchaser of this report accepts this report "as is" and assumes all risk related to any potential in accuracy contained in the report or not reported in it, whether due to a reliance by Banks Environmental Data on inaccurate data, or for any other reason [including but not limited to the negligence or express negligence of Banks Environmental Data]. If this report is being used for the Records Review section of a Phase I Site Assessment according to the ASTM 1527-21, for EPA's All Appropriate Inquiry, or for any other purpose (public or private), all liability and responsibility is assumed by the Environmental Professional or other individual or entity acquiring the report.

B-7 – Public Review

B-8 – Contacted Tribes

List of Contacted Tribes by ESSCO

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- **WICHITA AND AFFILIATED TRIBES (WICHITA, KEECHI, WACO & TAWAKONIE)**
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