CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS
TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PART I

Prepared for
City of Del Rio

September 2023
Revision 1 March 2024
Revision 2 July 2024



08/07/2024

Prepared by
CP&Y, an STV company
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500

This document is intended for permitting purposes only.

CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS

TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION

PART I

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- **PLATFORM WASTE SOLUTIONS LLC**

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PUBLIC INVOLVEMENT PLAN FORM

MAILING LABELS



08/07/2024

TCEQ PART I FORM

Texas Commission on Environmental Quality

Part I Application Form for New Permit, Permit Amendment, or Registration for a Municipal Solid Waste Facility

Application Tracking Information

Facility Name: City of Del Rio Landfill

Permittee or Registrant Name: City of Del Rio

MSW Authorization Number: 207C

Initial Submission Date: 03/04/2024

Revision Date: 08/07/2024

Instructions for completing this Part I Application Form are provided in TCEQ 00650-instr[1]. Include a Core Data Form (TCEQ 10400)[2] with the application for the facility owner, and another Core Data Form for the operator if different from the owner. If you have questions, contact the Municipal Solid Waste Permits Section by email to mswper@tceq.texas.gov, or by phone at 512-239-2335.

Application Data

1. Submission Type	
■ Initial Submission	☐ Notice of Deficiency (NOD) Response

2. Authorization Type	
■ Permit	☐ Registration

3. Application Type	
☐ New Permit	
■ Permit Major Amendment	☐ Permit Limited Scope Major Amendment
☐ New Registration	

[1] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/00650-instr.pdf
[2] www.tceq.texas.gov/goto/coredata

4. Application Fee

Amount

☒ $2,050—New Landfill Permits, and Landfill Permit Major Amendments Described in 30 TAC 305.62(j)(1)

☐ $150—Other Permits, Landfill Limited Scope Major Amendments, Permit Amendments for Storage and Processing Facilities, and Registrations

Payment Method

☐ Check

☒ Online through ePay portal www3.tceq.texas.gov/epay/

If paid online, enter ePay Trace Number: 582EA000603033

5. Application URL

For applications other than those for arid exempt landfills, provide the URL address of a publicly accessible internet web site where the application and all revisions to the application will be posted.

http://www.cpypermits.com

6. Party Responsible for Publishing Notice

Indicate who will be responsible for publishing notice:

☒ Applicant ☐ Agent in Service ☐ Consultant

Contact Name: Alberto Quintanilla

Title: Public Works Director Phone: 830-774-8525

Email Address: alberto.quintanilla@cityofdelrio.com

7. Alternative Language Notice

Use the Alternative Language Checklist on Public Notice Verification Form TCEQ-20244-Waste-NORI, TCEQ-20244-Waste-NAPD, or TCEQ-20244-Waste-NAORPM available at www.tceq.texas.gov/permitting/waste_permits/msw_permits/msw_notice.html to determine if an alternative language notice is required.

Is an alternative language notice required for this application?

☒ Yes ☐ No

Indicate the alternative language: Spanish

8. Public Place for Copy of Application

Name of the Public Place: Del Rio Public Works

Physical Address: 114 W Martin St.

City: Del Rio County: Val Verde State: TX Zip Code: 78840

Phone Number: (830)-774-8525

9. Consolidated Permit Processing

Is this submittal part of a consolidated permit processing request, in accordance with 30 TAC Chapter 33?

☐ Yes ■ No

If "Yes", indicate the other TCEQ program authorizations requested:

10. Confidential Documents

Does the application contain confidential documents?

☐ Yes ■ No

If "Yes", reference the confidential documents in the application, but submit the confidential documents as an attachment in a separate binder marked "CONFIDENTIAL."

11. Permits and Construction Approvals

Mark the following table to indicate status of other permits or approvals.

Table 1. Permits and Construction Approvals.

Permit or Approval	Received	Pending	Not Applicable
Hazardous Waste Management Program under Texas Solid Waste Disposal Act			X
Underground Injection Control Program under Texas Injection Well Act			X
National Pollutant Discharge Elimination System Program under Clean Water Act; Waste Discharge Program under Texas Water Code, Chapter 26	X		
Prevention of Significant Deterioration Program under Federal Clean Air Act (FCAA); Nonattainment Program under the FCAA			X
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA			X

Permit or Approval	Received	Pending	Not Applicable
Ocean Dumping Permits under Marine Protection Research and Sanctuaries Act			X
Dredge or Fill Permits under Clean Water Act			X
Licenses under the Texas Radiation Control Act			X
Other (describe): TCEQ Air Quality Permit/Registration	X		
Other (describe):			

12. Facility General Information

Facility Name: City of Del Rio Landfill

Contact Name: Manuel Chavez Title: Interim City Manager

MSW Authorization Number (if existing): 207C

Regulated Entity Reference Number: **RN** 102143294

Physical or Street Address (if available): 1897 Railway Ave.

City: Del Rio County: Val Verde State: TX Zip Code: 78840

Phone Number: 830-774-8558

Latitude (Degrees, Minutes Seconds): 29° 21' 20.4241"

Longitude (Degrees, Minutes Seconds): -100° 51' 13.9300"

Benchmark Elevation (above mean sea level): 1051.10 feet

Description of facility location with respect to known or easily identifiable landmarks:

The landfill is located south of US-90, approximately 2.5 miles west of the intersection of US-90 and Loop 79, and approximately 2.25 miles east of the intersection of US-90 and US-277. The site entrance is located on Railway Ave after the intersection of S Longoria St and E Virginia St.

Access routes from the nearest United States or state highway to the facility:

The site is accessed via US-90. US-90 intersects E Bowie St, northwest of the landfill. From this intersection, vehicles will travel southwest on E Bowie St to S Longoria St and travel east on S Longoria St. In approximately 500 feet the road S Longoria St becomes the site entrance road Railway Ave to the facility.

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ■ No

13. Facility Types

☒ Type I ☐ Type IV ☐ Type V

☐ Type IAE ☐ Type IVAE ☐ Type VI

14. Activities Conducted at the Facility

☐ Storage ☐ Processing ☒ Disposal

15. Facility Waste Management Units

Check the box for each type of waste management unit proposed.

☒ Landfill Unit(s)
☐ Container(s)
☐ Incinerator(s)
☐ Roll-off Boxes
☐ Class 1 Landfill Unit(s)
☐ Surface Impoundment
☐ Process Tank(s)
☐ Autoclave(s)
☐ Storage Tank(s)
☐ Refrigeration Unit(s)
☐ Tipping Floor
☐ Mobile Processing Unit(s)
☐ Storage Area
☐ Compost Pile(s) or Vessel(s)
☐ Other (specify):

16. Description of Proposed Facility or Changes to Existing Facility

Provide a brief description of the proposed activities if application is for a new facility, or the proposed changes to an existing facility or permit conditions if the application is for an amendment.

The purpose of this Major Amendment is to obtain authorization for an expansion of the existing Del Rio Municipal Landfill, TCEQ Permit No. MSW-207C. The existing permit boundary and limit of waste will be expanded from 105.6 acres to 180.6 acres and 79 acres to 110.3 acres, respectively. In addition, the top deck of the landfill will be increased from 1113 ft-msl to 1124 ft-msl. This landfill expansion will extend the disposal needs the City of Del Rio and the surrounding areas in Val Verde County.

17. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: City of Del Rio

Customer Reference Number: **CN** 600756290

Contact Name: Manuel Chavez Title: Interim City Manager

Mailing Address: 114 W. Martin St.

City: Del Rio County: Val Verde State: TX Zip Code: 78840

Phone Number: 830-774-8558

Email Address: manuel.chavez@cityofdelrio.com

Texas Secretary of State (SOS) Filing Number: _____

Operator (if different from *Site Operator*)

Name: Platform Waste Solutions LLC

Customer Reference Number: **CN** 606151371

Contact Name: Tim Giardina Title: COO

Mailing Address: 833 SW Lemans

City: Lee Summit County: Jackson State: MO Zip Code: 64082

Phone Number: 614-593-1852

Email Address: tim@platform-waste.com

Texas Secretary of State (SOS) Filing Number: 804609048

Consultant (if applicable)

Firm Name: CP&Y an STV company

Consultant Name: CP&Y an STV company

Texas Board of Professional Engineers Firm Registration Number: F-1741

Contact Name: Tewobista Metaferia, P.E. Title: Project Engineer

Mailing Address: 13155 Noel Road, Suite 200

City: Dallas County: Dallas State: TX Zip Code: 75240

Phone Number: (214)-589-6944

Email Address: tewobista.metaferia@stvinc.com

Agent in Service (required for out-of-state applicants)

Name: Not Applicable

Mailing Address: _____

City: _____ County: _____ State: TX Zip Code: _____

Phone Number: _____

Email Address: _____

18. Facility Supervisor License

Indicate the level of Municipal Solid Waste Facility Supervisor license, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations, Subchapter F that the individual who supervises or manages the operations will obtain prior to commencing operations.

☒ Class A Supervisor License ☐ Class B Supervisor License

19. Ownership Status of the Facility

Business Type

☐ Corporation
☐ Individual
☐ Sole Proprietorship
☐ General Partnership
☐ Limited Partnership
☒ City Government
☐ County Government
☐ State Government
☐ Federal Government
☐ Other Government
☐ Military
☐ Other (specify): _____

Facility Owner

Does the Site Operator (Permittee or Registrant) own all the facility units and all the facility property?

☒ Yes ☐ No

If "No", provide the following information for other owners.

Owner Name: _____

Mailing Address: _____

City: _____ County: _____ State: TX Zip Code: _____

Phone Number: _____

Email Address: _____

20. Other Government Entities Information

Texas Department of Transportation

District: Laredo

District Engineer's Name: Epigmenio "Epi" Gonzalez, P.E.

Mailing Address: 1817 Bob Bullock Loop

City: Laredo County: Webb State: TX Zip Code: 78043

Phone Number: (956)-712-7402

Email Address: epigmenio.gonzalez@txdot.gov

Local Government Authority Responsible for Road Maintenance (if applicable)

Government or Agency Name: City of Del Rio
Contact Person's Name: Gilbert Macias
Mailing Address: 103 W. Gibbs
City: Del Rio County: Val Verde State: TX Zip Code: 78840
Phone Number: (830)-774-8632
Email Address: gilbert.macias@cityofdelrio.com

City Mayor Information

City Mayor's Name: Al Arreola
Mailing Address: 109 W. Broadway
City: Del Rio County: Val Verde State: TX Zip Code: 78840
Phone Number: (830)-774-8790
Email Address: delriomayor@cityofdelrio.com

City Health Authority

Authority Name: Not Applicable
Contact Person's Name:
Mailing Address:
City: County: State: TX Zip Code:
Phone Number:
Email Address:

County Judge Information

County Judge's Name: Lewis Owens
Mailing Address: 400 Pecan St.
City: Del Rio County: Val Verde State: TX Zip Code: 78840
Phone Number: (830)-774-7501
Email Address: lowens@valverdecounty.texas.gov

County Health Authority

Agency Name: Health Department/Risk Management
Contact Person's Name: Carlos Velarde, P.E.
Mailing Address: 400 Pecan St., 3rd Floor
City: Del Rio County: Val Verde State: TX Zip Code: 78840
Phone Number: (830)-774-7569
Email Address: cvelarde@valverdecounty.texas.gov

State Representative Information

District Number: 74

State Representative's Name: Eddie Morales

District Office Mailing Address: 100 S Monroe St

City: Eagle Pass County: Maverick State: TX Zip Code: 78852

Phone Number: (830)-513-1457

Email Address: eddie.morales@house.texas.gov

State Senator Information

District Number: 19

State Senator's Name: Roland Gutierrez

District Office Mailing Address: 2401 Garner Field Rd

City: Uvalde County: Uvalde State: TX Zip Code: 78801

Phone Number: (830) 278-1234

Email Address: Roland.Gutierrez@senate.texas.gov

Council of Governments (COG)

COG Name: Middle Rio Grande Development Council

COG Representative's Name: Michelle Garcia

COG Representative's Title: Executive Director

Mailing Address: P.O. Box 1199

City: Carrizo Springs County: Val Verde State: TX Zip Code: 78834

Phone Number: (830)-876-3533

Email Address: michelle.garcia@mrgdc.org.

River Basin Authority

Authority Name: Rio Grande Regional Water Authority

Contact Person's Name: Jem Darling

Watershed Sub-Basin Name: Middle Rio Grande Sub-Basin

Mailing Address: 322 S. Missouri Ave.

City: Weslaco County: State: TX Zip Code: 78596

Phone Number: 956-968-3141

Email Address: Jemd1225@yahoo.com

U.S. Army Corps of Engineers District

Indicate the U.S. Army Corps of Engineers district in which the facility is located:

☐ Albuquerque, NM ☐ Galveston, TX

☒ Ft. Worth, TX ☐ Tulsa, OK

Local Government Jurisdiction

Within City Limits of: Del Rio

Within Extraterritorial Jurisdiction of: _____

Is the facility located in an area in which the governing body of the municipality or county has prohibited the storage, processing, or disposal of municipal or industrial solid waste?

☐ Yes ■ No

If "Yes", provide a copy of the ordinance or order as an attachment.

Signature Page

Site Operator or Authorized Signatory

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Manuel B Chavez Title: Interim City Manager

Email Address: Manuel.chavez@cityofdelrio.com

Signature: [signature] Date: 8/15/2024

Operator or Principal Executive Officer Designation of Authorized Signatory

To be completed by the operator if the application is signed by an authorized representative for the operator.

I hereby designate _____ as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Operator or Principal Executive Officer Name: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said Manuel B. Chavez

On this 19 day of August, 2024

My commission expires on the 03 day of 17, 2027

[signature]

Notary Public in and for Val Verde County, Texas

MARISOL ISABEL MENDOZA
Notary Public, State of Texas
Comm. Expires 03-17-2027
Notary ID 134258747

Note: Application Must Bear Signature & Seal of Notary Public

Part I Attachments

Refer to instruction document 00650-instr for professional engineer seal requirements.

Attachments Table 1. Required attachments.

Required Attachments	Attachment Number
Supplementary Technical Report	Parts I/II - Section 1
Property Legal Description	Parts I/II - Section 13
Property Metes and Bounds Description	Parts I/II - Section 13
Facility Legal Description	Parts I/II - Section 13
Facility Metes and Bounds Description	Parts I/II - Section 13
Metes and Bounds Drawings	Parts I/II - Section 13
On-Site Easements Drawing	**Parts I/II - Section 13**
Land Ownership Map	Parts I/II - Section 5
Landowners List	Parts I/II - Section 5
Mailing Labels (printed and electronic)	Part I
Texas Department of Transportation (TxDOT) County Map	Parts I/II - Section 4
General Location Map	Parts I/II - Section 5
General Topographic Map	Parts I/II - Section 5
Verification of Legal Status	N/A
Property Owner Affidavit	Parts I/II - Section 14
Evidence of Competency	Parts I/II - Section 16

Attachments Table 2. Additional attachments as applicable.

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
■ TCEQ Core Data Form(s)	Part I
■ Signatory Authority Delegation	Parts I/II - Section 15
■ Fee Payment Receipt	Part I
☐ Confidential Documents	
☐ Waste Storage, Processing and Disposal Ordinances	
☐ Final Plat Record of Property	

Additional Attachments as Applicable (select all that apply and add others as needed)	**Attachment Number**
☐ Certificate of Fact (Certificate of Incorporation)	
☐ Assumed Name Certificate	
Other (describe):	
Other (describe):	
Other (describe):	

CORE DATA FORMS

City of Del Rio

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)		
☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)		
☐ Renewal *(Core Data Form should be submitted with the renewal form)*		☒ Other **Major Permit Amendment**
2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600756290		**RN 102143294**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)*	*If new Customer, enter previous Customer below:*
City of Del Rio	

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*

11. Type of Customer:	☐ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other		☐ Sole Proprietorship	☐ Other:

12. Number of Employees	**13. Independently Owned and Operated?**
☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☐ **Yes** ☒ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☒ Owner ☐ Operator ☐ Owner & Operator ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:	114 W. Martain St						
	City	Del Rio	**State**	TX	**ZIP**	78840	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*

(830) 774-8500		( ) - Permit Page - 20

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

City of Del Rio Landfill

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	1897 Railway Rd							
	City	Del Rio	**State**	TX	**ZIP**	78840	**ZIP + 4**	
24. County								

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4953			

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Disposal of waste

34. Mailing Address:								
	City		**State**		**ZIP**		**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
( ) -		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☒ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

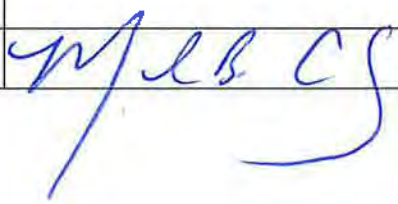
SECTION IV: Preparer Information

40. Name:	Tewobista Metaferia	41. Title:	Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(214) 589-6944		(214) 638-3723	tewobista.metaferia@stvinc.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	City of Del Rio	Job Title:	Interim City Manager
Name *(In Print)*:	Manuel Chavez	Phone:	(830) 774- 8558
Signature:		Date:	8/05/2024

Platform Waste Solutions LLC

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

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2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
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4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy) 07/17/2024

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

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6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* *If new Customer, enter previous Customer below:*

Platform Waste Solutions, LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0804609048	32085041419	881040861	

11. Type of Customer:
☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☒ Other: LLC

12. Number of Employees
☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☒ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

1020 VIRGINIA ST

City	Del Rio	State	Tx	ZIP	78840	ZIP + 4	7336

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	delrio@platform-waste.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*

(830) 775-2715		( ) - Permit Page - 24

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

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33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

34. Mailing Address:								
	City		**State**		**ZIP**		**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
( ) -		( ) -

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☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☒ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Laken Burpo	**41. Title:**	Regional Director

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(731) 446-2436		( ) -	laken@platform-waste.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Platform Waste Solutions, LLC	**Job Title:**	Regional Director
Name *(In Print):*	Laken Burpo	**Phone:**	(731) 446- 2436
Signature:	Laken Burpo	**Date:**	7-18-24

PLAIN LANGUAGE SUMMARY FORMS

English

Texas Commission on Environmental Quality

Plain Language Summary of Municipal Solid Waste Permit or Permit Amendment Application

Applicants are required by public notice rules in Title 30 Texas Administrative Code, Chapter 39, Section 39.405(k)[1] to provide this summary of an application.

A. Purpose of the Proposed Facility

The City of Del Rio Landfill has provided municipal solid waste disposal needs for the City of Del Rio and surrounding areas for over 30 years. This expansion amendment will allow the City to continue to provide solid waste disposal needs to the residents of Del Rio and surrounding areas.

B. Information About the Applicant

Name: City of Del Rio

Applicant Type: Government

Facility Name: City of Del Rio Landfill

Permit Application Number: 207C

Customer Number (CN): 600756290

Regulated Entity Reference Number (RN): 102143294

C. Location of the Proposed Facility

Facility Address (or description of site location if no address):

1897 Railway Ave., Del Rio, TX 78840

Link to Map of Facility Location (TCEQ Location Mapper[2]): https://arcg.is/1Xn9eD0

D. Information about Facility Operation

What types of waste would be received?

Municipal Solid Waste, Household Waste, Yard Waste, Commercial Solid Waste, Industrial Waste (Nonhazardous), Construction-Demolition Waste and special waste.

Refer to Section 2.1.4 Waste Acceptance Plan of the Parts I/II General Application Requirements for more information.

What geographical area would the wastes come from?

Val Verde County

[1] www.tceq.texas.gov/goto/view-30tac
[2] www.tceq.texas.gov/gis/hb-610-viewer

What days and hours would the facility operate?

Waste acceptance 7:00 am to 7:00 pm, Monday - Friday, Saturday 7:00 am to 2:00 pm, Facility operations and maintenance 5:00 am to 9:00 pm

At what rate would wastes be accepted?

Current rates are 152 tons per day, with a maximum projected rate 248 tons/day in year 2068.

How would wastes be managed?

The facility is a landfill.

E. Pollution Control Methods

What methods would the facility use for containing wastes and odors, and monitoring for releases?

1. Minimize the size of the working face to minimize odors
2. Spills of odorous materials should be immediately cleaned up or properly covered
3. Repair areas where soil cover has eroded by placing additional cover material.
4. Identify any waste stream that requires special attention to control odor.
5. Evaluate the possible use of misters and chemical deodorizers when other controls do not reduce or eliminate significant odors.

Refer to Section 19 Odor Management Plan of the Site Operating Plan for more information.

What methods would the facility use or require for preventing litter or spills, and for cleanup of litter and spills?

1. Vehicles hauling waste to the facility are enclosed or provided with a tarpaulin, net or other means to effectively secure the load in order to prevent wind blown waste or spilling.
2. Control windblown waste by promptly landfilling the waste then spread and compact it as rapidly as possible.
3. Provide portable litter control fences and individual litter control fence sections of the landfill. Operator will inspect the site daily, and collect and return to the working face any windblown waste that has been scattered on-site, or has accumulated on fences, gates, and access roads on days when the facility is in operation. (Refer to Section 14 and 17 of the Site Operation Plan for more information)

Spanish

Comisión de Calidad Ambiental de Texas

Resumen en lenguaje sencillo de la solicitud de permiso municipal de residuos sólidos o de modificación del permiso

Los solicitantes están obligados por las normas de notificación pública del Título 30 del Código Administrativo de Texas, Capítulo 39, Sección 39.405(k)[1] a proporcionar este resumen de una solicitud.

A. Objetivo de la instalación propuesta

El Vertedero de la Ciudad de Del Rio ha satisfecho las necesidades de eliminación de desechos sólidos municipales de la Ciudad de Del Rio y sus alrededores durante más de 30 años. Esta enmienda de expansión permitirá a la Ciudad continuar satisfaciendo las necesidades de eliminación de desechos sólidos de los residentes de Del Rio y sus alrededores.

B. Información sobre el solicitante

Nombre: City of Del Rio

Tipo de solicitante: Government

Nombre de la instalación: City of Del Rio Landfill

Número de solicitud de permiso: 207C

Número de cliente (CN): 600756290

Número de referencia de la entidad regulada (RN): 102143294

C. Ubicación de la instalación propuesta

Dirección del establecimiento (o descripción de la ubicación del sitio si no hay dirección):

1897 Railway Ave., Del Rio, TX 78840

Enlace al mapa de ubicación de las instalaciones en TCEQ Location Mapper[2]:

https://arcg.is/1Xn9eD0

D. Información sobre el funcionamiento de las instalaciones

¿Qué tipos de residuos se recibirían?

Residuos Sólidos Municipales, Residuos Domiciliarios, Residuos de Jardín, Residuos Sólidos Comerciales, Residuos Industriales (no Peligrosos), Residuos de Construcción-Demolición y residuos especiales.

¿De qué zona geográfica procederían los residuos?

Val Verde County

[1] www.tceq.texas.gov/goto/view-30tac
[2] www.tceq.texas.gov/gis/hb-610-viewer

¿Qué días y horas funcionará la instalación?

Acceptacion de residuos de 7:00 am a 7:00 pm, de lunes a viernes, sábado de 7:00 am a 2:00 pm, operaciones y mantenimiento de las instalaciones de 5:00 am a 9:00 pm

¿A qué ritmo se aceptarían los residuos?

Las tasas actuales son de 152 toneladas por día, con una tasa máxima proyectada de 248 toneladas por día en el año 2068.

¿Cómo se gestionarían los residuos?

La instalación es un vertedero.

E. Métodos de control de la contaminación

¿Qué métodos utilizará la instalación para contener los residuos y los olores, y para controlar las emisiones?

1. Minimizar el tamaño de la area de trabajo para minimizar los olores.
2. Los derrames de materiales olorosos deben limpiarse inmediatamente o cubrirse adecuadamente.
3. Repare las áreas donde la cobertura del suelo se ha erosionado colocando material de cobertura adicional.
4. Identifique cualquier flujo de desechos que requiera atención especial para controlar el olor.
5. Evaluar el posible uso de vaporizadores y desodorantes químicos cuando otros controles no reduzcan o eliminen olores significativos.

¿Qué métodos utilizaría o exigiría la instalación para evitar la basura o los derrames, y para la limpieza de la basura y los derrames?

1.Los vehículos que transportan residuos a la instalación estarán cubiertos o provistos de una lona, •13•13red u otro medio para asegurar eficazmente la carga con el fin de evitar que los residuos sean arrastrados por el viento o se derramen.
2. Controlar los desechos arrastrados por el viento depositándolos rápidamente en vertederos y luego esparcirlos y compactarlos lo más rápido posible.
3. Proporcionar cercas portátiles para el control de basura y secciones individuales de cercas para el control de basura en el vertedero.
El operador inspeccionará el sitio diariamente y recogerá y devolverá al frente de trabajo cualquier residuo arrastrado por el viento que se haya esparcido en el sitio o se haya acumulado en cercas, portones y calles de acceso en los días en que la instalación está en funcionamiento.

PUBLIC INVOLVEMENT PLAN FORM

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☐ New Permit or Registration Application

☒ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, **and**

☒ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☒ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

This Landfill Facility has been in operation since 1970's. There have been numerous Amendments and Modifications to the Permit, including a Major Amendment recently approved. No Public comments have been received in any of these actions. It is not anticipated that this Application will have any significant public interest

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EAGLE PASS HILL LAND GROUP LLC
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VAL VERDE COUNTY TRUSTEE
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CITY OF CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS

TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PART I/II – GENERAL APPLICATION REQUIREMENTS

Prepared for
City of Del Rio

September 2023
Revision 1 August 2024



08/07/2024

Prepared by
CP&Y an STV Company
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500

This document is intended for permitting purposes only.

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08/07/2024

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08/07/2024

LIST OF ACRONYMS

BMPs - Best Management Practices

CFR - Code of Federal Regulations

CLOMR - Conditional Letter of Map Revision

CWA - Clean Water Act

EDE - Elevation of Deepest Excavation

EPA - Environmental Protection Agency

ETJ - Extra Territorial Jurisdiction

FAA - Federal Aviation Administration

FEMA - Federal Emergency Management Agency

FIRM - Flood Insurance Rate Map

FT-MSL - Feet Above Mean Sea Level

FWS - U.S. Fish and Wildlife Service

GWSAP - Groundwater Sampling and Analysis Plan

HDPE - High Density Polyethylene

LCS - Leachate Collection System

LFG - Landfill Gas

LLDPE - Linear Low-Density Polyethylene

LQCP - Liner Quality Control Plan

MRGDC – Middle Rio Grande Development Council

MSGP - Multi-Sector General Permit

MSW - Municipal Solid Waste

MW - Monitoring Well

NAVD - North American Vertical Datum

NESHAP - National Emissions Standards for Hazardous Air Pollutants

NGVD - National Geodetic Vertical Datum

NFIP - National Flood Insurance Program

NOI - Notice of Intent

NSPS/EG - New Source Performance Standards/Emission Guidelines

NWP - Nationwide Permit

PCBs - Polychlorinated Biphenyls

PI - Point of Intersection

POC - Point of Compliance

POTW - Publicly Owned Treatment Works

PSD - Prevention of Significant Deterioration

PVI - Point of Vertical Intersection

QA/QC - Quality Assurance/Quality Control

SDP - Site Development Plan

SLER - Soils and Liner Evaluation Report

SOP - Site Operating Plan

TAC - Texas Administrative Code

TCEQ - Texas Commission on Environmental Quality

TDSHS - Texas Department of State Health Services

THC - Texas Historical Commission

TPDES - Texas Pollutant Discharge Elimination System

TPWD - Texas Parks and Wildlife Department

TWC - Texas Water Commission

TWDB - Texas Water Development Board

TxDOT - Texas Department of Transportation

USDA - U.S. Department of Agriculture

USACE - U.S. Army Corps of Engineers

USGS - U.S. Geological Survey

1.0 INTRODUCTION

This Major Permit Amendment is prepared to obtain authorization to expand the existing City of Del Rio Landfill. The expansion will increase the existing 105.6-acre permit boundary by 75.0 acres to 180.6 acres. The permitted limit of waste will be expanded by 31.3 acres from approximately 79.0 acres to approximately 110.3 acres. The Existing Site Plan, Figure I/II-1.1, shows the permitted and proposed permit boundaries and limits of waste.

The City of Del Rio Landfill has provided for the municipal solid waste (MSW) disposal needs of the City of Del Rio and surrounding areas for over 30 years. The City has constructed all the permitted cells at the site and will not have any solid waste units after the open cell reaches capacity. This expansion will increase the maximum permitted final cover elevation from 1113 ft-msl to 1124 ft-msl. The resulting capacity increase is approximately 3.65 million cubic yards. This major permit amendment will ensure that the disposal needs of the City of Del Rio and surrounding areas will continue to be met in the future.

The General Application Requirements section (Parts I/II) of this permit amendment application for the City of Del Rio Landfill has been prepared consistent with the requirements set forth in Title 30 Texas Administrative Code (TAC) §330.59, §330.61 and §305.45. Part II has been combined with Part I in accordance with Title 30 TAC §330.57(c)(2) and contain the following:

- An overview of the project,
- Detailed facility description,
- Types of waste that will be accepted at the facility,
- Specific existing conditions on and around the site, and
- Regulatory matters related to the application process.

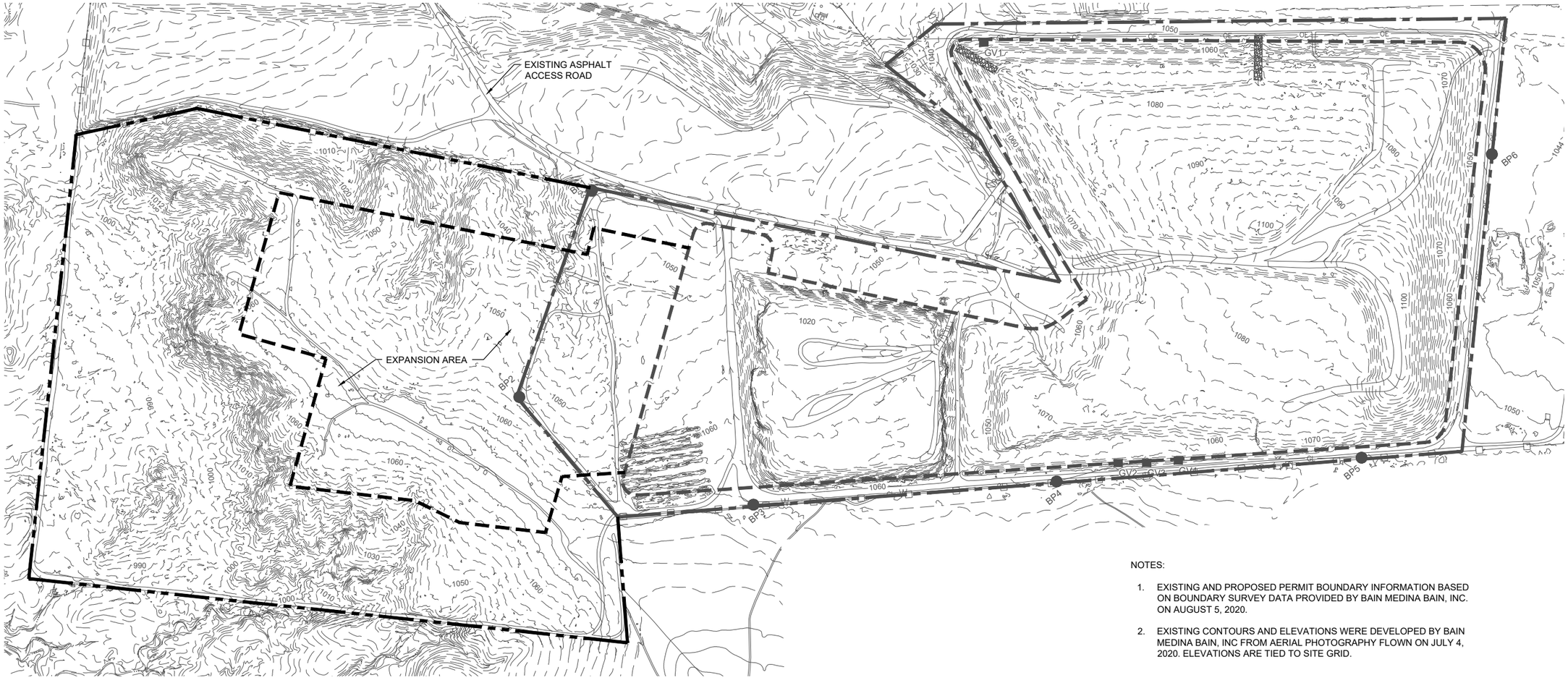
LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- EXISTING PERMIT BOUNDARY
- EXISTING LIMITS OF WASTE
- 1084 — EXISTING GRADES
- BP1 — GAS PROBE
- GV1 — GAS VENT
- EXISTING SITE FENCE

N

0 200 400

SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV Company
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS — TOMBRISTA METAFERIA — 123183 — LICENSED PROFESSIONAL ENGINEER — 08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY

0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

EXISTING SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/II 1.1

PRINTED BY: MetafeT DATE: 8/5/2024
FILE PATH: C:\pw\workingstv\pw_stv\metaferiat\d0942002\DELR2003302 Figure I&II-1.1 .dwg

2.0 SUPPLEMENTARY TECHNICAL REPORT

2.1 Facility Location and Project Overview

2.1.1 Site Location

The City of Del Rio Landfill is an existing Type I MSW facility. The landfill is located in the City of Del Rio in Val Verde County, Texas. The site entrance is located at 1897 Railroad Avenue, approximately 2.5 miles west of the intersection of US-90 and Loop 79.

2.1.2 Owner and Operator

The existing landfill is owned by the City of Del Rio (City) and operated by Platform Waste Solution, LLC. For over 35 years, the landfill has been a part of the community and is the main recipient of waste from the residents and businesses in the City of Del Rio and surrounding areas. The landfill does not have delinquent fees related to the TCEQ.

2.1.3 Major Permit Amendment Summary

The purpose of this Major Permit Amendment is to obtain authorization to expand the existing City of Del Rio Landfill. Comparisons between (1) the existing permitted and proposed landfill completion plans and (2) the existing permitted excavation plan are shown on Figure I/II-2.1 and Figure I/II-2.2, respectively.

The facility serves residences and businesses in the City and surrounding counties. In addition, the landfill accepts waste from municipal, private, and public haulers from surrounding communities and counties. This service area is based on current economic conditions.

The quantity and types of waste accepted at the landfill and the site design and operations are discussed in the following subsections. Consistent with Title 30 TAC §330.61(b), the sources and characteristics of wastes are detailed in the following sections. In addition, waste screening and acceptance procedures are further discussed in Part IV - SOP. The types of waste to be accepted for disposal per TCEQ Permit No. MSW-207C will be the same as those currently accepted at the site.

2.1.4 Waste Acceptance Plan

The City of Del Rio Landfill is currently operated as a Type I municipal solid waste disposal facility. The facility accepts waste for disposal from both public and private entities in and around the City of Del Rio. The proposed expansion of the site will not alter the current service area of the site. The design and operation of the facility considers the characteristics of the waste types discussed in the Waste Acceptance Plan Form included in Appendix I/IIE.

The major classifications of solid waste to be accepted at the City of Del Rio Landfill include municipal solid waste, household waste, yard waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special wastes. Each classification of waste is defined by Title 30 TAC §330.3 as follows (note that not all of the special wastes listed in §330.3(148) will be accepted at this site - refer to Part IV for additional information):

- Municipal Solid Waste: Solid waste resulting from or incidental to municipal, community, commercial, institutional, and recreational activities, including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and all other solid waste other than industrial solid waste.

- Household Waste: Any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas); does not include brush.
- Yard Waste: Leaves, grass clippings, yard and garden debris, and brush, including clean woody vegetative material not greater than 6 inches in diameter, that results from landscaping maintenance and land-clearing operations. The term does not include stumps, roots, or shrubs with intact root balls.
- Commercial Solid Waste: All types of solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing activities, excluding residential and industrial wastes.
- Industrial Waste (Nonhazardous): Solid waste resulting from or incidental to any process of industry or manufacturing, or mining or agricultural operations, classified as follows:
    - Class 2 Industrial Solid Waste - any individual solid waste or combination of industrial solid waste that are not described as Class 1 or Class 3 as defined in Title 30 TAC §335.506 (relating to Class 2 Waste Determination).
    - Class 3 Industrial Solid Waste - inert and essentially insoluble industrial solid waste, usually including, but not limited to, materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable, as further defined in Title 30 TAC §335.507 (relating to Class 3 Waste Determination).
- Construction-Demolition Waste: Waste resulting from construction or demolition projects; includes all materials that are directly or indirectly the by-products of construction work or that result from demolition of buildings and other structures, including but not limited to, paper, cartons, gypsum board, wood, excelsior, rubber, and plastics.
- Special Waste: Any solid waste or combination of solid wastes that because of its quantity, concentration, physical or chemical characteristics, or biological properties requires special handling and disposal to protect human health or the environment. If improperly handled, transported, stored, processed, or disposed of or otherwise managed, it may pose a present or potential danger to human health or the environment. Refer to Part IV of the application for additional information regarding the acceptance of special waste.

Consistent with Title 30 TAC §330.15, the facility will not accept for disposal liquid waste, regulated hazardous waste, prohibited PCBs, untreated medical waste, and other wastes prohibited by TCEQ regulations.

Waste will only be disposed of in the 110.3-acre proposed solid waste disposal area listed in this permit application. No other waste disposal activities will occur within the 180.6-acre City of Del Rio Landfill permit boundary.

2.1.5 Disposal Rate and Volume of Waste

This section details the volume of waste disposal capacity and the projected disposal rates for the City of Del Rio Landfill. The waste disposal capacity of the site is summarized in Table 2-1.

Table 2-1 Waste Disposal Capacity Summary

Item	Disposal Capacity*	
	Permitted	Permit No. MSW-207C
Consumed Airspace	27,389,439 cy	27,389,439 cy
Remaining Airspace	1,988,178 cy	1,988,178 cy
Airspace Gained by Expansion	---	3,657,984 cy
Total Capacity	**29,377,617 cy**	**33,035,601 cy**

*Disposal capacity is defined as waste and daily cover. The consumed airspace represents the waste that has been placed at the site as of January 20, 2023.

Two estimates have been developed to provide an assessment of the solid waste disposal rate for the City of Del Rio Landfill. The first estimate is based on the project population growth for the City and Val Verde County, both currently and after the permit is issued. A second estimate was completed based on historical waste inflow data. The projection based on historical data is provided for informational purposes and is not considered in any calculation or demonstration in this application. All calculations provided in the application are based only on the population projections.

The disposal rate projections are discussed in detail in Appendix IIIB and summarized in Table 2-2.

Table 2-2 Waste Inflow Summary

Method Used to Determine Solid Waste Generation Rate	Initial Waste Inflow	Average Daily Projected Waste Inflow	Maximum Projected Waste Inflow	Population Equivalent (persons)	Site Life (years)
Population Projection	47,067 tons/year 152 tons/day	60,486 tons/year 196 tons/day	72,967 tons/year 236 tons/day	66,286	44.6
Historical Data	47,067 tons/year 152 tons/day	63,174 tons/year 204 tons/day	76,752 tons/year 248 tons/day	69,231	44.1

Currently, the City of Del Rio Landfill accepts approximately 152 tons/day (47,067 tons per year), based on the 2022 TCEQ Annual Report. The waste inflow rate is assumed to increase consistent with the projected growth rate for the facility's general service area, which for this analysis is assumed to be the City of Del Rio and Val Verde County.

Operating criteria for a range of waste acceptance rates are included in Part IV – SOP. These waste acceptance rates are not a limiting parameter of this permit. The actual yearly waste acceptance rate is a rolling quantity based on the sum of the previous four quarters of waste acceptance (refer to Part IV – SOP for additional information).

The projected waste acceptance rate for other years is summarized in Part III, Appendix IIIB. The site's estimated maximum annual waste acceptance rate for 7 years is shown below.

Table 2-3 Projected Maximum Annual Waste Acceptance

Year	Waste Acceptance Rate (tons per year)
2063	70,364
2064	70,877
2065	71,394
2066	71,914
2067	72,439
2068	72,967

2.1.6 Solid Waste Containment System

The containment system is comprised of the final cover, Subtitle D liner, overliner, and the leachate management system. The main objective of the containment system is to isolate the solid waste and remove leachate that may have collect on the liner. Leachate is defined as a liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste. The proposed Subtitle D liner in the expansion area consists of 2 feet of compacted clay liner and drainage geocomposite. The permitted overliner system will separate the existing waste in the pre-subtitle D waste disposal area and will consist of a geosynthetic clay liner, a 40-mill LLDPE geomembrane liner, and a drainage geocomposite layer. Design information and the required QA/QC construction procedures for the individual components of the containment system are presented in Part III of this application.

2.1.7 Site Development Plan

The site development plan (SDP) is included in Part III of this application. This plan sets forth the overall design and operating characteristics of the landfill. Drawings showing the proposed landfill configuration during site development are presented in Parts I/II, Appendix I/IIA - Facility Layout Maps. A summary of the landfill configuration is provided below.

- The proposed permit boundary (MSW-207C) for the site is 180.6 acres. The legal description for the proposed permit boundary is included in Section 13 of Parts I/II.
- A summary of the capacity (volume of waste and cover soils) of the site is listed below:
  - Remaining capacity of existing site = 1,988,178 cubic yards (as of January 20, 2023).
  - Increase due to major permit amendment application = 3.65 million cubic yards.
- Remaining capacity of the site with the proposed expansion (TCEQ Permit No. MSW-207C) = 5.64 cubic yards (as of January 20, 2023).
- The maximum elevation of the final cover will be 1124 ft-msl, and the maximum waste elevation will be 1120.5 ft-msl.

- The deepest elevation of excavation is 1007 ft-msl. The minimum elevation of the proposed landfill liner system is 1009 ft-msl and is located in the deepest sump. This elevation represents the top of the liner system.
- A Subtitle D clay liner (2-foot-thick compacted clay liner overlain by a leachate collection system will be constructed according to Title 30 TAC §330.331(a)(2) and §330.333. Details for the liner and LCS are provided in Part III, Appendix IIIA-A - Liner and Final Cover System Details.
- Above grade waste disposal will conform to the lines and grades set forth in Appendix I/IIA, Landfill Completion Plan Drawing. Side fill slopes will not exceed 25 percent from the toe of the side embankment to the top of the side embankment. The slope of the landfill top deck will be constructed at a five percent maximum slope.
- A final cover system will be constructed over the filled waste material, as shown in Part III, Appendix IIIA-A - Liner and Final Cover System Details. The final cover system is designed to minimize stormwater infiltration.

2.1.8 Site Monitoring Systems

To verify the integrity of the environmental protection systems, the following existing landfill monitoring systems have been installed and/or maintained.

- Landfill Gas Monitoring System - The purpose of the landfill gas monitoring system is to monitor and verify that landfill gas does not migrate off-site. The existing approved landfill gas monitoring system consists of six gas probes located along the existing permit boundary. The existing probes will be plugged and abandoned, and eighteen probes will be added. The landfill gas monitoring system is discussed in more detail in Part III, Appendix IIIM.
- Surface Water Monitoring Requirements - The City of Del Rio Landfill is subject to TCEQ stormwater permit requirements. City of Del Rio Landfill has secured coverage under the Texas Pollutant Discharge Elimination System (TPDES) general permit. The City maintains a current stormwater pollution prevention plan prepared consistent with multi-sector general permit (TXR05BY31). TCEQ approval for the existing TPDES is included in Appendix I/IID. Surface water monitoring will be conducted consistent with TPDES requirements.

2.1.9 Site Operations

The City of Del Rio Landfill is now and will continue to be operated by trained and TCEQ-certified personnel. The Site Operating Plan (SOP) for the City of Del Rio Landfill is presented in Part IV of this permit application. The operating plan details the equipment, personnel, and safety procedures required to operate the site in accordance with Title 30 TAC §330.65. The active landfill area will be covered each evening with soil or an approved ADC to prevent potential nuisance conditions such as odors and vectors. The City of Del Rio Landfill will continue to be inspected by the TCEQ on a regular basis for compliance with state regulations.

As discussed in Part IV - SOP, the site will have the option to operate and accept waste six days per week. Refer to Part IV - SOP for more information.

2.2 Regulatory Agency Coordination

Documentation of coordination with the following regulatory agencies is included in Appendix I/IIB:

- Federal Aviation Administration
- Texas Historical Commission
- Texas Department of Transportation
- Texas Parks and Wildlife Department
- U.S. Army Corps of Engineers
- U.S. Department of the Interior, Fish and Wildlife Service
- Middle Rio Grande Development Council

2.3 Texas Historical Commission Review

As noted in Section 2.2, a THC coordination letter is included in Appendix I/IIB. The THC concluded that no historic properties will be affected by the proposed expansion. The expansion of the City of Del Rio Landfill will follow the Natural Resources Code 191, Texas Antiquities Code.

2.4 Middle Rio Grande Development Council

The expansion of the City of Del Rio Landfill is consistent with the MRGDC Regional Solid Waste Plan. The continued development of the facility will provide a regional facility that will ensure long-term, cost-effective, and environmentally suitable disposal capacity for the region. This is a major goal of the MRGDC Regional Plan. The City has requested a review letter from MGRDC, to confirm that this expansion is in compliance with local solid waste plans. The coordination with MRGDC will be included in Appendix I/IIB.

2.5 Abandoned Oil and Water Wells

Search for water wells within a one-mile radius of the landfill was on December 16, 2022 by Environmental Risk Information Services (ERIS). The ERIS report included a review of records from the Texas Water Development Board, the TCEQ, and other database records. According to the ERIS report included in Appendix IIIJ, no groundwater wells exist within the permit boundary. The other located groundwater wells are located outside of the permit boundary.

If an abandoned oil, gas, or water well is located during facility development, the Landfill Coordinator will provide written notification to the TCEQ's Executive Director of their location within 30 days after discovery. As the site is developed, if any wells are encountered, they will be exposed, the casing cut to a minimum of 2 feet below the excavation, and the well plugged-in accordance with all applicable rules and regulations of the TCEQ, the Railroad Commission of Texas, or other applicable state agency.

The Landfill Coordinator will provide written notification to the Executive Director of the location of any existing or abandoned water wells within the facility upon discovery during site development. Within 30 days of such a discovery, the Landfill Coordinator will provide written notification and certification to the Executive Director of the TCEQ that all such wells have been plugged, capped, and closed in accordance with all applicable rules and regulations of the TCEQ or other applicable state agency.

Although the ERSI search shows an oil gas well within the permit boundary, as shown on Figure I/II-7.4, there are no known oil or natural gas wells within the permit boundary. For crude oil or natural gas wells,

or other wells associated with mineral recovery that are under the jurisdiction of the Railroad Commission of Texas, within 30 days after the plugging of any such well, the Landfill Coordinator will provide the Executive Director of the TCEQ with written certification that all such wells have been properly plugged, capped, and closed in accordance with all applicable rules and regulations of the Railroad Commission of Texas.

A copy of the well plugging report to be submitted to the appropriate state agency will also be submitted to the executive director of the TCEQ within 30 days after the well has been plugged.

If an abandoned well causes a change to the liner installation plan, a permit modification will be submitted to the Executive Director in accordance with Title 30 TAC §330.131(d).

2.6 Internet Posting

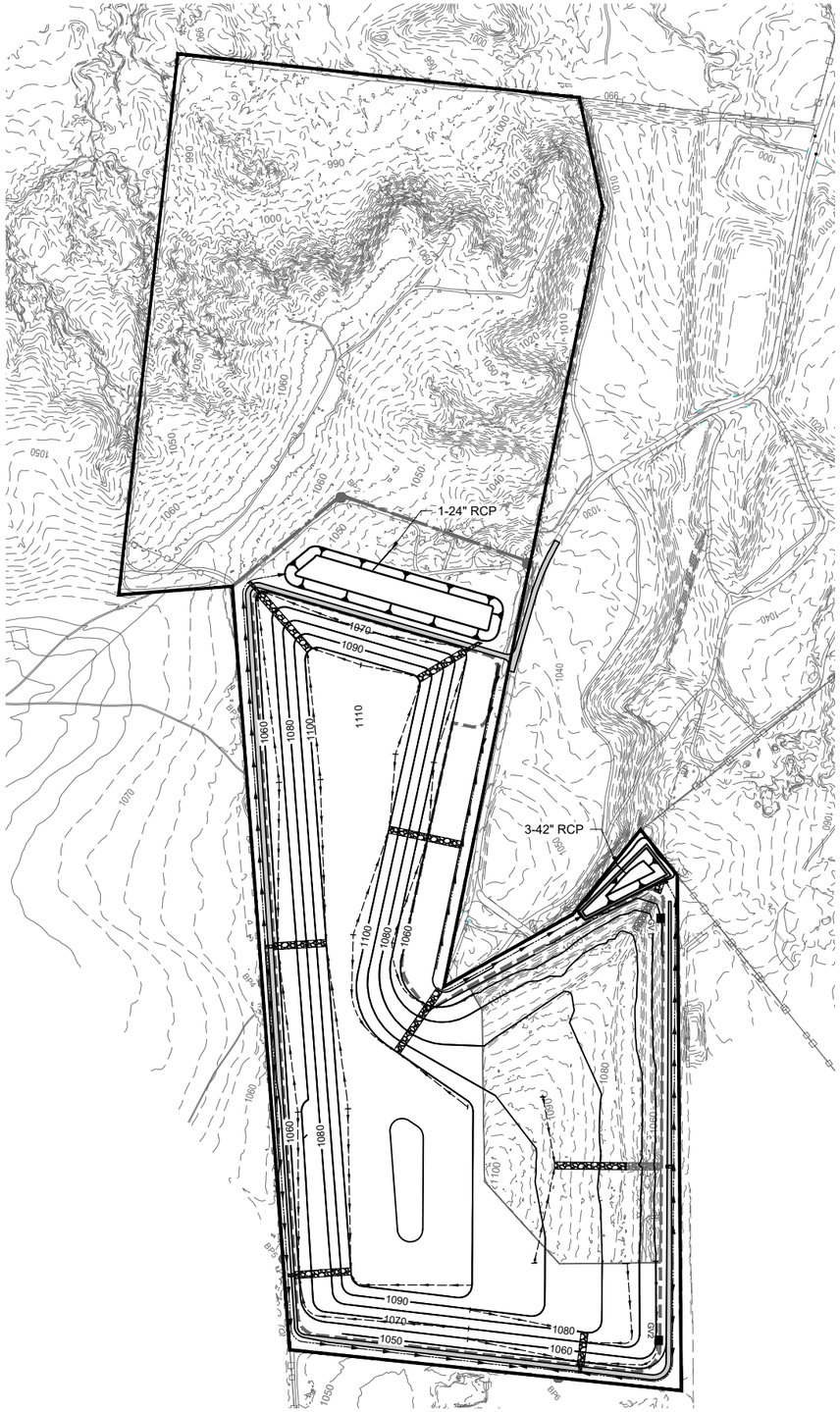
In accordance with Title 30 TAC §330.57(1), a complete copy of this permit application will be posted to the internet at the following publicly accessible website: http://www.cpypermits.com. All future revisions or supplements to this permit application will also be posted at the same location. This internet posting is for informational purposes only.

2.7 Existing Permits/Authorizations

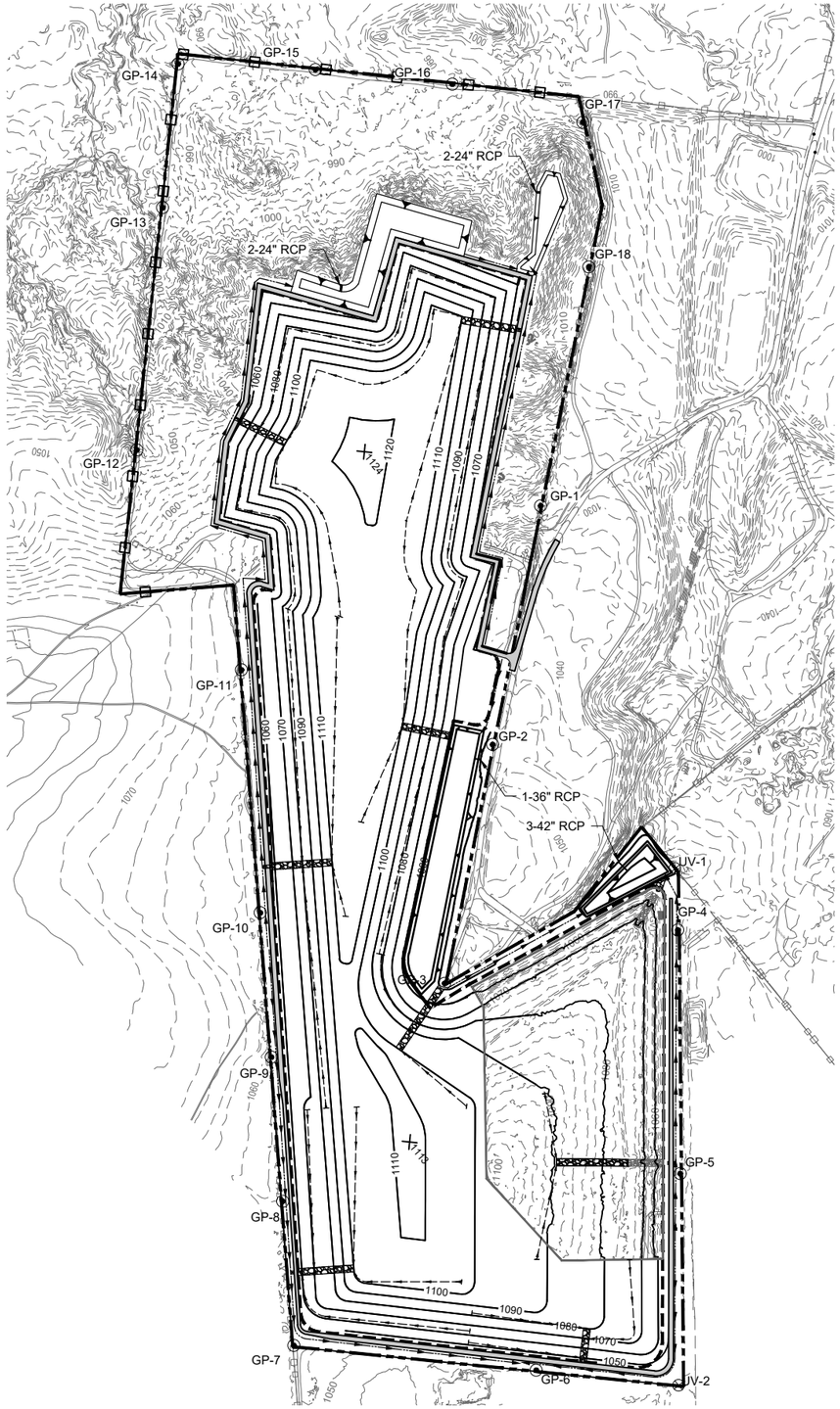
In accordance with Title 30 TAC §305.45(a)(7), the existing permits and authorizations for the facility are summarized in Table 2-4.

Table 2-4 Existing Permits/Authorizations

Description	Status
Hazardous Waste Management program under the Texas Solid Waste Disposal Act	No submittal is required nor has been applied for under the Hazardous Waste Management Program under the Texas Solid Waste Disposal Act.
Texas Pollutant Discharge Elimination System (TPDES) program under the Federal Clean Water Act (CWA) and Waste Discharge program under the Texas Water Code, Chapter 26	Refer to Appendix I/IID for more information regarding the site's Multi-Sector Stormwater Permit (TCEQ Permit No. TXR05BY31).
Prevention of Significant Deterioration (PSD) Program under the Federal Clean Air Act	No submittal for a Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA) is required or has been applied for.
Nonattainment Program under the Federal Clean Air Act (FCAA)	No submittal for a non-attainment permit under the FCAA is required or has been applied for.
National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the FCAA	No submittal is required nor been applied for under the NESHAPS preconstruction approval under the FCAA.
Ocean dumping permits under the Marine Protection Research and Sanctuaries Act	No submittal is required nor have ocean dumping permits been applied for under the Marine Protection Research and Sanctuaries Act.
Dredge or fill permits under the Federal Clean Water Act	No dredge permits are required under the Federal Clean Water Act. Refer to Parts I/II - Section 11 for additional information.
TCEQ Air Quality Permit or Registration	The emission sources at the landfill are currently authorized by 30 TAC 330, Subchapter U Air Standard Permit, No. 163965 issued on February 25, 2021. The air authorization will be updated and revised as needed.



PERMITTED LANDFILL COMPLETION PLAN



PROPOSED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207C)

0 300 600
SCALE IN FEET

LEGEND

- PERMITTED PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- PERMITTED LIMIT OF WASTE
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- 1090 — FINAL COVER GRADES
- 1084 — EXISTING GRADES
- SWALES
- PERIMETER CHANNEL
- CHUTES
- BP1 — EXISTING GAS PROBE
- EXISTING SITE FENCE
- PROPOSED SITE FENCE
- PROPOSED ACCESS ROAD
- CUT/FILL MARKERS
- EXISTING CHUTE
- GV2 — EXISTING GAS VENT
- GP-5 — PROPOSED GAS PROBE
- UV-1 — PROPOSED GAS VENTS

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TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO

NO	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
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CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

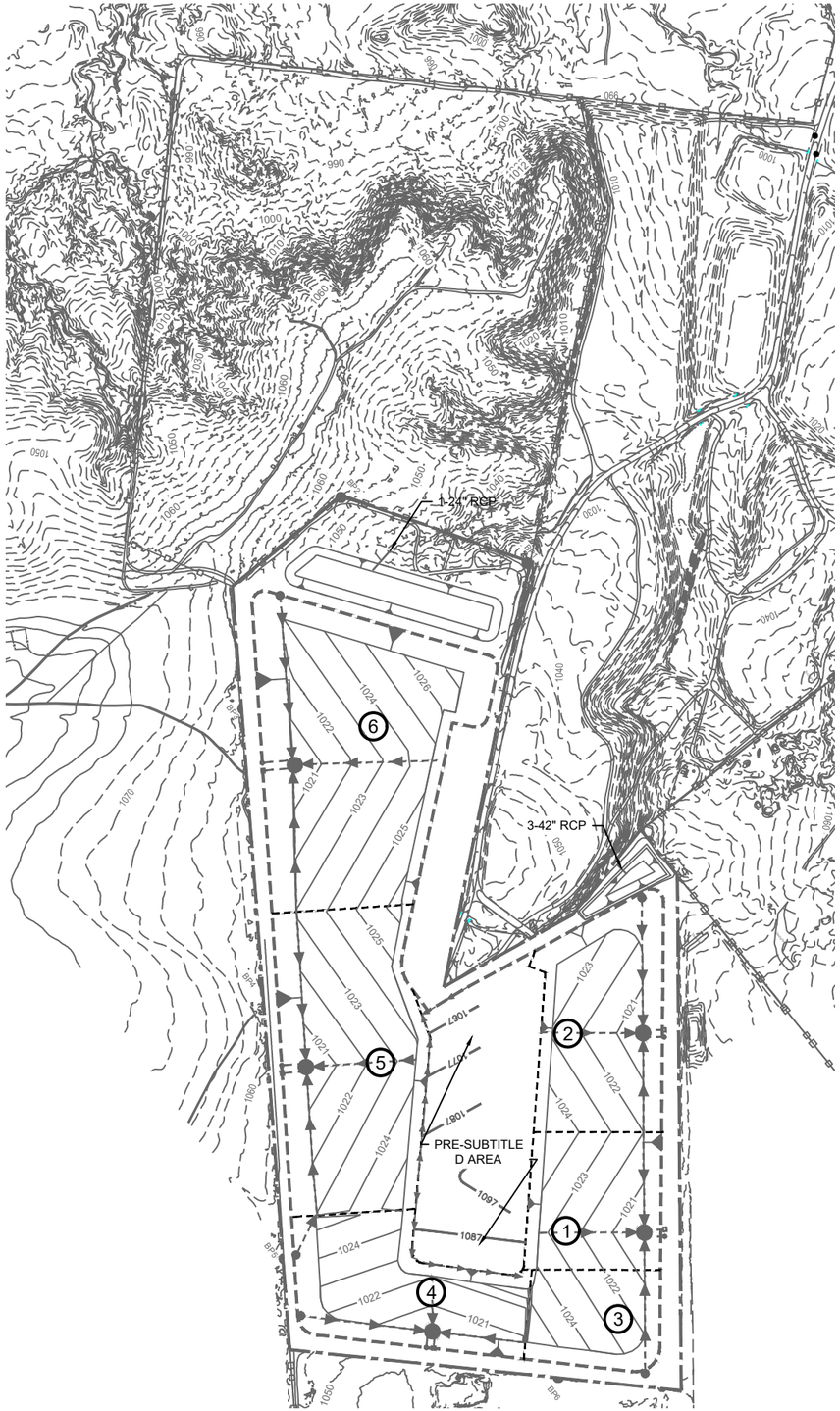
PERMITTED AND PROPOSED
LANDFILL COMPLETION PLAN

DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

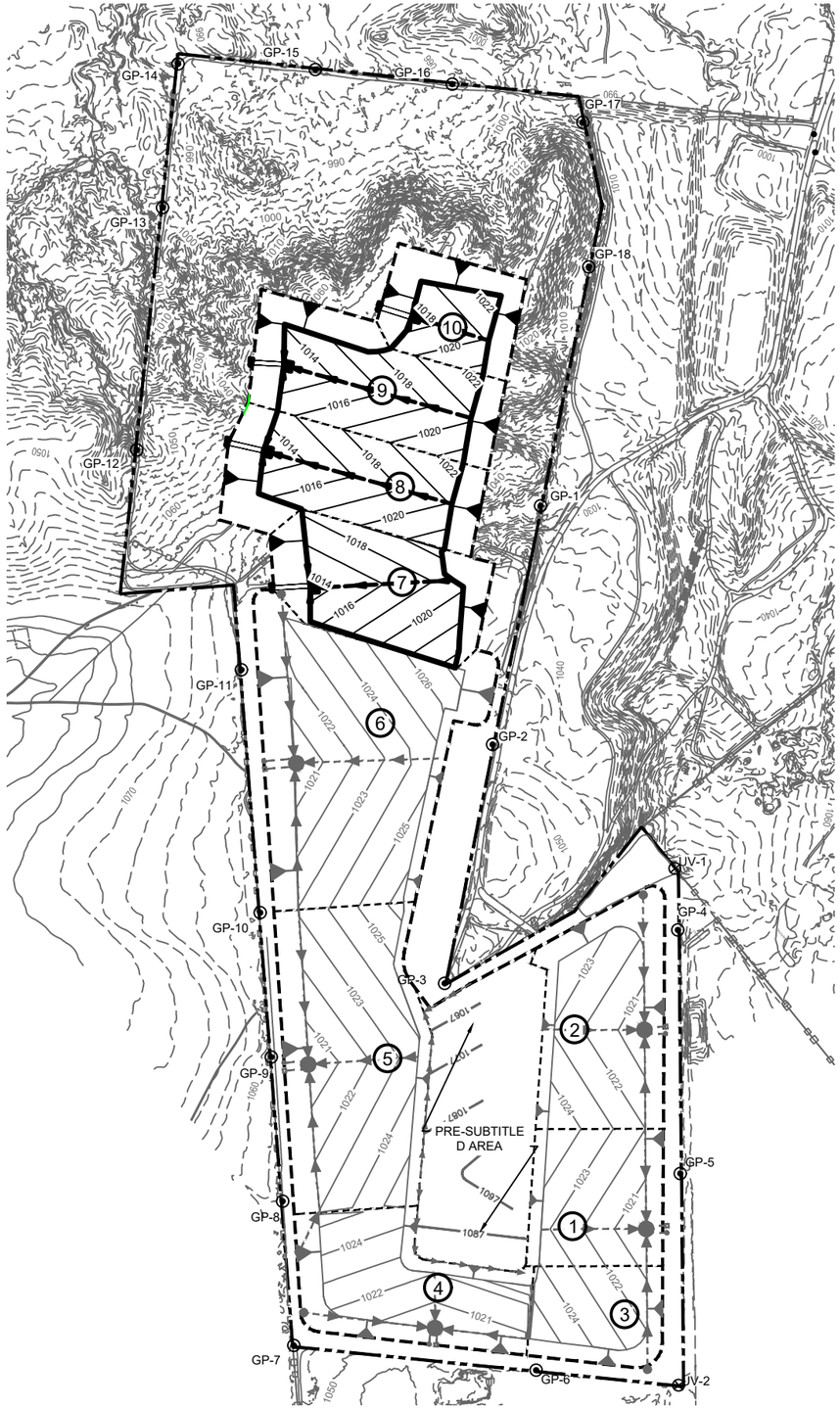
FIGURE
I/II-2.1

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PERMITTED LANDFILL EXCAVATION PLAN



PROPOSED LANDFILL EXCAVATION PLAN
(TCEQ PERMIT NO. MSW-207C)

0 300 600
SCALE IN FEET

LEGEND

- PERMITTED PERMIT BOUNDARY
- PROPOSED PERMIT BOUNDARY
- PERMITTED LIMIT OF WASTE
- PROPOSED LIMIT OF WASTE
- 1020 — PERMITTED EXCAVATION GRADES
- 1087 — PERMITTED OVERLINER GRADES
- 1010 — PROPOSED EXCAVATION GRADES
- 1084 — EXISTING GRADES
- EXISTING SITE FENCE
- PROPOSED SITE FENCE
- CUT/FILL MARKERS
- BP-3 — EXISTING GAS PROBE
- UV-1 — PROPOSED GAS VENTS
- GP-5 — PROPOSED GAS PROBE
- 2 — CELL DESIGNATION
- PROPOSED LEACHATE COLLECTION RISER
- PROPOSED LEACHATE COLLECTION CLEANOUT
- PROPOSED LEACHATE COLLECTION SUMP
- PROPOSED LEACHATE COLLECTION LINE
- OVERLINER LEACHATE COLLECTION LINE
- PERMITTED LEACHATE COLLECTION SUMP

Page I/II - 12

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TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

City of Del Rio Texas

STATE OF TEXAS
BETH A. KOCHUR
113866
LICENSED PROFESSIONAL ENGINEER
09/27/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

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CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

PERMITTED AND PROPOSED LANDFILL EXCAVATION PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW:B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-2.2

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3.0 EXISTING CONDITIONS SUMMARY

3.1 Site History

The site is an existing 105.6-acre municipal solid waste facility in Val Verde County. An existing site plan is shown on Figure I/II-1.1. The permitted excavation plan and final contour plan are reproduced in Figures I/II-3.1 and I/II-3.2.

The site was originally permitted by the Texas Department of Health in 1972. Since 1972 the original permit has been amended in:

- 1989 to expand the landfill by 105.6 acres to the existing landfill area;
- 1994 to obtain approval for an alternative liner and a waiver for groundwater monitoring;
- 1998 to increase the top of waste and final cover grades by 10 feet; and
- 2020 a permit amendment application was submitted to vertically expand the landfill.

3.2 Existing Liner System

The filled areas of the existing landfill were constructed consistent with the permit requirements in effect at that time. The existing site consists of approximately 12.3 acres of pre-Subtitle D area and 66.7 acres of Subtitle D lined area. Cells 1 through 6 are constructed to Subtitle D standards. Each Subtitle D cell has a liner system consisting of 2 feet of compacted clay liner, drainage geocomposite, and a protective cover layer.

The existing leachate collection systems for the Subtitle D lined areas consist of a geocomposite (single-sided on the floor grades and double-sided on the sideslopes). The leachate collection layer slopes to drain toward perforated leachate collection pipes surrounded by drainage stone. The leachate collection pipes convey leachate to the leachate sumps. Leachate from the leachate collection sumps is pumped into trucks periodical and disposed at an off-site permitted location.

3.3 Landfill Gas Monitoring System

The existing, TCEQ-approved landfill gas monitoring system consists of six gas probes (BP-1 through BP-6) located along the existing permit boundary as shown in Figure I/II-1.1. Monitoring of these probes is conducted quarterly. Refer to Appendix IIIM for additional information on the gas system.

3.4 Groundwater Monitoring System

The site currently has groundwater monitoring waiver and does not currently conduct any groundwater monitoring. Refer to Appendix III I and IIIN in Part III for more information.

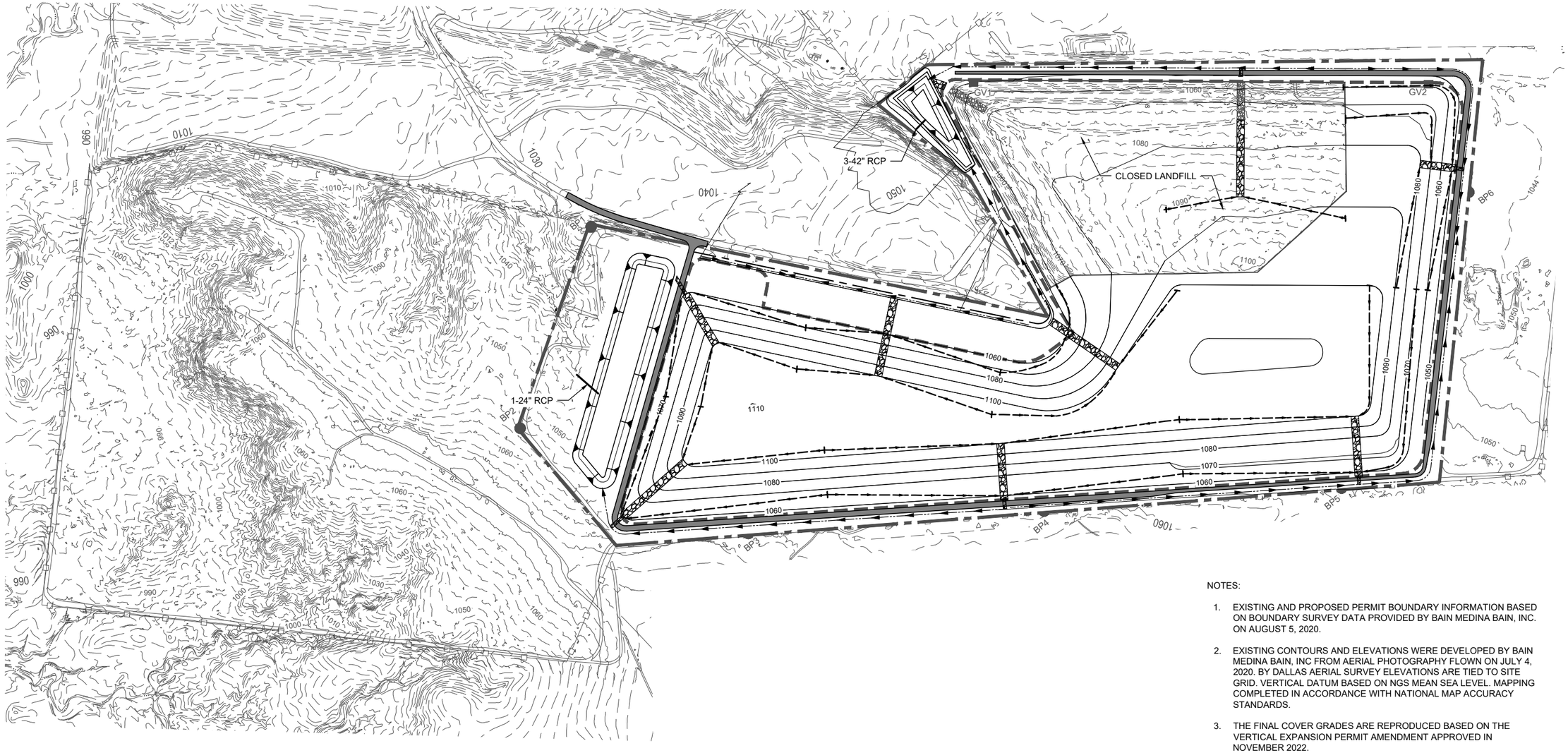
LEGEND

- CHUTES
- BP1 — GAS PROBE
- EXISTING SITE FENCE
- PERIMETER CHANNEL
- EXISTING CHUTES
- PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- LIMIT OF WASTE
- 1090 — FINAL COVER GRADES
- 1084 — EXISTING GRADES
- SWALES

N

0 200 400

SCALE IN FEET



PERMITTED LANDFILL COMPLETION PLAN

NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. BY DALLAS AERIAL SURVEY ELEVATIONS ARE TIED TO SITE GRID. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL. MAPPING COMPLETED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
3. THE FINAL COVER GRADES ARE REPRODUCED BASED ON THE VERTICAL EXPANSION PERMIT AMENDMENT APPROVED IN NOVEMBER 2022.

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TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS
TEWOBISTA METAFERIA
123183
LICENSED
PROFESSIONAL ENGINEER
08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

PERMITTED FINAL COVER PLAN

DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/II-3.1

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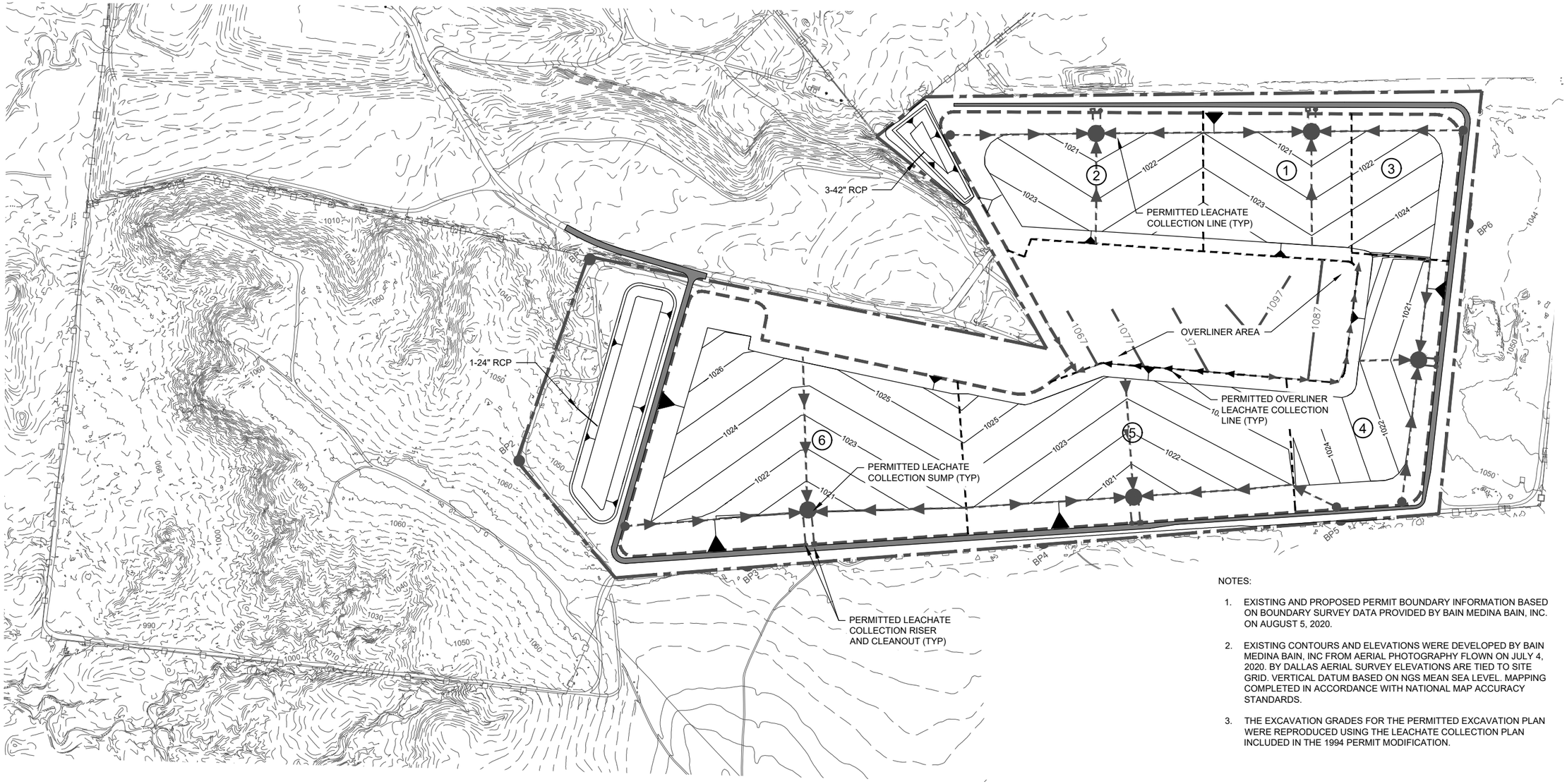
LEGEND

- PERMIT BOUNDARY
- LIMIT OF WASTE
- CELL BOUNDARY
- 1080 EXISTING GRADES
- 1010 EXCAVATION GRADES (SEE NOTE 3)
- 1087 PERMITTED OVERLINER GRADES
- CUT/FILL MARKERS
- 3 CELL DESIGNATION

N

0 200 400

SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. BY DALLAS AERIAL SURVEY ELEVATIONS ARE TIED TO SITE GRID. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL. MAPPING COMPLETED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
3. THE EXCAVATION GRADES FOR THE PERMITTED EXCAVATION PLAN WERE REPRODUCED USING THE LEACHATE COLLECTION PLAN INCLUDED IN THE 1994 PERMIT MODIFICATION.

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TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS
08/07/2024
TOMBSTA METAFERIA
123183
LICENSED
PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

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CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

PERMITTED EXCAVATION PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II - 3.2

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4.0 MAPS

A site location map and general topographic map are presented on Figures I/II-4.1 and I/II-4.2. Structures and inhabitable buildings located within 500 feet, as well as the nearest residence, schools, and churches are shown on Figure I/II-4.3.

Figure I/II-4.1 and Figure I/II-4.2 show surface water bodies in accordance with Title 30 TAC §330.59(c)(1) and §305.45(a)(6)(A). Refer to Section 7.7 for water wells.

Val Verde

N-LINE-RD
WINDMILL-TRL
RIMFIRE
PACKSADDLE
BOOT-TRL
QUAIL-RD
MESQUITE-TRL
YUCCA-DR
KINGS-WAY
AMISTAD
LAUSEN-RD
CANTU-RD
90
Del Rio
San Felipe Creek
BEDELL
MAIN-ST
Cienegas Creek
CR-1163
PARK-DR
CINEGAS-RD
LENA-RD
HOLLY-AVE
FINEGAN-DR
JOHNSON-ST
UP
GARZA-LN
FRONTERA-RD
LAS-VACAS-RD
VALENTE-LN
QUALIA-DR
GUYLER-LN
OLD-EAGLE-PASS-HWY
277
La Loma De
La Cruz
Del Rio-Ciudad Acuna
International Bridge
Rio-Grande
PAISANO-RD
ALMA-DR
CR-1255
HARVEY-DR
LISA-DR
JEFFREY-DR
JEFFERY-DR
DENNIS-DR
79
2523
CALLE-DEL-VE
CR-312
Laughlin Air
Force Base
Sacatosa Creek
CALLE-COCOBOLO

SITE LOCATION

0 3,000 6,000
SCALE IN FEET

LEGEND

PERMIT BOUNDARY

Texas Department of Transportation

- Unincorporated Community
- County Seat
- Border Crossing
- Cemetery
- Cemetery (Inside City)
- Deep Draft Port
- Shallow Draft Port
- Railroad
- Dam
- River or Stream
- TxDOT District
- Lakes
- Education
- Military
- Airport Runway
- Airport
- Prison
- Parks and Other Public Land

NOTES:

1. THIS MAP IS REPRODUCED 2022 TEXAS DEPARTMENT OF TRANSPORTATION VAL VERDE COUNTY MAPS NO. 1858 AND 1896.

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TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO, TEXAS

STATE OF TEXAS
TEMOBISTA METAFERIA
123183
LICENSED
PROFESSIONAL ENGINEER
08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

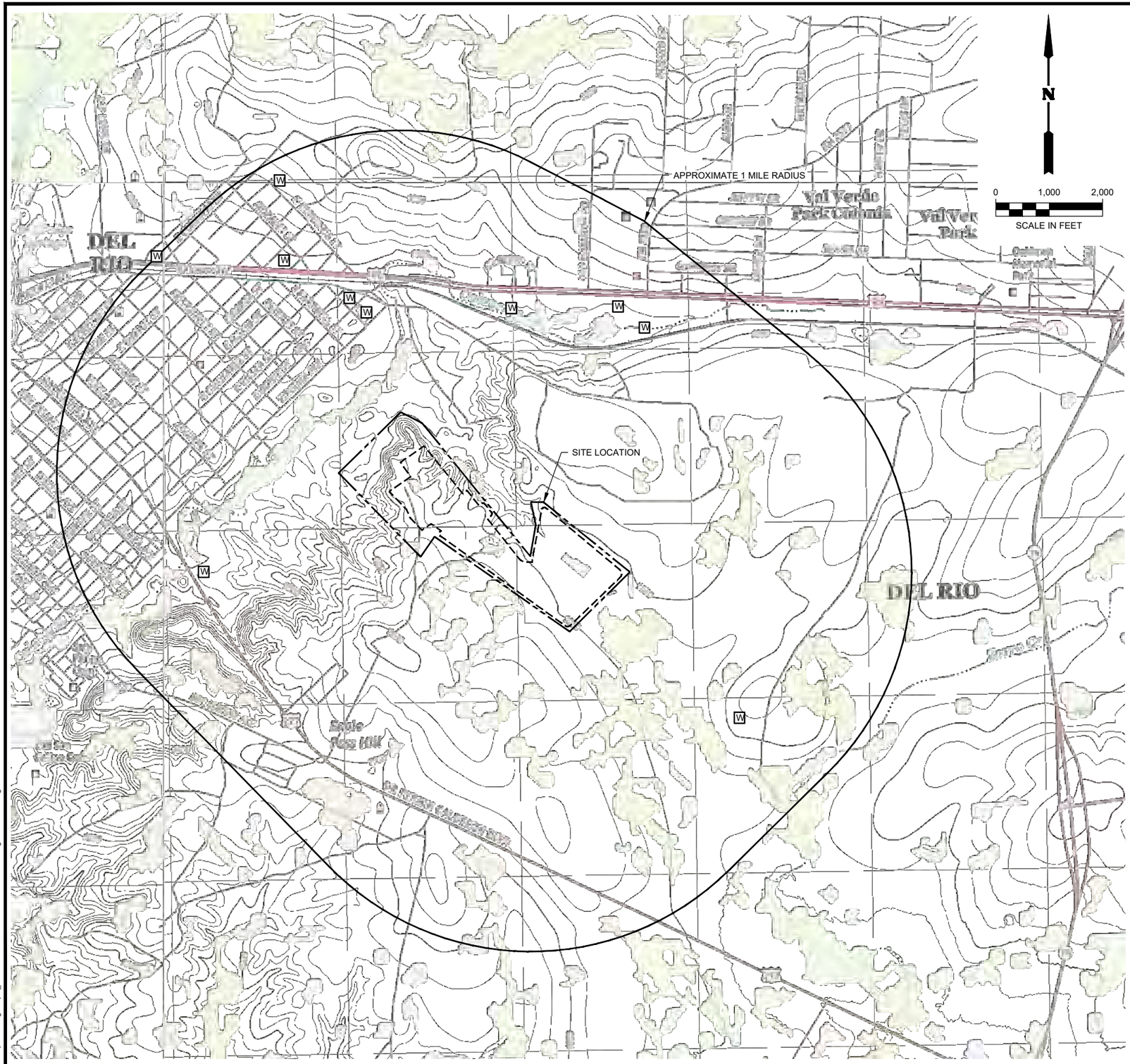
SITE LOCATION MAP

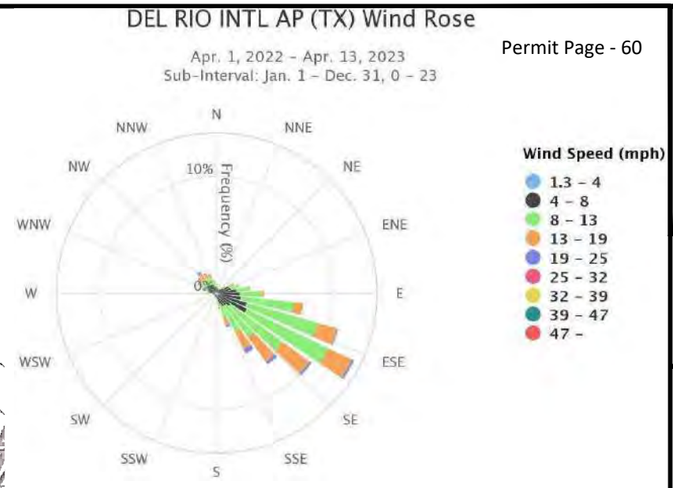
DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/II-4.1

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FILE PATH: C:\pwworking\stv\pw_stv\tmetaferia\d0942002\DELR2000302 Figure I&II-4.1.dwg



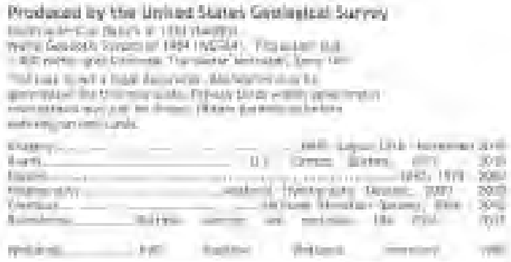


LEGEND

- PROPERTY BOUNDARY
- LIMITS OF WASTE
- [W] WATER WELLS

NOTES:

1. THE SITE ACCESS ROAD WITHIN HALF A MILE OF THE SITE IS U.S. HIGHWAY 90 AND 277 ARE ASPHALT PAVED ROADS. REFER TO SECTION 8 FOR ADDITIONAL INFORMATION.
2. SEE FIGURE I/II-5.1 FOR PROPERTY OWNERS WITHIN 1/4-MILE OF THE SITE.
3. SEE SECTION 7.2 FOR DISCUSSION OF WATER WELLS.
4. THERE ARE NO KNOWN HISTORIC SITES, DAY CARE CENTERS, KNOWN ARCHEOLOGICALLY SIGNIFICANT SITES, OR SITES OF EXCEPTIONAL AESTHETIC QUALITY LOCATED WITHIN ONE MILE OF THE PROPOSED PERMIT BOUNDARY. REFER TO SECTION 7 FOR ADDITIONAL INFORMATION.
5. REFER TO FIGURE 4.3 FOR LOCATION OF THE NEAREST RESIDENCE.
6. LAUGHLIN AIR FORCE BASE AND DEL RIO INTERNATIONAL AIRPORT ARE WITHIN 6-MILES OF THE PERMIT BOUNDARY (SEE SECTION 8 FOR MORE INFORMATION).
7. REFER TO APPENDIX I/IIA, DRAWING I/IIA.1 FOR EASEMENT INFORMATION AND DRAWING I/IIA.11 FOR ACCESS CONTROL INFORMATION.
8. THE WIND ROSE IS REPRODUCED FROM THE TEXAS AUTOMATED SURFACE OBSERVING SYSTEM (ASOS) AT THE DEL RIO INTERNATIONAL AIRPORT, THE ASOS IS A JOINT PROGRAM OF THE NATIONAL WEATHER SERVICE, THE FEDERAL AVIATION ADMINISTRATION AND THE DEPARTMENT OF DEFENSE
9. ALL TOPOGRAPHIC INFORMATION REPRODUCED FROM UNITED STATES GEOLOGICAL SURVEY 7 1/2 MINUTE QUADRANGLE SHEETS DEL RIO SE, TX, DEL RIO SW, TX, DEL RIO NE, TX, AN DEL RIO NW, TX.
10. RUBEN CHAVIRA ELEMENTARY SCHOOL, SAN FELIPE MEMORIAL MIDDLE SCHOOL, AND BIBLE WAY CHRISTIAN ACADEMY ARE LOCATED WITHIN ONE MILE OF THE SITE.



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CITY OF DEL RIO

STATE OF TEXAS
TEMOBISTA METAFERIA
123183
LICENSED PROFESSIONAL ENGINEER
08/07/2024

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0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

GENERAL TOPOGRAPHIC MAP

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REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/II-4.2

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N

0 500 1,000

SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

LIMITS OF WASTE

B BUILDING

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE JANUARY 19, 2017.

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CITY OF Del Rio TEXAS

STATE OF TEXAS
TEMOBISTA METAFERIA
123183
LICENSED PROFESSIONAL ENGINEER
08/07/2024

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0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

STRUCTURES AND INHABITABLE BUILDING WITHIN 500 FEET

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-4.3

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PRINTED BY: TorresJ DATE: 6/21/2023
FILE PATH: C:\pwworkingstv\pw_stv1\metaferia\d0942002\DELR200302 Figure I&II-4.3.dwg

5.0 PROPERTY OWNERS LIST AND MAP

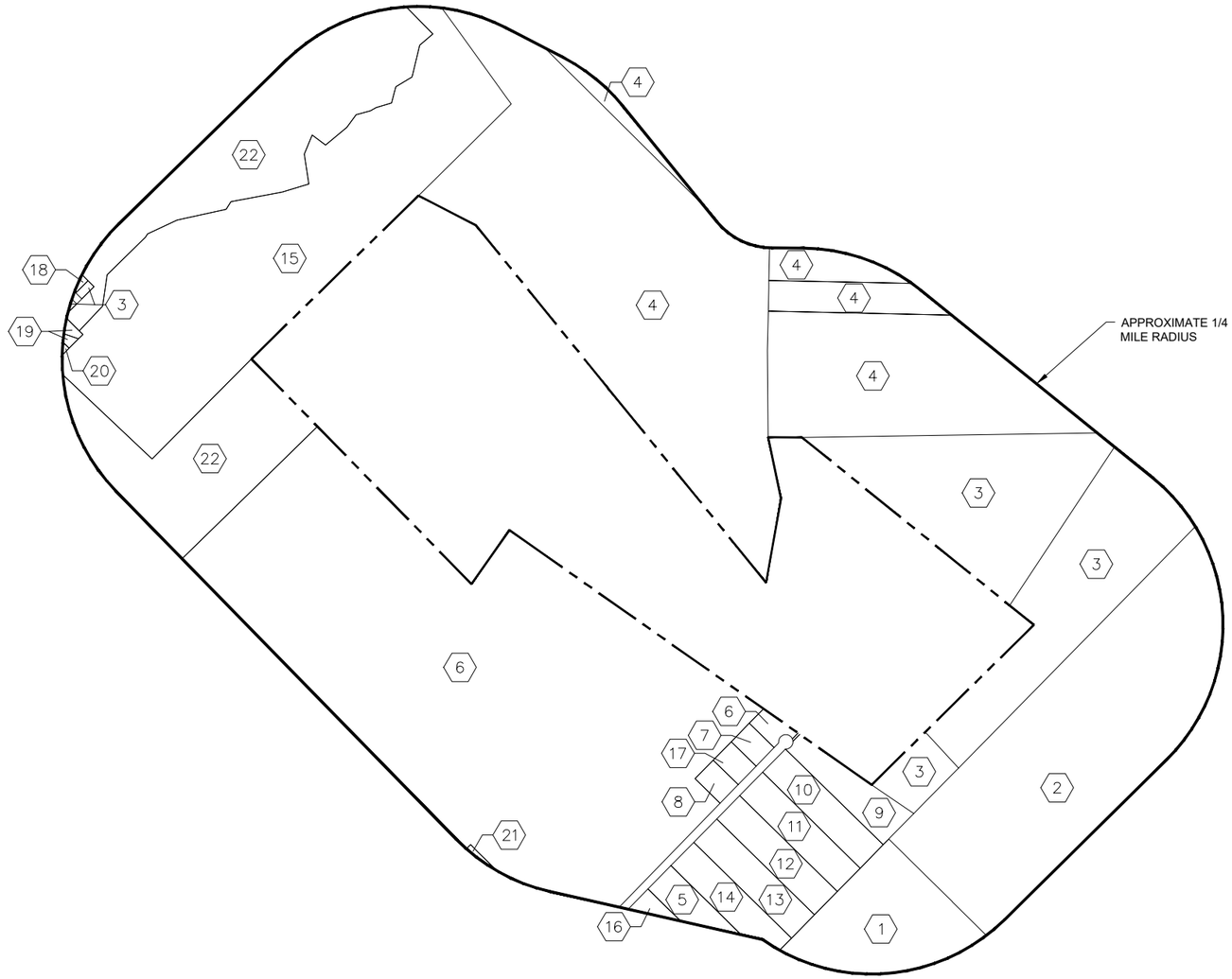
The following list and figure provide the names, mailing addresses, and locations of the "Adjacent and Potentially Affected Landowners" within 1/4 mile of the City of Del Rio Landfill. The numbers on the landowner list correspond to the numbers listed on Figure I/II-5.1. The list is based on records of the Val Verde County Appraisal Districts as of June 2020. Refer to Figure I/II-5.1, Property Owners Map, for location of the properties. Easement holders and mineral interest owners in accordance with Title 30 TAC §330.59(c)(3) are also listed in Table 5-1.

Table 5-1 Property Owners List

1. Franklin Claude Hargrove
   P.O. Box 420124
   Del Rio, TX 78840
2. Val Verde County Trustee
   P.O. Box 1368
   Del Rio, TX 78841-1368
3. City of Del Rio
   109 W Broadway St
   Del Rio, TX 78840
4. Fua Investments LLC
   101 Chardonnay Way
   Del Rio, TX 78840
5. Mirador INC
   708G Suite C
   Del Rio, TX 78840
6. Cerna Rosedel
   841 Las Palmas Drive
   Del Rio, TX 78840
7. Jose Angel & Vernice Arroyo
   810 Las Palmas Drive
   Del Rio, TX 78840
8. Jose Luis & Alva E. Nieto
   737 Las Palmas Drive
   Del Rio, TX 78840
9. Juan Jr. Martinez
   846 Las Palmas Drive
   Del Rio, TX 78840
10. Juan R. Martinez
    810 Las Palmas Drive
    Del Rio, TX 78840
11. Confidential Owner
12. Nicolas & Antonia G. Lozano
    732 Las Palmas Drive
    Del Rio, TX 78840
13. Luis A. Fernandez Jr.
    908 Ave R
    Del Rio, TX 78840
14. Esther C Monsivais
    103 B West 7th St
    Del Rio, TX 78840
15. Red River Service Corp
    4004 East Hwy 290 W
    Dripping Springs, TX 78620
16. Adolfo Angel & Bianca Yasmeen De La Cruz
    908 Ave R
    Del Rio, TX 78840
17. Maricel Del La Luz Jimenez Rodriguez
    501 W Chapoy St
    Del Rio, TX 78840
18. Carkos & Macaria Riojas
    P.O. Box 2204
    Del Rio, TX 78840
19. Jose R. Garcia
    2201 Beaumont St
    Grand Prairie, TX 78840
20. Alfredo & Roas Maria Sifuentes
    605 East Bean
    Del Rio, TX 78840
21. Eagle Pass Hill Land Group LLC
    P.O. Box 420577
    Del Rio, TX 78842
22. These parcels have the message “Property Not Found” on the Val Verde Appraisal District website.

Table 5-2 Easement Holders Associated within The Permit Boundary

1. West Texas Gas Utility LLC
   303 Veterans Airpark Park Ln. Ste 5000
   Midland, TX 79705
2. Central Power and Light Company
   1005 Congress Ave Ste. 550
   Austin, TX 78701-2491
3. AEP Texas Central Company
   P.O. Box 420579
   Del Rio, TX 78842



N

0 500 1,000

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

PROPERTY BOUNDARIES

3 LANDOWNER DESIGNATION (SEE NOTE 1)

NOTES:

1. REFER TO LANDOWNERS LISTED ON LANDOWNERS LIST IN SECTION 5, LANDOWNERS LIST AND MAP.
2. THE LINE REPRESENTS A 1/4 MILE DISTANCE FROM THE LIMIT OF THE PERMIT BOUNDARY.
3. LANDOWNERS AND MINERAL RIGHTS OWNERS LIST WAS DEVELOPED FROM DECEMBER 2022 VAL VERDE COUNTY APPRAISAL DISTRICT RECORDS.

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City of Del Rio TEXAS

STATE OF TEXAS
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08/07/2024

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CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

PROPERTY OWNERS MAP

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DRAWN: T. METAFERIA
REVIEW:B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

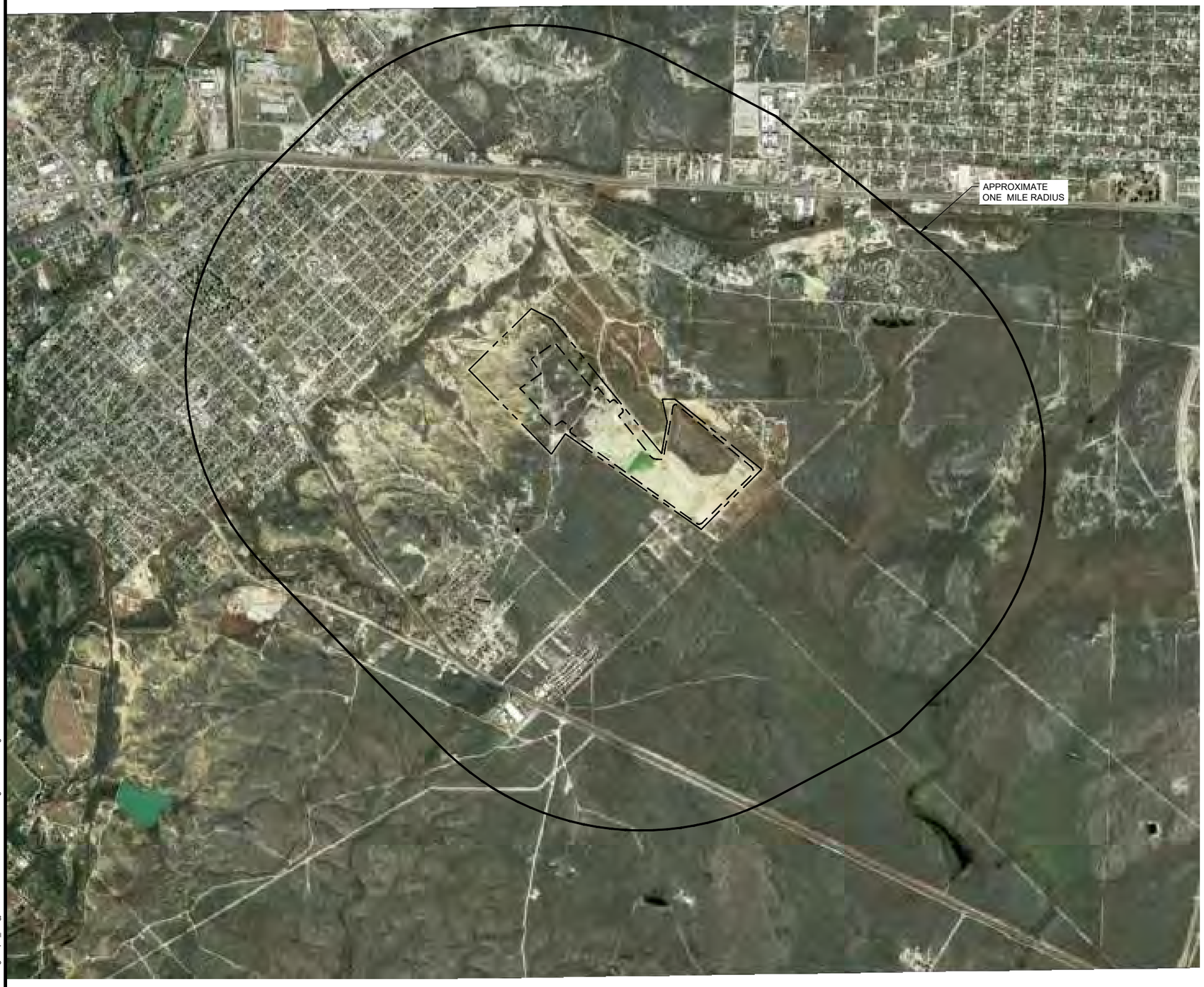
FIGURE
I/II-5.1

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FILE PATH: c:\pwworking\stv\pw_stv\gjohnson\d0942002\DELR200302 Figure I&II-5.1.dwg

6.0 AERIAL PHOTOGRAPH

An aerial photograph of the site and the surrounding area (minimum of one-mile radius from the site) is presented on Figure I/II-6.1.



N

0 500 1,000

SCALE IN FEET

LEGEND

PERMIT BOUNDARY

LIMIT OF WASTE

NOTES:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE JANUARY 19, 2017.

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PRINTED BY: TorresJJ DATE: 6/21/2023
FILE PATH: c:\pwworking\stv\pw_stvjjohnson\d0942002\DELR2000302 Figure I&II-6.1.dwg

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TBPE F-1741

CITY OF Del Rio TEXAS

STATE OF TEXAS
TEWOBSTA METAFERIA
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ENGINEER
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AND ADJUST SCALE ACCORDINGLY

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

AERIAL PHOTOGRAPH

DESIGN: A. GARDNER/A
DRAWN: A. GARDNER/A
REVIEW: B. MENDIVIL/A
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-6.1

7.0 LAND USE

7.1 Character of Surrounding Land and Land Use

A desktop land use evaluation was performed for the area within one mile of the City of Del Rio Landfill permit boundary. Growth trends within 5 miles of the facility were also evaluated. Land use information is summarized on the following five maps.

- Figure I/II-7.1 (Land Use Map - Aerial). This map highlights land use within a one-mile radius of the site on an aerial photograph.
- Figure I/II-7.2 (Land Use Map). This map indicates major land uses within a one-mile of the site.
- Figure I/II-7.3 (Cities within 5 Miles - Aerial). This map is used to show area cities within five-mile and to summarize growth trends.
- Figure I/II-7.4 Water Well Map – This map is used to show the water wells within a one-mile radius.
- Figure I/II-7.5 Zoning Map – This map is used to show the different zoning for the surrounding areas.

7.2 Location and Zoning

The landfill is located on the east side of the City of Del Rio. According to the City's website, the existing landfill site is currently zoned as R-S – Single-Family District. The 75-acre expansion area is located outside the limits of the City of Del Rio and does not have any zoning requirements. As mentioned in Section 3 above, the City of Del Rio Landfill has been in operation for over 30 years. The existing zoning does not affect the landfill or its expansion.

7.3 Surrounding Land Use

As shown on Figures I/II-7.1 and I/II-7.2, land use within one mile of the site consists of predominantly open space land that contains scattered residence (approximately 16 percent of area within a mile of the permit boundary). There is a residential development located northwest of the site within a 1-mile radius of the permit boundary. Roadways comprise less than 4 percent of the area within a mile of the site. US 90, US 277 and several city roads are within a mile of the permit boundary.

7.4 Growth Trends of the Nearest Communities

As shown on Figure I/II-7.3, with the exception of the expansion area, the site is located within the city limits of Del Rio. Besides the residential area located northwest of the site most of the surrounding communities are scattered rural residential areas. There are no known future developments or growth trends for the area within a five-mile radius of the facility. Therefore, census data and population growth projections are used to determine the growth trend of the City of Del Rio, as well as Val Verde County. The census information and growth trends for these communities are presented in Table I/II-7.1, Population Growth Trends. The population projections were obtained from the Texas Water Development Board.

Table 7-1 Population Growth Trends

Entity	2000 Census	2010 Census	Growth Rate			
			2020	2030	2040	2050
Del Rio	33,867	37,024	38,083	40,524	42,887	45,315
Val Verde County	44,856	51,312	54,694	60,389	65,902	71,566

7.5 Proximity to Residences and Other Uses

The nearest residence is approximately 250 feet from the southwestern portion of the permit boundary (300 feet from the limits of waste - refer to Figure I/II-7.1).

There are three schools within a one-mile radius (San Felipe Memorial Middle School, Bible Way Christian Academy, and Ruben Chavira Elementary School). There are three religious buildings within a one-mile radius of the site (Bible Way Church of Our Lord, Iglesia de Cristo, and Ruben Kikes P). The Simply Kids Learning Center is a day care facility within one mile of the site. There are no hospitals, cemeteries, archaeologically significant sites, historical sites, or sites of exceptional aesthetic quality within one-mile of the permit boundary. The proximity of residences and other uses are shown on the Land Use Map - Aerial (Figure I/II-7.1).

7.6 Land Use Conclusions

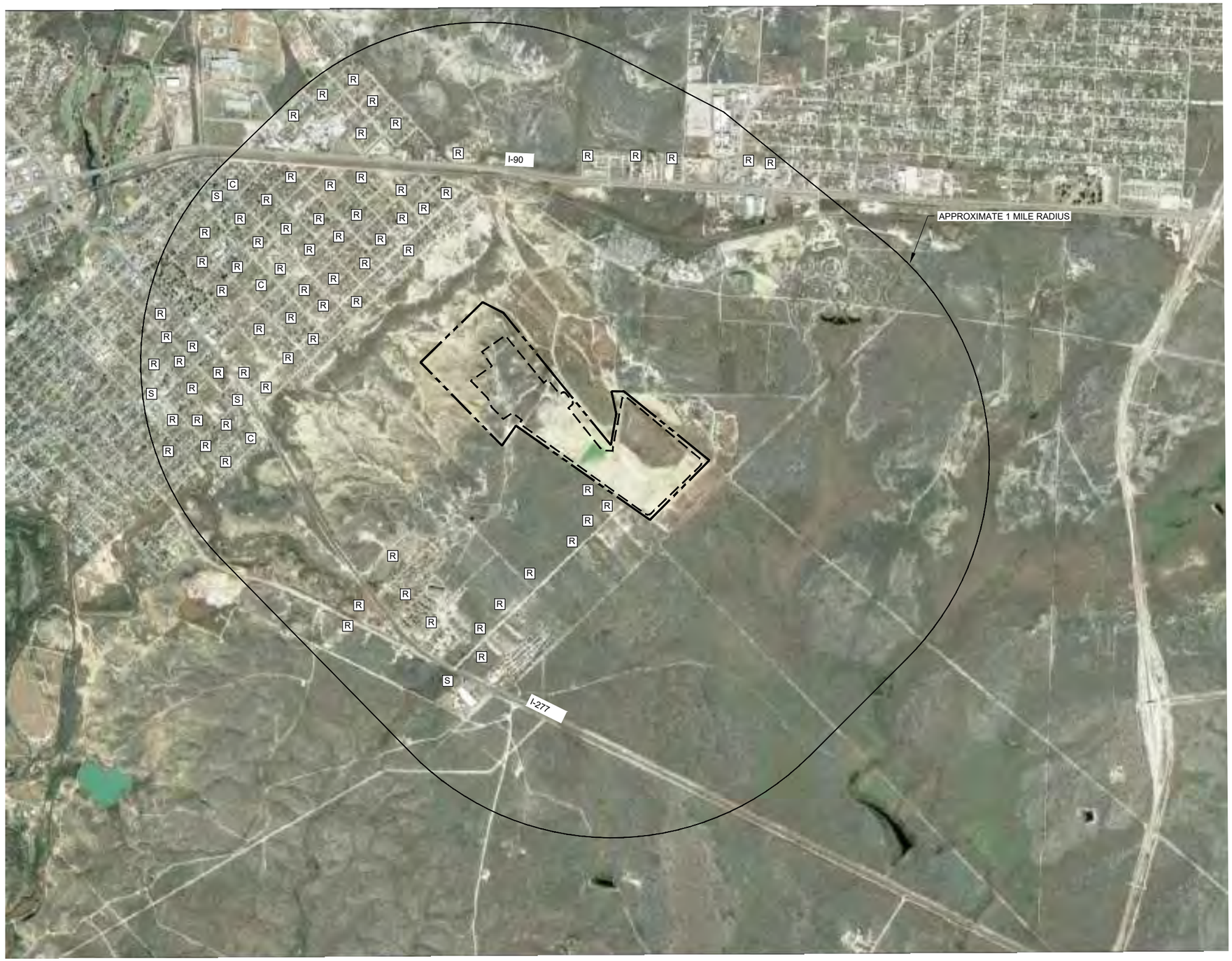
The use of the existing and expansion area land for a municipal solid waste site represents a compatible land use for the following reasons.

- The site has been permitted as a landfill since 1972. Prior to the operation of this facility, an adjacent property was used as a landfill.
- The landfill waste placement footprint is considerably buffered from nearby uses.
- The site has not and will not affect area growth trends.
- The generally undeveloped nature of the existing land uses in the area is compatible with the proposed expansion.

In summary, the existing site has long been established as a disposal facility. The expansion of the City of Del Rio Landfill will provide extended waste disposal for area communities at a facility that will continue to be developed to meet or exceed all regulatory requirements. The facility will cause no likely adverse impact on the City, communities, property owners or individuals. There are currently no windbreaks, greenbelt, or visual screening utilized by the facility.

7.7 Water and Gas Wells Within 500 Feet

A water and gas well search was conducted by Environmental Risk Information Services (ERIS) in December 2022. The results from the search are included in Appendix IIIJ-A. The search included a review of records from the Texas Railroad Commission, TWDB and the TCEQ database. The search results show that there are no known active water wells located within 500 feet of the permit boundary. There are abandoned monitoring wells within the permit boundary from the 1989, 1994, and 2020 geotechnical investigations. Figure I/II-7.4 shows the registered water and gas wells within a one-mile radius of the permit boundary. As shown in Figure I/II-7.4, there is a gas well shown within the developed area of the landfill. That gas well is associated with the site's gas monitoring system. In addition, no gas well were discovered during the construction of Cell 4.



N

0 1,000 2,000

SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF WASTE
- [R] RESIDENCE
- [S] SCHOOL
- [C] RELIGIOUS BUILDING

NOTES:

1. AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH, DATED JANUARY 19, 2017.
2. LAND USE IS SHOWN ONLY WITHIN THE ONE-MILE BOUNDARY OF THE SITE.
3. THE ONLY SITE ACCESS ROAD WITHIN ONE-MILE OF THE SITE IS U.S. HIGHWAY 90. REFER TO SECTION 8 FOR ADDITIONAL INFORMATION.
4. REFER TO FIGURE I/II-7.2 FOR SITE ZONING INFORMATION.
5. BIBLE WAY CHURCH OF OUR LORD, IGLESIA DE CRISTO, AND RUBEN KIKES P ARE RELIGIOUS BUILDINGS WITHIN ONE MILE OF THE SITE.
6. SIMPLY KIDS LEARNING CENTER IS A DAY CARE FACILITY WITHIN ONE MILE OF THE SITE.
7. WITHIN ONE MILE OF THE SITE THERE ARE NO HISTORICAL MARKERS, HOSPITALS, CEMETERY OR SITES WITH EXCEPTIONAL AESTHETIC QUALITIES.
8. REFER TO FIGURE I/II4.3 FOR INFORMATION REGARDING STRUCTURES AND INHABITABLE BUILDINGS LOCATED WITHIN 500 FEET OF THE PERMIT BOUNDARY.
9. BIBLE WAY CHRISTIAN ACADEMY, RUBEN CHAVIRA ELEMENTARY SCHOOL, AND SAN FELIPE MIDDLE SCHOOL ARE LOCATED WITHIN ONE MILE OF THE SITE.

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City of Del Rio Texas

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0 1"

CITY OF DEL RIO LANDFILL NO. 207C
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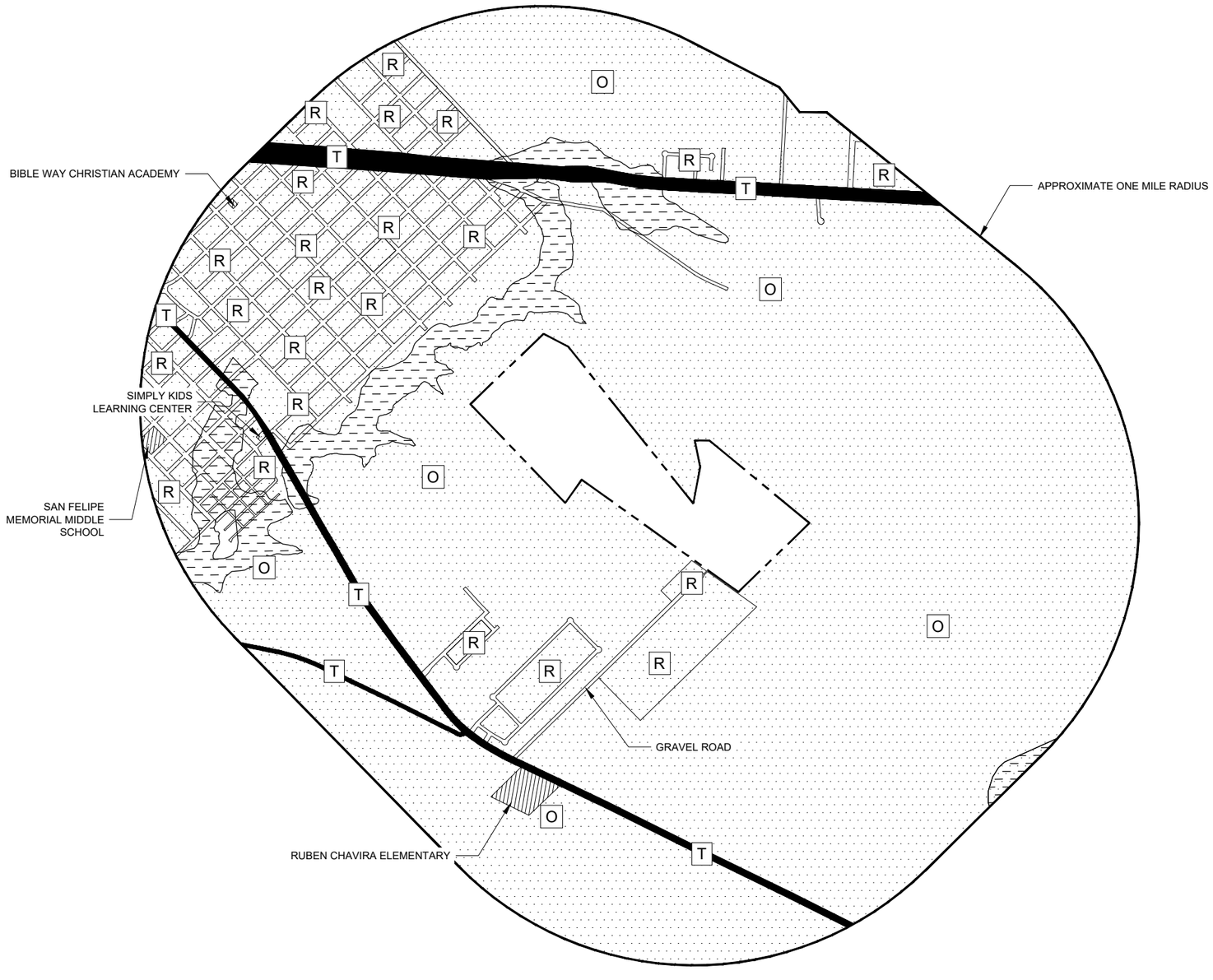
LAND USE MAP-AERIAL

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-7.1

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N

0 1,000 2,000

SCALE IN FEET

LEGEND

- PERMIT BOUNDARY
- FLOODPLAIN
- T — TRANSPORTATION CORRIDOR
- R — RESIDENTIAL
- O — OPEN SPACE(INCLUDING SCATTERED HOMES)

LAND USE WITHIN 1 MILE OF PERMIT BOUNDARY	
DEL RIO LANDFILL PERMIT BOUNDARY	4.50%
RESIDENTIAL	16.20%
OPEN SPACE (INCLUDING SCATTERED RESIDENCES)	71.20%
FLOODPLAIN	5.30%
TRANSPORTATION CORRIDOR	2.50%
SCHOOL	0.30%
TOTAL	100%

NOTES:

1. REFER TO FIGURE I/II-7.1 FOR LOCATION OF RESIDENCES.
2. ALL ROADS WITHIN ONE MILE OF THE LANDFILL ARE ASPHALT EXCEPT AS NOTED ON THE SITE PLAN.

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CITY OF DEL RIO

08/2024 STATE OF TEXAS TIMOBISTA METAFERIA 123183 LICENSED PROFESSIONAL ENGINEER

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0 1"

CITY OF DEL RIO LANDFILL NO. 207C
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LAND USE MAP

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REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-7.2

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LEGEND

PROPERTY BOUNDARY

NOTES:

1. AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH DATED JANUARY 19, 2017.

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City of Del Rio Texas

STATE OF TEXAS
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CITY OF DEL RIO LANDFILL NO. 207C
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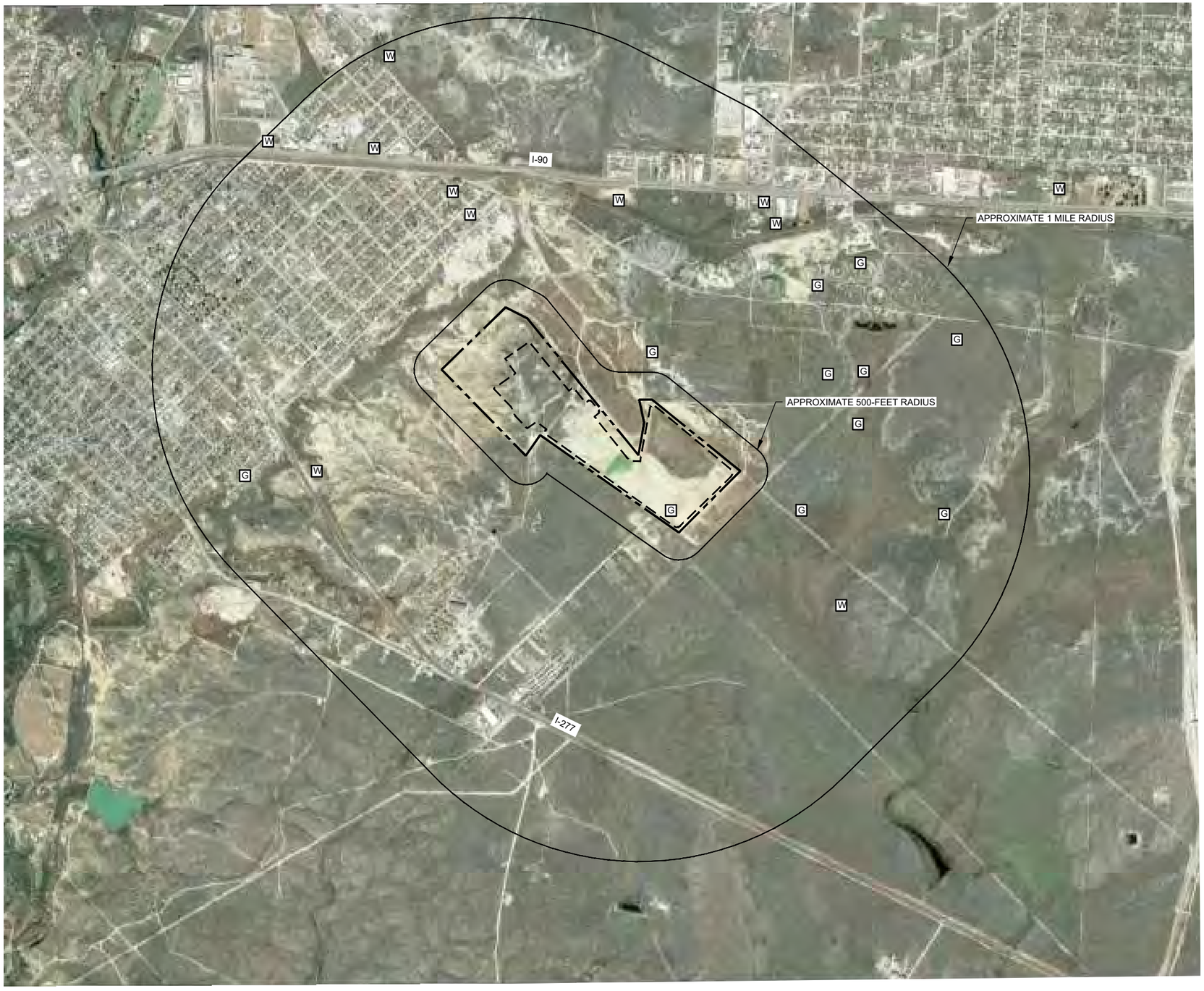
CITIES WITHIN 5 MILE RADIUS

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-7.3

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N

0 1,000 2,000

SCALE IN FEET

LEGEND

- PROPERTY BOUNDARY
- LIMITS OF WASTE
- W — WATER WELLS
- G — OIL & GAS WELLS

NOTES:

1. AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH, DATED JANUARY 19, 2017.
2. WATER WELLS SHOWN WITHIN THE ONE-MILE BOUNDARY OF THE SITE ARE BASED ON THE ERIS SEARCH CONDUCTED IN DECEMBER 16, 2022.

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CITY OF DEL RIO, TEXAS

STATE OF TEXAS — TEWOBISTA METAFERIA — 123183 — LICENSED PROFESSIONAL ENGINEER — 08/07/2024

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CITY OF DEL RIO LANDFILL NO. 207C
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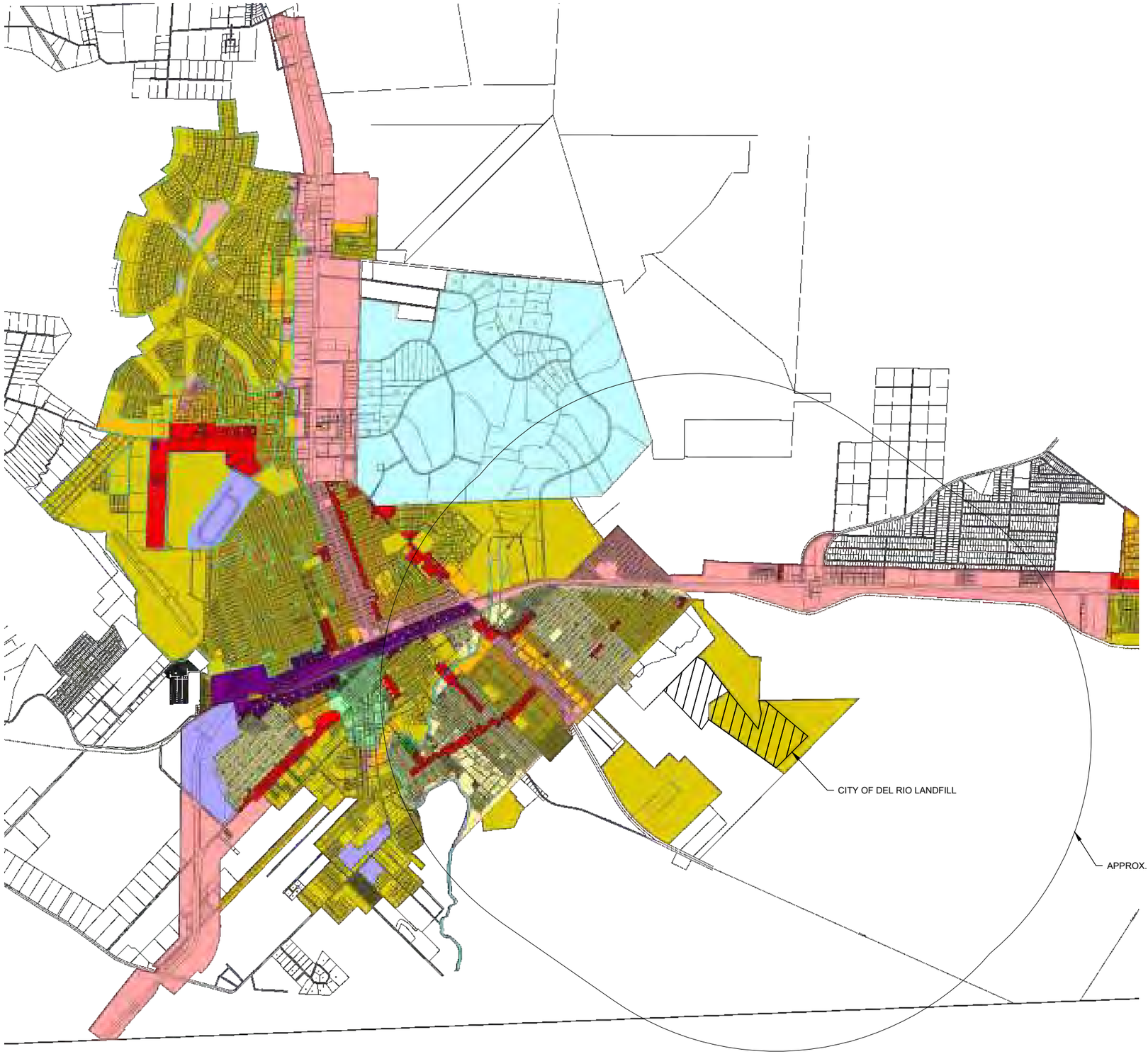
OIL & GAS AND
WATER WELL MAP

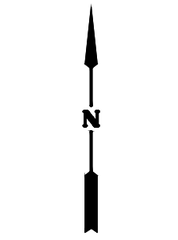
DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/II-7.4

PRINTED BY: MetafeT DATE: 8/16/2024
FILE PATH: C:\pwworking\stv\pw_stv\tmetaferia\d0942002\DELR2000302 Figure I&II-7.4.dwg

FOR PERMITTING PURPOSES ONLY





City of Del Rio Zoning Map

- City Limits
- Railroad
- Roads.shp
- Parcels.shp
- Stream
- Block Circles
- AGRICULTURE
- C-1
- C-1-H
- C-2-A
- C-2-B
- I
- R-220
- R-M
- R-S
- R-S-O

NOTES:

1. ZONING MAP WAS REPRODUCED USING THE CITY OF DEL RIO PLANNING AND ZONING MAP.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV Company
TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS — TEMOBISTA METAFERIA — 123183 — LICENSED PROFESSIONAL ENGINEER — 08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

ZONING MAP

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-7.5

PRINTED BY: JohnsoG DATE: 7/25/2024
FILE PATH: C:\pw\workinglstv\pw_stv1\metaferia\d0942002\DELR200302 Figure I&II-7.5.dwg

8.0 TRANSPORTATION

8.1 Traffic Information

8.1.1 Availability and Adequacy of Roads

The City of Del Rio Landfill is located within the City of Del Rio in Val Verde County, Texas. The site entrance is located approximately 2.5 miles west of the intersection of US-90 and Loop 79, and approximately 2.3 miles east of the intersection of US-90 and US-277. Trucks hauling waste will use US-90 before turning on to Railway Avenue to access the site. The proposed landfill expansion does not include a change to the location of the site entrance.

Table 8-1 presents a summary of the existing and estimated proposed traffic patterns and vehicle counts for the access roads within one mile of the site. The existing traffic volume for US-90 was obtained using the TxDOT Traffic Web Viewer for the Laredo District published in August 2020. Traffic associated with the landfill is based the daily traffic volume of the landfill.

Table 8-1 Traffic Growth Trends

Existing Traffic Volume 2021					
Average Daily			Peak Hour [3]		
LF Trips[4]	Non-LF Trips	Total[1]	LF Trips	Non-LF Trips	Total
224	18,623	18,399	22	1,862	1,835
Projected Traffic Volume[2] 2069					
Average Daily			Peak Hour [3]		
LF Trips	Non-LF Trips	Total	LF Trips	Non-LF Trips	Total
362	30,169	29,807	36	3,017	2,981

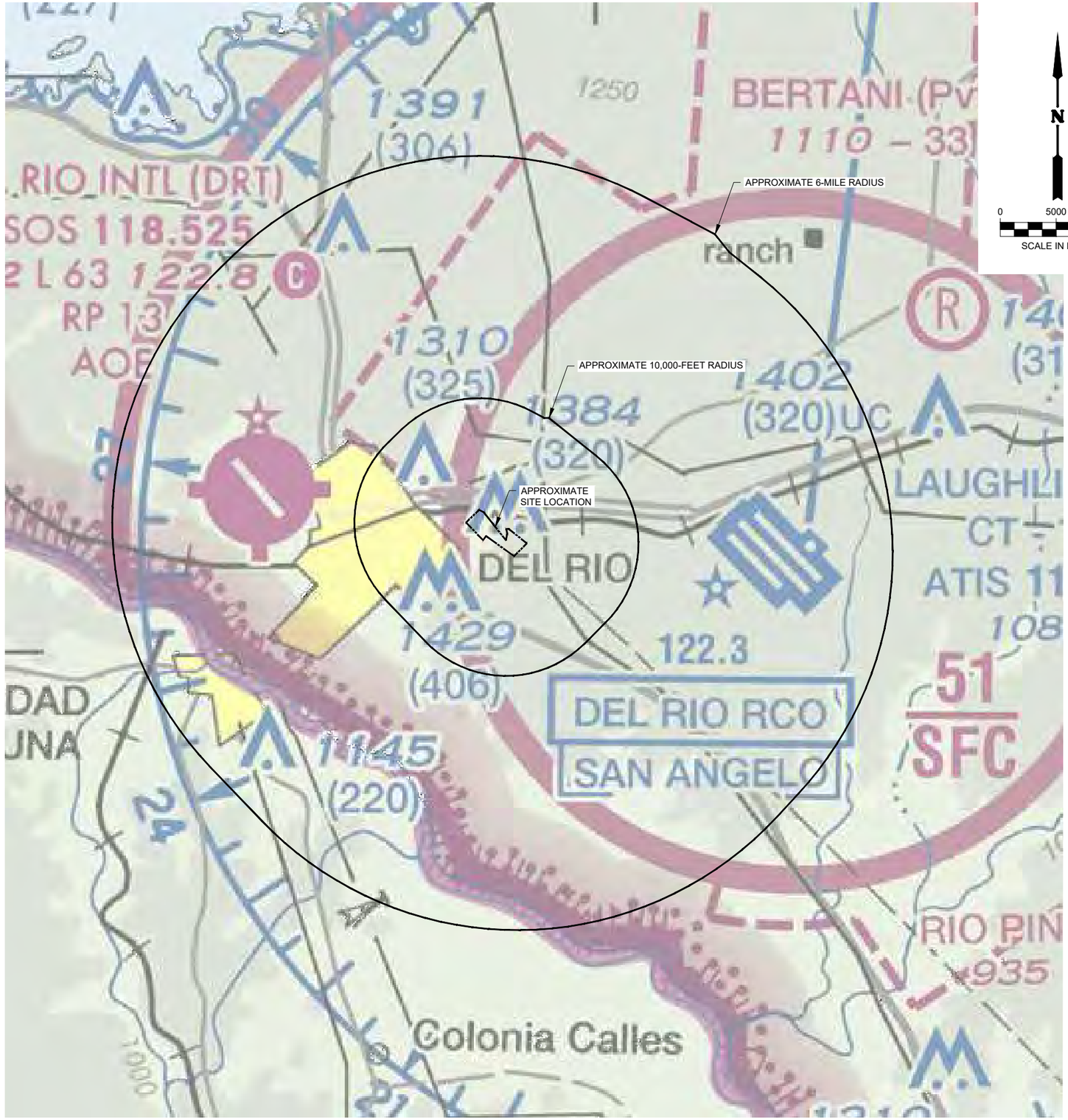
Notes:
1. Traffic count data was obtained from 2021 District Traffic Web Viewer.
2. The projected traffic volumes were obtained using projected growth rates for the surrounding area growth rate (non-Landfill vehicles). The growth rates were obtained from the Texas Water Development Board, Regional Water Plan. The annual population increase for 2021-2030 is 14.95%, 2031-2040 is 10.41%, 2041-2050 is 9.31%, 2051-2060 is 8.59%, and 2061-site closure is 7.54%.
3. Peak hour volumes are assumed to be ten percent of total daily traffic.
4. Landfill trips are estimated based on the current truck counts provided by the City.

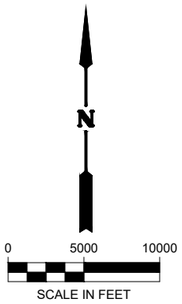
Although there is an increase in the amount of landfill trips, the landfill trips account for less than 2 percent of the overall traffic. Therefore, the increase in the landfill traffic will have minimal effect on the overall capacity of the access roadway. US-90 is an asphalt paved four-lane (12-foot lane width) highway with a middle turning lane and 10-foot-wide shoulders on each side. The direct site access road, Railway Avenue is a two-lane (12-foot lane width) asphalt paved road. The existing roads are adequate for the landfill traffic and will continue to provide adequate access to the site throughout the life of the facility. Coordination with TxDOT regarding traffic and location restrictions is included in Appendix I/IIB.

8.2 Airport Impact

TCEQ distance restrictions set forth in Title 30 TAC §330.545 require municipal solid waste disposal facilities to be located no closer than 10,000 feet to any runway end used by turbojet aircraft or no closer than 5,000 feet to any runway end used by piston-engine aircraft. As shown on Figure I/II-8.1, no airports (privately-owned or general service) are identified within the 10,000-foot radius of the landfill. The Airport Safety Location Restriction is included in Appendix I/IIC.

Figure I/II-8.1 shows there are two airports located within the 6-mile radius of the landfill. The Del Rio International Airport is located approximately 4 miles northwest of the landfill, and is a publicly owned, general use airport. The Laughlin Air Force Base is a military airport facility operated by the United States Air Force and is located approximately 4 miles east of the landfill. As required by Title 30 TAC §330.545(b) the Del Rio International Airport, Laughlin Air Force Base, and the FAA have been notified about the lateral expansion at the City of Del Rio Landfill. The coordination letter are included in Appendix I/IIB.





SAN ANTONIO
LEGEND

Airports having Control Towers are shown in blue, all others in Magenta. Consult Chart Supplement for details involving airport lighting, navigation aids, and services. All times are local. For additional symbol information refer to the Chart User's Guide.

AIRPORTS

Other than hard-surfaced runways
Seaplane Base
Hard-surfaced runways 1500 ft. to 8099 ft. in length
Hard-surfaced runways greater than 8099 ft. or some multiple runways less than 8099 ft.
Open dot within hard-surfaced runway configuration indicates airport/radio VOR, VOR-DME, TACAN or VORTAC location.
All runways/helo hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

AIRPORT DATA

Star Indicates PAR SR, Special AI Traffic Rules & Airport Traffic Pattern. Remarks with Flight Traffic Patterns public use * RP Special conditions exist - see Supplement.
FSS
NO SVFR
NAME (NAM) (PNAM)
CT - 118.3* ATIS 123.8
255 L 72 122.8R
RP 23, 34
VFR Advry 125.0
WX CAM
AOE
PAR SR
Location Identifier
LRD
Location Indicator shown outside contiguous U.S.
Unicom
Weather Camera (AK)
Airport of Entry
FSS - Flight Service Station
NO SVFR - Fixed-wing special VFR flight is prohibited.
CT - 118.3 - Control Tower (CT) - primary frequency
* - Star indicates operation part-time. See tower frequencies section for hours of operation.
@ - Refers to Common Traffic Advisory Frequency (CTAF)
ATIS 123.8 - Automatic Terminal Information Service
AWOS 123.42 - Automated Surface Weather Observing Systems (shown when no Sky-Vew ATIS not available).
Some ASOS/AWOS facilities may not be located at airports.
UNICOM - Aeronautical advisory station
VFR Advisory - VFR Advisory Service shown where full time ATIS not available and frequency is other than primary CT frequency.
255 - Elevation in feet
L - Lighting in operation Sunset to Sunrise
L - Lighting switches exist; refer to Supplement.
72 - Length of longest runway in hundreds of feet; double length may be less.
When information is lacking, the respective character is replaced by a dash. Lighting codes refer to runway edge lights and may not represent the longest runway or full length lighting.

ADDITIONAL AIRPORT INFORMATION

Private -"Pvt" - Non-public use having emergency or landmark value
Military - Other than hard-surfaced all military airports are identified by abbreviations AFB, NAS, AAF, etc.
Heliport Selected
Unverified
Abandoned - paved having landmark value, 3000 ft. or greater
Ultralight Flight Park Selected
Fuel - available from thru Fri 1600 A.M. to 4:00 P.M. depicted by one of fuels around basic airport symbol. Consult Supplement for details and for availability of airports with hard-surfaced runways greater than 8099 ft.
★ Rotating airport beacon in operation Sunset to Sunrise
OBJECTIONABLE - Airport may adversely affect airspace use.

AIRPORT TRAFFIC SERVICE AND AIRSPACE INFORMATION

Only the controlled and reserved airspace effective below 18,000 ft. MSL are shown.

Class B Airspace
Class C Airspace (Mode C - see FAR 91.215(AIRL))
Class D Airspace
Ceiling of Class D Airspace is hundreds of feet (A minus ending value indicates surface up to but not including that value.)
Class E (700) Airspace
Class E Airspace with floor 700 ft. above surface that laterally abuts Class G Airspace.
CLASS G
Class E Airspace with floor 700 ft. above surface that laterally abuts 1200 ft. or higher Class E Airspace
Class E Airspace with floor 1200 ft. or greater above surface that laterally abuts Class G Airspace
2400 MSL
4500 MSL
Differentiates floors of Class E Airspace greater than 700 ft. above surface.
Class E Airspace exists at 1000' AGL unless otherwise designated as shown above.
Class E Airspace low altitude Federal Airways are indicated by center line.
Intersection - Arrows are directed towards facilities which establish intersection.
1000
Total ceiling - Between NAVAIDs on direct Airways
Class E Airspace low altitude RNAV 2 Routes are indicated by center line.
RNAV Waypoint
Prohibited, Restricted, and Warning Areas
Canadian Advisory, Danger, and Restricted Areas
*Alert Area and Military Operations Area (MOA)
*Alert Areas do not extend into Class A, B, C and D airspace, or Class E airport surface areas.
Special Airport Traffic Area (See FAR 93 for details.)
ADIZ - Air Defense Identification Zone
MODE C (See FAR 91.215(ABIL))
National Security Area
Terminal Radar Service Area (TRSA)
MTR - Military Training Route

COMMUNICATION BOXES

122.1R 122.6 123.6
OAKDALE
OAK
122.0
CHICAGO CHI
Underline indicates no voice on frequency.
Guardcheck indicates Guardcom station.
★ - Operates less than continuous or On-Request.
ASOS/AWOS
HIRAS
TWEB
FSS radio providing voice communication
122.1R
MIAMI
Heavy line box indicates Flight Service Station (FSS). Frequencies 121.5, 122.6, 123.6 and 255.4 (Canada - 121.5, 122.7 and 243.0) are available at many FSSs and are not shown above boxes. All other frequencies are shown.
R - Receive only
Frequencies above this line box are remoted to MIAMI affo. Other FSS frequencies providing voice communication may be available as determined by aviation and terrain. Consult Supplement for complete information.

RADIO AIDS TO NAVIGATION

VHF OMNI RANGE (VOR)
VOR-DME
OME
VORTAC
Other facilities, i.e., FSS Outlet, RCO, WX CAM (AK) (see Supplement), etc.
Non-Directional Radio Beacon (NDB)
NDB - DME

OBSTRUCTIONS

1000 ft and higher AGL
Above 200 ft & below 1000 ft AGL (above 500 ft AGL in urban area)
Wind Turbine
Group Obstruction
Obstruction with high-intensity lights may operate part-time
Wind Turbine Farm
2694' UC
Elevation of the top obstruction one mark
Height above ground
2049 (1149) UC
Under construction or reported; position and elevation unverified
NOTICE: Guy wires may extend outward from structures.

MISCELLANEOUS

STADIUM
International MRT site (within 2 NM, up to & incl 9000' AGL)
Space Launch Activity Area (See Supplement.)
A - Aerobatic Practice Area (See Supplement.)
G - Glider Operations
H - Hang Glider Activity
U - Ultralight Activity
UA - Unmanned Aircraft Activity
Parachute Jumping Area (See Supplement.)
Marine Light
-10E- Isogonic Line (2015 VALUE)
VPXYZ
VFR Waypoints (See chart tabulation for latitude/longitude.)
NAME (VPXYZ)

TOPOGRAPHIC INFORMATION

Power Transmission Line
Aerial Cable
Lookout Tower
618 (Elevation Base of Tower)
Mountain Pass
11823 (Elevation of Pass)
Pass symbol does not indicate a recommended route or direction of flight and pass elevation does not indicate a recommended clearance altitude. Hazardous flight conditions may exist within and near mountain passes.

NOTES:

1. THIS MAP IS REPRODUCED FROM THE FAA SAN ANTONIO SECTION AERONAUTICAL CHARTS DATED APRIL 20, 2023.
2. THERE ARE NO PUBLIC AIRPORTS WITHIN A 10,000 FOOT RADIUS OF THE SITE.
3. THERE IS ONE INTERNATIONAL AIRPORT, AND ONE AIR FORCE BASE WITHIN A 6-MILE RADIUS OF THE SITE.

FOR PERMITTING PURPOSES ONLY

CP&Y
a STV Company
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741
City of Del Rio TEXAS
TEXAS
TOMBISTA METAFERIA
123183
LICENSED PROFESSIONAL ENGINEER
08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

AREA AIRPORTS

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/II-8.1

PRINTED BY: TorresJJ DATE: 6/21/2023
FILE PATH: c:\pwworkingstv\pw_stvjjohnson\d0942002\DELR2000302 Figure I&II-8.1.dwg

9.0 GENERAL GEOLOGY AND SOILS STATEMENT

9.1 Geology and Soils

The present operational area of the landfill is situated within the Del Rio Clay. A thin veneer of Buda Limestone crops out along the southwestern boundary. The Del Rio Clay at the site is characterized by a gradational weathered zone ranging in depths between 35 to 60 feet. This weathered stratum consists of blocky, fractured and fissured clay/shales interbedded with siltstone and limestone beds. The weathered strata exhibit various colors described as brown, tan, greenish-gray and reddish-brown resulting from oxidation of minerals in the clays. Gypsum filled fractures and slickensides are common. The unweathered zone in the Del Rio Clay is gray to blue-gray with scattered, very tight, nearly vertical fractures.

9.2 Fault Lines

City of Del Rio Landfill and the surrounding area were examined for the presence of geologic faulting in conformance with Title 30 TAC §330.555 criteria. This included a review of previous fault investigations, available literature and maps, and a current aerial photograph. The previous studies indicated that there are no faults at the landfill site. The 1994 fault study involved an extensive site inspection along outcrops and creek beds, evaluation of possible fault lineations on aerial photographs for the years 1947 (scale: 1 inch = 1000 feet), 1983 (Scale: 1 inch = 300 feet) and 1990 (Scale: 1 inch = 1000 feet) and review of geologic maps of the area. Only one possible fault was identified within 1 mile of the site located about 3/4 of a mile to the west along Highway 277. Several small displacement faults (less than 25 feet) were located in the vicinity (outside of one mile) during the previous study.

The faults in the area are believed to be associated with the Balcones Fault Zone. Faulting occurred throughout most of the Cretaceous Period and continued into early Tertiary time. Faulting along the Balcones Fault Zone has been inactive since Pleistocene time, some two million years ago.

Therefore, the site is in compliance with the fault areas location restriction. The certification of compliance with the fault area location restriction is presented in Appendix I/IIC.

9.3 Seismic Impact Zone

The seismic impact zone location restriction defined by Title 30 TAC §330.557 is an area with a 10 percent or greater probability that the maximum horizontal acceleration in rock, expressed as a percentage of the earth's gravitational pull, will exceed 0.10g in 250 years. According to the USGS earthquake hazard data, the site-specific maximum horizontal seismic acceleration estimated at a 10 percent probability of exceedance in a 250-year time period is 0.095g (9.5 percent of the force of gravity). As such, the USGS-derived site-specific horizontal acceleration is lower than the 10 percent of the force of gravity or greater horizontal acceleration required for seismic impact zone classification. Drawing I/IIC-3 in Appendix I/IIC is a USGS seismic impact zone map of Texas. As shown on this drawing, the site is not located within a seismic impact zone. For these reasons, the City of Del Rio Landfill is in compliance with the seismic impact zone location restriction. The seismic impact zone location restriction demonstration is included in Appendix I/IIC.

9.4 Unstable Areas

Title 30 TAC §330.559 notes that an unstable area is defined to be a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of a landfill's structural components responsible for preventing releases from the landfill: unstable areas can include poor

foundation conditions, areas susceptible to mass movement, and karst terrains. As discussed in Appendix I/IIC, Section 10, the soils at the landfill site provide suitable characteristics for a stable foundation and the soils are not susceptible to settlement conditions. The soils have an expansive character; however, the depth of the excavations and engineering design incorporating recompacted clay liners will limit shrink/swell movements that could effect containment integrity. Clay liners will be protected from shrinkage by prompt placement of waste debris, daily soil cover and final cover. The unstable areas location restriction demonstration is included in Appendix I/IIC.

10.0 GROUNDWATER AND SURFACE WATER STATEMENT

10.1 Groundwater Statement

The City of Del Rio Landfill doesn't have or operate a groundwater monitoring system. A waiver was originally requested and granted in the 1994 Alternative Liner Demonstration. The 2020 the permit was amended to expand the landfill vertically and the City was able to obtain an extension to the existing groundwater waiver. The City is requesting to extend the waiver as part of this Major Permit Amendment Application.

The pervious waivers were granted based on geotechnical investigation findings. The initial investigation (1986) for the permit amendment concluded that there was no shallow groundwater system in the Del Rio clay. The eight piezometers installed in March 1994 to monitor the groundwater activities around the site were all dry on drilling and remained dry over the observation period. In the 2020 geotechnical investigation, 17 borings were drilled in the expansion area and 9 of the borings were turned into piezometers. Water was encountered only in three of the piezometers. It was determined that the water encountered in the three piezometers are perched water and not part of a groundwater system. Based on three geotechnical investigations, the soil characterization of the Del Rio clay and the dry climate in the region it was concluded that there is no shallow groundwater at the site in the weathered-unweathered Del Rio Clay transition.

10.2 Surface Water Statement

The permit boundary encompasses approximately 180.6 acres located southeast of Calaveras Creek. A portion of the site drains to northwest to Calaveras Creek. The other portion of the site drains southeast to the Zorro Creek. Both the Calaveras and Zorro Creeks discharge into the Rio Grande.

For the proposed expansion, the final cover system will include erosion control structures to effectively minimize erosion of final cover soils. The proposed drainage system also includes a perimeter channel system that will convey stormwater collected from the landfill area to the detention ponds or directly into existing drainage channels that feeds the Calaveras and Zorro Creeks. The stormwater detention ponds are designed to attenuate stormwater flow before stormwater is discharged into existing drainage features located downstream of the site. As discussed in Appendix IIIH the site's stormwater management system is designed to not adversely alter existing permitted drainage patterns or have any adverse impact on offsite drainage features.

The facility has been designed to prevent discharge of pollutants into waters of the State or waters of the United States, as defined by the Texas Water Code and the Federal Clean Water Act, respectively. The City of Del Rio Landfill has a current Texas Pollution Discharge Elimination System (TPDES) multi-sector general permit (MSGP) for industrial activity as stipulated under Section 402 of the Clean Water Act and under Chapter 26 of the Texas Water Code, the TPDES program. A copy of the multi-sector permit is included in Parts I/II, Appendix I/IID. Any stormwater that has become contaminated by contact with the working face or with leachate will be handled in accordance with Appendix IIIC - Leachate and Contaminated Water Management Plan. The facility maintains a current Stormwater Pollution Prevention Plan prepared consistent with the provisions of TPDES MSGP (Permit No. TXR05BY31). Given the above, the applicant is in full compliance with TPDES under the Clean Water Act, Section 402, as amended. The facility's construction and operations shall not cause or contribute to violations of any applicable state water quality standard, violation of any applicable toxic effluent standard or prohibition under the Clean Water Act §307; jeopardize the continued existence of endangered or threatened species or result in the

destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973, or violate any requirement under the Marine Protection, Research, & Sanctuaries Act of 1972 for the protection of marine sanctuary.

11.0 FLOODPLAINS AND WETLANDS STATEMENT

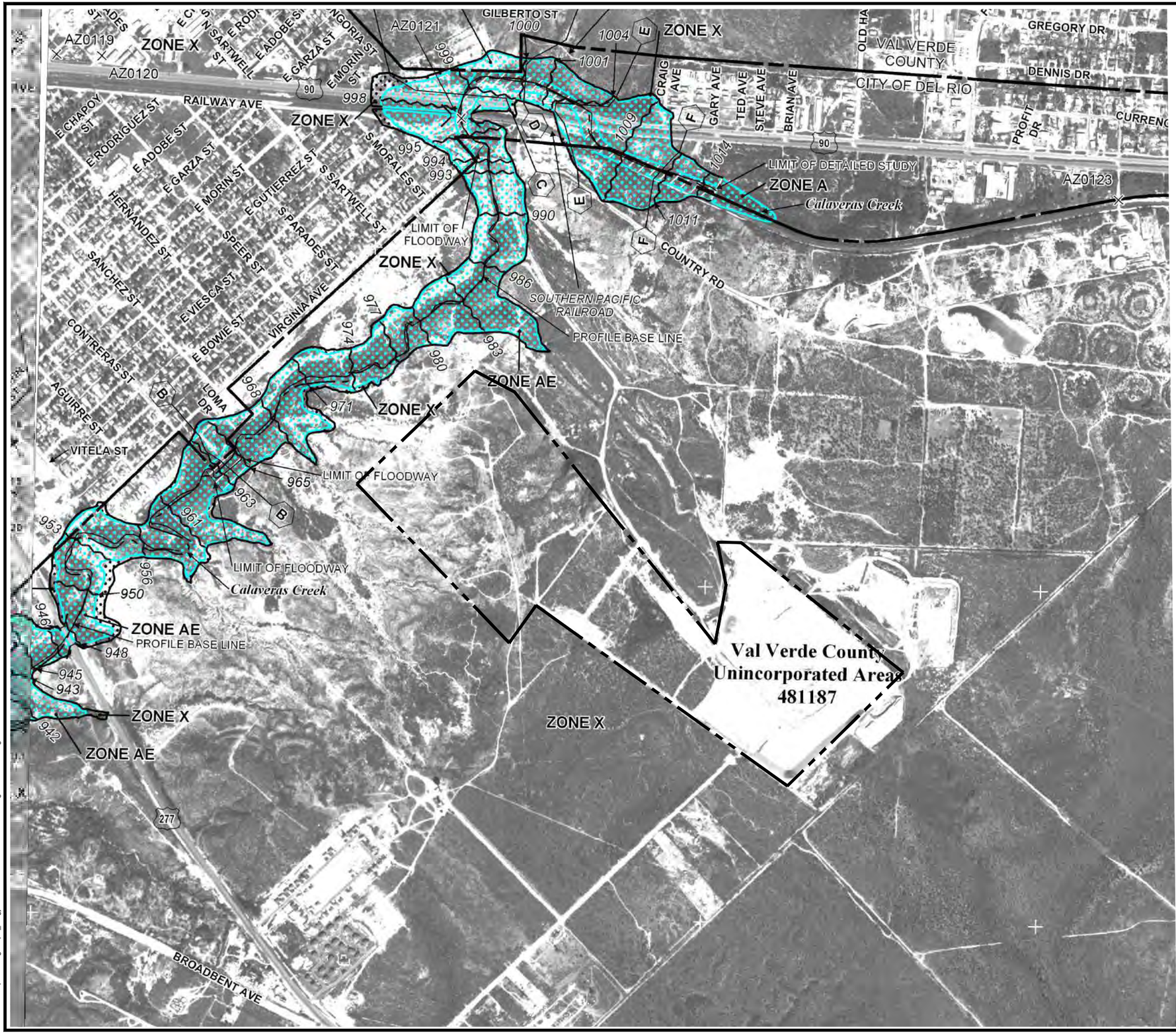
11.1 Floodplains Statement

As shown on Figure I/II-11.1, the existing landfill permit boundary is not located within the 100-year floodplain as defined by the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) for Val Verde County, Texas and incorporated areas.

Compliance with the floodplain location restriction is further discussed in Appendix I/IIC.

11.2 Wetlands Statement

The area within the permit boundary of the City of Del Rio Landfill was evaluated for compliance with wetlands provisions, including the determination and identification requirements in Title 30 TAC §330.61(m)(2) and (3) and the wetlands location restriction in §330.553(b). Although there are wetlands within the permit boundary of the City of Del Rio Landfill, the limit of waste is not located in wetlands. There will be some areas of the wetlands that will be filled for channel and road grading. The water areas that will be filled will be less than one tenth of an acre at any single and complete crossing and would therefore be covered by the Nationwide Permit (NWP) 14 for linear transportation projects without notifying the USACE. The project will adhere to all requirements outlined in NWP 14. No waste will be placed within the wetland areas: therefore, the site is in compliance with the wetland's location restriction.



LEGEND

PERMIT BOUNDARY

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA Boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 97° 07' 30", 32° 22' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4276000 mE — 1000-meter Universal Transverse Mercator grid values, zone 14
- 600000 FT — 5000-foot grid ticks: Texas State Plane coordinate system, South Central Zone (FIPSZONE 4204), Transverse Mercator projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
JULY 22, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

NOTE:

1. REPRODUCED FROM FEMA FIRM NUMBERS 48465C1755D FOR DEL RIO, TEXAS AND INCORPORATED AREAS, EFFECTIVE DATE JULY 22, 2010.

FOR PERMITTING PURPOSES ONLY

CP&Y — TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS — TEWOBSTA METAFERIA — 123183 — LICENSED PROFESSIONAL ENGINEER — 08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

FLOOD INSURANCE RATE MAP (FIRM)

DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/II-11.1

PRINTED BY: TorresJJ DATE: 6/21/2023
FILE PATH: c:\pwworkingstv\pw_stvgjohnson\d0942002\DELR200302 Figure I&II-11.1.dwg

12.0 PROTECTION OF ENDANDGERED SPECIES

A written request regarding endangered or threatened species or their critical habitat with respect to the site was sent to the U.S. Fish and Wildlife Service (FWS) and the Texas Parks and Wildlife Department (TPWD). Correspondence with the FWS and TPWD is included in Appendix I/IIB. In addition, a site specific threatened and endangered species habitat assessment was completed by CP&Y (refer to the TPWD and FWS in Appendix I/IIB). This study concluded that the area within the landfill permit boundary does not provide habitat for nor has critical habitat been designated in the project area for any federally listed threatened or endangered species. Therefore, it is concluded that the expansion of the City of Del Rio Landfill will not result in the destruction or adverse modification of the critical habitat of any federally listed threatened or endangered species, or cause or contribute to the taking of any federally listed threatened or endangered species. Given the above, the facility is in compliance with all applicable federal, state, and local laws regarding threatened or endangered species.

13.0 LEGAL DESCRIPTION

A legal description of the 180.6-acre permit boundary is included on the following pages. This area is shown on the attached drawing.

The City of Del Rio has 100% ownership of the landfill. Current ownership records for the property may be found in Val Verde County Real Property records.

Property Owner Name: City of Del Rio, Texas

LEGAL DESCRIPTION
For a 180.650 Acre Tract of Land

BEING A 180.650 ACRE TRACT OF LAND OUT OF THE S. BARTON SURVEY NO. 604, ABSTRACT NO. 1831, JESSE ROBINSON SURVEY NO. 764, ABSTRACT NO. 1332, NANCY C. JONES SURVEY NO. 941, ABSTRACT NO. 1275, AND THE NANCY C. JONES SURVEY NO. 941-1/2, ABSTRACT NO. 1276, VAL VERDE COUNTY, TEXAS, ALSO BEING COMPRISED OF THE FOLLOWING TWO (2) TRACTS CONVEYED TO THE CITY OF DEL RIO, TEXAS, BY THE FOLLOWING DEEDS: 1) ALL OF A 75.00 ACRE TRACT RECORDED IN VOLUME 871, PAGE 116, OFFICIAL PUBLIC RECORDS OF VAL VERDE COUNTY, TEXAS (O.P.R.V.V.C.T.), AND 2) PART OF A 179.924 ACRE TRACT RECORDED IN VOLUME 500, PAGE 222, DEED RECORDS OF VAL VERDE COUNTY, TEXAS (D.R.V.V.C.T.); SAID 180.650 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING at a 1/2" iron rod found on the northwest line of a 1734.90 acre tract called "Tract 1" as described in a General Warranty Deed dated October 30, 2019 to Val Verde County, Texas, recorded in Document No. 00316621 of said O.P.R.V.V.C.T., being the south corner of said 179.924 acre tract and the east corner of Lot 19, Las Palmas Subdivision Unit 2, a subdivision recorded in Slide 332, Side B, Map Records of Val Verde County, Texas;

THENCE, N. 54°52'40" W., with the common line between said 179.924 acre tract and said Lot 19 of Las Palmas Subdivision Unit 2, a distance of **381.58 feet** to a 1/2" iron rod with orange plastic cap stamped "BAIN MEDINA BAIN INC. PROPERTY CORNER" set (N=7,640.72, E=9,104.06), for the south corner and **POINT OF BEGINNING** of the herein described tract;

THENCE, N. 54°52'40" W., continuing with the southwest line of said 179.924 acre tract, the northeast line of Las Palmas Subdivision Unit 2, and the northeast line of the remaining portion of a 644.30 acre tract described in a Warranty Deed dated October 12, 1995 to Mirador, Inc, recorded in Volume 628, Page 126 of said O.P.R.V.V.C.T., a distance of **3088.95 feet** to a 1/2" iron rod found, being the southwest corner of said 179.924 acre tract and an angle point on the southeast line of said 75.00 acre tract, for an interior corner of the herein described tract;

THENCE, with the southeast and southwest lines of said 75.00 acre tract, the following two (2) courses:

1) **S. 35°06'39" W.,** a distance of **460.06 feet** to a 1/2" iron rod found, being the south corner of said 75.00 acre tract, for a corner the herein described tract;

2) **N. 44°19'42" W.,** a distance of **2196.56 feet** to a 1/2" iron rod found on the southeast line of a 74.7 acre tract described in a General Warranty Deed dated April 6, 2012 to Red River Service Corporation, recorded in Document No. 00270188 of said O.P.R.V.V.C.T., being the west corner of said 75.00 acre tract, for the west corner the herein described tract;

THENCE, N. 45°40'01" E., with the northwest line of said 75.00 acre tract and the southeast line of said 74.7 acre tract, a distance of **1629.51 feet** to a 1/2" iron rod found, being the north corner of said 75.00 acre tract and a west corner of a 102.56 acre tract described in a General Warranty Deed dated December 15, 1969 to the City of Del Rio, Texas, recorded in Volume 214, Page 351 of said D.R.V.V.C.T., for the north corner of the herein described tract;

THENCE, leaving the southeast line of said 74.7 acre tract, with the northeast line of said 75.00 acre tract and said 179.924 acre tract, and the southwest line of said 102.56 acre tract, the following three (3) courses:

1) **S. 62°38'37" E.,** a distance of **451.66 feet** to a 1" iron pipe found for an angle point;

2) **S. 39°01'45" E.,** a distance of **1461.95 feet** to a 1/2" iron rod found, being the east corner of said 75.00 acre tract and the most northerly northwest corner of said 179.924 acre tract, for an angle point;

3) **S. 39°05'27" E.,** a distance of **1748.16 feet** to a concrete monument with 3" brass disk found, being an interior corner of said 179.924 acre tract and the south corner of said 102.56 acre tract, for an interior corner of the herein described tract;

THENCE, Northerly, with the common line between said 179.924 acre tract and said 102.56 acre tract, the following two (2) courses:

1) **N. 10°09'53" E.,** a distance of **594.10** feet to a 12" cedar fence post found for an angle point;

2) **N. 11°50'14" W.,** a distance of **439.95 feet** to a 1/2" iron rod with yellow plastic cap stamped "CDS MUERY" found, being a northwest corner of said 179.924 acre tract and the most southerly southwest corner of a 316.38 acre tract described in a Warranty Deed dated June 22, 2018 to FUA Investments, LLC, recorded in Document No. 00308515 of said O.P.R.V.V.C.T., for a corner of the herein described tract;

THENCE, S. 89°27'40" E., leaving the east line of said 102.56 acre tract, with the common line between said 179.924 acre tract and said 316.38 acre tract, a distance of **236.59 feet** to a 1/2" iron rod with orange plastic cap stamped "BAIN MEDINA BAIN INC. PROPERTY CORNER" set for an angle point, from said point, a 2-1/2" iron pipe found on the northwest line of said 1734.90 acre tract, being the northeast corner of said 179.924 acre tract and the southeast corner of said 316.38 acre tract, bears **S. 89°27'40" E., 3446.04 feet**;

THENCE, leaving the south line of said 316.38 acre tract, across said 179.924 acre tract, the following two (2) courses:

1) **S. 51°00'16" E.,** a distance of **2078.93 feet** to a 2-1/2" iron pipe found for the east corner of the herein described tract;

2) **S. 45°22'36" W.,** at **1583.08 feet,** pass a railroad spike found in concrete, and continuing a total distance of **1588.37 feet** to the **POINT OF BEGINNING** and containing 180.650 acres of land.

Property Owner Name: City of Del Rio, Texas

Bearings and coordinates are based on the City of Del Rio Landfill Coordinate System.

This property description is accompanied by a separate plat of even date.

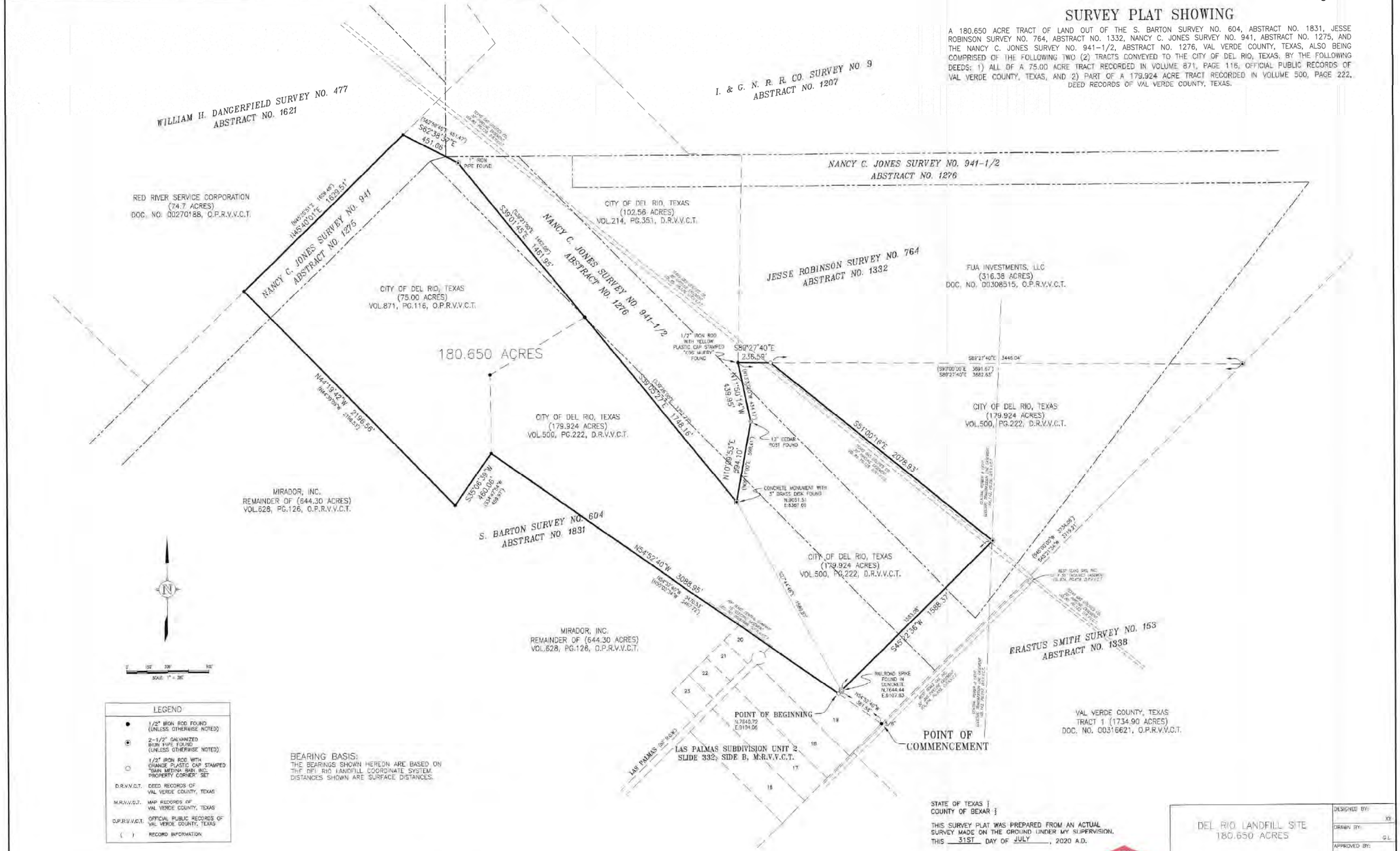
Surveyed on the ground the 31st day of July 2020.



Gregorio Lopez, Jr., RPLS #5272

SURVEY PLAT SHOWING

A 180.650 ACRE TRACT OF LAND OUT OF THE S. BARTON SURVEY NO. 604, ABSTRACT NO. 1831, JESSE ROBINSON SURVEY NO. 764, ABSTRACT NO. 1332, NANCY C. JONES SURVEY NO. 941, ABSTRACT NO. 1275, AND THE NANCY C. JONES SURVEY NO. 941-1/2, ABSTRACT NO. 1276, VAL VERDE COUNTY, TEXAS, ALSO BEING COMPRISED OF THE FOLLOWING TWO (2) TRACTS CONVEYED TO THE CITY OF DEL RIO, TEXAS, BY THE FOLLOWING DEEDS: 1) ALL OF A 75.00 ACRE TRACT RECORDED IN VOLUME 871, PAGE 116, OFFICIAL PUBLIC RECORDS OF VAL VERDE COUNTY, TEXAS, AND 2) PART OF A 179.924 ACRE TRACT RECORDED IN VOLUME 500, PAGE 222, DEED RECORDS OF VAL VERDE COUNTY, TEXAS.



BEARING BASIS:
THE BEARINGS SHOWN HEREON ARE BASED ON THE DEL RIO LANDFILL COORDINATE SYSTEM. DISTANCES SHOWN ARE SURFACE DISTANCES.

THIS SURVEY PLAT IS ACCOMPANIED BY A LEGAL DESCRIPTION OF EVEN DATE.

STATE OF TEXAS }
COUNTY OF BEXAR }

THIS SURVEY PLAT WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND UNDER MY SUPERVISION, THIS 31ST DAY OF JULY, 2020 A.D.

GREGORIO LOPEZ, JR.
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 5272 – STATE OF TEXAS

DEL RIO LANDFILL SITE
180.650 ACRES

PREPARED BY:
BAIN MEDINA BAIN
ENGINEERS & SURVEYORS
7073 San Pedro
San Antonio, Texas 78216
210-494-7223
TBPE NO. F-1712
TLSF REG. NO. 100209-00

DESIGNED BY:	XX
DRAWN BY:	GL
APPROVED BY:	GL
DATE:	08-04-2020
JOB NO.:	S-3893.02
PAGE	4 OF 4

14.0 PROPERTY OWNER AFFIDAVIT

The property owner affidavit from City of Del Rio, with attached legal description is included on the following pages.

STATE OF TEXAS §
COUNTY OF VAL VERDE §

PROPERTY OWNER'S AFFIDAVIT

On this day, August 8, 2024, appeared before me. the undersigned notary public, and after I administered an oath to him, upon this oath he said:

"My name is Manuel Chavez. I am the Interim City Manager of the City of Del Rio, and I am authorized to make the following statements on behalf of the City of Del Rio.

The City of Del Rio is the owner of certain real property in Val Verde County, Texas, included the tract(s) described in Exhibit A attached hereto ("the Property"), which is included in the permitted area of its Del Rio Landfill municipal solid waste landfill facility ("the Facility"), pursuant to amendment of Texas Commission on Environmental quality Permit No. MSW-207C.

The City of Del Rio hereby acknowledges that the State of Texas may hold the property owner of record either jointly or severally responsible for the operation, maintenance, and closure and post-closure care of the Facility on the Property.

The City of Del Rio hereby acknowledges that the owner of the Property has the responsibility to file in the deed records of Val Verde County an affidavit to the public advising that the Property will be used for a solid waste facility prior to the time that the Facility actually begins operating as a municipal solid waste landfill facility on the Property, and to file a final recording upon completion of disposal operations and closure of the landfill units on the Property in accordance with 30 TAC §330.19.

The City of Del Rio hereby acknowledges that the Facility owner or operator and the State of Texas shall have access to the Property during the active life and post-closure care of the Facility for the purpose of inspection and maintenance.

Manuel Chavez
Interim City Manager
City of Del Rio

SWORN TO AND SUBSCRIBED before me by Manuel Chavez on the 8th day of August, 2024.

Norma Yolanda De Luna
Notary Public

NORMA YOLANDA DE LUNA
Notary Public, State of Texas
Comm. Expires 03-14-2025
Notary ID 129346661

15.0 LEGAL AND SIGNATORY AUTHORITY

The applicant and owner of the landfill is the City of Del Rio. Since the applicant is a municipality §330.59(e) is not applicable.

The certificate of signatory authority is provided on the following page and meets the requirements of Title 30 TAC 305.443)(b).

DELEGATED SIGNATORY AUTHORITY

Tony Baker
Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Dear Mr. Baker:

I am an Authorized Agent of the City of Del Rio.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Manuel Chavez
Interim City Manager

SWORN TO AND SUBSCRIBED BEFORE ME by Manuel Chavez on the 8th day of August, 2023, which witness my hand and seal of office.

Norma Yolanda De Luna
Notary Public in and for the State of Texas

NORMA YOLANDA DE LUNA
Notary Public, State of Texas
Comm. Expires 03-14-2025
Notary ID 129346661

Norma Yolanda De Luna
Printed Name

My Commission Expires March 14, 2025

16.0 EVIDENCE OF COMPETENCY

16.1 Experience

The City of Del Rio Landfill is owned by the City of Del Rio and currently being operated by Platform Waste Solutions LLC. The contractor, or his successor is referred to as the "Landfill Operator" in this plan. The Landfill operator is responsible for the day-to-day operation of the landfill.

The City has owned and successfully managed the City of Del Rio Landfill for over 30 years. The City does not own, operate or have direct financial interest in other solid waste sites within Texas, other states, territories, or countries. The City of Del Rio Landfill is the only site that Platform Waste Solutions LLC operates in Texas. Platform Waste Solutions LLC does not have any financial interest in the City of Del Rio Landfill. Platform Waste Solutions LLC does not own, operate or have direct financial interest in any solid waste sites within Texas now.. Below is a list of sites that Platform Waste Solutions LLC has operated within the past 10 years in other states, territories, or countries.

1. Blackhills Environmental Partners, LLC (BHEP)
   Location:
   22297 149th Ave
   Box Elder, SD 57719

   Operating Dates:
   October 2012 - Dec 2016

   Name of Regulatory Agency:
   South Dakota Department of Environment and Natural Resources(DENR)
   523 E Capital Ave
   Pierre, SD 57501
2. Fort Knox Refuse and Landfill Services
   Location:
   Fort Knox Landfill
   Baker Rd
   Fort Knox, KY 40121

   Operating Dates:
   April 2014 – April 2019
   April 2020 – Current

   Name of Regulatory Agency:
   Environment Management Division
   US Army Fort Knox, KY

16.2 City of Del Rio Landfill Key Personnel

The principals and supervisors for the owner and operator of the facility do not have any previous affiliations with other solid waste organizations. The key personnel involved in the management and operations of the City of Del Rio Landfill are:

16.2.1 City Manager

The Responsibility for overall facility management and operation rests with the Del Rio City Council. The Council working through the City Manager is responsible for assuring adequate personnel and equipment are available for facility operation in accordance with the landfill permit. The City Manager delegates responsibility to the City's Public Works Director/City Engineer for directing the activities of the City of Del Rio Landfill.

16.2.2 Public Works Director/City Engineer

The Public Works Director/City Engineer is designated as the contact person for matters related to regulatory compliance and management of the refuse collection and Landfill Operator. Public Works Director/City Engineer plans, organizes, directs, and controls the activities of the department, and specifically supervises the Refuse Department (waste collection and disposal). The Public Works Director/City Engineer has project management responsibility for the landfill, a long-term civil project, including working with outside consulting engineers on landfill construction and planning projects. The Public Works Director/City Engineer oversees landfill development, operation performance of mandated controls, and permit compliance; ensures the timely preparation of recurring reports, such as reports to regulatory agencies; and administers contracts. The Public Works Director/City Engineer studies new regulations, outlining proposed compliance plans, studies and reports of new procedures and equipment, implementation of control procedures including personnel training, and provides administrative continuity in the absence of the Director.

16.2.3 Rene Maldonado, Landfill Coordinator

Duties include supervising landfill crews, coordinating with the Landfill Contractor (Platform Waste Solutions LLC) on the planning, organizing, and direct daily oversight of landfill operations; conducting a variety of technical tasks including scheduling of City's manpower and equipment; assigning and prioritizing work assignments for the City landfill crews; managing waste disposal and diversion; supervising the construction of earthwork projects (levees, berms, ditches, stockpiles, etc.) with onsite labor and equipment; coordinating with other departments and contract construction crews as needed; ensure that the landfill is operating within the local, state, and federal regulations pertaining to solid waste; managing concerns and complaints from citizens and other landfill users, providing and coordinating City staff training and discipline procedures, and maintaining thorough effective communications with the Landfill Contractor. A high school diploma or equivalent, four years increasingly responsible experience and a Class B Texas driver's license is required for the position. Additional experience in landfill work, computer usage, and supervision is preferred. The Landfill Coordinator shall possess a TCEQ issued Class A License prescient to 30 TAC Chapter 30, Subsection F, and a waste screening certificate.

16.2.4 Chris Bix, Chief Executive Officer – Platform Diversified Logistics

Chris Bix joined Platform Capital in 2021, serving as CEO of Platform Logistics. Mr. Bix holds a BS degree in Engineering Management from Missouri University of Science and Technology. Mr. Bix is a seasoned executive with President, Chief Operating Officer and Chief Information Officer experience in Mid-Market and private equity owned arenas. Known for learning the business at the ground level, building teams and developing talent. Mr. Bix has successfully executed 3 acquisitions and 2 private equity sales processes. Mr. Bix's career has included building high performing teams in Transportation, Retail, Tax Software and IT Consulting for both Mid-Market companies and Fortune 500 companies. Experience includes Team DriveAway, Beauty Brands, HR Block, and Accenture. Known for building high performing teams through positive, servant leadership which translates across all industries.

16.2.5 Kenny McCarty, Sr. Operations Manager – Platform Waste Solutions

Mr. McCarty is a 35-year veteran of the solid waste industry and assists with oversight over all operational programs within the Company. A graduate of Western Kentucky University, Mr. McCarty joined Browning-Ferris Industry in the Washington, D.C. market and later directed the company's fleet operations for the Northeast US and Canada. In addition to overseeing all equipment maintenance programs, he also assisted in design / build projects for recycling processing as well as medical waste autoclaving and incineration plants. Leaving the Corporate environment, he later started and grew his own solid waste operations becoming the largest independent full-service hauler in his marketplace. After selling his operations to Veolia Waste, Mr. McCarty assumed regional management positions for industry leaders Waste Management and Advanced Disposal. Just prior to joining Platform Waste Solutions, he served as Corporate Fleet Director for Meridian Waste

16.2.6 Jose Huerta, General Manager – Platform Waste Solutions, Del Rio Office

Mr. Huerta is a 16-year veteran of the waste and recycle industry. He is the General Manager for the hauling and landfill operations in Del Rio. Mr. Huerta started his career working for crown recycling as a machine operator and moved his way up to General Manager of Platform Waste. Mr. Huerta oversees the day-to-day operation of all landfill and hauling operations in compliance with federal, state and local laws.

16.3 Equipment

The equipment listed in Part IV, Site Operating Plan is used to operate this site. Additional or different units of equipment may be provided as necessary to enhance operational efficiency. Other equivalent types of equipment may be substituted for this equipment on an as-needed basis.

CITY OF CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS
TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PARTS I/II – GENERAL APPLICATION REQUIREMENTS

APPENDIX I/II A
FACILITY LAYOUT FIGURES

Prepared for
City of Del Rio

September 2023
Revision 1 August 2024



08/07/2024

Prepared by
CP&Y an STV Company
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500

This document is intended for permitting purposes only.

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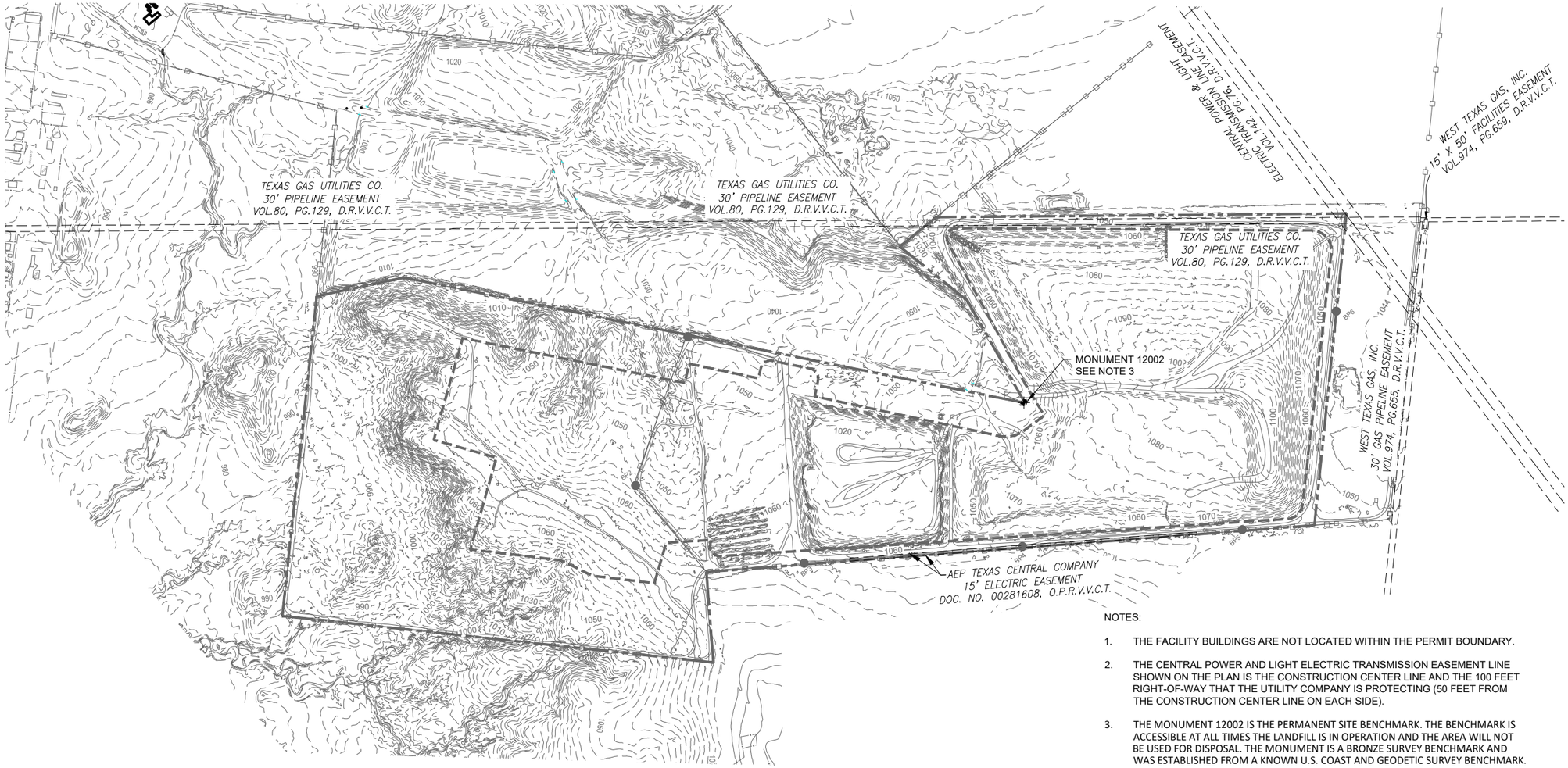
LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- EXISTING GRADE (-1084-)
- EXISTING GAS PROBE (BP1)
- EXISTING SITE FENCE
- EXISTING CHUTE
- EXISTING EASEMENT

N

0 300 600

SCALE IN FEET



NOTES:

1. THE FACILITY BUILDINGS ARE NOT LOCATED WITHIN THE PERMIT BOUNDARY.
2. THE CENTRAL POWER AND LIGHT ELECTRIC TRANSMISSION EASEMENT LINE SHOWN ON THE PLAN IS THE CONSTRUCTION CENTER LINE AND THE 100 FEET RIGHT-OF-WAY THAT THE UTILITY COMPANY IS PROTECTING (50 FEET FROM THE CONSTRUCTION CENTER LINE ON EACH SIDE).
3. THE MONUMENT 12002 IS THE PERMANENT SITE BENCHMARK. THE BENCHMARK IS ACCESSIBLE AT ALL TIMES THE LANDFILL IS IN OPERATION AND THE AREA WILL NOT BE USED FOR DISPOSAL. THE MONUMENT IS A BRONZE SURVEY BENCHMARK AND WAS ESTABLISHED FROM A KNOWN U.S. COAST AND GEODETIC SURVEY BENCHMARK.

SITE BENCHMARK INFORMATION IS LISTED BELOW

SITE BENCHMARK INFORMATION			
MONUMENT	LATITUDE	LONGITUDE	ELEVATION (FT-MSL)
12002	29° 21' 20.4241" N	-100° 51' 13.9300" W	1051.10

FOR PERMITTING PURPOSES ONLY

PRINTED BY: MetafeT DATE: 8/16/2024
FILE PATH: C:\pwworking\stv\pw_stv\metaferia\d0942002\DELR2000302 Figure I&II-A 1.dwg

CP&Y an STV Company
TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741
CITY OF Del Rio TEXAS
STATE OF TEXAS TEWOBISTA METAFERIA 123183 LICENSED PROFESSIONAL ENGINEER 08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

GENERAL SITE PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.1

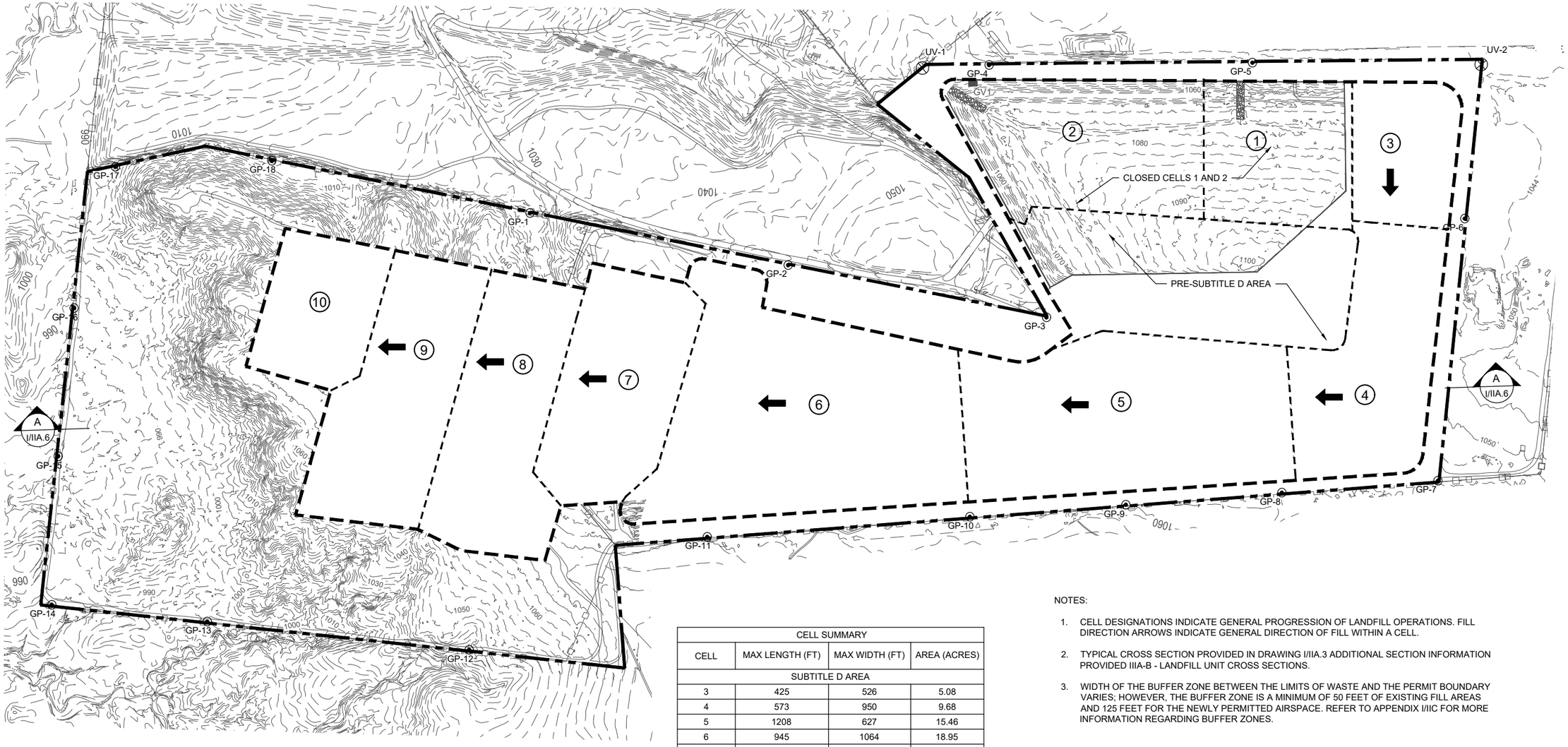
LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- CELL BOUNDARY
- 1084 — EXISTING GRADES
- EXISTING CHUTE
- EXISTING SITE FENCE
- (10) CELL DESIGNATION

N

0 200 400

SCALE IN FEET



CELL SUMMARY			
CELL	MAX LENGTH (FT)	MAX WIDTH (FT)	AREA (ACRES)
SUBTITLE D AREA			
3	425	526	5.08
4	573	950	9.68
5	1208	627	15.46
6	945	1064	18.95
7	881	446	8.67
8	1050	489	9.30
9	1028	455	9.66
10	545	419	5.23

NOTES:

1. CELL DESIGNATIONS INDICATE GENERAL PROGRESSION OF LANDFILL OPERATIONS. FILL DIRECTION ARROWS INDICATE GENERAL DIRECTION OF FILL WITHIN A CELL.
2. TYPICAL CROSS SECTION PROVIDED IN DRAWING I/IIA.3 ADDITIONAL SECTION INFORMATION PROVIDED IIIA-B - LANDFILL UNIT CROSS SECTIONS.
3. WIDTH OF THE BUFFER ZONE BETWEEN THE LIMITS OF WASTE AND THE PERMIT BOUNDARY VARIES; HOWEVER, THE BUFFER ZONE IS A MINIMUM OF 50 FEET OF EXISTING FILL AREAS AND 125 FEET FOR THE NEWLY PERMITTED AIRSPACE. REFER TO APPENDIX I/IIC FOR MORE INFORMATION REGARDING BUFFER ZONES.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV Company
TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS 09/17/2024 TOMOBISTA METAFERIA 123183 LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

SECTOR DEVELOPMENT PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.2

PRINTED BY: MetafeT DATE: 7/30/2024
FILE PATH: C:\pwworkingis\v\pw_stv\tmetaferia\d094202\DELR200302 Figure I&II-A 2.dwg

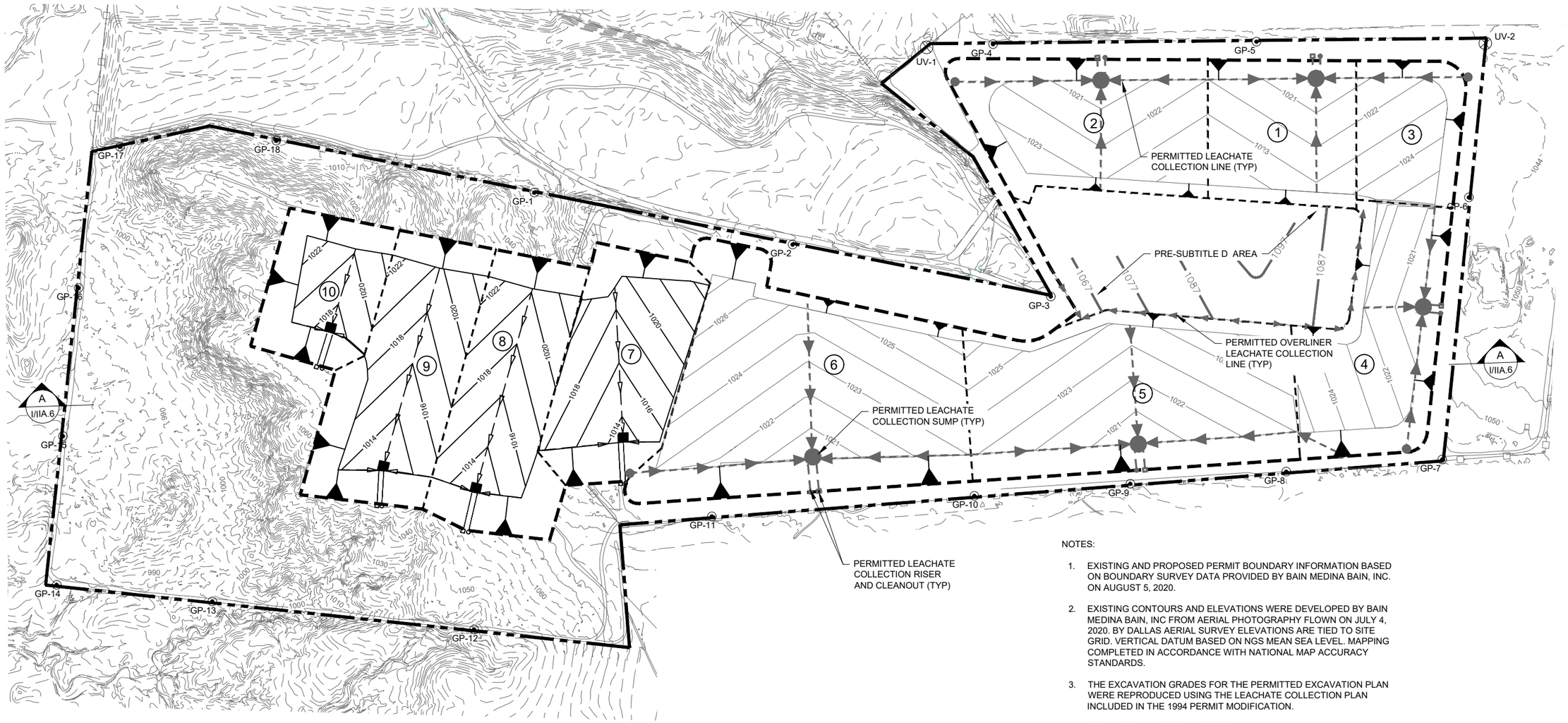
LEGEND

GP-5 — PROPOSED GAS PROBE
UV-1 — PROPOSED GAS VENTS
CUT/FILL MARKERS

PROPOSED PERMIT BOUNDARY
PROPOSED LIMIT OF WASTE
CELL BOUNDARY
EXISTING GRADES
PROPOSED EXCAVATION GRADES
PERMITTED EXCAVATION GRADES
PERMITTED OVERLINER GRADES
CELL DESIGNATION
PROPOSED LEACHATE COLLECTION RISER
PROPOSED LEACHATE COLLECTION CLEANOUT
PROPOSED LEACHATE COLLECTION SUMP
PROPOSED LEACHATE COLLECTION LINE

N

0 200 400
SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. BY DALLAS AERIAL SURVEY ELEVATIONS ARE TIED TO SITE GRID. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL. MAPPING COMPLETED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
3. THE EXCAVATION GRADES FOR THE PERMITTED EXCAVATION PLAN WERE REPRODUCED USING THE LEACHATE COLLECTION PLAN INCLUDED IN THE 1994 PERMIT MODIFICATION.
4. EXCAVATION SLOPES ARE TYPICALLY 3H:1V.
5. MINIMUM EXCAVATION ELEVATION IS 1007 FT-MSL AND IS LOCATED IN THE LEACHATE SUMP.
6. LINER AND LEACHATE COLLECTION SYSTEM DETAILS ARE INCLUDED IN APPENDIX IIIA-A.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV Company
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS — TIMOTHY METAFERIA — 123183 — LICENSED PROFESSIONAL ENGINEER — 08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

LANDFILL EXCAVATION PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.3

PRINTED BY: MetafeT DATE: 7/31/2024
FILE PATH: C:\pwworkingistv\pw_stv\metaferiald0942002\DELR2000302 Figure I&II-A.3.dwg

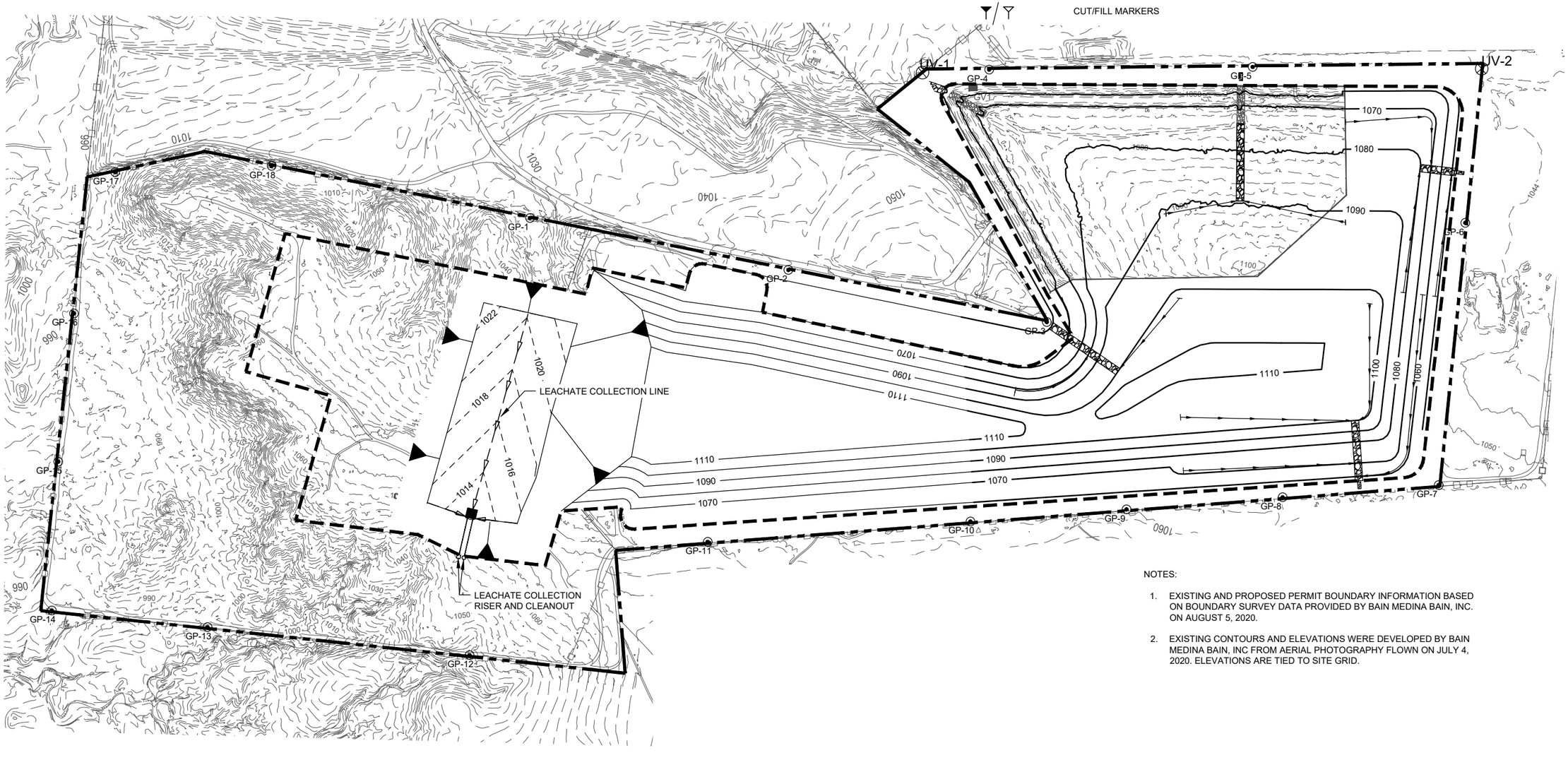
LEGEND

- PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- LIMIT OF WASTE
- 1090 — FINAL COVER GRADES
- 1084 — EXISTING GRADES
- SWALES
- 1090 — INTERMEDIATE GRADES
- 1014 — EXCAVATION GRADES
- EXISTING CHUTE
- PROPOSED CHUTES
- GP-5 — PROPOSED GAS PROBE
- UV-1 — PROPOSED GAS VENTS
- CUT/FILL MARKERS

N

0 200 400

SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV company
TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS — TOMOBISTA METAFERIA — 123183 — LICENSED PROFESSIONAL ENGINEER — 08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
1" 0

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

SECTOR EVELOPMENT PLAN I

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.4A

PRINTED BY: MetafeT DATE: 8/16/2024
FILE PATH: C:\pwworking\stv\pw_stv\metaferiad0942002\DELR2000302 Figure I&II-A.4A.dwg

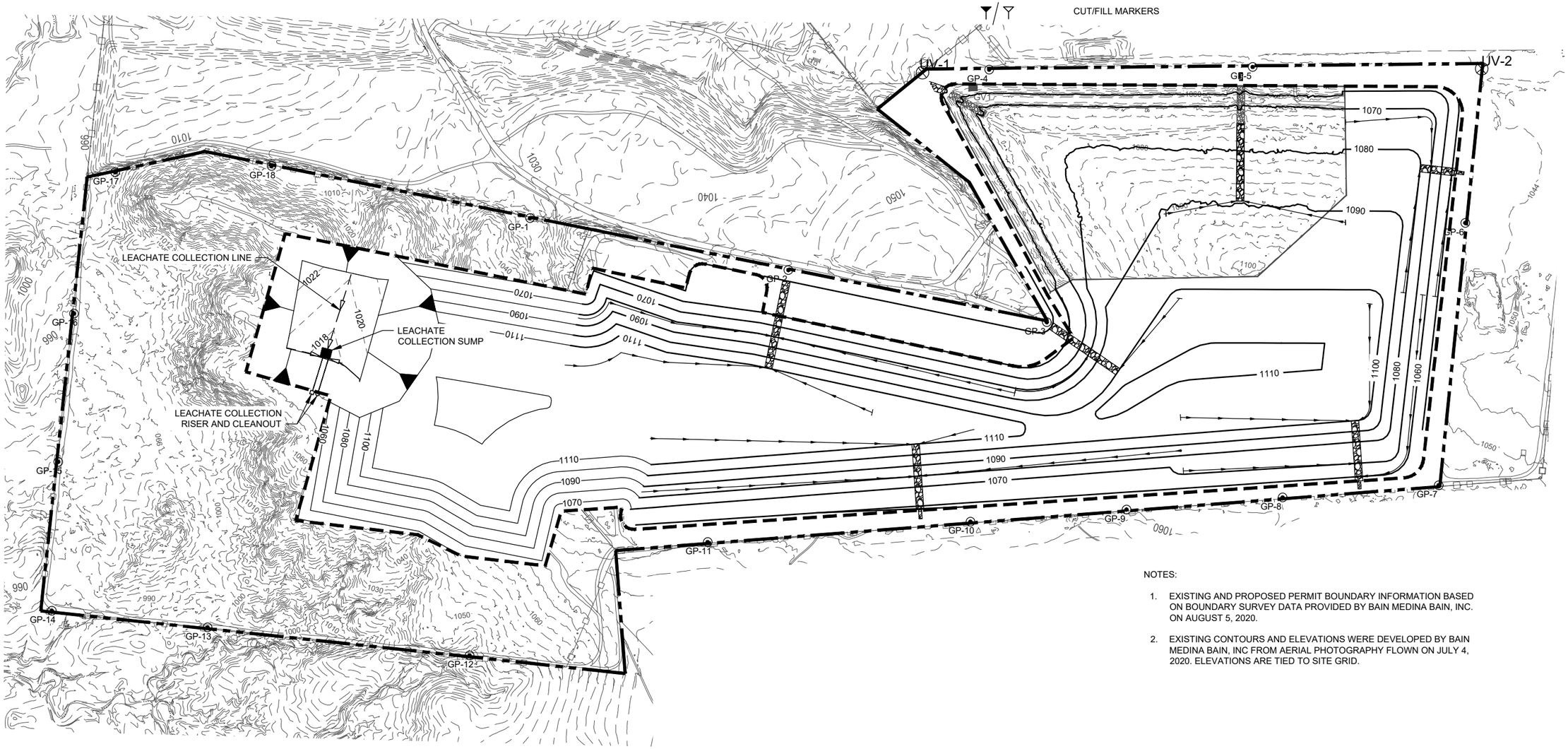
LEGEND

- PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- LIMIT OF WASTE
- 1090 FINAL COVER GRADES
- 1084 EXISTING GRADES
- SWALES
- 1090 INTERMEDIATE GRADES
- 1014 EXCAVATION GRADES
- EXISTING CHUTE
- PROPOSED CHUTES
- GP-5 PROPOSED GAS PROBE
- UV-1 PROPOSED GAS VENTS
- CUT/FILL MARKERS

N

0 200 400

SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.

CP&Y an STV company
TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.

0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

SECTOR EVELOPMENT PLAN II

DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/IIA.4B

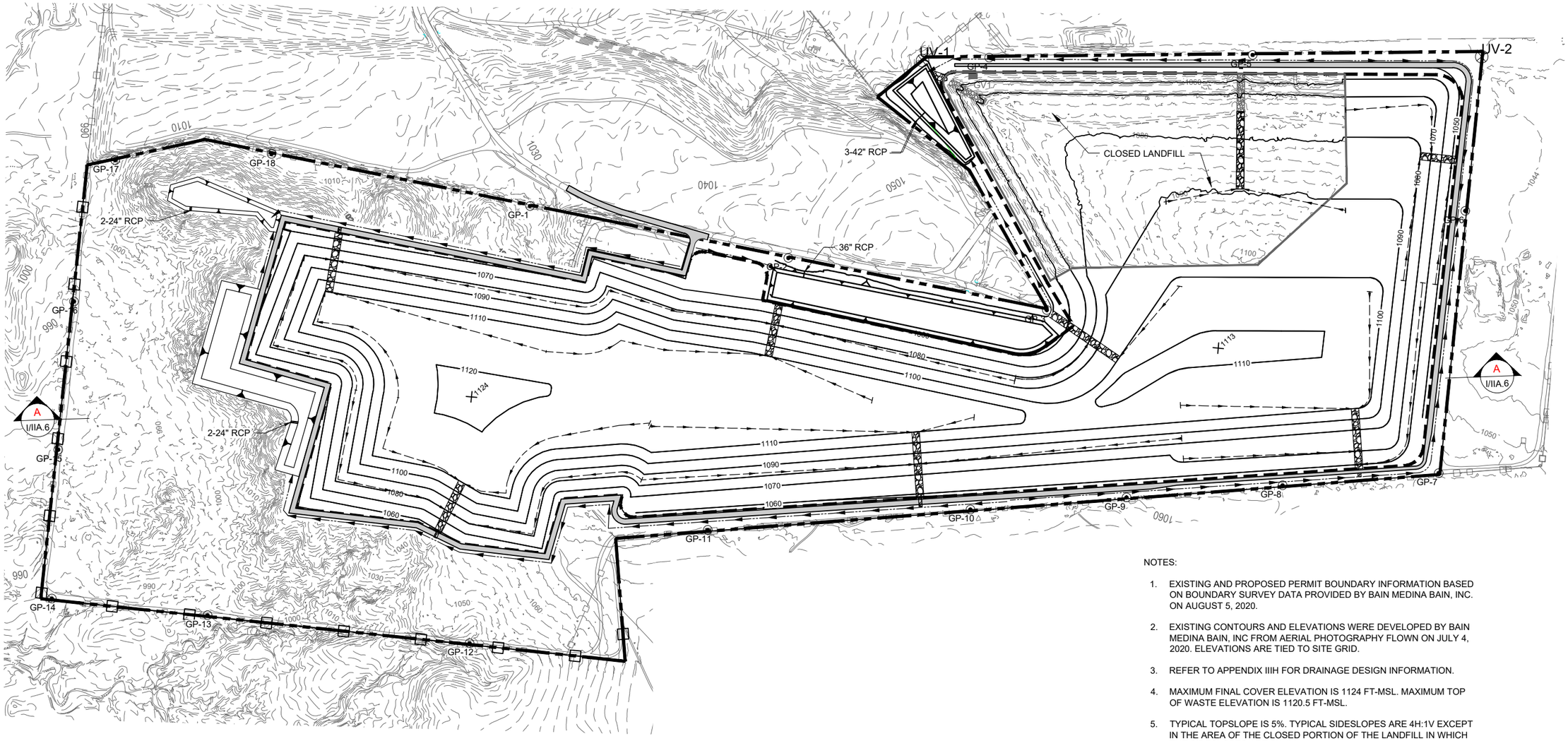
PRINTED BY: MetafeT DATE: 8/16/2024
FILE PATH: C:\pwworking\stv\pw_stv1metaferia\d0942002\DELR2000302 Figure I&II-A-4B.dwg

LEGEND

- EXISTING CHUTE
- CHUTES
- GP-5 — PROPOSED GAS PROBE
- UV-1 — PROPOSED GAS VENTS
- CUT/FILL MARKERS
- PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- LIMIT OF WASTE
- 1090 — FINAL COVER CONTOURS
- 1084 — EXISTING CONTOURS
- PERIMETER CHANNEL
- SWALES
- EXISTING SITE FENCE
- PROPOSED SITE FENCE

N

0 200 400
SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.
3. REFER TO APPENDIX IIIH FOR DRAINAGE DESIGN INFORMATION.
4. MAXIMUM FINAL COVER ELEVATION IS 1124 FT-MSL. MAXIMUM TOP OF WASTE ELEVATION IS 1120.5 FT-MSL.
5. TYPICAL TOPSLOPE IS 5%. TYPICAL SIDESLOPES ARE 4H:1V EXCEPT IN THE AREA OF THE CLOSED PORTION OF THE LANDFILL IN WHICH THE SIDESLOPES ARE 5H:1V.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV company
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO

08/07/2024
STATE OF TEXAS
TEWOBISTA METAFERIA
123183
LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
1"
0

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

LANDFILL COMPLETION PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.5

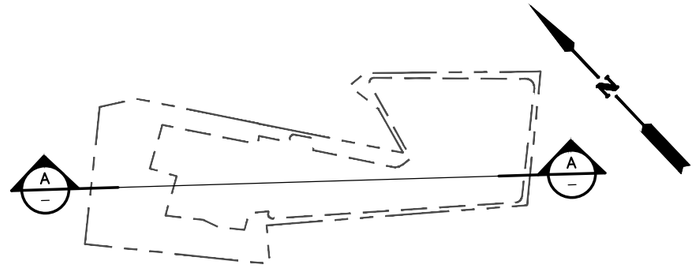
PRINTED BY: JohnsoG DATE: 7/25/2024
FILE PATH: C:\pwworking\stv\pw_stv\metaferiad\d942002\DELR2000302 Figure I&II-A.5.dwg

NOTES:

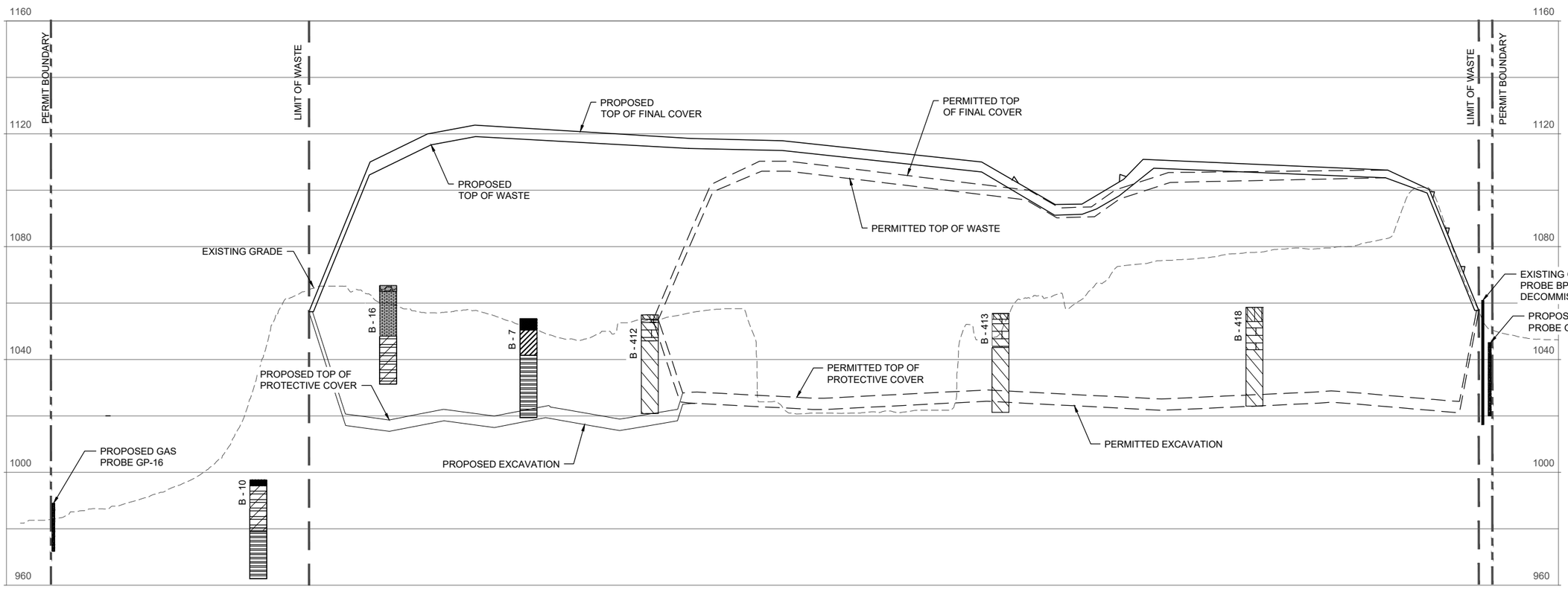
1. TOPOGRAPHIC MAP WAS COMPLETED FROM PHOTOGRAMMETRIC METHODS BY DALLAS AERIAL SURVEY. VERTICAL DATUM BASED ON NGS MEAN SEA LEVEL. MAPPING COMPLETED IN ACCORDANCE WITH NATIONAL MAP ACCURACY STANDARDS.
2. REFER TO APPENDIX IIIA-A FOR LINER, LEACHATE COLLECTION, AND FINAL COVER SYSTEM DETAILS.
3. SEE APPENDIX IIIJ FOR BORING DATA. BORINGS PROJECTED INTO THE LINE OF SECTION.
4. AS SHOWN IN APPENDIX I/IIC, THE BUFFER ZONES VARY AROUND THE PERIMETER OF THE SITE, BUT IN NO CASE ARE THEY LESS THAN 50-FEET FOR EXISTING WASTE.
5. REFER TO APPENDIX IIIM, FOR DETAILS OF THE LANDFILL GAS MANAGEMENT PLAN.
6. DRAINAGE DESIGN INFORMATION IS PROVIDED IN APPENDIX IIIH-SURFACE WATER DRAINAGE PLAN.
7. MAXIMUM TOP OF FINAL COVER ELEVATION IS 1124 FT-MSL.
8. REFER TO APPENDIX IIIC FOR LEACHATE COLLECTION SYSTEM (LCS) INFORMATION.
9. THE SITE DOES NOT HAVE ANY GROUNDWATER MONITORING WELLS. REFER TO APPENDIX III I AND APPENDIX IIIN FOR ADDITIONAL INFORMATION ON GROUNDWATER MONITORING AT THE SITE.
10. THIS SITE DOES NOT ACCEPT ANY CLASS I WASTE.

LEGEND

- PERMIT BOUNDARY
- LIMIT OF WASTE
- CLAY
- CLAY AND CALICHE
- SILTY CLAY
- CLAYEY GRAVEL
- CLAY
- FAT CLAY
- WEATHERED CLAY-SHALE
- CLAY-SHALE



KEY MAP
NTS



A I/IIA.2 SECTION
0 200 400
SCALE IN FEET (HORIZONTAL)
0 20 40
SCALE IN FEET (VERTICAL)

FOR PERMITTING PURPOSES ONLY

CP&Y inSTVcompany
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO

STATE OF TEXAS
TEWOBISTA METAFERIA
123183
LICENSED PROFESSIONAL ENGINEER

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
0 1"

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

CROSS SECTION A

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.6

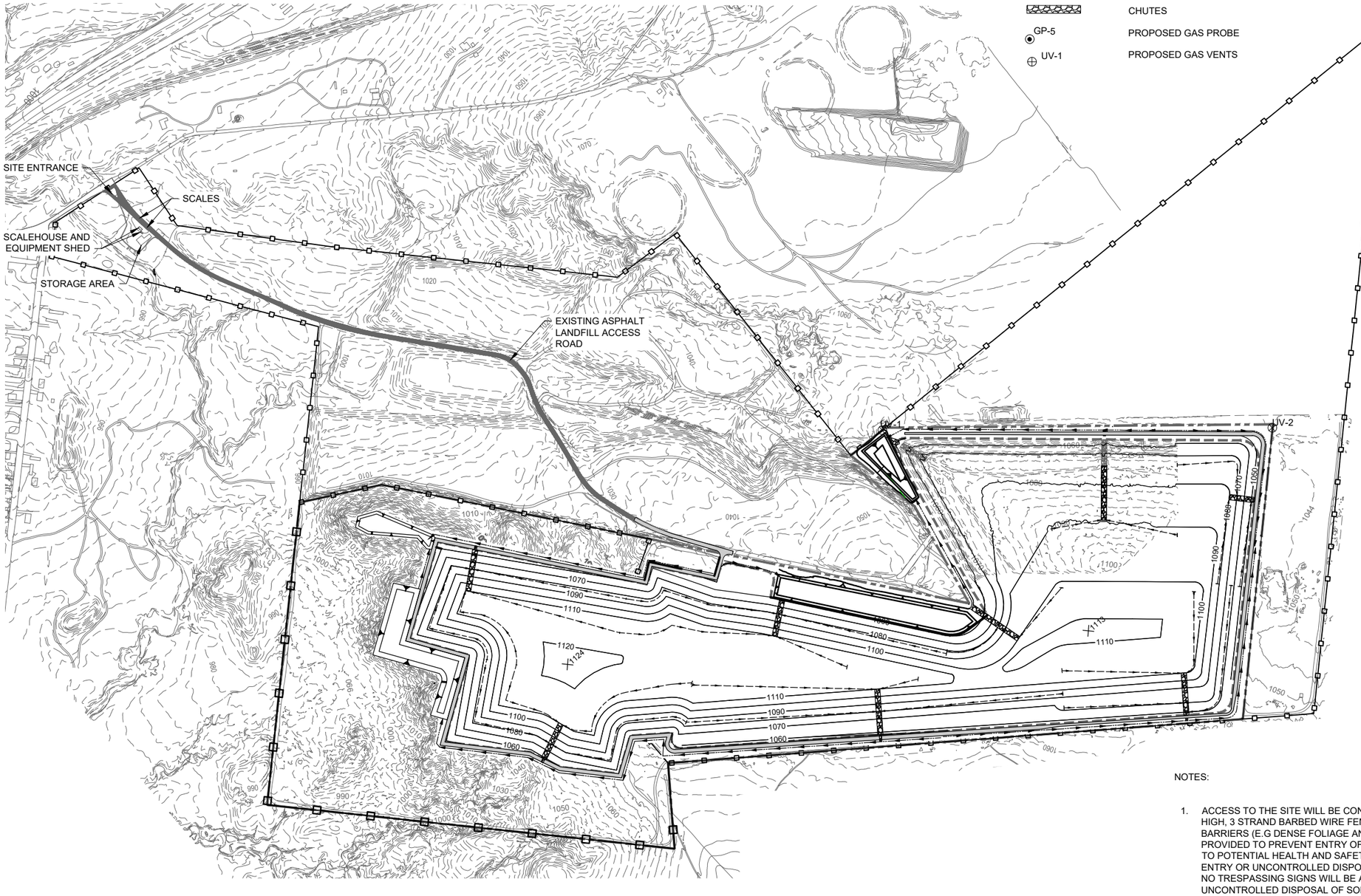
PRINTED BY: JohnsoG DATE: 7/25/2024
FILE PATH: C:\pwworking\stv\pw_stv\tmetaferia\d0942002\DELR2000302 Figure I&II-A6.dwg

LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- 1084 — EXISTING GRADE
- 1090 — FINAL COVER GRADES
- PROPOSED SITE FENCE
- EXISTING SITE FENCE
- EXISTING CHUTE
- CHUTES
- GP-5 — PROPOSED GAS PROBE
- UV-1 — PROPOSED GAS VENTS

N

0 300 600
SCALE IN FEET



NOTES:

1. ACCESS TO THE SITE WILL BE CONTROLLED BY PERIMETER FENCING (MINIMUM 4-FEET HIGH, 3 STRAND BARBED WIRE FENCES), A GATED ENTRANCE, AND NATURAL BARRIERS (E.G DENSE FOLIAGE AND VEGETATION). THE ACCESS CONTROL PLAN IS PROVIDED TO PREVENT ENTRY OF LIVESTOCK, TO PREVENT THE PUBLIC EXPOSURE TO POTENTIAL HEALTH AND SAFETY HAZARDS, AND TO DISCOURAGE UNAUTHORIZED ENTRY OR UNCONTROLLED DISPOSAL OF SOLID WASTE OR HAZARDOUS MATERIAL. NO TRESPASSING SIGNS WILL BE ADDED TO DISCOURAGE UNAUTHORIZED ENTRY OR UNCONTROLLED DISPOSAL OF SOLID WASTE OR HAZARDOUS MATERIAL.
2. ALL THE LFG MONITORING PROBES ARE LOCATED WITHIN THE PERIMETER FENCE.
3. THERE ARE NO NATURAL WINDBREAKS ON SITE.

CP&Y, an STV Company
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY.

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

ACCESS CONTROL PLAN

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW:B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIA.7

PRINTED BY: MetafeT DATE: 8/7/2024
FILE PATH: C:\pwworking\stv\pw_stv1\metaferia\d0942002\DELR200302 Figure I&IIA.7.dwg

CITY OF CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS
TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PARTS I/II – GENERAL APPLICATION REQUIREMENTS

APPENDIX I/II B
COORDINATION DEMONSTRATION

Prepared for
City of Del Rio

Revision 1 August 2024

Prepared by
CP&Y an STV company
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500

This document is intended for permitting purposes only.

TABLE OF CONTENTS

COORDINATION WITH FEDERAL AVIATION ADMINISTRATION……I/IIB-1

COORDINATION WITH TEXAS HISTORICAL COMMISSION……I/IIB-47

COORDINATION WITH TEXAS DEPARTMENT OF TRANSPORTATION……I/IIB-131

COORDINATION WITH TEXAS PARKS AND WILDLIFE DEPARTMENT……I/IIB-142

COORDINATION WITH U.S. ARMY CORPS OF ENGINEERS……I/IIB-202

COORDINATION WITH U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE……I/IIB-345

COORDINATION WITH MIDDLE RIO GRANDE DEVELOPMENT COUNCIL……I/IIB-405

COORDINATION WITH
FEDERAL AVIATION ADMINISTRATION

- FAA Determination of No Hazard to Air Navigation Letter has not been received yet.
- August 14, 2024 Request for Review Letter regarding hazards to air navigation and hazards to air traffic due to birds.

Page left blank for FAA Response Ltr

Metaferia, Tewobista

From: Metaferia, Tewobista
Sent: Wednesday, August 14, 2024 12:03 PM
To: Loftus, Gary (FAA)
Cc: Cardenas, Debbie (FAA)
Subject: RE: Del Rio Landfill TCEQ Permit Application - Federal Aviation Administration Permit Application Coordination Requirement
Attachments: FAA Coordination Ltr.pdf

Gary,

We have provided the required form and closed out the other determination that expired on 6/17/2024.

We have received a new determination from the FAA on the elevations of the landfill. I have attached the new determination letters to this email. Can you please review and provide us with send a Letter regarding the impact (if any) related to wildlife attractants at or near airports to include in our permit application to TCEQ?

Thanks,
Tewobista Metaferia P.E.
Engineer, Water Practice

CP&Y is now doing business as STV

From: Loftus, Gary (FAA) <Gary.Loftus@faa.gov>
Sent: Thursday, July 11, 2024 8:21 AM
To: Metaferia, Tewobista <Tewobista.Metaferia@stvinc.com>
Cc: Cardenas, Debbie (FAA) <Debbie.Cardenas@faa.gov>
Subject: RE: Del Rio Landfill TCEQ Permit Application - Federal Aviation Administration Permit Application Coordination Requirement

****This e-mail is from outside STV****

Good morning,

Based on the information in our system (attached), it appears you will need to enter the boundary coordinates of the entire landfill (including the coordinates of the lateral and/or vertical amendments to the landfill).

The FAA Airspace determination expired on 6/27/2024 (see attached documents). Letter (12) dated 5/28/2024 contains the FAA contact for additional guidance.

Please contact the FAA staff member identified in Letter 12 before uploading anything in iOEAAA. That FAA staff member is in another FAA line of business and will be able to guide you through the process. Once the aeronautical study of the landfill has been completed/updated, I will send a Letter regarding the impact (if any) related to wildlife attractants at or near airports.

I hope this helps. Do not hesitate to contact us if you need further assistance.

gary
Gary J. Loftus, A.A.E.
Airports Compliance Program Manager
Airport Certification Safety Inspector
FAA Southwest Region
10101 Hillwood Parkway
Fort Worth, TX 76177
817-222-5671

From: Metaferia, Tewobista <Tewobista.Metaferia@stvinc.com>
Sent: Wednesday, July 10, 2024 3:45 PM
To: Loftus, Gary (FAA) <Gary.Loftus@faa.gov>
Cc: Baboo, Het <Het.Baboo@stvinc.com>
Subject: FW: Del Rio Landfill TCEQ Permit Application - Federal Aviation Administration Permit Application Coordination Requirement

CAUTION: This email originated from outside of the Federal Aviation Administration (FAA). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Gary,

We are in the process of obtaining a major permit amendment from TCEQ, on behalf of the City of Del Rio, to expand its existing landfill located in Val Verde County, Texas. To compile with Title 30 Texas Administrative Code (TAC) §330.61(i)(4), the permit applicant for an expansion of a municipal solid waste facility must coordinate with FAA. To facility your review we have attached a pdf with the project background and Figures. The following aeronautical studies are attached to the coordination letter:

2022-ASW-23121
2022-ASW-23124
2022-ASW-23125
2022-ASW-23126
2022-ASW-23127
2022-ASW-23129

To verify compliance with the TAC regulation we will need to include a letter from FAA within the permit application (see FAA Example Ltr attached). You had previously given us the attached letter for the same landfill in May 2021. Since we are updating their permit, TCEQ will need an updated coordination letter.

Thanks,
Tewobista Metaferia P.E.
Engineer, Water Practice

CP&Y is now doing business as STV

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2024-ASW-10535-OE

Issued Date: 08/14/2024

Public Works Director
City of Del Rio
114 W Martin Street
Del Rio, TX 78840

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Existing Municipal Solid Waste Landfill City of Del Rio Landfill A
Location:	Del Rio, TX
Latitude:	29-21-34.60N NAD 83
Longitude:	100-51-48.04W
Heights:	1000 feet site elevation (SE) 34 feet above ground level (AGL) 1034 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 02/14/2026 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASW-10535-OE.

Signature Control No: 627630254-630060771 (DNE)
Andrew Hollie
Specialist

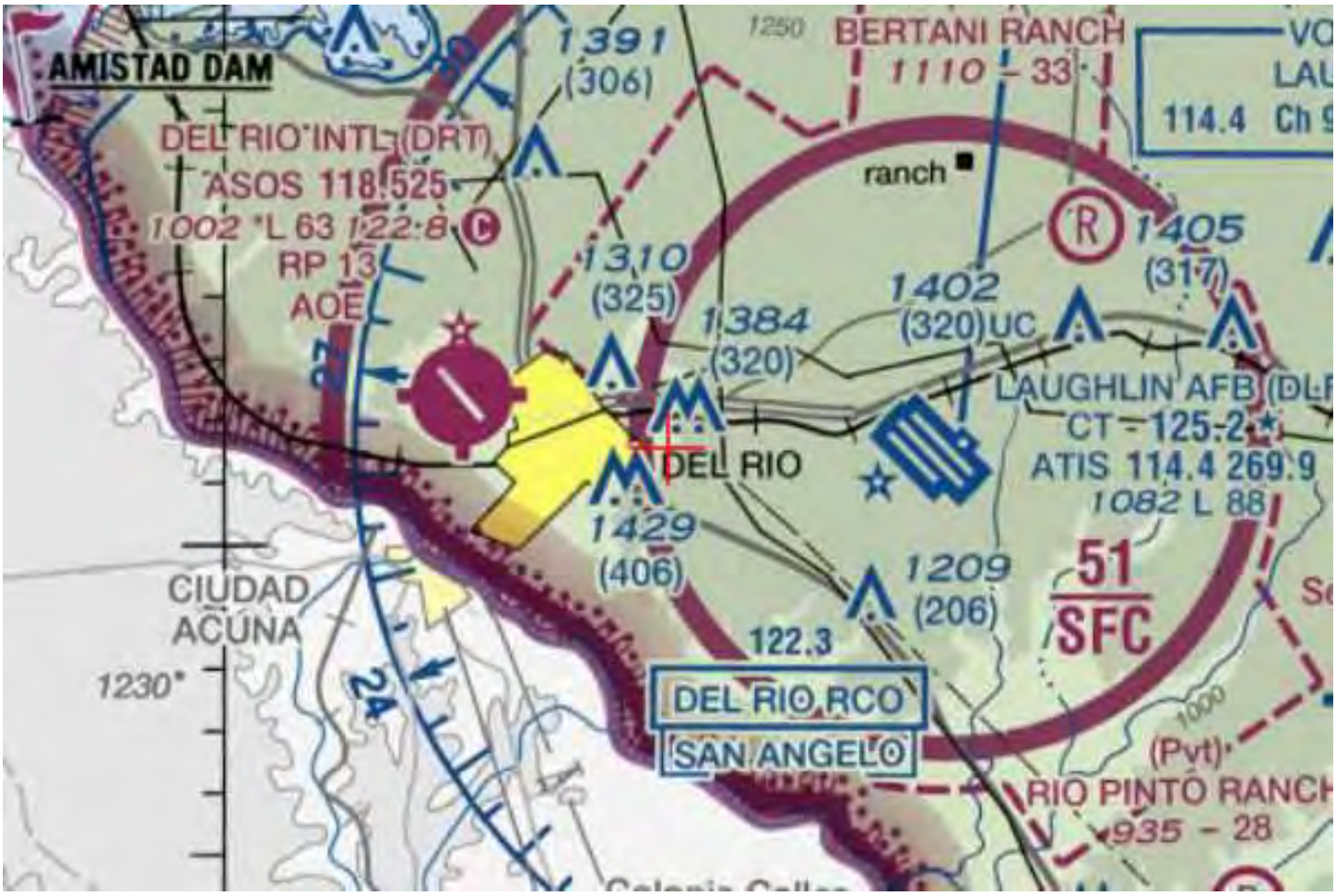
Attachment(s)
Case Description
Map(s)

Del Rio landfill is an existing MSW landfill that is expanding horizontally.

TOPO Map for ASN 2024-ASW-10535-OE



Sectional Map for ASN 2024-ASW-10535-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2024-ASW-10536-OE

Issued Date: 08/14/2024

Public Works Director
City of Del Rio
114 W Martin Street
Del Rio, TX 78840

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Existing Municipal Solid Waste Landfill City of Del Rio Landfill D
Location:	Del Rio, TX
Latitude:	29-21-34.13N NAD 83
Longitude:	100-51-39.08W
Heights:	1063 feet site elevation (SE) 64 feet above ground level (AGL) 1127 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 02/14/2026 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASW-10536-OE.

Signature Control No: 627634032-630060773 (DNE)
Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Del Rio landfill is an existing MSW landfill that is expanding horizontally.

TOPO Map for ASN 2024-ASW-10536-OE



Sectional Map for ASN 2024-ASW-10536-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2024-ASW-10537-OE

Issued Date: 08/14/2024

Public Works Director
City of Del Rio
114 W Martin Street
Del Rio, TX 78840

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Existing Municipal Solid Waste Landfill City of Del Rio Landfill E
Location:	Del Rio, TX
Latitude:	29-21-33.47N NAD 83
Longitude:	100-51-29.58W
Heights:	1031 feet site elevation (SE) 29 feet above ground level (AGL) 1060 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 02/14/2026 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASW-10537-OE.

Signature Control No: 627636641-630060772 (DNE)
Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Del Rio landfill is an existing MSW landfill that is expanding horizontally.

TOPO Map for ASN 2024-ASW-10537-OE



Sectional Map for ASN 2024-ASW-10537-OE



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2024-ASW-10538-OE

Issued Date: 08/14/2024

Public Works Director
City of Del Rio
114 W Martin Street
Del Rio, TX 78840

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Existing Municipal Solid Waste Landfill City of Del Rio Landfill F
Location:	Del Rio, TX
Latitude:	29-21-18.78N NAD 83
Longitude:	100-51-18.92W
Heights:	1058 feet site elevation (SE) 52 feet above ground level (AGL) 1110 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 02/14/2026 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

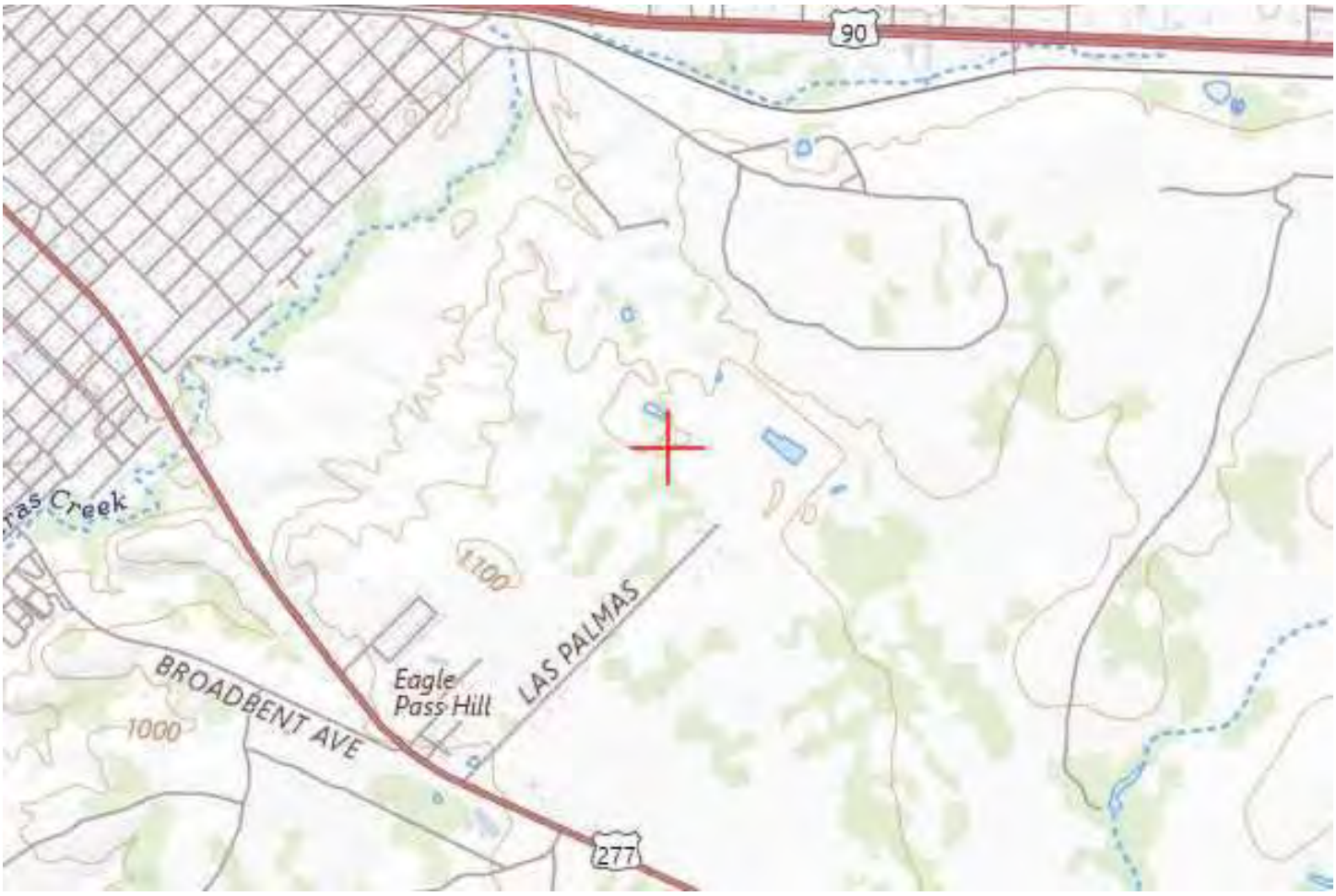
If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASW-10538-OE.

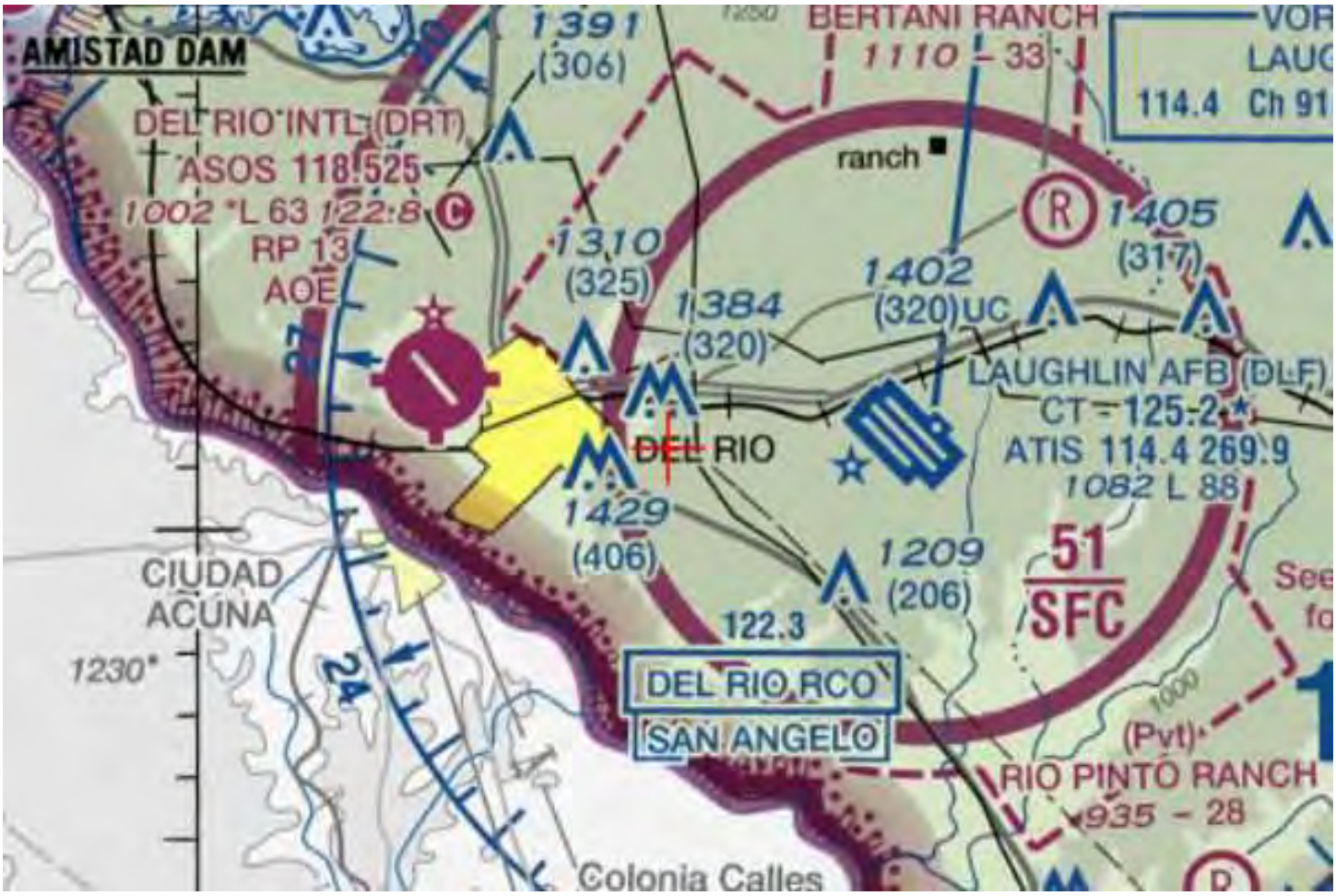
Signature Control No: 627637265-630060774 (DNE)
Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Del Rio landfill is an existing MSW landfill that is expanding horizontally

TOPO Map for ASN 2024-ASW-10538-OE




AMISTAD DAM
DEL RIO INTL (DRT)
ASOS 118.525
1002 *L 63 122.8
RP 13
AOE
1391
(306)
BERTANI RANCH
1110 - 33
ranch
VOR
LAUG
114.4 Ch 91
1405
(317)
1310
(325)
1402
(320)UC
1384
(320)
LAUGHLIN AFB (DLF)
CT 125.2
ATIS 114.4 269.9
1082 L 88
DEL RIO
1429
(406)
1209
(206)
51
SFC
CIUDAD
ACUNA
1230*
24
122.3
DEL RIO RCO
SAN ANGELO
(Pvt)
RIO PINTO RANCH
935 - 28
Colonia Calles

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2024-ASW-10539-OE

Issued Date: 08/14/2024

Public Works Director
City of Del Rio
114 W Martin Street
Del Rio, TX 78840

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Existing Municipal Solid Waste Landfill City of Del Rio Landfill G
Location:	Del Rio, TX
Latitude:	29-21-21.36N NAD 83
Longitude:	100-51-07.16W
Heights:	1044 feet site elevation (SE) 56 feet above ground level (AGL) 1100 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 02/14/2026 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

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If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASW-10539-OE.

Signature Control No: 627639073-630060775 (DNE)
Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Del Rio landfill is an existing MSW landfill that is expanding horizontally

TOPO Map for ASN 2024-ASW-10539-OE




AMISTAD DAM
1391
(306)
BERTANI RANCH
1110 - 33
VOR
LAUG
114.4 Ch 91
DEL RIO INTL (DRT)
ASOS 118.525
1002 *L 63 122.8
RP 13
AOE
ranch
1405
(317)
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1384
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LAUGHLIN AFB (DLF)
CT 125.2
ATIS 114.4 269.9
1082 L 88
DEL RIO
1429
(406)
1209
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51
SFC
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ACUNA
1230*
24
122.3
DEL RIO RCO
SAN ANGELO
(Pvt)
RIO PINTO RANCH
935 - 28
Colonia Calles

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2024-ASW-10540-OE

Issued Date: 08/14/2024

Public Works Director
City of Del Rio
114 W Martin Street
Del Rio, TX 78840

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Existing Municipal Solid Waste Landfill City of Del Rio Landfill I
Location:	Del Rio, TX
Latitude:	29-21-17.94N NAD 83
Longitude:	100-50-55.23W
Heights:	1047 feet site elevation (SE) 3 feet above ground level (AGL) 1050 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
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If we can be of further assistance, please contact our office at (817) 222-5933, or andrew.hollie@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2024-ASW-10540-OE.

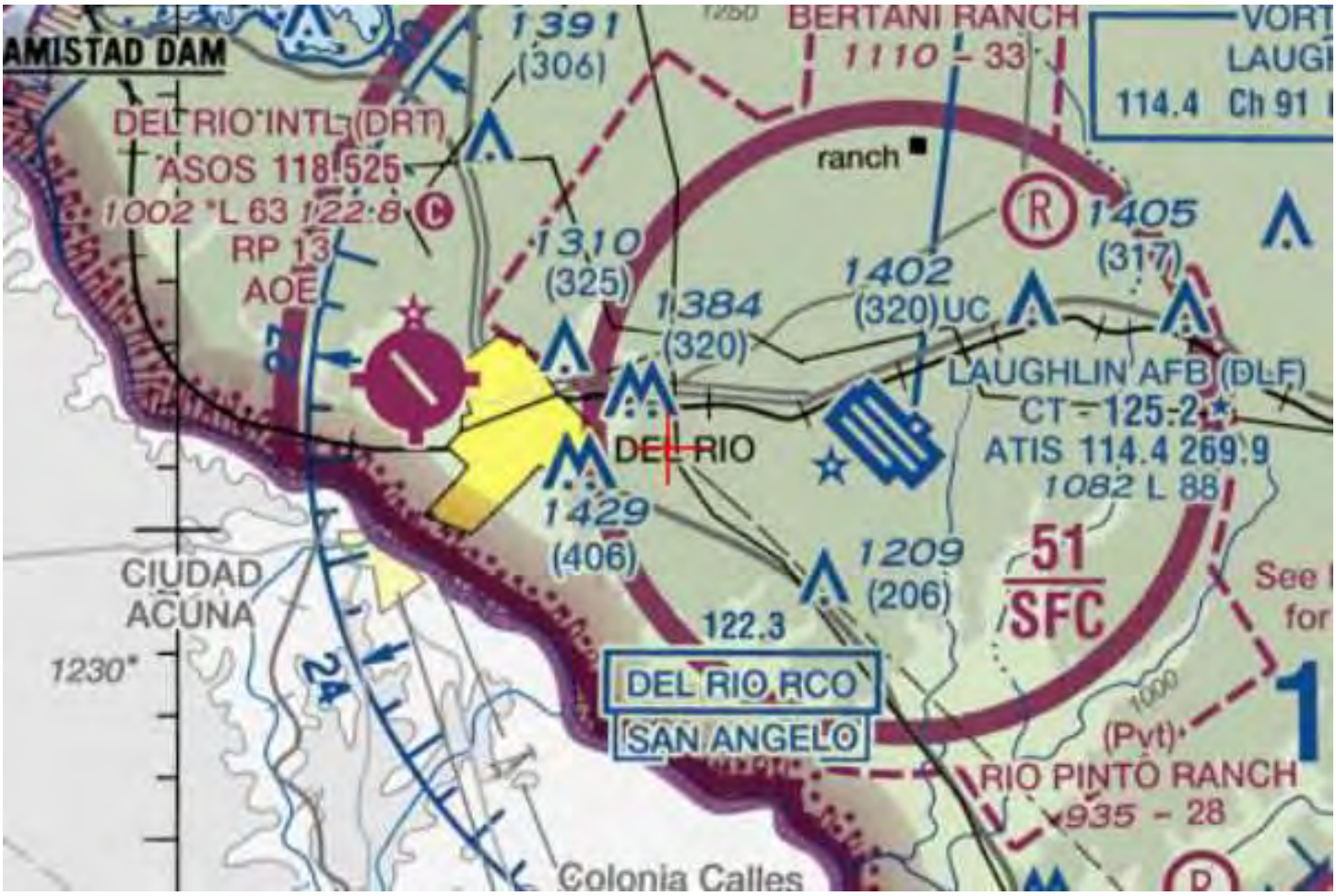
Signature Control No: 627640995-630060770 (DNE)
Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Del Rio landfill is an existing MSW landfill that is expanding horizontally.

TOPO Map for ASN 2024-ASW-10540-OE




AMISTAD DAM
1391
(306)
BERTANI RANCH
1110 - 33
VORT
LAUGH
114.4 Ch 91
DEL RIO INTL (DRT)
ASOS 118.525
1002 *L 63 122.8
RP 13
AOE
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1405
(317)
1310
(325)
1402
(320) UC
1384
(320)
LAUGHLIN AFB (DLF)
CT 125.2
ATIS 114.4 269.9
1082 L 88
DEL RIO
1429
(406)
1209
(206)
51
SFC
See
for
CIUDAD
ACUNA
1230*
122.3
DEL RIO RCO
SAN ANGELO
(Pvt)
RIO PINTO RANCH
935 - 28
Colonia Calles

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Pages I/IIB-35 to I/IIB-45

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COORDINATION WITH
TEXAS HISTORICAL COMMISSION

- THC conclusion that no historic properties are affected by landfill expansion letter

- July ол, 2024 Letter requesting THC concurrence that no historic properties are affected by the landfill.

Metaferia, Tewobista

From: Tiffany Osburn <Tiffany.Osburn@thc.texas.gov>
Sent: Wednesday, August 7, 2024 10:49 AM
To: Metaferia, Tewobista
Cc: Mary Galindo, PhD, RPA
Subject: RE: THC Tracking #202101963 - City of Del Rio Landfill Expansion

This e-mail is from outside STV

Very well,
Provided the currently proposed City of Del Rio Landfill expansion will not exceed the boundaries of the 75-acre area investigated in an archeological survey report titled "CULTURAL RESOURCES INVESTIGATION OF THE PROPOSED DEL RIO LANDFILL PROJECT, VAL VERDE COUNTY, TEXAS", dated August 2020 – the Texas Historical Commission has determined that no known historic properties will be affected by the project.

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 effect on identified archeological sites or other cultural resources. However, if cultural materials are encountered during project 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.

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: tiffany.osburn@thc.texas.gov, caitlin.brashear@thc.texas.gov.

Tiffany

Tiffany Osburn

From: Metaferia, Tewobista <Tewobista.Metaferia@stvinc.com>
Sent: Wednesday, August 7, 2024 10:39 AM
To: Tiffany Osburn <Tiffany.Osburn@thc.texas.gov>
Cc: Mary Galindo, PhD, RPA <Mary.Galindo@thc.texas.gov>
Subject: RE: THC Tracking #202101963 - City of Del Rio Landfill Expansion

CAUTION: External Email – This email originated from outside the THC email system. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Tiffinay,

The informal email response referencing the 2020 application is what we are looking for.

Thanks,
Tewobista Metaferia P.E.
Engineer, Water Practice

CP&Y is now doing business as STV

From: Tiffany Osburn <Tiffany.Osburn@thc.texas.gov>
Sent: Wednesday, August 7, 2024 10:36 AM
To: Metaferia, Tewobista <Tewobista.Metaferia@stvinc.com>
Cc: Mary Galindo, PhD, RPA <Mary.Galindo@thc.texas.gov>
Subject: RE: THC Tracking #202101963 - City of Del Rio Landfill Expansion

****This e-mail is from outside STV****

We can provide an updated response letter, which is produced out of our eTRAC submission system, if you submit a request that way. Please reference the previous submission, tracking number and request an updated response.
Alternatively, we can provide an informal email response referencing the 2020 submission and confirming our response that no historic properties will be affected.

Here is the link to our electronic submission system which will produce a formal response similar to the one you attached from 2020.
https://xapps.thc.state.tx.us/106Review/

TEXAS HISTORICAL COMMISSION
REAL PLACES TELLING REAL STORIES

Tiffany Osburn
Deputy State Archeologist
Archeology Division
P.O. Box 12276, Austin, Texas 78711-2276
Phone: +1 512 463 8883
Fax: 512.463.8927
thc.texas.gov



Celebrate archeology in Texas this October! **Learn more**.

Metaferia, Tewobista

From: Metaferia, Tewobista
Sent: Friday, July 30, 2024 5:02 PM
To: tiffany.osburn@thc.texas.gov
Subject: THC Tracking #202101963 - City of Del Rio Landfill Expansion

Tiffany,

We had submitted the City of Del Rio Landfill expansion for review in November 2020. Here is a link to the previous submittal and Texas Historical Commission Service Response .pdf. We are currently in the process of a permit review by the Texas Commission on Environmental Quality (TCEQ). Per the requirements of Title 30 Texas Administrative Code (TAC) §330.61(o), a permit applicant for an expansion of a municipal solid waste facility coordinate with the Texas Historical Commission regarding the potential impact of the referenced project to the cultural resources of the State of Texas.

Since the previous determination was dated November 2020, can you provide us with an updated letter that states no adverse impacts will be made by the project to any historic sites or affect identified archeological sites. The project area and project intent has not changed from the previous submittal. The project was delayed and we need to present TCEQ an updated letter from THC.

Thanks,

Tewobista Metaferia P.E.
Engineer, Water Practice
(O) 214.589.6944
tewobista.metaferia@stvinc.com

CP&Y is now doing business as STV

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 #202101963
(SWCA #61866) Proposed Del Rio Landfill Project
1897 Railwav Ave
Del Rio,TX 78840

Description: SWCA conducted a cultural resources investigation for the Proposed Del Rio Landfill Project located in Del Rio. The project involves the construction of a new landfill facility (75 acres in size).

Dear SWCA AUS-SA Cultural Resources:
Thank you for your submittal regarding the above-referenced project. This response represents the comments of the Executive Director of the Texas Historical Commission (THC), pursuant to review under the Antiquities Code of Texas.

The review staff, led by Tiffany Osburn, Arlo McKee, 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 effect on identified archeological sites or other cultural resources. However, if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THCâ€™s Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains.
- This draft report is acceptable. Please submit a final report: one restricted version with any site location information (if applicable), and one public version with all site location information redacted. To complete the Texas Antiquities Permit, submit an abstract online at http://xapps.thc.state.tx.us/Abstract and ensure a curation form has been forwarded to the agency. Archeological project area shapefiles are due with the submittal of the draft report; if this has not occurred, email them to Archeological_projects@thc.texas.gov.

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: tiffany.osburn@thc.texas.gov,

caitlin.brashear@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.

TEXAS HISTORICAL COMMISSION

ANTIQUITIES PERMIT APPLICATION FORM ARCHEOLOGY

GENERAL INFORMATION

I. PROPERTY TYPE AND LOCATION

Project Name (and/or Site Trinomial) Intensive Cultural Resources Survey of an Approximate 75-Acre City of Del Rio Landfill, Val Verde County, TX
County (ies) Val Verde County
USGS Quadrangle Name and Number *Del Rio SE, TX USGS 7.5-minute quadrangle map* (2900-231)
UTM Coordinates Zone 14 E 319365 N 3249224
Location 0.83 mile north of US Hwy 277 and Los Plamas Dr. (Northwest of existing landfill)
Federal Involvement ❑ Yes ■ No
Name of Federal Agency Potential USACE involvement (TBD)
Agency Representative

II. OWNER (OR CONTROLLING AGENCY)

Owner City of Del Rio
Representative
Address
City/State/Zip
Telephone (include area code) Email Address

III. PROJECT SPONSOR (IF DIFFERENT FROM OWNER)

Sponsor
Representative
Address
City/State/Zip
Telephone (include area code) Email Address

PROJECT INFORMATION

I. PRINCIPAL INVESTIGATOR (ARCHEOLOGIST)

Name Laura Clark
Affiliation SWCA Environmental Consultants
Address 4949 N Loop 1604 W, Building 2, Suite 235
City/State/Zip San Antonio, TX 78249
Telephone (include area code) 210-798-3470 Email Address laura.clark@swca.com

(OVER)

ANTIQUITIES PERMIT APPLICATION FORM (CONTINUED)

II. PROJECT DESCRIPTION

Proposed Starting Date of Fieldwork 6/22/2020
Requested Permit Duration 5 Years 0 Months (1 year minimum)
Scope of Work (Provided an Outline of Proposed Work) See attached

III. CURATION & REPORT

Temporary Curatorial or Laboratory Facility SWCA labs
Permanent Curatorial Facility CAR at UTSA

IV. LAND OWNER'S CERTIFICATION

I, _____, as legal representative of the Land Owner, _____, do certify that I have reviewed the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Owner, Sponsor, and Principal Investigator are responsible for completing the terms of the permit.
Signature _____ Date _____

V. SPONSOR'S CERTIFICATION

I, _____, as legal representative of the Sponsor, _____, do certify that I have review the plans and research design, and that no investigations will be performed prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Sponsor, Owner, and Principal Investigator are responsible for completing the terms of this permit.
Signature _____ Date _____

VI. INVESTIGATOR'S CERTIFICATION

I, Laura Clark, as Principal Investigator employed by SWCA Environmental Consultants (Investigative Firm), do certify that I will execute this project according to the submitted plans and research design, and will not conduct any work prior to the issuance of a permit by the Texas Historical Commission. Furthermore, I understand that the Principal Investigator (and the Investigative Firm), as well as the Owner and Sponsor, are responsible for completing the terms of this permit.



Signature _____ Date 06/16/2020

Principal Investigator must attach a research design, a copy of the USGS quadrangle showing project boundaries, and any additional pertinent information. Curriculum vita must be on file with the Archeology Division.

FOR OFFICIAL USE ONLY

Reviewer _____ Date Permit Issues _____
Permit Number _____ Permit Expiration Date _____
Type of Permit _____ Date Received for Data Entry _____

Texas Historical Commission
Archeology Division
P.O. Box 12276, Austin, TX 78711-2276
Phone 512-463-6096
thc.texas.gov

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TEXAS ANTIQUITIES PERMIT APPLICATION
PROPOSED SCOPE OF WORK FOR AN INTENSIVE CULTURAL RESOURCES SURVEY OF THE DEL RIO LANDFILL, VAL VERDE COUNTY, TEXAS

Project Landowners – City of Del Rio
Project Sponsor – CP&Y
Project Consultant – SWCA Environmental Consultants (SWCA)
Principal Investigator – Laura Clark, M.A., RPA
Date – June 16, 2020

On behalf of the City of Del Rio, and under contract through CP&Y, SWCA Environmental Consultants (SWCA) will conduct a cultural resources survey of an approximately 75-acre Landfill Tract project (project). The proposed project area is located north of Las Palmas Drive, south of US Highway 90 and northeast of US Highway 277 in southeast Del Rio, Val Verde County (Figures 1 and 2). The project is proposed to occur on undeveloped land entirely owned by the City of Del Rio (project area). The project area is located on the *Del Rio SE, Texas,* U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (USGS 2019).

The proposed facilities are located on City of Del Rio property. The City is a political subdivision of the state of Texas, and as such the project will require review under the Antiquities Code of Texas (ACT). There is also the possibility that the project could impact jurisdictional waters of the United States, which would also trigger compliance with Section 106 of the National Historic Preservation Act (NHPA) through its connection to the Clean Water Act, as regulated by the US Army Corps of Engineers (USACE). To comply with requirements of the ACT, and in anticipation of the requirements of the NHPA, SWCA is proposing an intensive cultural resources survey with shovel testing of the project area. This scope of work presents information on the project area, potential effects, known resources, and methods of the proposed survey, reporting, and curation.

PROJECT DESCRIPTION AND SETTING

The City of Del Rio is preparing to develop a landfill with an approximately 75-acre footprint located in Val Verde County, Texas. The proposed landfill footprint is located on undeveloped land, just southeast of a residential area and northwest of an existing landfill, and is depicted on the *Del Rio SE, TX* USGS 7.5-minute topographic quadrangle map (USGS 2019) (Figures 1 and 2). Aerial imagery shows the project area is currently undeveloped with just a few two-track dirt trails transecting the parcel. An upland ridge trends south to north across the project area and overlooks the Calaveras Creek bed located approximately 0.12 mile northwest of the project area.

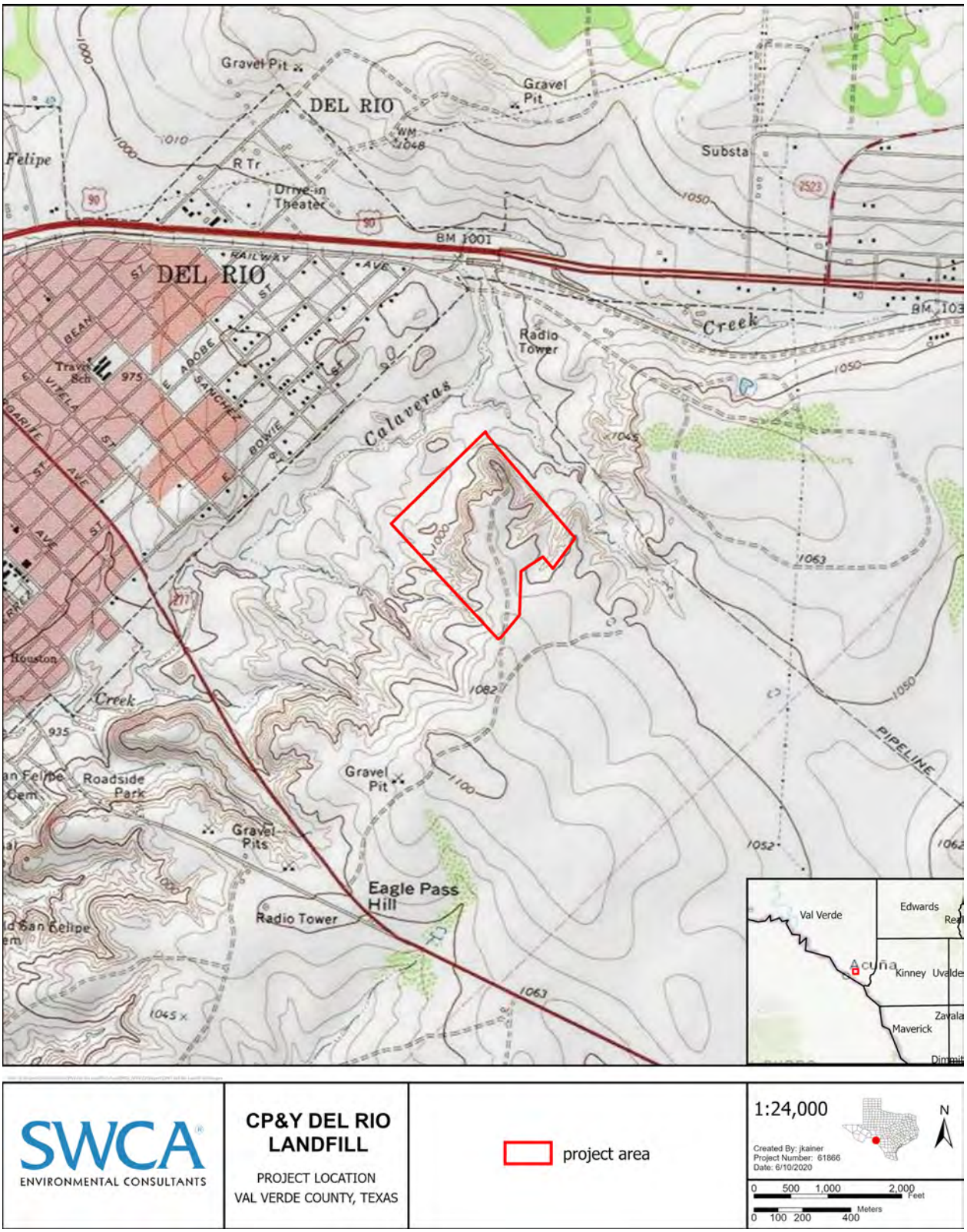


Figure 1. Project location map.



Figure 2. Project aerial location map.

The surface geology within the project area consists of Cretaceous-age Buda Limestone deposits and Pleistocene-age Uvalde gravels (USGS 2020a). Four soil types were identified as underlying the proposed project area (NRCS 2020). The majority of the soils mapped within the project area include the Felipe and Zorra soils (FzG), 8 to 40 percent slopes. The Felipe series consists of shallow soils formed in shaly clay found on gently sloping to steep uplands. The Zorra series consists of shallow soils formed from Cretaceous-aged indurated limestone and is found on undulating to hilly uplands. The most prevalent mapped soil within the project area is the Zapata-Vinegarroon complex (ZaC), with 1 to 5 percent slopes. The Zapata series consists of very shallow to petrocalcic soils formed from calcareous alluvium on nearly level to undulating ridges and interfluves.

The Vinegarroon series consists of shallow soils formed from calcareous loamy material over thick caliche beds. The next most prevalent soil series mapped within the project area is Coahuila clay loam (CoB) with 0 to 3 percent slopes. The Coahuila soil consists of very deep, well drained soils formed in calcareous alluvium on nearly level to gently sloping stream terraces of piedmont alluvial plains, below limestone hills. The final soil series mapped within the project area is Acuna (AcB) silty clay with 0 to 3 percent slopes. The Acuna series consists of deep, well drained soils formed in calcareous, silty sediments eroded from limestone hills (Figure 3; NRCS 2020).

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS AND KNOWN RESOURCES

On June 9, 2020, SWCA completed desktop reviews of the project. The review area includes an approximately 75-acre project area and an additional approximately 0.5-mile study area around the project components (Figure 4). The review used the Texas Archeological Sites Atlas (Atlas) online database (Texas Historical Commission [THC 2020]) for previously conducted surveys and known sites within the review area. The review also consulted historical topographic maps available through the USGS Historical Topographic Map Explorer (USGS 2020b), the Texas Historic Overlay (Foster et al. 2006), and modern aerial imagery to identify land use practices that may indicate the potential for or presence of cultural resources within the project area.

The file search and literature review identified four previously recorded archaeological surveys and eight previously recorded archaeological sites within the study area, of which, one previous survey and one previously recorded archaeological site intersect with the project area (THC 2020) (see Figure 4). No National Register of Historic Places properties, State Antiquities Landmarks (SAL), Registered Texas Historic Landmarks, cemeteries, historic markers, or local neighborhood surveys were identified within either the project or study areas. Additionally, the historic map review did not identify any potential historic structures within or directly adjacent to the project area (USGS 2020b; Foster et al., 2006).

Four previously conducted surveys were identified within the 0.5-mile study area; however, information on these surveys provided by the THC Atlas was limited regarding project details (see Figure 4). A previously conducted area survey consisting of approximately 36 acres, intersects with small portions of the project area on the southeast side. The survey was conducted under THC permit 869. No other information regarding the survey is available through the Atlas; however, the survey appears to correspond with an existing city landfill. In addition, two parallel linear surveys trend from the southwest to the northeast approximately 0.2-mile northwest of the project area; however, other than locational data, no further information is available from the Atlas. Finally, a large areal survey was conducted approximately 0.4 mile south of the project area on behalf of the Federal Emergency Management Agency in 1998 (THC 2020).



Figure 3. Soils Map.

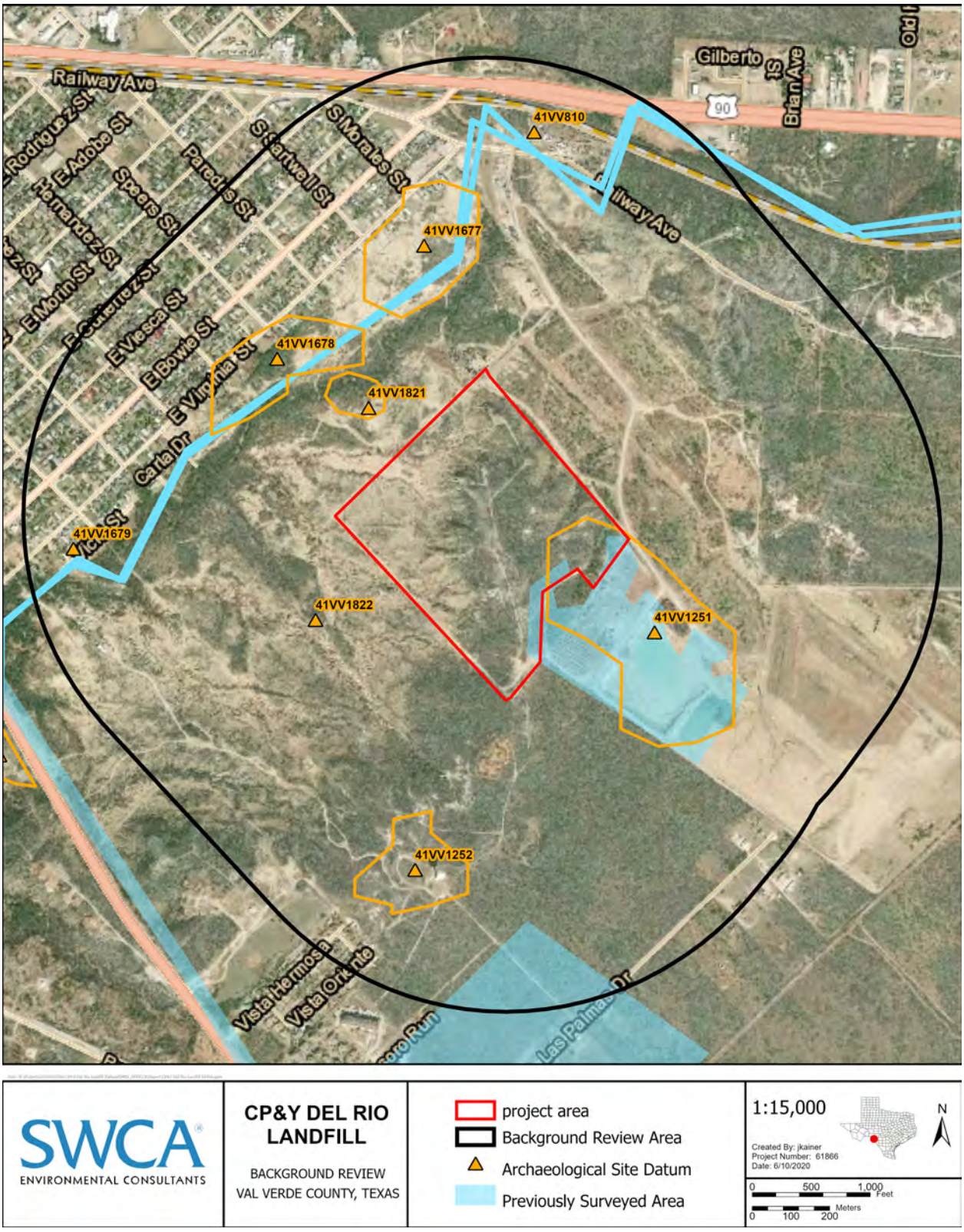


Figure 4. Background review results map.

Eight previously recorded archaeological sites (i.e., 41VV1251, 41VV1821, 41VV1822, 41VV1678, 41VV1677, 41VV1252, 41VV810, and 41VV1679) were identified within the 0.5-mile study area (THC 2020) (see Figure 4). Site 41VV1251, a prehistoric campsite that has been recommended as not eligible for NRHP listing, is the only previously recorded site that intersects with the proposed project area. Information regarding sites 41VV1821 and 41VV1252 is not currently available from the THC. Site 41VV1822, located approximately 0.15 mile southwest of the project area, is the only site in the study area that was determined to have potential for NRHP and SAL designation. The remaining four sites are prehistoric open campsites, which have been recommended as not eligible for NRHP listing. Each site is described in greater detail below.

41VV1251 was first recorded as a prehistoric site during a Phase I survey conducted by the Center for Archaeological Research through the University of Texas at San Antonio (CAR-UTSA) in 1990 (THC 2020). The site was originally described as an erosional cut with lithics eroding from approximately 60 centimeters (cm) (24 inches) below the ground surface. Formal tools identified include points, bifaces, and biface fragments. The points identified in the erosional cut were thought to correspond with an early archaic occupation. Additionally, a proximal Clovis point fragment from the Paleoindian period was found on the ground surface at a slightly higher elevation than the erosional cut. The researchers recommended further testing and geomorphological studies to determine the NRHP eligibility of the site (THC 2020).

A Phase II investigation of site 41VV1251 was conducted by CAR-UTSA in 1991 to test for NRHP eligibility. Although the recovered artifacts indicated occupations ranging from the Late Paleoindian period to the Late Archaic period, the soil matrix in the site was found to be deflated and the geomorphological study confirmed the deflated nature of the site. With the lack of stratified buried deposits, it was determined that the site could not provide archaeological context to the artifacts present; therefore, the site was recommended as Not Eligible.

41VV1821 is located approximately 390 feet northwest of the proposed project area; however, there is no site information currently available from the THC on the Atlas (THC 2020).

41VV1822 was first recorded as a prehistoric campsite by James Boyd in 1998 and is located approximately 0.15-mile southwest of the proposed project area (THC 2020). The site is described as an eroding hearth located on the banks of a draw leading to Calaveras Creek. The hearth was visible on the surface due to deflation of the soil; however, the site is described as having potential for additional hearths beneath the surface. Diagnostic projectile points were recovered that date the site to the Transitional Archaic period (200 BC to 600 AD). The original investigators did not provide an evaluation for NRHP eligibility. However, they do describe the site as having potential for SAL eligibility, and recommend further archaeological investigations (THC 2020).

41VV1678 was first recorded as a prehistoric open campsite by W. Hayden Whitsett in 1994 and is located approximately 0.16-mile northwest of the proposed project area (THC 2020). The site was identified by burned rocks and debitage observed on the ground surface. The original investigators describe the site as having been extensively disturbed by sheet erosion, modern vehicle and bicycle trails, modern trash dumping, and possible surface collecting. The recorders note that less than 5 percent of the site appears to be intact and they recommend the site as not eligible for NRHP or SAL designation. The THC concurred with the recommendations and the site was determined not eligible for NRHP listing in 1994 (THC 2020).

41VV1677 was first recorded as a prehistoric open campsite by W. Hayden Whitsett in 1994 and is located approximately 0.17-mile northwest of the proposed project area (THC 2020). The site is described

as deflated with two possible thermal features. The identification of the thermal features was based on two clusters of thermally altered rocks observed on the surface with no associated soil staining. Diagnostic points were found on the surface; however, the site is extensively disturbed and out of context. Soil deflation, sheet erosion, possible surface collecting, and modern vehicle disturbance have contributed to the destruction of the site. The original recorders recommended the site as not eligible for SAL or NRHP designation, and the THC concurred with their findings and designated the site as not eligible for NRHP listing in 1994 (THC 2020).

41VV1252 is located approximately 0.24-mile south of the proposed project area; however, there is no site information currently available from the THC on the Atlas (THC 2020).

41VV810 was first recorded as a prehistoric open campsite by CAR-UTSA in 1985 and is located approximately 0.43-mile north of the project area (THC 2020). The site is described as being a surficial lithic scatter with non-temporally diagnostic tools and has been heavily impacted by soil deflation and sheet erosion. The investigators recommended the site as not eligible for NRHP listing due to the disturbed nature of the site. The THC concurred with their findings and designated the site as not eligible for NRHP listing in 1994 (THC 2020).

41VV1679 was first recorded as a prehistoric open campsite by W. Hayden Whitsett in 1994 (THC 2020). The site is currently located within a residential development, approximately 0.44-mile west of the project area. 41VV1679 is described as a lithic debitage and burned rock scatter in a deflated landscape. Artifacts were found mostly on the surface and were not identified deeper than 10 cm (4 inches) below the current ground surface. The investigators found the condition of the site to be extensively disturbed by natural deflation and sheet erosion, as well as bioturbation, housing developments, and trash dumping. The site is estimated to be less than 20 percent intact; therefore, the original investigators recommend the site as not eligible for NRHP listing. The THC concurred with the recommendations in 1994 (THC 2020).

METHODS

SWCA will implement field survey methods that comply with technical standards and requirements established by the THC, Council of Texas Archeologists (CTA), and the USACE. Two SWCA professional archaeologists will conduct a pedestrian survey of the project area using systematic transects spaced no more than 30.0 meters (98.4 feet) apart. This procedure will examine visible ground surfaces for cultural materials and above ground features. Visual examination will be supplemented through shovel tests hand-excavated within the property. Shovel testing will be conducted in areas that hold potential for intact, subsurface archaeological resources. Shovel tests will not be conducted and/or will be limited in areas within pre-existing utility ROWs, disturbed by urban development, or in upland settings lacking soils or displaying bedrock exposures. Shovel tests will be excavated according to THC standards. For projects 25–200 contiguous acres in size, at least 50 shovel tests should be excavated for the first 25 acres plus at least one shovel test per every five acres over 25 acres (i.e., a total of 60 shovel tests for the currently proposed 75-acre project area). SWCA will excavate shovel tests in 20-centimeter (7.9 inches) arbitrary levels to 1-meter (3.3-feet) in depth, impervious surfaces, groundwater, or to culturally sterile deposits, whichever comes first. The matrix will be screened through ¼-inch mesh. Archaeologists will plot each shovel test using a global positioning system (GPS) receiver and will record each test on appropriate project field forms. Areas with cultural resources will require additional shovel testing at closer spacing to delineate the boundaries of buried cultural materials.

The potential for deeply buried cultural deposits is currently deemed low to moderate based on the previously discussed soils and geology information. The majority of the soils mapped within the project area consist of shallow indurated limestone and of calcareous alluvium with a low potential to contain

deeply buried cultural deposits and a high incidence of deflation and sheet erosion. However, there is likely potential for deeper soils in some sections of the project area given the proximity to Calaveras Creek and associated drainages. Thus, there is some potential for soil deposition to cover a site. The field assessment will further define the potential of a site and methods will be adjusted accordingly.

Previously identified resources as well as any newly identified archaeological sites will be explored as much as possible with consideration to the boundaries of the project. All discovered sites will be assessed regarding their potential significance so that recommendations can be made for proper management (i.e., avoidance, non-avoidance, or further work), as well as assessed for SAL and NRHP eligibility. Shovel tests will be excavated per THC/CTA standards to define horizontal and vertical site boundaries (i.e., at least six shovel tests per site).

SWCA will complete appropriate State of Texas Archaeological Site Data Forms for each site discovered during the investigations. SWCA will produce a detailed plan map of each site and plot locations on USGS 7.5-minute quadrangles and relevant project maps. Unless otherwise required by the THC or USACE, SWCA will conduct a non-collection survey where artifacts will be tabulated, analyzed, photographed, and documented in the field. Field notes will be kept at the SWCA San Antonio location. If the survey data allows, SWCA archaeologists will make a significance determination using the criteria listed in 36 CFR 60.4. If determined to be potentially significant and eligible for listing on the NRHP or as a SAL, additional work may be required to study or mitigate the resource prior to any construction.

During the survey, the field team will also plot, record, and photograph any buildings or structures within or directly adjacent to the area of potential effect that appear to be more than 45 years in age. These potential historic features will be evaluated by a SWCA Secretary-of-Interior qualified architectural historian to identify if they are potentially eligible for listing on the NRHP. The architectural evaluation will use standard industry recognized methods in the analysis, including National Park Service National Register Bulletins 15 and 39. The report described in Task 3 below will include an evaluation of the resources using the NRHP criteria of evaluation (36 CFR 60.4).

REPORTING AND CURATION

Once the cultural resources survey has been completed, SWCA will prepare a report for review by the City of Del Rio and the agencies (THC and potentially USACE). The report of the investigations will conform to the CTA and THC standards and guidelines. The report will include the results of the background review and the field survey. Specifically, it will provide the methodology used in the investigations, the presence and condition of previously recorded sites located in the project area, photographs illustrating the environment and setting, a description of cultural resources encountered during the survey, recommendations for management of those cultural resources, and recommendations for additional investigations, if warranted. SWCA will submit a draft digital copy of the report to the City of Del Rio for review and comment. SWCA will address all comments and concerns, and at the request of the City of Del Rio, the revised draft will be submitted to the THC for review. SWCA will address any comments or concerns and produce a final report to complete requirements of the Antiquities Permit. SWCA is proposing a no-collection survey; however, documentation will be curated at CAR-UTSA.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

In the event of unexpected discovery of human remains or funerary objects/contexts during the survey, SWCA will comply with all applicable state laws (Texas Health and Safety Code Section 711 and the Texas Administrative Code Title 13, Chapter 22 Sections 22.1 through 22.6.), as well as taking into

account the Advisory Council on Historic Preservation's 2007 Policy Statement on the Treatment of Burial Sites. Any human skeletal remains that may be discovered will, at all times, be treated with dignity and respect. If human remains are uncovered during investigations, the following steps will be taken:

- SWCA will halt excavation of the remains and shall notify the Val Verde County sheriff and the THC. The sheriff will be requested to contact the coroner/medical examiner. After examining the human remains, if the sheriff and coroner determine the remains are modern then the sheriff or coroner will assume responsibility for the remains.

- Appropriate measures will be taken to ensure that the remains are protected and not disturbed prior to the conclusion of investigation by law enforcement and consultation with appropriate groups to determine next steps (if needed).

- Excavations (e.g., shovel testing) within 100 meters of the find will be halted until the THC authorizes continued work in those areas.

- Surveys will continue elsewhere in the project area.

- If the county sheriff and coroner determine that the remains are not modern or a crime scene, thereby relinquishing their jurisdiction over the remains, SWCA will coordinate with the project and THC to determine the appropriate course of action and file *Notice of the Existence of a Cemetery*.

REFERENCES

Foster, T. R., T. Summerville, and T. Brown
2006 *The Texas Historic Overlay: A Geographic Information System of Historic Map Images for Planning Transportation Projects in Texas.* Prepared for the Texas Department of Transportation by PBS&J, Austin.

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Texas Historical Commission
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U.S. Geological Survey (USGS)

2019 *Del Rio SE, TX* [map]. 1:24,000, 7.5-Minute Series topographic quadrangle. U.S. Department of the Interior, U.S. Geologic Survey, Washington D.C.

2020a Texas Geology Web Map Viewer. Available at: https://txpub.usgs.gov/txgeology/. Accessed June 2020.

2020b The National Geologic Map Database (TopoView). Historical topographic map collection. Available at: http://ngmdb.usgs.gov/maps/TopoView/. Accessed June 2020.

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TEXAS ANTIQUITIES PERMIT APPLICATION
PROPOSED SCOPE OF WORK FOR AN INTENSIVE CULTURAL RESOURCES SURVEY OF THE DEL RIO LANDFILL, VAL VERDE COUNTY, TEXAS

Project Landowners – City of Del Rio
Project Sponsor – CP&Y
Project Consultant – SWCA Environmental Consultants (SWCA)
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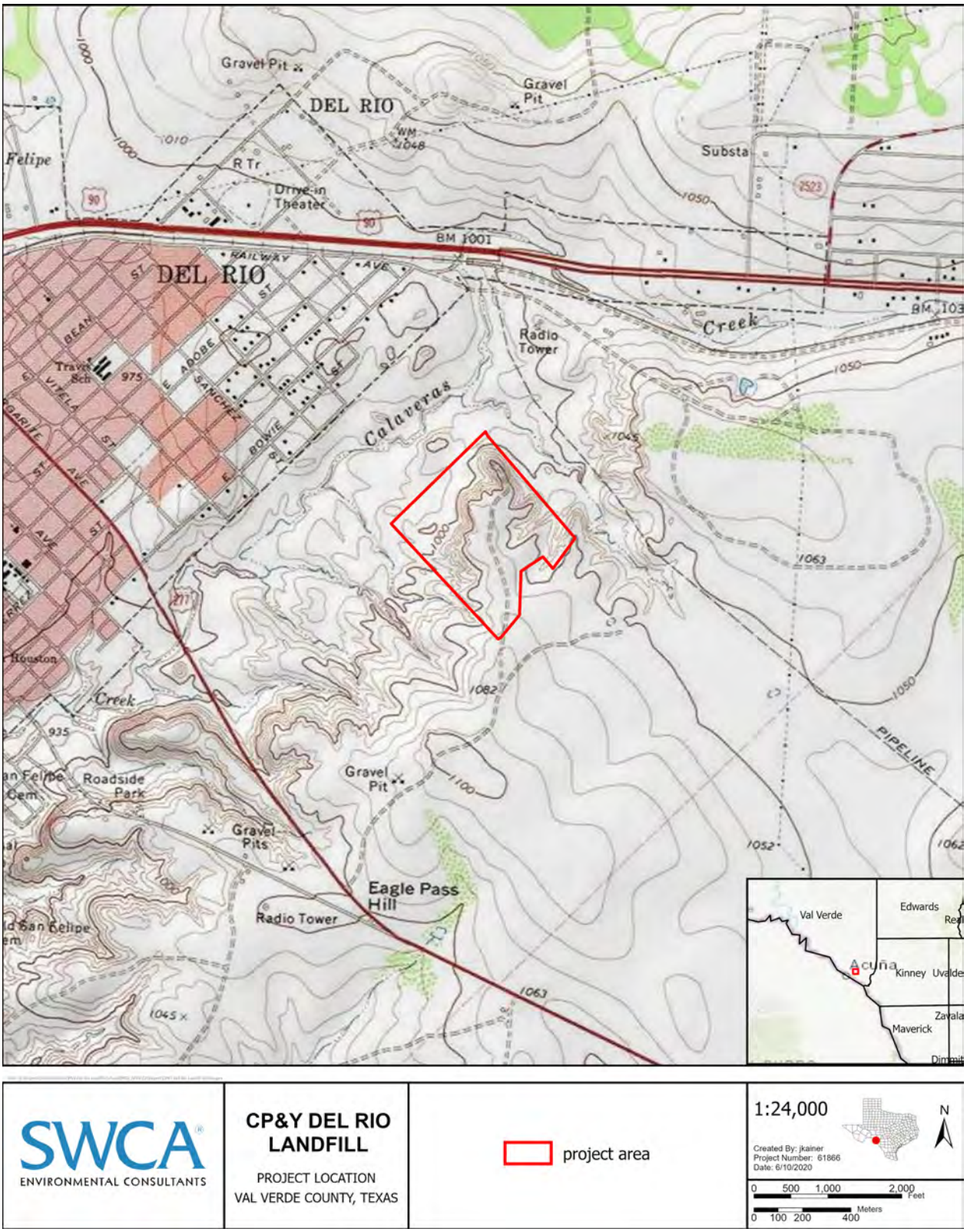


Figure 1. Project location map.



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The surface geology within the project area consists of Cretaceous-age Buda Limestone deposits and Pleistocene-age Uvalde gravels (USGS 2020a). Four soil types were identified as underlying the proposed project area (NRCS 2020). The majority of the soils mapped within the project area include the Felipe and Zorra soils (FzG), 8 to 40 percent slopes. The Felipe series consists of shallow soils formed in shaly clay found on gently sloping to steep uplands. The Zorra series consists of shallow soils formed from Cretaceous-aged indurated limestone and is found on undulating to hilly uplands. The most prevalent mapped soil within the project area is the Zapata-Vinegarroon complex (ZaC), with 1 to 5 percent slopes. The Zapata series consists of very shallow to petrocalcic soils formed from calcareous alluvium on nearly level to undulating ridges and interfluves.

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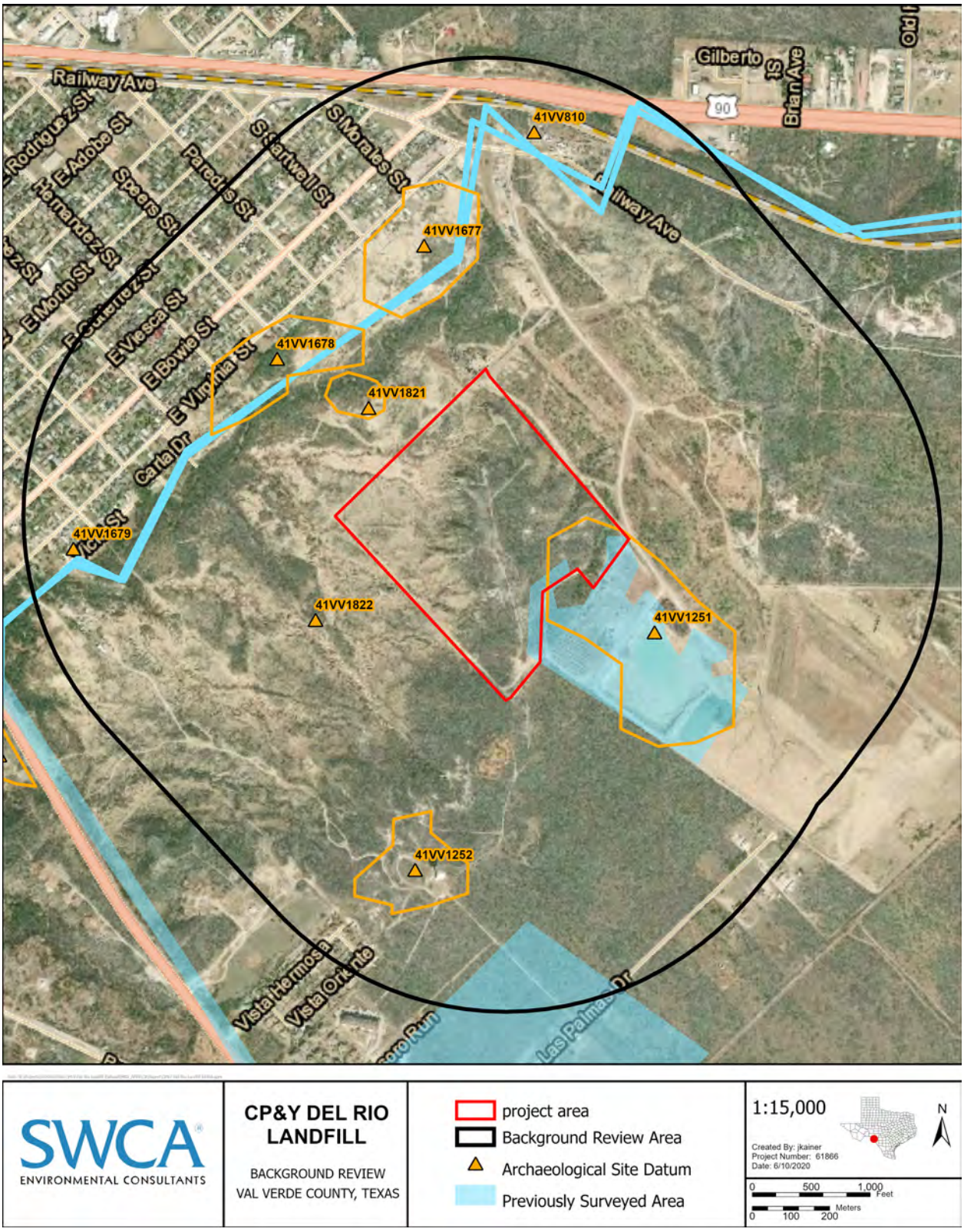


Figure 4. Background review results map.

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41VV1821 is located approximately 390 feet northwest of the proposed project area; however, there is no site information currently available from the THC on the Atlas (THC 2020).

41VV1822 was first recorded as a prehistoric campsite by James Boyd in 1998 and is located approximately 0.15-mile southwest of the proposed project area (THC 2020). The site is described as an eroding hearth located on the banks of a draw leading to Calaveras Creek. The hearth was visible on the surface due to deflation of the soil; however, the site is described as having potential for additional hearths beneath the surface. Diagnostic projectile points were recovered that date the site to the Transitional Archaic period (200 BC to 600 AD). The original investigators did not provide an evaluation for NRHP eligibility. However, they do describe the site as having potential for SAL eligibility, and recommend further archaeological investigations (THC 2020).

41VV1678 was first recorded as a prehistoric open campsite by W. Hayden Whitsett in 1994 and is located approximately 0.16-mile northwest of the proposed project area (THC 2020). The site was identified by burned rocks and debitage observed on the ground surface. The original investigators describe the site as having been extensively disturbed by sheet erosion, modern vehicle and bicycle trails, modern trash dumping, and possible surface collecting. The recorders note that less than 5 percent of the site appears to be intact and they recommend the site as not eligible for NRHP or SAL designation. The THC concurred with the recommendations and the site was determined not eligible for NRHP listing in 1994 (THC 2020).

41VV1677 was first recorded as a prehistoric open campsite by W. Hayden Whitsett in 1994 and is located approximately 0.17-mile northwest of the proposed project area (THC 2020). The site is described

as deflated with two possible thermal features. The identification of the thermal features was based on two clusters of thermally altered rocks observed on the surface with no associated soil staining. Diagnostic points were found on the surface; however, the site is extensively disturbed and out of context. Soil deflation, sheet erosion, possible surface collecting, and modern vehicle disturbance have contributed to the destruction of the site. The original recorders recommended the site as not eligible for SAL or NRHP designation, and the THC concurred with their findings and designated the site as not eligible for NRHP listing in 1994 (THC 2020).

41VV1252 is located approximately 0.24-mile south of the proposed project area; however, there is no site information currently available from the THC on the Atlas (THC 2020).

41VV810 was first recorded as a prehistoric open campsite by CAR-UTSA in 1985 and is located approximately 0.43-mile north of the project area (THC 2020). The site is described as being a surficial lithic scatter with non-temporally diagnostic tools and has been heavily impacted by soil deflation and sheet erosion. The investigators recommended the site as not eligible for NRHP listing due to the disturbed nature of the site. The THC concurred with their findings and designated the site as not eligible for NRHP listing in 1994 (THC 2020).

41VV1679 was first recorded as a prehistoric open campsite by W. Hayden Whitsett in 1994 (THC 2020). The site is currently located within a residential development, approximately 0.44-mile west of the project area. 41VV1679 is described as a lithic debitage and burned rock scatter in a deflated landscape. Artifacts were found mostly on the surface and were not identified deeper than 10 cm (4 inches) below the current ground surface. The investigators found the condition of the site to be extensively disturbed by natural deflation and sheet erosion, as well as bioturbation, housing developments, and trash dumping. The site is estimated to be less than 20 percent intact; therefore, the original investigators recommend the site as not eligible for NRHP listing. The THC concurred with the recommendations in 1994 (THC 2020).

METHODS

SWCA will implement field survey methods that comply with technical standards and requirements established by the THC, Council of Texas Archeologists (CTA), and the USACE. Two SWCA professional archaeologists will conduct a pedestrian survey of the project area using systematic transects spaced no more than 30.0 meters (98.4 feet) apart. This procedure will examine visible ground surfaces for cultural materials and above ground features. Visual examination will be supplemented through shovel tests hand-excavated within the property. Shovel testing will be conducted in areas that hold potential for intact, subsurface archaeological resources. Shovel tests will not be conducted and/or will be limited in areas within pre-existing utility ROWs, disturbed by urban development, or in upland settings lacking soils or displaying bedrock exposures. Shovel tests will be excavated according to THC standards. For projects 25–200 contiguous acres in size, at least 50 shovel tests should be excavated for the first 25 acres plus at least one shovel test per every five acres over 25 acres (i.e., a total of 60 shovel tests for the currently proposed 75-acre project area). SWCA will excavate shovel tests in 20-centimeter (7.9 inches) arbitrary levels to 1-meter (3.3-feet) in depth, impervious surfaces, groundwater, or to culturally sterile deposits, whichever comes first. The matrix will be screened through ¼-inch mesh. Archaeologists will plot each shovel test using a global positioning system (GPS) receiver and will record each test on appropriate project field forms. Areas with cultural resources will require additional shovel testing at closer spacing to delineate the boundaries of buried cultural materials.

The potential for deeply buried cultural deposits is currently deemed low to moderate based on the previously discussed soils and geology information. The majority of the soils mapped within the project area consist of shallow indurated limestone and of calcareous alluvium with a low potential to contain

deeply buried cultural deposits and a high incidence of deflation and sheet erosion. However, there is likely potential for deeper soils in some sections of the project area given the proximity to Calaveras Creek and associated drainages. Thus, there is some potential for soil deposition to cover a site. The field assessment will further define the potential of a site and methods will be adjusted accordingly.

Previously identified resources as well as any newly identified archaeological sites will be explored as much as possible with consideration to the boundaries of the project. All discovered sites will be assessed regarding their potential significance so that recommendations can be made for proper management (i.e., avoidance, non-avoidance, or further work), as well as assessed for SAL and NRHP eligibility. Shovel tests will be excavated per THC/CTA standards to define horizontal and vertical site boundaries (i.e., at least six shovel tests per site).

SWCA will complete appropriate State of Texas Archaeological Site Data Forms for each site discovered during the investigations. SWCA will produce a detailed plan map of each site and plot locations on USGS 7.5-minute quadrangles and relevant project maps. Unless otherwise required by the THC or USACE, SWCA will conduct a non-collection survey where artifacts will be tabulated, analyzed, photographed, and documented in the field. Field notes will be kept at the SWCA San Antonio location. If the survey data allows, SWCA archaeologists will make a significance determination using the criteria listed in 36 CFR 60.4. If determined to be potentially significant and eligible for listing on the NRHP or as a SAL, additional work may be required to study or mitigate the resource prior to any construction.

During the survey, the field team will also plot, record, and photograph any buildings or structures within or directly adjacent to the area of potential effect that appear to be more than 45 years in age. These potential historic features will be evaluated by a SWCA Secretary-of-Interior qualified architectural historian to identify if they are potentially eligible for listing on the NRHP. The architectural evaluation will use standard industry recognized methods in the analysis, including National Park Service National Register Bulletins 15 and 39. The report described in Task 3 below will include an evaluation of the resources using the NRHP criteria of evaluation (36 CFR 60.4).

REPORTING AND CURATION

Once the cultural resources survey has been completed, SWCA will prepare a report for review by the City of Del Rio and the agencies (THC and potentially USACE). The report of the investigations will conform to the CTA and THC standards and guidelines. The report will include the results of the background review and the field survey. Specifically, it will provide the methodology used in the investigations, the presence and condition of previously recorded sites located in the project area, photographs illustrating the environment and setting, a description of cultural resources encountered during the survey, recommendations for management of those cultural resources, and recommendations for additional investigations, if warranted. SWCA will submit a draft digital copy of the report to the City of Del Rio for review and comment. SWCA will address all comments and concerns, and at the request of the City of Del Rio, the revised draft will be submitted to the THC for review. SWCA will address any comments or concerns and produce a final report to complete requirements of the Antiquities Permit. SWCA is proposing a no-collection survey; however, documentation will be curated at CAR-UTSA.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

In the event of unexpected discovery of human remains or funerary objects/contexts during the survey, SWCA will comply with all applicable state laws (Texas Health and Safety Code Section 711 and the Texas Administrative Code Title 13, Chapter 22 Sections 22.1 through 22.6.), as well as taking into

account the Advisory Council on Historic Preservation's 2007 Policy Statement on the Treatment of Burial Sites. Any human skeletal remains that may be discovered will, at all times, be treated with dignity and respect. If human remains are uncovered during investigations, the following steps will be taken:

- SWCA will halt excavation of the remains and shall notify the Val Verde County sheriff and the THC. The sheriff will be requested to contact the coroner/medical examiner. After examining the human remains, if the sheriff and coroner determine the remains are modern then the sheriff or coroner will assume responsibility for the remains.

- Appropriate measures will be taken to ensure that the remains are protected and not disturbed prior to the conclusion of investigation by law enforcement and consultation with appropriate groups to determine next steps (if needed).

- Excavations (e.g., shovel testing) within 100 meters of the find will be halted until the THC authorizes continued work in those areas.

- Surveys will continue elsewhere in the project area.

- If the county sheriff and coroner determine that the remains are not modern or a crime scene, thereby relinquishing their jurisdiction over the remains, SWCA will coordinate with the project and THC to determine the appropriate course of action and file *Notice of the Existence of a Cemetery*.

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Cultural Resources Investigation of the Proposed Del Rio Landfill Project, Val Verde County, Texas

AUGUST 2020

PREPARED FOR

CP&Y

PREPARED BY

SWCA Environmental Consultants

CULTURAL RESOURCES INVESTIGATION OF THE PROPOSED DEL RIO LANDFILL PROJECT, VAL VERDE COUNTY, TEXAS

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SWCA Project No. 61866

SWCA Cultural Resources Report No. 20-519

August 2020

ABSTRACT

At the request of CP&Y, SWCA Environmental Consultants (SWCA) conducted a cultural resources investigation for the Proposed Del Rio Landfill Project located in Del Rio, Texas. The project involves the construction of a new landfill facility approximately 75.0 acres (30.4 hectares) in size and located north of Las Palmas Drive, south of U.S. Highway 90 and northeast of U.S. Highway 277 in southeast Del Rio, Val Verde County. The proposed project is located on land owned by the City of Del Rio, a political subdivision of the State of Texas, and is therefore subject to review by the Texas Historical Commission under the Antiquities Code of Texas (ACT). There is also the possibility that the project could impact jurisdictional waters of the United States, which would also trigger compliance with Section 106 of the National Historic Preservation Act (NHPA) through its connection to the Clean Water Act, as regulated by the U.S. Army Corps of Engineers (USACE). To comply with requirements of the ACT, and in anticipation of the requirements of the NHPA, SWCA proposed an intensive cultural resources survey with shovel testing of the project area.

Investigations included a background literature and historic map review, as well as an intensive cultural resources survey of the project area to determine the presence, extent, and potential significance of deeply buried archaeological sites. The background review determined that one previously conducted cultural resources investigation intersects the project area and four previous cultural resources surveys have been conducted within 1.0 mile (1.6 kilometers [km]) of the project area. In addition, 12 previously recorded archaeological sites are within 1.0 mile (1.6 km) of the project area. One of these archaeological sites (i.e., 41VV1251) intersects the project area. Site 41VV1251 consists of a Late Paleoindian to Late Archaic lithic scatter including a proximal Clovis point fragment, projectile points, bifaces, and biface fragments. Due to the eroded deposits and lack of buried deposits, the site was recommended as not eligible for the National Register of Historic Places (NRHP). One Official Texas Historical Marker (i.e., #16268) is located 1.0-mile (1.6 km) west of the project area and will not be affected by the project undertaking. No cemeteries or NRHP properties are within 1.0 mile (1.6 km) of the project area. Additionally, the historic map review did not reveal any potential historic-age structures within the project area.

Two SWCA archaeologists conducted an archaeological survey augmented by shovel testing on July 21–23 and August 6, 2020. SWCA revisited site 41VV1251 within the project area during the survey. No cultural materials were observed on the surface or subsurface within the portion of the site within the project area during the current investigations. Due to the lack of temporally diagnostic artifacts or cultural features, SWCA recommends site 41VV1251 within the project area as not eligible for designation as a State Antiquities Landmark (SAL) or as an NRHP property. No further work or avoidance is recommended. In addition to the site, SWCA identified two isolated finds (IFs) during pedestrian survey of the project area. Both IFs were bifaces with no additional associated artifacts. IFs are isolated artifacts that by themselves do not meet the Council of Texas Archeologists' accepted criteria for designation as an archaeological site. No further work is warranted at these locations due to their isolated surficial nature.

In accordance with the ACT, SWCA has made a reasonable and good faith effort to identify cultural resources properties within the project area. No properties were identified within the project area that are eligible for SAL/NRHP listing. As such, SWCA recommends that no additional cultural resources investigations are warranted within the project area, as currently defined.

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INTRODUCTION

At the request of CP&Y, SWCA Environmental Consultants (SWCA) conducted a cultural resources investigation for the Proposed Del Rio Landfill Project located in Del Rio, Texas. The project involves the construction of a new landfill facility approximately 75.0 acres (30.4 hectares [ha]) in size and is located north of Las Palmas Drive, south of U.S. Highway 90 and northeast of U.S. Highway 277 in southeast Del Rio, Val Verde County (Figures 1 and 2). The proposed project is located on land owned by the City of Del Rio, a political subdivision of the State of Texas, and is therefore subject to review by the Texas Historical Commission (THC) under the Antiquities Code of Texas (ACT). There is also the possibility that the project could impact jurisdictional waters of the United States, which would also trigger compliance with Section 106 of the National Historic Preservation Act (NHPA) through its connection to the Clean Water Act, as regulated by the U.S. Army Corps of Engineers (USACE). To comply with requirements of the ACT, and in anticipation of the requirements of the NHPA, SWCA proposed an intensive cultural resources survey with shovel testing of the project area.

Consistent with the ACT and the NHPA, the purpose of the investigation was to identify and assess any cultural resources, such as historic and prehistoric archaeological sites, historic buildings, structures, objects, and sites (such as cemeteries) that might be located within the boundaries of the proposed project area, and evaluate the significance and eligibility of these cultural resources for designation as State Antiquities Landmarks (SALs) under the ACT, or as National Register of Historic Places (NRHP) property under the NHPA. Investigations consisted of a background literature and historic map review, as well as an intensive cultural resources survey supplemented by shovel testing throughout the proposed project area to determine the presence, extent, and potential significance of deeply buried archaeological sites. All investigations were conducted in accordance with the standards and guidelines established by the THC and Council of Texas Archeologists (CTA) under ACT Permit No. 9519.

Project Personnel

Laura Clark, M.A., RPA, served as the Principal Investigator and Project Manager, overseeing overall logistics and organization, managing reporting, and agency consultation during the investigations. The investigation was completed by archaeologists Rachel Jenson and Jessica Ulmer from July 21–23 and August 6, 2020. Sophia Salgado and Jessica Ulmer prepared the report of the investigations. Alyana Fernandez expertly produced all field and report maps for the project, and Lauri Logan provided technical editing and document preparation.

PROJECT AREA DESCRIPTION

The proposed landfill footprint is located on undeveloped land, just southeast of a residential area and northwest of an existing landfill, and is depicted on the *Del Rio SE, TX* USGS 7.5-minute topographic quadrangle map (U.S. Geological Survey [USGS] 2020a) (see Figure 1). Aerial imagery shows the project area is currently undeveloped with just a few two-track dirt trails transecting the parcel (Figure 2). An upland ridge trends south to north across the project area and overlooks the Calaveras Creek bed, located approximately 0.12 mile (0.19 kilometer [km]) northwest of the project area.

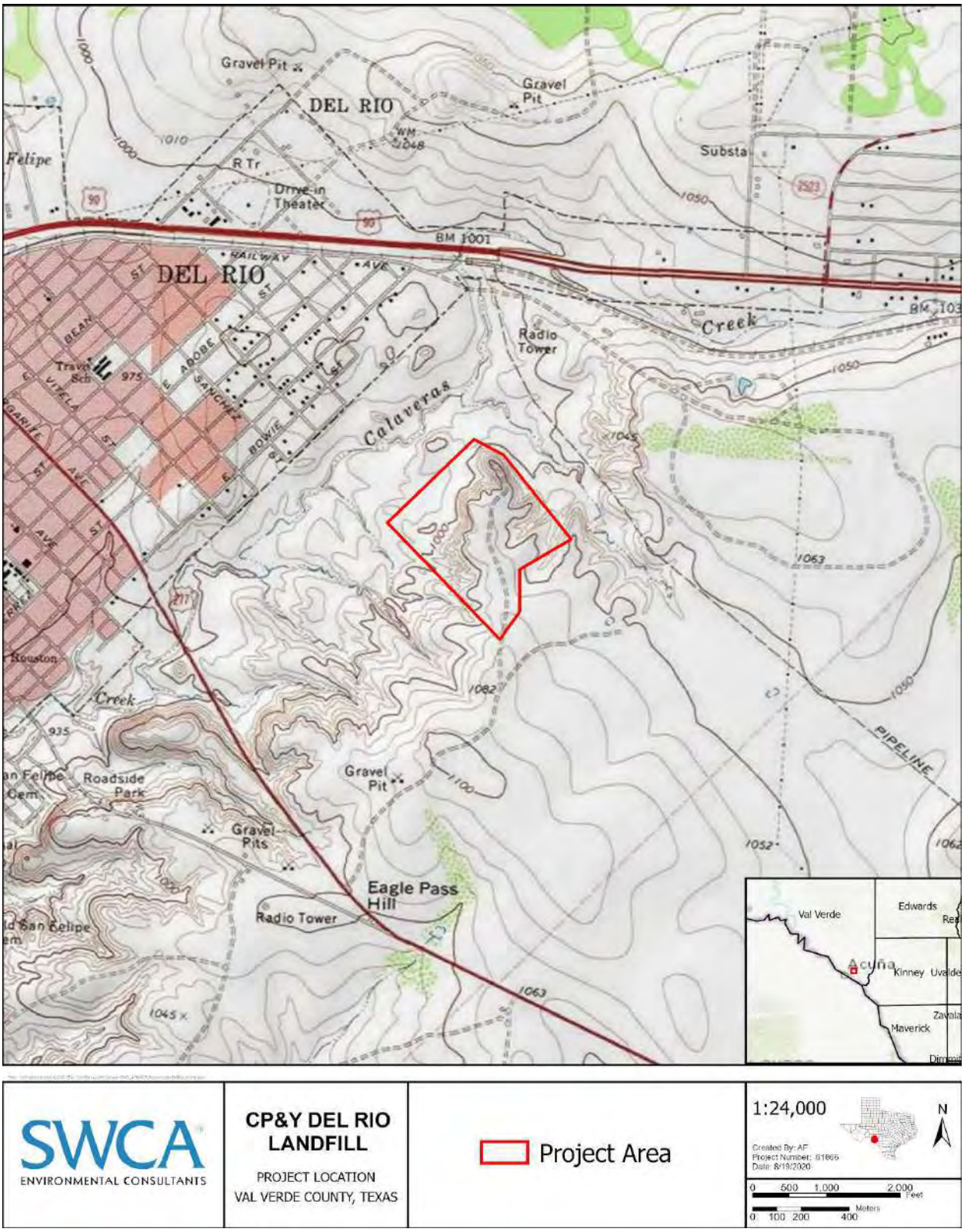


Figure 1. Project area.

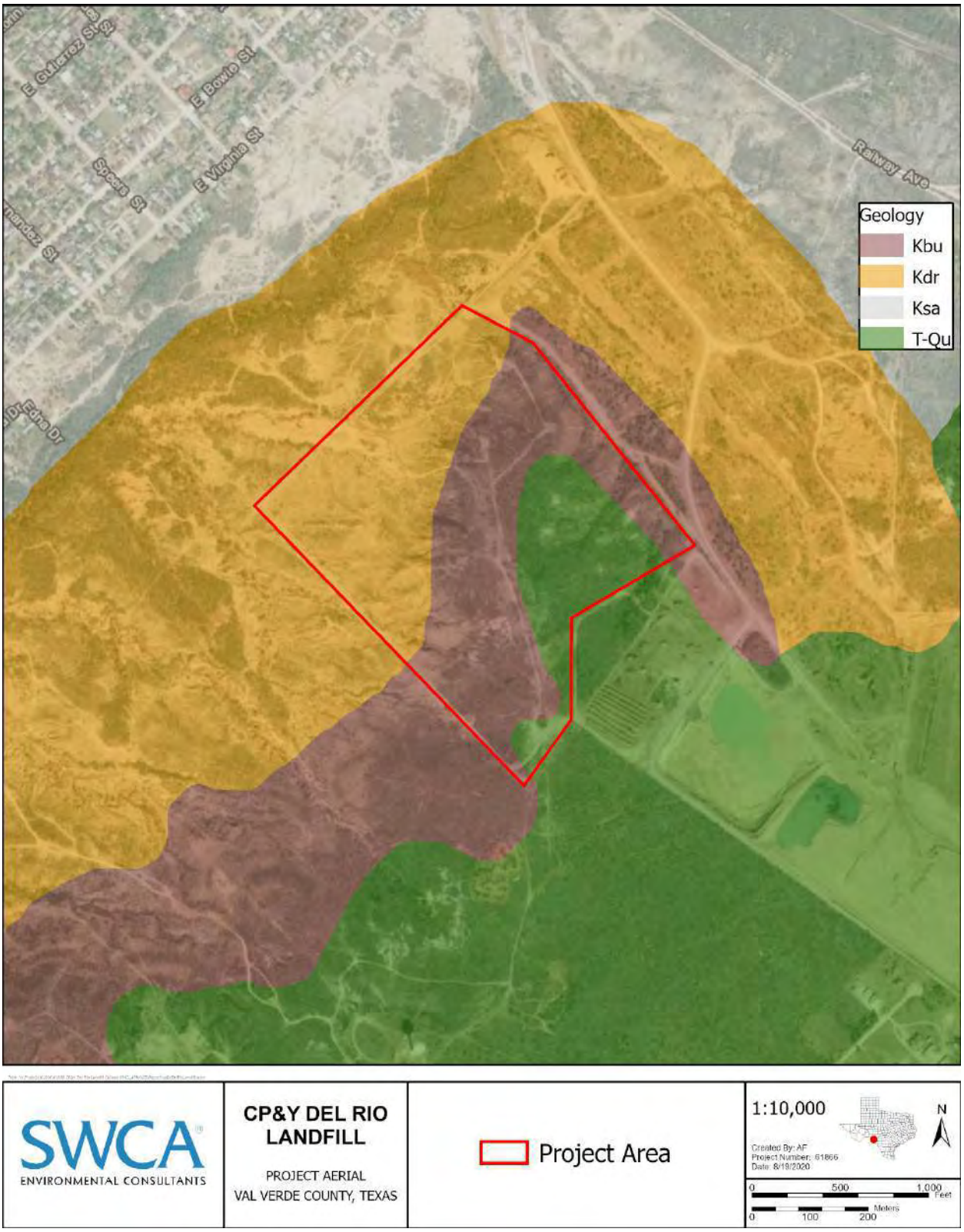


Figure 2. Project area aerial and geology overview.

ENVIRONMENTAL SETTING

Geology and Soils

The project area is situated on the Cretaceous-age Del Rio Clay formation (Kdr), the Early Cretaceous-age Buda Limestone formation (Kbu), and the Pleistocene-age Uvalde Gravel formation (T-Qu) (see Figure 2). The Del Rio Clay formation consists of nodular marl and marly limestone USGS 2020b. The Early Cretaceous-age Buda Limestone formation consists of marl and calcareous shale and the Uvalde Gravel formation consists of sand, fine to medium grained quartz, silt, and some caliche nodes (USGS 2020b.)

Four soil types were identified as underlying the proposed project area (Figure 3; Table 1) (Natural Resources Conservation Service [NRCS] 2020). The majority of the soils mapped within the project area include the Felipe and Zorra soils (FzG), 8 to 40 percent slopes. The Felipe series consists of shallow soils formed in shaly clay found on gently sloping to steep uplands. The Zorra series consists of shallow soils formed from Cretaceous-aged indurated limestone and is found on undulating to hilly uplands. The next most prevalent mapped soil within the project area is the Zapata-Vinegarroon complex (ZaC), with 1 to 5 percent slopes. The Zapata series consists of very shallow to petrocalcic soils formed from calcareous alluvium on nearly level to undulating ridges and interfluves. The Vinegarroon series consists of shallow soils formed from calcareous loamy material over thick caliche beds. The third most prevalent soil series mapped within the project area is Coahuila clay loam (CoB) with 0 to 3 percent slopes. The Coahuila soil consists of very deep, well drained soils formed in calcareous alluvium on nearly level to gently sloping stream terraces of piedmont alluvial plains, below limestone hills. The final and least prevalent soil series mapped within the project area is Acuna (AcB) silty clay with 0 to 3 percent slopes. The Acuna series consists of deep, well drained soils formed in calcareous, silty sediments eroded from limestone hills (NRCS 2020).

Table 1. Soil Series Mapped within the Project Area

Soil Name	Map Unit	Acreage	Percentage
Felipe and Zorra soils, very rocky, 8 to 40 percent slopes	FzG	48.4	64.5
Zapata-Vinegarroon complex, 1 to 5 percent slopes	ZaC	20.1	26.8
Coahuila clay loam, 0 to 3 percent slopes	CoB	6.2	8.3
Acuna silty clay, 0 to 3 percent slopes	AcB	0.3	0.4
Total		**75.0**	**100.0%**

Flora and Fauna

The project area is located on the margin of the South Texas Plains and the Edwards Plateau vegetative regions (Correll and Johnston 1979) and is located on the margin of the Balconian and Chihuahuan biotic regions as defined by Blair (1950). The South Texas Plains region is characterized by rolling prairies and a growth of mesquite and various cacti. The Edwards Plateau region is described as rough, rocky areas with a tall to mid-grass understory and a mixed overstory of oaks, juniper, and mesquite that blends into other vegetative regions along its boundaries.

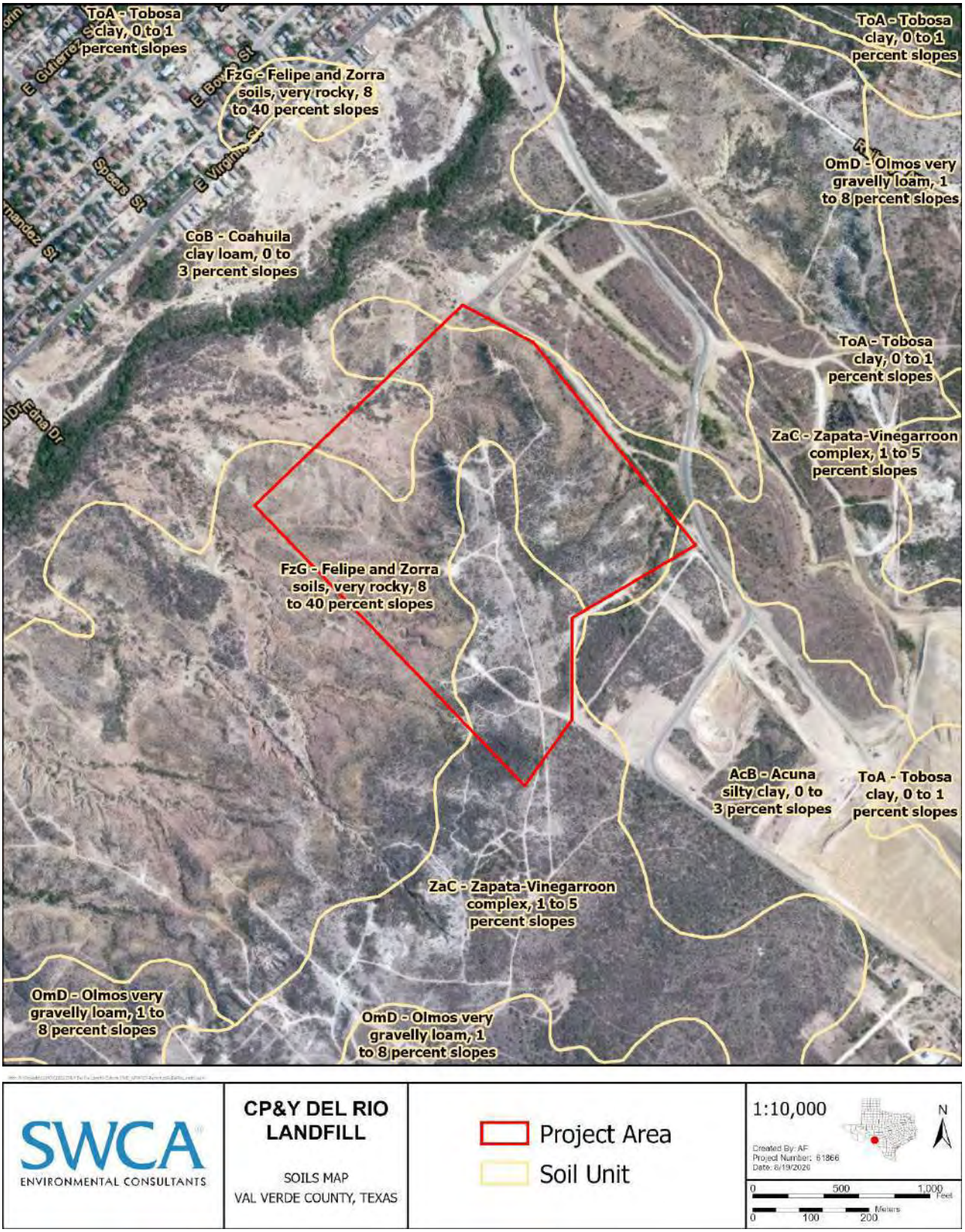


Figure 3. Soils map.

Characteristic vegetation in these biotic regions include post oak (*Quercus stellata* var.), pecan (*Carya illinoensis*), eastern red cedar *(Juniperus virginiana*), southern hackberry (*Celtis laevigata*), cedar elm (*Ulmus crassifolia*), bur oak (*Quercus macrocarpa*), blackjack oak (*Quercus marilandica*), mesquite (*Prosopis glandulosa*), American elm (*Ulmus Americana*), Texas oak (*Quercus texana*), Ashe juniper (*Juniperus ashei*), bitternut hickory (*Carya cordiformis*), and sand post oak (*Quercus margaretta*) with an understory of bunch grasses (e.g., big bluestem, Indian grass, sideoats grama, and silver bluestem), shrubs, laurel greenbriar (*Smilax laurifolia*), yaupon holly (*Ilex vomitoria*), American beautyberry (*Callicarpa americana*), coralbean (*Erythrina herbacea*), saw greenbriar (*Smilax bona-nox*), cedar sedge (*Carex planostachys*), prairie spiderwort (*Tradescantia occidentalis*), and Texas bluebonnet (*Lupinus texensis*) (Ajilvsgi 2003; Brown 1985; Correll and Johnston 1979; Cox and Leslie 1999; Everitt et al. 2002; Kricher and Morrison 1998; Kutac and Caran 1994; Petrides 1988; Simpson 1988; Stein et al. 2003; Sutton and Sutton 1985; Vines 1997; Wrede 2005).

A wide variety of species of mammals, birds, reptiles, and amphibians occupy, or historically occupied, the Balconian and Chihuahuan biotic provinces. Their distribution and densities vary considerably and are mainly dependent upon the local vegetational community and available water resources. Mammals common among these biotic provinces and the project area include striped skunk (*Mephitis mephitis*), white-tailed deer (*Odocoileus virginianus*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), armadillo (*Dasypus novemcinctus*), black-tailed jackrabbit (*Lepus californicus*), and deer mouse (*Peromyscus maniculatis*). Less common are the predatory mammals including the coyote (*Canis latrans*), bobcat (*Lynx rufus*), and gray fox (*Urocyon cinereoargenteus*) (Burt and Grossenheider 1976; Schmidly 1983). In addition, bison (*Bison bison*), mountain lion (*Felis concolor*), and black bear (*Ursus americanus*) would have been present prehistorically (Davis and Schmidly 1994).

Bird species composition in the project area is fairly diverse with numerous breeding, migrant, and wintering species present (Kutac and Caran 1994). Typical birds within the project area include black vultures (*Coragyps atratus*), turkey vultures (*Cathartes aura*), northern bobwhite (*Colinus virginianus*), mourning dove (*Zanaida macroura*), northern mockingbird (*Mimus polyglottos*), red tailed hawk (*Buteo jamaicensis*), American robin (*Turdus migratorius*), and many sparrows (Davis and Schmidly 1994; Kutac and Caran 1994).

In addition to mammals and birds, Blair (1950) identifies a wide variety of amphibians and reptiles within the biotic provinces. Some reptiles common to the project area include the yellow mud turtle (*Kinosternon flavescens flavescens*), common musk turtle (*Sternotherus odoratus*), the ornate box turtle (*Terrapene ornata ornata*), eastern box turtle (*Terrapene carolina carolina*), prairie lizard (*Sceloporus undulatus garmani*), Texas spiny lizard (*Sceloporus olivaceus*), eastern yellowbelly racer (*Coluber constrictor flaviventris*), Texas rat snake (*Elaphe obsoleta lindheimeri*), western cottonmouth (*Agkistrodon piscivorus leucostoma*), western diamondback rattlesnake (*Crotalus atrox*), and the timber rattlesnake (*Crotalus horridus*). Amphibians found within the project area include the small mouth salamander (*Ambystoma texanum*), Woodhouse's toad (*Bufo woodhousii*), Gulf coast toad (*Bufo valliceps*), bullfrog (*Rana catesbeiana*), and the Strecker's chorus frog (*Pseudacris streckeri*) (Conant and Collins 1998; Kutac and Caran 1994; Werler and Dixon 2004).

CULTURAL SETTING

The project area lies at the intersection of two archaeological regions, the Lower Pecos Region and South Texas Region and directly adjacent to the Central Texas Region. These regions are recent analytical constructs, but they do contain a measure of distinct, spatial, cultural information (Collins 2004; Pertulla 2004). In this study, the project area is included with the Lower Pecos Archeological Region. The Lower Pecos region is recognized as being centered on the mouth of the Pecos River in Val Verde County and

extends approximately 90 miles north of the Rio Grande. The following regional synopsis provides basic culture histories of these regions and highlights any noted differences.

The following prehistoric cultural history derives its information from several Texas regional chronologies: Bement (1989), Black (1989), Collins (1995, 2004), Hester (1995, 2004), Johnson and Goode (1994), Johnson and Holliday (2004), Perttula (2004), and Turpin (1991, 1995, 2004), which build upon the seminal efforts of Suhm (1960) and Prewitt (1981, 1985). Furthermore, as discussed below, significant archaeological sites within these Texas archaeological regions have contributed important information to understanding prehistory.

The following prehistoric cultural sequence is divided into three periods: Paleoindian, Archaic, and Late Prehistoric. The Archaic period is subdivided into four subperiods: Early, Middle, Late, and Transitional. The Protohistoric period follows the Late Prehistoric, with the arrival of Europeans to Texas. The cultural setting discussion below focuses exclusively on the prehistoric record in order to contextualize the investigation and background review findings.

Paleoindian Period

Human occupation in the Central Texas and South Texas archaeological regions is commonly recognized to have begun approximately 11,000 years ago and approximately 14,500 years ago in the Lower Pecos Region (Turpin 2004:268–269). This period spans the Pleistocene/Holocene transition, a time of relatively rapid climatic, floral, and faunal changes. These early Texans are characterized by small, but highly mobile, bands of foragers who were specialized hunters of Pleistocene megafauna; however, Paleoindians probably used a much wider array of resources including small fauna and plant foods (Bever and Meltzer 2007; Bousman et al. 2002; Bousman et al. 2004; Dering 2007; Meltzer and Bever 1995). Faunal remains from Kincaid Rockshelter and the Wilson-Leonard site (41WM235) support this view (Collins 1998; Collins et al. 1989). Longstanding ideas about Paleoindian technologies also are being challenged.

Surficial and deeply buried sites, rockshelter sites, and isolated artifacts represent Paleoindian occupations in the Central Texas region. Although Paleoindian site types are not well documented in the region, they can be generally classified according to broad site type categories extrapolated from nearby regions. Both open and protected (rockshelter) types are known. Usually these sites are near permanent sources of water such as tributary creeks or springs. Bison kill sites, open and protected campsites, and non-occupation lithic sites are known from the Paleoindian period in Texas. Intra-site features include hearths and isolated burials. The Wilson-Leonard site (41WM235), Pavo Real (41BX52), and 41BX229 contain stratified Paleoindian deposits (Collins et al. 2003; Hester 1980). The lower component at the Wilson-Leonard site contained a Paleoindian burial (Collins et al. 1998).

In the Lower Pecos region, the Aurora (12,500–9900 BC) and subsequent Bonfire (8700–7800 BC) subperiods are represented most notably in Cueva Quebrada (Lundelius 1984) and Bonfire Shelter (Bement 1986; Dibble and Lorrain 1968) where cultural deposits are associated with the remains of extinct species such as camel, elephant, horse, and Bison antiquus. The earliest subperiods are the hallmark of the stereotypical Paleoindian adaptation, a subsistence strategy focused on large game. The late Paleoindian subperiod Oriente (7400–6800 BC) shows the gradual transition to an Archaic lifestyle as the climate shifted towards a more xeric setting (Turpin 2004:269). Much of the evidence for the paleoenvironmental changes derive from studies conducted in 1970s and 1980s, when a theoretical shift towards an ecological approach made the Lower Pecos an appealing research area because of excellent preservation conditions for floral and faunal remains. Notable among the studies, Texas A&M carried out paleoenvironmental assessments at Hinds Cave (Shafer and Bryant 1977), and archaeologists from UTSA worked at Baker Cave (Brown 1991; Chadderdon 1983; Hester 1983).

In the South Texas region, a fairly large number of diagnostic artifacts dating to this period have been recovered, but currently no clearly intact sites have been investigated in the region. Accordingly, the nature of Paleoindian adaptation to South Texas remains poorly understood, relying largely on inferences from better-studied sites in adjacent areas such as the Southern Plains, Lower Pecos, and Central Texas regions.

More generally, Collins (2004) divides the Paleoindian period into early and late subperiods. Two projectile point styles, Clovis and Folsom, are included in the early subperiod. Clovis chipped stone artifact assemblages, including the diagnostic fluted lanceolate Clovis point, were produced by bifacial, flake, and prismatic-blade techniques on high-quality and oftentimes exotic lithic materials (Collins 1990). Along with chipped stone artifacts, Clovis assemblages include engraved stones, bone and ivory points, stone bolas, and ochre (Collins 1995:381; Collins et al. 1992). Clovis points are found evenly distributed along the eastern edge of the Edwards Plateau, where the presence of springs and outcrops of chert-bearing limestone are common (Meltzer and Bever 1995:58). Sites within the area yielding Clovis points and Clovis-age materials include Kincaid Rockshelter (Collins et al. 1989) and San Macros Springs (Takac 1991). Analyses of Clovis artifacts and site types suggest that Clovis peoples were well-adapted, generalized hunter-gatherers with the technology to hunt larger game, but not solely rely on it.

In contrast, Folsom tool kits—consisting of fluted Folsom points, thin unfluted (Midland) points, large thin bifaces, and end scrapers—are more indicative of specialized hunting, particularly of bison (Collins 2004:117). Folsom point distributions, both their frequency and spatial patterning, differ from the Clovis patterns, suggesting a shift in adaptation patterns (Bever and Meltzer 2007; Meltzer and Bever 1995:60 and 74). Folsom points appear more frequently in the coastal plain as well as the South Texas plain. As Folsom points are almost exclusively found in plains settings (they are conspicuously lacking in the Edwards Plateau of the Central Texas region), the technology perhaps marks a more specialized adaptation, likely to a more intensive reliance on Bison antiquus.

Postdating Clovis and Folsom points in the archaeological record are a series of dart point styles (primarily unfluted lanceolate darts) for which the temporal, technological, or cultural significance is unclear. Often, the Plainview type name is assigned these dart points, but Collins (2004:117) has noted that many of these points typed as Plainview do not resemble Plainview type-site points in thinness and flaking technology. Recent investigations at the Wilson-Leonard site (Bousman 1998) and a statistical analysis of a large sample of unfluted lanceolate points by Kerr and Dial (1998) have shed some light on this issue. At Wilson-Leonard, the Paleoindian projectile point sequence includes an expanding-stem dart point termed Wilson, which dates to ca. 8000–7500 BC Postdating the Wilson component is a series of unfluted lanceolate points referred to as Golondrina-Barber, St. Mary's Hall, and Angostura, but their chronological sequence is poorly understood. Nonetheless, it has become clear that the artifact and feature assemblages of the later Paleoindian subperiod appear to be more Archaic-like in nature and in many ways may represent a transition between the early Paleoindian and succeeding Archaic periods (Collins 2004:118).

Toward the end of the Paleoindian period, a disruption in large game populations may have precipitated a greater reliance on a broad-based subsistence strategy (Aten 1983:152–157). This change in subsistence strategy and technology has been used to mark the beginning of the Archaic period. There also is evidence of climatic fluctuations and additional episodes of sea level rise within this period. These fluctuations have been used to divide the Archaic into subperiods

Archaic Period

The Archaic period for the Central Texas and Lower Pecos archaeological regions dates from ca. 6800 to 750 AD (Collins 2004). In the South Texas region, this period is closer to ca. 6000 BC to 750 AD

(Perttula 2004). The Archaic period is generally believed to represent a shift toward hunting and gathering of a wider array of animal and plant resources, and a decrease in group mobility (Willey and Phillips 1958:107–108).

In the eastern and southwestern United States and on the Great Plains, development of horticultural-based, semi-sedentary to sedentary societies succeeded the Archaic period. In these areas, the Archaic truly represents a developmental stage of adaptation as Willey and Phillips (1958) define it. For Texas however, this notion of the Archaic is somewhat problematic. An increasing amount of evidence suggests that Archaic-like adaptations were in place before the Archaic (Bousman et al. 2002; Collins 2004:117–118, 1998; Collins et al. 1989) and that these practices continued into the succeeding Late Prehistoric period (Collins 2004:118–119; Prewitt 1981:74). As such, the Archaic period of Texas is not a developmental stage, but rather an arbitrary chronological construct and projectile point style sequence. Establishment of this sequence is based on several decades of archaeological investigations at stratified Archaic sites along the eastern and southern margins of the Central Texas Region. Collins (2004) and Johnson and Goode (1994) have divided this sequence into three parts—Early, Middle, and Late—based on perceived (though not fully agreed upon by all scholars) technological, environmental, and adaptive changes. Turner et al. (2011) and Black (1989) have designated another period at the end of the Archaic, referred to as the Transitional Archaic.

Early Archaic

The Early Archaic period (6800–4000 BC for the Central Texas and Lower Pecos regions and roughly 6000–2200 BC for the South Texas region) is better documented than the Paleoindian period; however, a complete understanding of cultural patterns does not yet exist. Early Archaic sites are small, and their tool assemblages are diverse (Weir 1976:115–122), suggesting that populations were highly mobile and low density (Prewitt 1985:217). It has been noted that many Early Archaic sites are concentrated along the eastern and southern margins of the Edwards Plateau (Johnson and Goode 1994; McKinney 1981). This distribution may indicate climatic conditions at the time, given that these environments have more reliable water sources and a more diverse resource base than other parts of the region. Within the Lower Pecos region, it appears that a preference for rockshelter habitation also emerges during this time (Turpin 2004).

Artifact assemblages of the Early Archaic include projectile points styles such as Hoxie, Bulverde, Gower, Wells, Martindale, and Uvalde, as well as early split stem projectile points. A variety of choppers and gouges, such as the triangular, concave based bifaces (known as Guadalupe tools), and the distally beveled Clear Fork unifaces, are present in the archaeological record. A variety of expedient tools, often nothing more than utilized flakes, are increasingly present in the Early Archaic (Black 1989). In the Lower Pecos area, a regionally-specific ‘Devils Triangular’ point, possibly a variation of the South Texas unstemmed triangular points, has been identified, indicating possible interactions between the regions during this time, in response to the increasingly arid environment (Turpin 2004).

The construction and use of rock hearths and ovens, which had been limited during the Paleoindian period, become more commonplace in the Early Archaic. The use of rock features suggests that retaining heat and releasing it slowly over an extended period were important in food processing and cooking and reflects a specialized subsistence strategy. Such a practice probably was related to cooking plant foods, particularly roots and bulbs, many of which must be subjected to prolonged periods of cooking to render them consumable and digestible (Black et al. 1997:257; Wandsnider 1997; Wilson 1930).

Botanical remains, as well as other organic materials, are often poorly preserved in Early Archaic sites, so the range of plant foods exploited and their level of importance in the overall subsistence strategy are poorly understood. The recovery of charred wild hyacinth (*Camassia scilloides*) bulbs from an Early

Archaic feature at the Wilson-Leonard site provides some insights into the types of plant foods used and their importance in the Early Archaic diet (Collins 1998).

At the Gatlin Site (41KR621) in Kerr County, the researchers interpreted two types of cooking based upon the encountered fire-cracked rock (FCR) features (Houk et al. 2008). The first type is small-scale grilling/smoking of fauna and flora resources while the second type attributed to the earth ovens was large-scale baking of flora and possibly fauna (Houk et al. 2008:13-17–13-18). The Gatlin researchers examined similar features from other Early Archaic sites in the region and noted that there is a wide variety concerning the occurrence of small and large FCR features. Some Early Archaic sites solely contained large earth ovens, while others had a ratio as high as 3:1 small to large features (Houk et al. 2008:13-18). Ultimately, the researchers concluded that supplementary data should be considered to garner a more complete interpretation of Early Archaic activities. This time period also sees the beginning of various mobile art forms, primarily in the Lower Pecos region. These include painted pebbles and, less commonly, unbaked/poorly-fired clay figurines (Turpin 2004).

A number of significant Early Archaic sites have been identified within the regions. Some of these sites include the Icehouse site in Hays County (Oksanen 2008), Richard Beene site in Bexar County (Thoms and Mandel 2007), the Camp Pearl Wheat and Gatlin sites in Kerr County (Collins et al. 1990; Houk et al. 2008), the Jetta Court site in Travis County (Wesolowsky et al. 1976), and the La Jita and Smith sites in Uvalde County (Hester 2004).

Middle Archaic

Cultural patterns during the Middle Archaic period (4000–2000 BC for the Central Texas and Lower Pecos regions and roughly 2500—400 BC for the South Texas region), point toward an increased sedentary population intensively harvesting acorns, prickly pear cactus, and pecans, and hunting small and medium-size game, such as deer and turkey. The increase in the number of Middle Archaic sites and burials supports the concept of a larger, more sedentary population (Black and McGraw 1985; Prewitt 1981:73; Weir 1976:124, 135). Large bands may have formed, at least seasonally, to occupy a single area, or small groups may have used the same sites for longer periods (Weir 1976:130–131).

Sites of the Middle Archaic are numerous and often large in size and include open sites and some rockshelters along present or former streams, or in floodplains, low terraces, or along natural levees (Hester 2004; Turpin 2004). The increase of populations along rivers occurred as upland water resources dwindled (Turpin 2004). This population density increase likely fueled conflicts and social complexity (Turpin 2004).

Burned rock middens, as well as well-constructed hearths, are found at many sites with Middle and Late Archaic components in these archaeological regions. The development of burned rock middens toward the end of the Middle Archaic suggests a greater reliance on plant foods, although tool kits still imply a considerable dependence on hunting (Prewitt 1985:222–226). Middle Archaic projectile point styles include Bell, Andice, Calf Creek, Taylor, Nolan, Travis, and Pandale.

Bell and Andice points reflect a shift in lithic technology from the preceding Early Archaic Martindale and Uvalde point styles (Collins 2004:120). Johnson and Goode (1994:25) suggest that the Bell and Andice darts are parts of a specialized bison-hunting tool kit. They also believe that an influx of bison and bison-hunting groups from the Eastern Woodland margins during a slightly more mesic period marked the beginning of the Middle Archaic. Though no bison remains were recovered, Bell and Andice points and associated radiocarbon ages were recovered from the Gatlin site (Houk et al. 2008), Cibolo Crossing (Kibler and Scott 2000), Panther Springs Creek, and Granberg II (Black and McGraw 1985) sites in Bexar

County. The distinctly-beveled Pandale point emerged with a limited regional distribution in the Lower Pecos region during this period (Turpin 2004).

Other artifacts from the Middle Archaic are choppers, gouges, and expedient tools, such as the small, bifacial and unifacial Clear Fork tools. Grinding stones and bases, referred to as manos and metates, show up in Middle Archaic artifact assemblages, as do a number of perforators, drills, and awls. Chipped, polished, and ground stone artifacts are common in the regions. Less frequently encountered artifacts include tools and ornaments of bone, antler, and marine shell (Turner and Hester 2011).

The Middle Archaic in the Lower Pecos region sees the emergence of the first, and most complex, of four prehistoric pictograph styles. The Pecos River Style is among the oldest and most elaborate in the New World (Turpin 2004). These pictographs are anthropomorphic and the central figures are shamans. The consistency in theme and style suggests a unified belief system in the region (Turpin 2004). More recent research in the Lower Pecos by Boyd (2013) and Boyd and Cox (2016) have demonstrated a link with Northern Mexico cultures and creation story narratives.

Bison populations declined as more-xeric conditions returned during the later portion of the Middle Archaic. Later Middle Archaic projectile point styles (Nolan and Travis) represent another shift in lithic technology (Collins 2004:120–121; Johnson and Goode 1994:27). At the same time, this shift to drier conditions saw the burned rock middens develop, probably because intensified use of geophytic or xerophytic plants meant the debris from multiple rock ovens and hearths accumulated as middens on stable to slowly aggrading surfaces, as Kelley and Campbell (1942) suggested many years ago. Johnson and Goode (1994:26) believe that the dry conditions promoted the spread of yuccas and sotols, and that it was these plants that Middle Archaic peoples collected and cooked in large rock ovens.

Late Archaic

During the succeeding Late Archaic period (2000 BC–750 AD for the Central Texas and Lower Pecos regions and approximately 400 BC–1000 AD for the South Texas region) populations continued to increase (Prewitt 1985:217). As evidenced by stratified Archaic sites, such as Loeve-Fox, Cibolo Crossing, and Panther Springs Creek, the Late Archaic components contain the densest concentrations of cultural materials of all the Archaic periods.

Establishment of large cemeteries along drainages also suggests population growth and certain groups having strong territorial ties (Black 1989; Hall 1995a:56–57; Story 1985:40). Further evidence of population growth is that burials in the Late Archaic showed an increase in traumatic deaths, that might be considered evidence of an escalation in hostilities suggesting greater territorial competition (Hall 1981:284–285). Closer to the coast, the Blue Bayou cemetery (41VT94) and the Morhiss cemetery (41VT1) are situated on the lower reach of the Guadalupe River in Victoria County (Campbell 1976:81–85; Huebner 1988). The Morhiss cemetery has been dated to the Archaic period by diagnostic projectile points recovered from the associated habitation site. Because shell ornaments and many lithic materials were recovered from the habitation site, investigators have suggested that the inhabitants had both inland and coastal interactions (Hall 1995a:49–50).

Similar interactions can be suggested from the inland formal cemetery at the Loma Sandia site in Live Oak County (Taylor and Highley 1995). But Hall (1995b:645–646) points out that though the grave furnishings from Loma Sandia suggest interaction with nearby coastal cultures, the overriding connection appears to be with cultures of the Rio Grande Plain. These suggested differences in interaction provide data needed for understanding territorial affiliations across the coastal plain. Of note, as McGraw points out (personal communication, Al McGraw 2008), the Loma Sandia Cemetery is the southernmost in an apparent chain of cemeteries that extend from the Nueces to the Guadalupe Rivers. Although the

cemeteries do imply an increase in population, the apparent overriding association with the Rio Grande Plain is questionable with the present data.

Middle Archaic subsistence technology, including the use of rock and earth ovens, continued into the Late Archaic period. Collins (2004:121) states that, at the beginning of the Late Archaic period, the use of rock ovens, and the resultant formation of burned rock middens, reached its zenith, and that the use of rock and earth ovens declined during the latter half of the Late Archaic. There is mounting chronological data that midden formation culminated much later and that this high level of rock and earth oven use continued into the early Late Prehistoric period (Black et al. 1997:270–284; Kleinbach et al. 1995:795). A picture of prevalent burned rock midden development in the eastern part of the Central Texas archaeological region after 0 AD is gradually becoming clearer. This scenario parallels the widely recognized occurrence of post-0 AD middens in the western reaches of the Edwards Plateau (Goode 1991).

The use of rock and earth ovens (and the formation of burned rock middens) for processing and cooking plant foods suggests that this technology was part of a generalized foraging strategy. Considering the amount of energy involved in collecting plants, constructing hot rock cooking appliances, and gathering fuel, the caloric return of most plant foods is relatively low (Dering 1999). This suggests that plant foods were part of a broad-based diet (Kibler and Scott 2000:134) or part of a generalized foraging strategy, an idea Prewitt (1981) put forth earlier. At times during the Late Archaic, this generalized foraging strategy appears to have been marked by shifts to a specialized economy focused on bison hunting (Kibler and Scott 2000:125–137). Castroville, Montell, and Marcos dart points are elements of tool kits often associated with bison hunting (Collins 1968). Archaeological evidence of this association is seen at Bonfire Shelter in Val Verde County (Dibble and Lorrain 1968), Jonas Terrace in Medina County (Johnson 1995), Oblate Rockshelter in Comal County (Johnson et al. 1962:116), John Ischy in Williamson County (Sorrow 1969), and Panther Springs Creek in Bexar County (Black and McGraw 1985).

Unstemmed dart points of the Matamoros and Catan types have commonly been considered diagnostic artifacts of the Late Archaic, although a number of studies (e.g., Shiner 1985) have questioned the integrity of the types. A more recent study by Mahoney et al. (2002) indicates these are neither viable types nor chronological markers. Distinctions between the Matamoras and Tortuga points and the Abasolo and Catan types cannot be clearly defined, but rather are argued to be part of a continuum in size with no discernible temporal distinctions. Other point types from this period commonly found in the region include Shumla, which are somewhat better defined based on studies in the Lower Pecos area.

During the Late Archaic, rock art continued to develop, primarily in the Lower Pecos region. This includes the emergence of the Red Linear pictographs, which included themes of bison hunting, as well as general life stages, including puberty, sex, and childbirth (Turpin 1984, 2004). Serpentine style petroglyphs, with atlatl motifs, have also been attributed to groups during this period (Turpin 2004). However, recent work in the Lower Pecos suggests the Red Linear style may date much older than the Late Archaic and is likely contemporaneous with the Pecos River Style (Boyd et al. 2013).

Transitional Archaic

As Collins (2004:122–123) notes, diverse and comparatively complex archaeological manifestations toward the end of the Late Archaic attest to the emergence of kinds of human conduct without precedent in the area. This period (250 BC–750 AD) for the Central Texas and South Texas Regions, referred to as the Transitional Archaic (Turner and Hester 2011) or Terminal Archaic (Black 1989), is not recognized by all researchers. Other chronologies terminate the Late Archaic at around 700–750 AD (Collins 2004; Johnson and Goode 1994) to encompass this later subperiod.

Johnson et al. (1962) originally designated the Transitional Archaic as a subperiod of the Archaic because of the similarities between the latest dart point types and the earliest arrow point types. Since then, however, the designation has failed to be universally accepted by researchers. In two recent chronologies for Central Texas, Collins (2004) does not include the Transitional as a subperiod of the Archaic. Johnson and Goode (1994) and Turpin (2004) separate the Late Archaic into two subperiods. The Transitional Archaic, as it is used here, closely corresponds to Johnson and Goode's (1994) Late Archaic II, but begins after the appearance of Marcos points, not with it. This also corresponds to the Blue Hills subperiod of the Lower Pecos region, as noted by Turpin (2004). In this scheme, the Transitional Archaic coincides with the last two style intervals recognized by Collins (2004) for the Late Archaic subperiod.

During the Transitional Archaic, smaller dart point forms such as Darl, Ensor, Fairland, and Frio were developed (Turner and Hester 2011). These points were probably ancestral to the first Late Prehistoric arrow point types and may have temporally overlapped them (Carpenter et al. 2006; Hester 1995; Houk and Lohse 1993).

Several researchers believe that the increased interaction between groups at the end of the Late Archaic was an important catalyst for cultural change (Collins 2004; Johnson and Goode 1994). This change may have included increased regional stress and conflict between groups as interaction became more frequent (Houk et al. 1997). In Bexar County, for instance, researchers noted a distinct shift in settlement patterns during this period (Houk et al. 1997). Groups began to use hilltops as camps rather than just lithic procurement locations. These elevated locations would have provided points from which to observe game and other groups of humans as they moved through the surrounding creek valleys and upland prairies (Houk et al. 1997). In the Lower Pecos region, small rockshelter occupancy intensified during this period and a greater emphasis on the procurement and processing of vegetal materials has been identified (Turpin 2004).

Overall, the Archaic period represents a hunting and gathering way of life that was successful and remained virtually unchanged for more than 7,500 years. This notion is based in part on fairly consistent artifact and tool assemblages through time and place and on resource patches that were used continually for several millennia, as the formation of burned rock middens show. This pattern of generalized foraging, though marked by brief shifts to a heavy reliance on bison, continued almost unchanged into the succeeding Late Prehistoric period.

Late Prehistoric Period

The Late Prehistoric period is approximately 750–1600 AD in the Central Texas, Lower Pecos, and South Texas regions. The Late Prehistoric period is marked by the addition of pottery and the bow and arrow to an otherwise Archaic technological repertoire (Aten 1983:297–304; Corbin 1976:91; Weinstein 1992:57).

Population densities dropped considerably from their Late Archaic peak (Prewitt 1985:217). Subsistence strategies did not differ greatly from the preceding period, although bison again became an important economic resource during the latter part of the Late Prehistoric period (Prewitt 1981:74). Rock and earth ovens were utilized for plant food processing (Black et al. 1997; Kleinbach et al. 1995:795). Ring middens, concentric accumulations of FCR, were noted as remnants of succulent processing in the Lower Pecos region during this time (Turpin 2004). Horticulture came into play very late in the area but was of seemingly minor importance to overall subsistence strategies (Collins 1995:385).

Artifact assemblages include Scallorn, Perdiz, and Edwards projectile points, worked stone, thermally altered stone, hematite, bone, and shell. The points are associated with the use of the bow and arrow in the region, probably introduced sometime around 600–800 AD. Arrow shaft straighteners are also found during this period (Hester 2004). Scallorn arrow points, one of the earliest forms found on the coast, have

been recovered from burials at the Blue Bayou site dating to the early Late Prehistoric, ca. 430–990 AD (Huebner 1988). Scallorn points and expanding-stem arrow point forms also were recovered from more-inland sites such as the Berger Bluff site located in Goliad County (Brown 1983) and sites in the Choke Canyon area of Live Oak County (Hall et al. 1986).

In many cases, no ceramics were associated with these components, suggesting separate arrival or development of the two technologies. Similarities of these components to the early Late Prehistoric Austin Phase components of Central Texas have been acknowledged (Brown 1983:80–81; Weinstein 1992:63). Additionally, further interaction with external groups is noted, including a possible north-south trade network, as evidenced by exotic obsidian from Idaho and Mexico that has been recovered from Late Prehistoric sites (Hester 2004).

The earlier Austin phase (identified by Scallorn and Edwards points) and the later Toyah phase (defined through Perdiz points) divide the Late Prehistoric period throughout Central and South Texas (Black 1989; Story 1990). These divisions were originally recognized by Suhm (1960) and Jelks (1962) and remain an accepted separation of the period. These periods roughly correspond to the Flecsha and Infierno phases noted by Turpin (2004) for the Lower Pecos region, with the Infierno phase possibly related to the Toyah phase of South and Central Texas. Although a distinct change in the material culture between the phases can be seen in the archaeological record, there is some debate over the cultural underpinnings that prompted the change. The different arrow point styles (and other associated artifacts in the assemblage) may represent distinct cultural groups (Johnson 1994), but others challenge this view (e.g., Black and Creel 1997), and attribute the change to a spread of new technological ideas in response to the increase of a different economic resource in bison populations (Ricklis 1992). Nevertheless, prehistoric communities traced through cultural remains assigned to the Austin phase (750–1300 AD), like many of the Archaic period cultures before them, relied on a hunting and gathering subsistence with more of an emphasis on gathering (Prewitt 1981:83). Communities attributed to the Toyah phase (1300–1750 AD) relied more on bison procurement (Prewitt 1981:84).

Around 1000–1200 AD, slightly more-xeric, or drought-prone, climatic conditions returned to the region, and bison came back in large numbers (Huebner 1991; Toomey et al. 1993). Using this vast resource, Toyah peoples were equipped with Perdiz point-tipped arrows, endscrapers, four-beveled-edge knives, and plain bone-tempered ceramics. Toyah technology and subsistence strategies represent a completely different tradition from the preceding Austin phase. Collins (1995:388) states that formation of burned rock middens ceased as bison hunting and group mobility obtained a level of importance not witnessed since Folsom times. Although the importance of bison hunting and high group mobility can hardly be disputed, the argument that burned rock midden development ceased during the Toyah phase is tenuous. A recent examination of Toyah-age radiocarbon assays and assemblages by Black et al. (1997) suggests that their association with burned rock middens represents more than a “thin veneer” capping Archaic-age features. Black et al. (1997) claim that burned rock midden formations, although not as prevalent as in earlier periods, was part of the adaptive strategies of Toyah peoples.

As noted above, the Infierno phase of the Lower Pecos region is possibly related to the Toyah phase of the Central and South Texas regions. While less than 12 sites have been attributed to this phase, the sites are distinctly characterized by paired stone rings that were presumably supports for brush or hide-covered structures (Turpin 2004). Additionally, the tool kits from this phase primarily contain four artifact types, including small, triangular stemmed arrow points, steeply-beveled endscrapers, four-beveled knives, and plain ceramics (Turpin 2004).

The Late Prehistoric period in the Lower Pecos region also saw the continued development of rock art. Two fully-developed pictograph styles, Red Monochrome and Bold Line Geometrics, have been identified, mostly near the Pecos River area. In addition, petroglyph styles changed from curvilinear

designs to more abstract, geometric designs that shared commonalities with petroglyphs identified in northern Mexico and other parts of the New World (Turpin 1986, 2004). The changes suggest the migration of new people into the area from the west and south, during the Late Prehistoric period (Turpin 2004).

Protohistoric Period

In the South Texas archaeological region, an additional period, the Protohistoric period, has been identified (Hester 2004). While, not necessarily a formal period, the Protohistoric period is generally recognized as the time between the Late Prehistoric when contact with Europeans occurred, but not in sufficient amounts to affect the economy of Late Prehistoric groups. This time period appears to have lasted a bit longer in the South Texas region than in the Central Texas or Lower Pecos region, as noted by several well-known Protohistoric sites in Zavala County (Hester 2004). It should also be noted that no European-derived historic artifacts have been found at any Infierno phase sites in the Lower Pecos region (Turpin 2004).

BACKGROUND AND HISTORIC MAP REVIEW

Prior to field efforts, SWCA completed desktop reviews of the project on June 9, 2020, to determine if the project area was previously surveyed for cultural resources or if any cultural resources were previously recorded within a 1.0-mile (1.6-km) radius of the project area (Figure 4). To conduct the background review, an SWCA archaeologist reviewed the *Del Rio SE, TX* USGS 7.5-minute topographic quadrangle map on the THC's Texas Archeological Sites Atlas (Atlas) online restricted archaeological sites database (THC 2020). This source provided information on the nature and location of previously conducted cultural resources investigations, previously recorded archaeological sites, locations of NRHP districts and properties, sites designated as SALs, Official Texas Historical Markers (OTHMs), Recorded Texas Historic Landmarks, cemeteries, and local neighborhood surveys. Previous cultural resources investigations listed on the Atlas are limited to projects under purview of the ACT or the NHPA; therefore, the Atlas does not necessarily list all previous work conducted within a specific area. In addition, projects completed under these regulations may not be posted to the Atlas due to delays between the completion of fieldwork and the completion of reports. To perform the historic map review, SWCA reviewed historical USGS topographic maps available on TopoView (USGS 2020a), and Nationwide Environmental Title Research, LLC ([NETR] 2020) historic-age aerials. These sources contain information on potential historic resources and the general history of development in the project area.

The background review determined that five previously conducted cultural resources surveys, 12 previously recorded archaeological sites, and one OTHM are within the 1.0-mile (1.6 km) background review area, of which, one previous survey and one previously recorded archaeological site intersect with the project area (THC 2020) (see Figure 4). No NRHP properties, SALs, Recorded Texas Historic Landmarks, cemeteries, or local neighborhood surveys were identified within either the project or background review areas. Additionally, the historic map review did not identify any potential historic structures in the project area or within 300 feet (91.4 meters [m]) of the project area (NETR 2020; USGS 2020a).

Five previously conducted surveys were identified within the 1.0-mile (1.6 km) background review area; however, information on these surveys provided by the THC Atlas was limited regarding project details (Table 2) (see Figure 4). A previously conducted area survey consisting of approximately 36 acres (14.6 ha), intersects with small portions of the project area on the southeast side. The survey was conducted under ACT Permit No. 869. No other information regarding the survey is available through the Atlas; however, the survey appears to correspond with an existing city landfill (THC 2020). Nine previously

recorded prehistoric archaeological sites (i.e., 41VV1251, 41VV810, 41VV1822, 41VV1823, 41VV1677–41VV1680, and 41VV1831), one previously recorded historic archaeological site (41VV1830), and two previously recorded archaeological sites of an undetermined cultural affiliation (i.e., 41VV1252 and 41VV1821) were identified within the background review area (see Figure 4; Table 3) (THC 2020). Additionally, OTHM #16268 is located 1.0-mile (1.6 km) west of the project area and will not be affected by the project undertaking.

Site 41VV1251, a prehistoric campsite that has been recommended as not eligible for the NRHP listing, is the only previously recorded site that intersects with the proposed project area. Site 41VV1251 was originally recorded during a Phase I survey conducted by the Center for Archaeological Research - University of Texas at San Antonio (CAR-UTSA) in 1989 (THC 2020). The site was originally described as an erosional cut with lithics eroding from approximately 24 inches (60 centimeters [cm]) below the ground surface. Formal tools identified include points, bifaces, and biface fragments. The points identified in the erosional cut were thought to correspond with an early archaic occupation. Additionally, a proximal Clovis point fragment from the Paleoindian period was found on the ground surface at a slightly higher elevation than the erosional cut. The researchers recommended further testing and geomorphological studies to determine the NRHP eligibility of the site (THC 2020).

Table 2. Previously Conducted Cultural Resources Investigations within the 1.0-mile Background Review Area

Year of Investigation	Investigation Type	Sponsoring Agency / Investigating Firm	ACT Permit No.	Additional Information
1986	Linear	CAR-UTSA	–	Investigation is located 0.16 mile (257 m) northwest of the project area. No Additional Information available on the Atlas (THC 2020).
1989	Area	CAR-UTSA	869	Investigation intersects southeastern portion of the project area. Pedestrian survey conducted for the City of Del Rio that recorded 41VV1251 (Burkett 1990).
1994	Linear	Texas Water Development Board	1351	Investigation is located 0.15 mile (241 m) northwest of the project area. No Additional Information available on the Atlas (THC 2020).
1998	Area	Federal Emergency Management Agency	–	Investigation is located 0.37 mile (595 m) south of the project area. No Additional Information available on the Atlas (THC 2020).
2003	Linear	Federal Housing Administration / Texas Department of Transportation	–	Investigation is located 0.58 mile (0.94 km) southwest of the project area. Linear survey along Dr. Fermin Calderon Boulevard (US 277). No additional information provided on the Atlas (THC 2020).

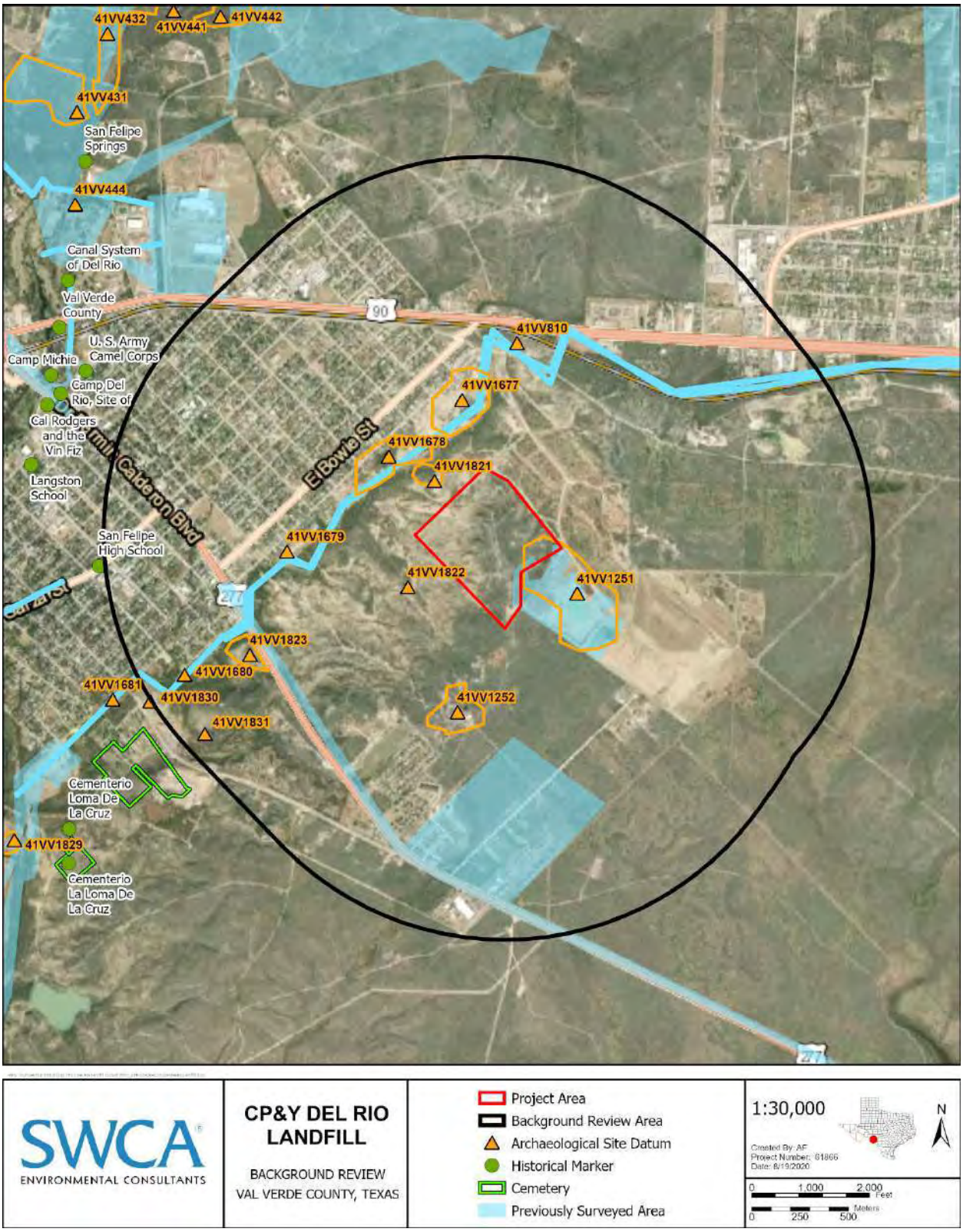


Figure 4. Background review results map.

Table 3. Previously Recorded Cultural Resources within the 1.0-mile Background Review Area

Location Related to Project area	Resource Name	Resource Type	Resource Description
Intersects eastern portion of project area	41VV1251	Late Paleoindian to Late Archaic Archaeological Site	Lithic scatter consisting of tools, bifaces, and a Clovis point fragment. Recommended not eligible for the NRHP (THC 2020).
352 feet (107 m) northwest of project area	41VV1821	Archaeological Site	No additional information available on the Atlas (THC 2020).
0.14 mile (0.22 km) southwest of project area	41VV1822	Transitional Archaic Archaeological Site	Originally recorded as a prehistoric campsite by James Boyd in 1998 as an eroding hearth located on the banks of a draw leading to Calaveras Creek. The hearth was visible on the surface due to deflation of the soil; however, the site is described as having potential for additional hearths beneath the surface. Diagnostic projectile points were recovered that date the site to the Transitional Archaic period (200 B.C. to A.D. 600). The original investigators did not provide an evaluation for NRHP eligibility; however, they do describe the site as having potential for SAL eligibility, and recommend further archaeological investigations (THC 2020).
0.14 mile (0.22 km) northwest of project area	41VV1678	Prehistoric Archaeological Site	Recorded in 1994 by W. Hayden Whitsett as a prehistoric open campsite. The site was identified by burned rocks and debitage observed on the ground surface. The original investigators describe the site as having been extensively disturbed by sheet erosion, modern vehicle and bicycle trails, modern trash dumping, and possible surface collecting. The recorders note that less than five percent of the site appears to be intact and they recommended the site as not eligible for NRHP or SAL designation. In 1994, the THC concurred with the recommendations and the site was determined not eligible for the NRHP (THC 2020).
0.15 mile (0.24 km) north of project area	41VV1677	Prehistoric Archaeological Site	Recorded in 1994 by W. Hayden Whitsett as a prehistoric open campsite. The site is described as deflated with two possible thermal features. The identification of the thermal features was based on two clusters of thermally altered rocks observed on the surface with no associated soil staining. Diagnostic points were found on the surface; however, the site is extensively disturbed and out of context. Soil deflation, sheet erosion, possible surface collecting, and modern vehicle disturbance have contributed to the destruction of the site. The original recorders recommended the site as not eligible for SAL or NRHP designation. In 1994, the THC concurred with their findings and designated the site as not eligible for the NRHP (THC 2020).
0.22 mile (0.35 km) south of project area	41VV1252	Archaeological Site	No additional information available on the Atlas (THC 2020).
0.41 mile (0.66 km) north of project area	41VV810	Prehistoric Archaeological Site	Recorded as a prehistoric open campsite by CAR-UTSA in 1985. The site is described as being a surficial lithic scatter with non-temporally diagnostic tools and has been heavily impacted by soil deflation and sheet erosion. The investigators recommended the site as not eligible for the NRHP due to the disturbed nature of the site. In 1994, the THC concurred with their findings and designated the site as not eligible for NRHP (THC 2020).
0.42 mile (0.67 km) west of project area	41VV1679	Prehistoric Archaeological Site	Recorded in 1994 by W. Hayden Whitsett as a lithic debitage and burned rock scatter in a deflated landscape. Artifacts were found mostly on the surface and were not identified deeper than 4 inches (10 cm) below the current ground surface. The investigators found the condition of the site to be extensively disturbed by natural deflation and sheet erosion, as well as bioturbation, housing developments, and trash dumping. The site is estimated to be less than 20 percent intact; therefore, the original investigators recommended the site as not eligible for the NRHP. In 1994, the THC concurred with the recommendations (THC 2020).

Location Related to Project area	Resource Name	Resource Type	Resource Description
0.62 mile (0.99 km) southwest of project area	41VV1823	Prehistoric Archaeological Site	Recommended ineligible within ROW. No additional information available on the Atlas (THC 2020).
0.88 mile (1.42 km) southwest of project area	41VV1680	Prehistoric Archaeological Site	Determined not eligible for the NRHP by the THC in 1994 (THC 2020).
0.94 mile (1.52 km) southwest of project area	41VV1831	Prehistoric Archaeological Site	Lithic procurement site with crude tools, edge scrapers, tested cobbles and cores located within the Calaveras Creek drainage basin. Recommended as having potential as a SAL by initial recorders (THC 2020).
1.0 mile (1.6 km) southwest of project area	41VV1830	Historic Archaeological Site	Early twentieth century historic-age artifact scatter near Calaveras Creek basin associated with trash dumping (THC 2020).
1.0 mile (1.6 km) west of the project area	San Felipe High School	OTHM 16268	Designated in 2009 (THC 2020).

A Phase II investigation of site 41VV1251 was conducted by CAR-UTSA in 1991 to test for NRHP eligibility. Although the recovered artifacts indicated occupations ranging from the Late Paleoindian period to the Late Archaic period, the soil matrix in the site was found to be deflated and the geomorphological study confirmed the deflated nature of the site. With the lack of stratified buried deposits, it was determined that the site could not provide archaeological context to the artifacts present; therefore, the site was recommended as not eligible for the NRHP (THC 2020). SWCA revisited site 41VV1251 and is discussed in further detail below.

FIELD METHODS

SWCA conducted an intensive cultural resources survey throughout the entire project area (see Figure 4). The intensive cultural resources survey consisted of a crew of two archaeologists walking the survey area along survey transects spaced no farther than 100 feet (30 m) apart, examining the ground surface, documenting modifications and disturbances, and using shovel tests and erosional exposures to assess the potential for subsurface archaeological deposits, as well as assessing the geomorphic setting of the area. For an area survey of this size, the THC survey standards minimally require 60 shovel tests. SWCA exceeded the minimum requirement by excavating a total of 99 shovel tests (70 shovel tests to complete the survey and 29 delineation shovel tests). Shovel tests were excavated at systematic intervals between 98 to 328 feet (30 and 100 m) and were excavated in areas that did not show signs of extensive prior disturbance and consisted of soils believed to have a potential for buried deposits close enough to the surface to be detected through this method of subsurface investigation.

SWCA conducted a primarily non-collection survey; artifacts, if encountered, were examined, quantified, and assessed as to age and origin, and not collected unless temporally diagnostic artifacts dating prior to 1870 were encountered. Temporally diagnostic artifacts if present, were collected, described in detail, photographed, and curated at UTSA-CAR. No diagnostic artifacts dating prior to 1870 were encountered during the current investigations.

Shovel tests typically consist of an approximate 12-inch (30-cm)-diameter hole excavated to a depth of 3.3 feet (1.0 m) unless soil characteristics or bedrock precluded reaching that depth. Shovel tests were excavated in approximately 8-inch (20-cm) arbitrary levels to culturally sterile deposits or compact soils, whichever came first. The matrix from each shovel test was screened through ¼-inch mesh, and the

location of each excavation was plotted using a handheld, sub-meter accurate Trimble global positioning system (GPS) receiver.

The investigations detailed in this report were designed to identify cultural resources in the project area and, to the extent possible, recover sufficient information to evaluate the eligibility of all cultural resources within the project area to be listed on the NRHP and as a SAL. Upon encountering an archaeological site in the proposed project area, it was explored as much as possible with consideration to land access constraints. Archaeologists completed a State of Texas Archaeological Site Data Form for each site and a detailed plan map of each site was produced using standard techniques and sub-meter accurate GPS units.

Finally, the significance of the newly documented sites was assessed so that recommendations could be made for proper management (i.e., avoidance, non-avoidance, or further work). Following the review and acceptance of the final cultural resources report, all records and photographs will be curated with the UTSA-CAR, per requirements of the ACT in accordance with the CTA guidelines.

SAL Eligibility Criteria

As stated by 13 Texas Administrative Code (TAC) 26.10, the THC shall use one or more of the following criteria when assessing the appropriateness of SAL designation:

a) the site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;

b) the site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation of the site;

c) the site possesses unique or rare attributes concerning Texas prehistory and/or history;

d) the study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to a new scientific knowledge; and

e) there is a high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to ensure maximum legal protection, or alternatively, further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected.

NRHP Criteria for Evaluation

The quality of significance in American archaeology, architecture, and history is present in sites, districts, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet the following criteria for evaluation (36 Code of Federal Regulations 60.4 [a–d]):

A. that are associated with events that have made a significant contribution to the broad patterns of our history;

B. that are associated with the lives of persons significant in our past;

C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. that have yielded or may be likely to yield, information important in prehistory or history.

FIELD INVESTIGATION RESULTS

SWCA archaeologists conducted an intensive pedestrian survey of the project area with shovel testing between July 20–23 and August 6, 2020 (Figure 5). The vegetation within the project area consists of typical desert scrub including, mesquite, cactus, scrub, and short and tall grasses. The setting consisted of dissected uplands in the north and eastern sections of the project area and upland plain in the south and southwestern sections of the project area (Figures 6 and 7). SWCA archaeologists also observed modern disturbances throughout the project area including gravel two-track roads, fencing, and a trash dump (Figures 8 and 9).

Survey efforts were augmented with shovel testing and the inspection of any available erosional profiles. In total, SWCA excavated 99 shovel tests (i.e., JU01–JU45 and RJ01–RJ54) throughout the project area and archaeological sites (Appendix A). A typical shovel test consisted of a single stratum of very pale brown to light yellowish brown (10YR 7/4 to 6/4) sandy loam or silt loam that was terminated at an average depth of 8 inches (20 cm) below surface due to bedrock. As a result of current survey efforts, SWCA revisited one previously recorded archaeological site (i.e., 41VV1251), and identified two isolated finds (IFs) (i.e., IF01 and IF02). The results of project investigations are presented below.

Site 41VV1251 (Revisit)

Site 41VV1251 was first recorded as a prehistoric site during a Phase I survey conducted by the CAR-UTSA in 1989 (Burkett 1990; THC 2020). The site was originally recorded as Paleoindian to Early Archaic lithic scatter consisting of a proximal Clovis point fragment, points, bifaces, and biface fragments. A Phase II investigation of site 41VV1251 was conducted by CAR-UTSA in 1991 for National Register eligibility testing. Although the recovered artifacts indicated occupations ranging from the Late Paleoindian period to the Late Archaic period, the soil matrix in the site was found to be deflated and the geomorphological study confirmed the deflated nature of the site. With the lack of stratified buried deposits, it was determined that the site could not provide archaeological context to the artifacts present; therefore, the site was recommended as Not Eligible for listing in the NRHP.

Site 41VV1251 was revisited by SWCA archaeologist on July 22–23 and August 6, 2020. The site is located on a ridge and slope of a dissected upland and is approximately 0.35 mile (572 m) north/south by 0.30 mile (486 m) east/west (Figure 10). Vegetation at the site consists of short grasses, mesquite, desert scrub and cacti (Figure 11). Site 41VV1251 also has been modified by construction of the Del Rio landfill. Disturbances in and around the site include past vegetation clearing, two-track roads, a large brush pile, and current construction on the landfill on the southern portion of the site, outside of the current project area (Figure 12). Natural disturbances to the site include erosion. No cultural materials were observed on the surface or subsurface and the portions of the site within the project area may have been destroyed.

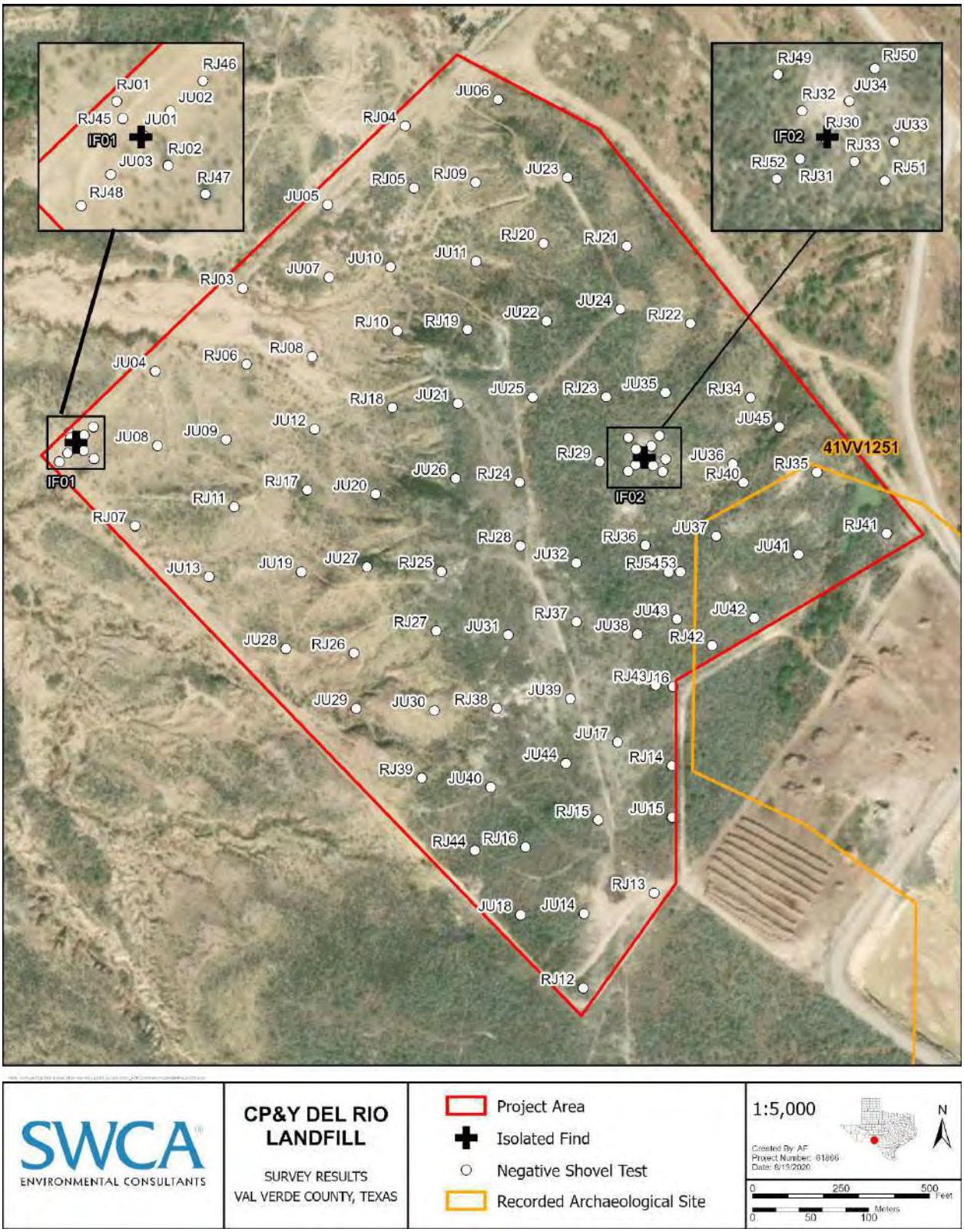


Figure 5. Project area survey results.



Figure 6. General overview of upland plain in project area and vegetation, view facing west.



Figure 7. Overview of dissected uplands in project area, view facing west.



Figure 8. Fencing and gravel road disturbance, view facing west.



Figure 9. Overview of trash dump within the southern margin of the project area, view facing east.



Figure 10. 41VV1251 site map.



Figure 11. Overview of site 41VV1251, view facing north.



Figure 12. Brush pile and two-track disturbance at site 41VV1251, view facing south.

SWCA conducted a pedestrian survey augmented with shovel testing to delineate the extent of the site. To test for buried cultural materials, SWCA excavated 13 shovel tests to delineate the site boundary, all of which were negative for cultural materials (i.e., JU16, JU36, JU37, JU41–JU43, RJ35, RJ40–RJ43, RJ53, and RJ54). Shovel tests typically revealed the presence of light gray (10YR 7/1) or light yellowish brown (10YR 6/4) silt loam terminating in bedrock to an average depth of 6 inches (15 cm) below surface (Appendix A).

The assessed portion of site 41VV1251 lacks temporally diagnostic artifacts or features and is unlikely to yield information that will refine our understanding of past historical lifeways in this region. Therefore, SWCA recommends that the assessed portion of this site as not eligible for listing in the NRHP or as a SAL and no further work or avoidance is recommended. However, portions of the site outside of the project area were not surveyed and remain undetermined for the NRHP.

Isolated Finds (IFs)

SWCA identified two IFs during the pedestrian survey of the project area (see Figure 5). IFs are isolated artifacts that by themselves do not meet the CTA-accepted criteria for designation as an archaeological site. SWCA recorded a GPS point and photographs of the IFs, but no further work is warranted at these locations due to their isolated surficial nature. The two IFs identified during the investigation are detailed below.

IF01

IF01 consists of a crude, early stage biface preform (Figure 13). The material consists of light tan chert. IF01 is located on the surface on an upland plain (Figure 14). SWCA conducted a pedestrian survey augmented with shovel testing to delineate the extent of the IF. To test for buried cultural materials, SWCA excavated nine shovel tests around the IF, all of which were negative for cultural materials (i.e., JU01–JU03, RJ01–RJ02, and RJ45–RJ48). No other cultural materials were identified on the surface or subsurface.

IF02

IF02 consists of a broken, early stage biface preform located on the ridge of an upland (Figures 15 and 16). The lithic material consists of dark gray chert. SWCA conducted a pedestrian survey augmented with shovel testing to delineate the extent of the IF. To test for buried cultural materials, SWCA excavated nine shovel tests around the IF, all of which were negative for cultural materials (i.e., JU34, RJ30–RJ33, and RJ49–RJ52). No other cultural materials were identified on surface or subsurface.

SUMMARY AND RECOMMENDATIONS

At the request of CP&Y, SWCA conducted a cultural resources investigation for the Proposed Del Rio Landfill Project located in Del Rio, Texas. The project involves the construction of a new landfill facility approximately 75.0 acres (30.4 ha) in size and located north of Las Palmas Drive, south of U.S. Highway 90 and northeast of U.S. Highway 277 in southeast Del Rio, Val Verde County.



Figure 13. IF01, crude, early stage biface preform.



Figure 14. Overview of IF01, view facing west.



Figure 15. IF02, early stage biface preform.



Figure 16. Overview of IF02, view facing southeast.

The proposed project is located on land owned by the City of Del Rio, a political subdivision of the State of Texas, and is therefore subject to review by the THC under the ACT. There is also the possibility that the project could impact jurisdictional waters of the United States, which would also trigger compliance with Section 106 of the NHPA through its connection to the Clean Water Act, as regulated by the USACE. To comply with requirements of the ACT, and in anticipation of the requirements of the NHPA, SWCA proposed an intensive cultural resources survey with shovel testing of the project area. This cultural resources investigation was conducted under ACT Permit No. 9519.

Investigations included a background literature and historic map review, as well as an intensive cultural resources survey of the project area to determine the presence, extent, and potential significance of deeply buried archaeological sites. The background review determined that one previously conducted cultural resources investigation intersects the project area and four previous cultural resources surveys have been conducted within 1.0 mile (1.6 km) of the project area. In addition, 12 previously recorded archaeological sites are within 1.0 mile (1.6 km) of the project area. One of these archaeological sites (i.e., 41VV1251) intersects the project area. Site 41VV1251 consists of a Late Paleoindian to Late Archaic lithic scatter including a proximal Clovis point fragment, projectile points, bifaces, and biface fragments. Due to the eroded deposits and lack of buried deposits, the site was recommended as not eligible for the NRHP. One OTHM #16268 is located 1.0-mile (1.6 km) west of the project area and will not be affected by the project undertaking. No cemeteries or NRHP properties are within 1.0 mile (1.6 km) of the project area. Additionally, the historic map review did not reveal any potential historic-age structures within the project area (USGS 2020a).

SWCA archaeologists conducted an intensive archaeological survey augmented by shovel testing on July 21–23 and August 6, 2020. During the survey, SWCA archaeologists excavated a total of 99 shovel tests within the 75.0-acre (30.4-ha) project area. SWCA revisited site 41VV1251 within the project area during the survey. No cultural materials were observed on the ground surface or subsurface within the portion of the site within the project area during the current investigations. Due to the lack of temporally diagnostic artifacts or cultural features, SWCA recommends that the portion of site 41VV1251 within the project area as not eligible for listing on the NRHP or for designation as a SAL. No further work or avoidance is recommended.

In addition to the site, SWCA identified two IFs during the pedestrian survey of the project area. Both IFs were non-diagnostic bifaces with no additional associated artifacts. IFs are isolated artifacts that by themselves do not meet the CTA-accepted criteria for designation as an archaeological site; therefore, no further work is warranted at these locations due to their isolated surficial nature.

In accordance with the ACT, SWCA has made a reasonable and good faith effort to identify archaeological resources within the project area. No properties were identified within the project area eligible for SAL/NRHP listing. As such, SWCA recommends that no additional cultural resources investigations are warranted within the Del Rio Landfill project area, as currently defined.

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APPENDIX A.

Shovel Test Table

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Shovel Test No.	Site No.	Depth (cm below surface)	Munsell Value	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comments/ Reason for Termination
JU01	IF01	0–25	10YR 5/4	Yellowish Brown	Sandy Loam	<20% gravels, pebbles	Negative	Terminated due to bedrock.
JU02	IF01	0–15	10YR 6/4	Light Yellowish Brown	Sandy Loam	<20% gravels, pebbles	Negative	Terminated due to bedrock.
JU03	IF01	0–35	10YR 6/4	Light Yellowish Brown	Sandy Loam	<20% gravels, pebbles	Negative	Terminated due to bedrock.
JU04	N/A	0–20	10YR 6/2	Light Brownish Gray	Sandy Loam	40% gravels, pebbles	Negative	Terminated due to bedrock.
JU05	N/A	0–20	10YR 6/2	Light Brownish Gray	Sandy Loam	15% gravels	Negative	Terminated due to bedrock.
JU06	N/A	0–5	10YR 6/2	Light Brownish Gray	Sandy Loam	15% gravels	Negative	Terminated due to bedrock.
JU07	N/A	0–30	10YR 5/4	Yellowish Brown	Sandy Clay Loam	15% gravels	Negative	Terminated due to compact soil.
JU08	N/A	0–30	10YR 6/2	Light Brownish Gray	Sandy Clay Loam	15% gravels	Negative	Terminated due to compact soil.
JU09	N/A	0–20	10YR 6/2	Light Brownish Gray	Sandy Clay Loam	10% gravels	Negative	Terminated due to bedrock.
JU10	N/A	0–20	10YR 5/4	Yellowish Brown	Sandy Clay Loam	10% gravels	Negative	Terminated due to bedrock.
JU11	N/A	0–5	10YR 6/4	Light Yellowish Brown	Sandy Loam	15% gravels, pebbles	Negative	Terminated due to bedrock.
JU12	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sandy Loam	15% gravels, pebbles	Negative	Terminated due to bedrock.
JU13	N/A	0–15	10YR 6/4	Light Yellowish Brown	Sandy Loam	10% gravels	Negative	Terminated due to bedrock.
JU14	N/A	0–30	10YR 7/4	Very Pale Brown	Sandy Loam	10% gravels	Negative	Terminated due to compact soil.
JU15	N/A	0–30	10YR 6/2	Light Brownish Gray	Sandy Loam	10% gravels	Negative	Terminated due to compact soil.
JU16	41VV1251	0–25	10YR 6/2	Light Brownish Gray	Silty Clay Loam	5% gravels	Negative	Terminated due to compact soil.
JU17	N/A	0–10	10YR 7/3	Very Pale Brown	Silt Loam	30% gravels, pebbles, degraded bedrock	Negative	Terminated due to bedrock.
JU18	N/A	0–25	10YR 6/4	Light Yellowish Brown	Silt Loam	20% gravels	Negative	Terminated due to bedrock.
JU19	N/A	0–15	10YR 6/4	Light Yellowish Brown	Sandy Loam	40% gravels	Negative	Terminated due to bedrock.
JU20	N/A	0–25	5YR 4/6	Yellowish Red	Sandy Clay Loam	30% gravels	Negative	Terminated due to bedrock.
JU21	N/A	0–5	10YR 7/3	Very Pale Brown	Silt Loam	5% gravels, pebbles	Negative	Terminated due to bedrock.
JU22	N/A	0–5	10YR 7/3	Very Pale Brown	Silt Loam	5% gravels, pebbles	Negative	Terminated due to bedrock.
JU23	N/A	0–5	10YR 6/3	Pale Brown	Silt Loam	30% gravels, cobbles	Negative	Terminated due to bedrock.
JU24	N/A	0–35	10YR 6/3	Pale Brown	Silt Loam	30% gravels, cobbles	Negative	Terminated due to bedrock.
JU25	N/A	0–30	10YR 6/3	Pale Brown	Silt Loam	30% gravels, cobbles	Negative	Terminated due to bedrock.
JU26	N/A	0–5	10YR 7/4	Very Pale Brown	Silt Loam	None	Negative	Terminated due to bedrock.
JU27	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	20% gravels	Negative	Terminated due to bedrock.

Shovel Test No.	Site No.	Depth (cm below surface)	Munsell Value	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comments/ Reason for Termination
JU28	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	20% gravels	Negative	Terminated due to bedrock.
JU29	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	20% gravels	Negative	Terminated due to bedrock.
JU30	N/A	0–5	7.5YR 5/4	Brown	Silt Loam	40% gravels, snail shell fragments	Negative	Terminated due to bedrock.
JU31	N/A	0–5	10YR 7/3	Very Pale Brown	Silt Loam	2% gravels	Negative	Terminated due to bedrock.
JU32	N/A	0–5	10YR 7/3	Very Pale Brown	Silt Loam	2% gravels	Negative	Terminated due to bedrock.
JU33	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	40% gravels, cobbles	Negative	Terminated due to bedrock.
JU34	IF02	0–10	10YR 7/3	Very Pale Brown	Silt Loam	30% gravels, degrading bedrock	Negative	Terminated due to bedrock.
JU35	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	20% gravels, cobbles	Negative	Terminated due to bedrock.
JU36	41VV1251	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	30% gravels, cobbles	Negative	Terminated due to bedrock.
JU37	41VV1251	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	30% gravels, cobbles	Negative	Terminated due to bedrock.
JU38	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
JU39	N/A	0–5	10YR 7/4	Very Pale Brown	Silt Loam	30% gravels, cobbles, degraded bedrock	Negative	Terminated due to bedrock.
JU40	N/A	0–5	10YR 7/4	Very Pale Brown	Silt Loam	30% gravels, cobbles, degraded bedrock	Negative	Terminated due to bedrock.
JU41	41VV1251	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	30% gravels, cobbles	Negative	Terminated due to bedrock.
JU42	41VV1251	0–10	10YR 7/3	Very Pale Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
JU43	41VV1251	0–25	10YR 7/3	Very Pale Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
JU44	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	2% gravels	Negative	Terminated due to bedrock.
JU45	N/A	0–5	10YR 6/4	Light Yellowish Brown	Silt Loam	20% gravels, cobbles	Negative	Terminated due to bedrock.
RJ01	IF01	0–15	10YR 7/2	Light Gray	Sandy Loam	1% gravels	Negative	Terminated due to compact soil.
RJ02	IF01	0–20	10YR 6/4	Light Yellowish Brown	Sand	10% gravels	Negative	Terminated due to compact soil.
RJ03	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sand	10% gravels	Negative	Terminated due to compact soil.
RJ04	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sand	10% gravels	Negative	Terminated due to compact soil.
RJ05	N/A	0–30	10YR 6/5	Brownish yellow	Sandy Loam	15% gravel, 2% rabdotus snail shell	Negative	Terminated due to bedrock.
RJ06	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sandy Loam	15% gravel, 2% rabdotus snail shell	Negative	Terminated due to compact soil.
RJ07	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sandy Loam	15% gravel, 2% rabdotus snail shell	Negative	Terminated due to bedrock.
RJ08	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sandy Loam	15% gravel, 2% rabdotus snail shell	Negative	Terminated due to bedrock.
RJ09	N/A	0–20	10YR 6/4	Light Yellowish Brown	Sandy Loam	15% gravels	Negative	Terminated due to bedrock.

Shovel Test No.	Site No.	Depth (cm below surface)	Munsell Value	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comments/ Reason for Termination
RJ10	N/A	0–20	10YR 6/2	Light Brownish Gray	Sandy Loam	15% gravels	Negative	Terminated due to bedrock.
RJ11	N/A	0–20	10YR 6/1	Light Gray	Silt Loam	15% gravels	Negative	Terminated due to compact soil.
RJ12	N/A	0–10	10YR 6/2	Light Brownish Gray	Silt Loam	15% gravels	Negative	Test 2 m off two-track and gate. Terminated due to disturbance.
RJ13	N/A	0–30	10YR 7/1	Light Gray	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ14	N/A	0–30	10YR 7/1	Light Gray	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ15	N/A	0–30	10YR 7/1	Light Gray	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ16	N/A	0–10	10YR 7/1	Light Gray	Sandy Loam	10% gravels	Negative	Terminated due to bedrock.
RJ19	N/A	0–10	10YR 7/1	Light Gray	Sandy Loam	10% gravels	Negative	Terminated due to bedrock.
RJ20	N/A	0–10	10YR 7/1	Light Gray	Sandy Loam	10% gravels	Negative	Terminated due to bedrock.
RJ21	N/A	0–15	10YR 6/4	Light Yellowish Brown	Silt Loam	15% gravels	Negative	Terminated due to bedrock.
RJ22	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	15% gravels	Negative	Terminated due to bedrock.
RJ23	N/A	0–10	10YR 7/1	Light Gray	Silt	None	Negative	Terminated due to bedrock.
RJ24	N/A	0–10	10YR 7/1	Light Gray	Silt	None	Negative	Terminated due to bedrock.
RJ25	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	>20% gravels	Negative	Terminated due to bedrock.
RJ26	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	>20% gravels	Negative	Terminated due to bedrock.
RJ27	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	>20% gravels	Negative	Terminated due to bedrock.
RJ28	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	>20% gravels	Negative	Terminated due to bedrock.
RJ29	IF02	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	10% gravels	Negative	Terminated due to bedrock.
RJ30	IF02	0–10	10YR 7/1	Light Gray	Silt Loam	10% gravels	Negative	Terminated due to bedrock.
RJ31	IF02	0–10	10YR 7/1	Light Gray	Silt Loam	15% gravels	Negative	Terminated due to bedrock.
RJ32	IF02	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	10% gravels	Negative	Terminated due to bedrock.
RJ33	N/A	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	None	Negative	Terminated due to bedrock.
RJ34	N/A	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ35	41VV1251	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ36	N/A	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ37	N/A	0–10	10YR 7/1	Light Gray	Degraded Bedrock	5% gravels	Negative	Terminated due to bedrock.
RJ38	N/A	0–10	10YR 7/1	Light Gray	Degraded Bedrock	5% gravels	Negative	Terminated due to bedrock.
RJ39	N/A	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ40	41VV1251	0–10	10YR 5/4	Yellowish Brown	Silt Loam	10% gravels	Negative	Terminated due to bedrock.
RJ41	41VV1251	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ42	41VV1251	0–30	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.

Shovel Test No.	Site No.	Depth (cm below surface)	Munsell Value	Soil Color	Soil Texture	Inclusions	Positive/ Negative	Comments/ Reason for Termination
RJ43	41VV1251	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ44	N/A	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% gravels	Negative	Terminated due to bedrock.
RJ45	IF01	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ46	IF01	0–40	10YR 5/4	Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to compact soil.
RJ47	IF01	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ48	IF01	0–20	10YR 5/4	Yellowish Brown	Silt Loam	<2% micro risal fungi, 3% gravels	Negative	Terminated due to bedrock.
RJ49	IF02	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% degrading bedrock	Negative	Terminated due to bedrock.
RJ50	IF02	0–10	10YR 7/1	Light Gray	Degraded Bedrock	10% degrading bedrock	Negative	Terminated due to bedrock.
RJ51	IF02	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ52	IF02	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ53	41VV1251	0–10	10YR 7/1	Light Gray	Silt Loam	5% gravels	Negative	Terminated due to bedrock.
RJ54	41VV1251	0–10	10YR 6/4	Light Yellowish Brown	Silt Loam	5% gravels	Negative	Terminated due to bedrock.

COORDINATION WITH
TEXAS DEPARTMENT OF TRANSPORTATION

- TXDOT conclusion of no objections or concerns with potential traffic impact letter has not been received yet.
- July 5, 2024, Request for Review Letter.

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July 5, 2024

Mr. Hyung Ahn P.E.
Area Engineer
Texas Department of Transportation, Laredo District
319 E. Gibbs St.
Del Rio, Texas 78840-4070

Re: Compliance with Traffic Location Restriction Information
Proposed City of Del Rio Municipal Landfill Permit Amendment
Val Verde County, Texas

Dear Mr. Ahn,

Consistent with Title 30 Texas Administrative Code (TAC) §330.61(i)(4), the intent of this letter is to demonstrate coordination with the Texas Department of Transportation (TxDOT). This regulation requires that a permit applicant for an expansion of a municipal solid waste facility coordinate with TxDOT regarding any potential traffic or location restrictions.

CP&Y an STV Company, is in the process of developing a major permit amendment application, on behalf of the City of Del Rio, to expand its existing landfill located in Val Verde County, Texas. This landfill expansion project will provide long-term disposal capacity for municipal solid waste that is generated in the area. The permit application will be submitted to the Texas Commission on Environmental Quality (TCEQ). The application will undergo a detailed review by the TCEQ before the operative permit for this facility is issued.

The site entrance is located at 1897 Railroad Avenue, approximately 2.5 miles west of the intersection of US-90 and Loop 79, and approximately 2.25 miles east of the intersection of US-90 and US-277. The proposed landfill expansion does not include a change to the location of the site entrance. The attached Site Location Maps provide in Attachment 1 shows an overview of the existing landfill operation and show that the site access roads (e.g., the landfill entrance road, Railway Avenue, US- 90) will continue to provide adequate access to the site throughout the life of the facility. The vertical expansion will not increase the rate of waste being accepted at the site so there is no increase in traffic.

Project Design Summary

The following information presents a summary of the design and operations of the proposed City of Del Rio Landfill expansion. The permit application will be submitted to TCEQ and

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Dallas, TX 75240
(p) 214.638.0500 • (f) 214.638.3723

undergo a detailed review by the TCEQ before the operative permit for the expansion of this facility is issued.

- Accepted wastes will remain consistent with the current MSW landfill permit. The major classifications of solid waste to be accepted at the City of Del Rio Landfill include household waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special wastes.

- No change is anticipated to the existing site access. Access to the site will be provided via the existing site access road.

- No change is anticipated to the liner and final cover system, that will be designed for the regulatory requirements for solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management systems) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that may collect on the liner system. Collected leachate will be pumped and disposed of at an authorized treatment facility. The construction procedures of the liner and cover systems follow strict TCEQ-approved quality control procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the TCEQ before solid waste is placed in the landfill.

- Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify that landfill gas does not migrate off-site. The existing system is sampled and tested periodically. The results are filed with the TCEQ and are public record. No change is anticipated to control landfill gas emissions. If gas collection and control system is need for the site per TCEQ requirements, the application will incorporate system into the landfill permit application.

- Site Operations. No change is anticipated to the existing site operations. The City of Del Rio Municipal Landfill will continue to be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.

To assist the TxDOT with review, Site Location Maps are in Attachment 1. This attachment includes a general site location plan, general topographic map, aerial photograph of the site, and a permitted and proposed site plan.

To verify compliance with 30 TAC §330.61(i)(4), CP&Y an STV Company, will need to include a letter from TxDOT within the permit application regarding the adequacy of the site access roads and any traffic or location restrictions at or near the site.

The TxDOT's response to this coordination and assistance in this matter is sincerely appreciated. Please do not hesitate to contact CP&Y an STV Company, if there are any questions or additional information needed.

Sincerely,
CP&Y an STV Company

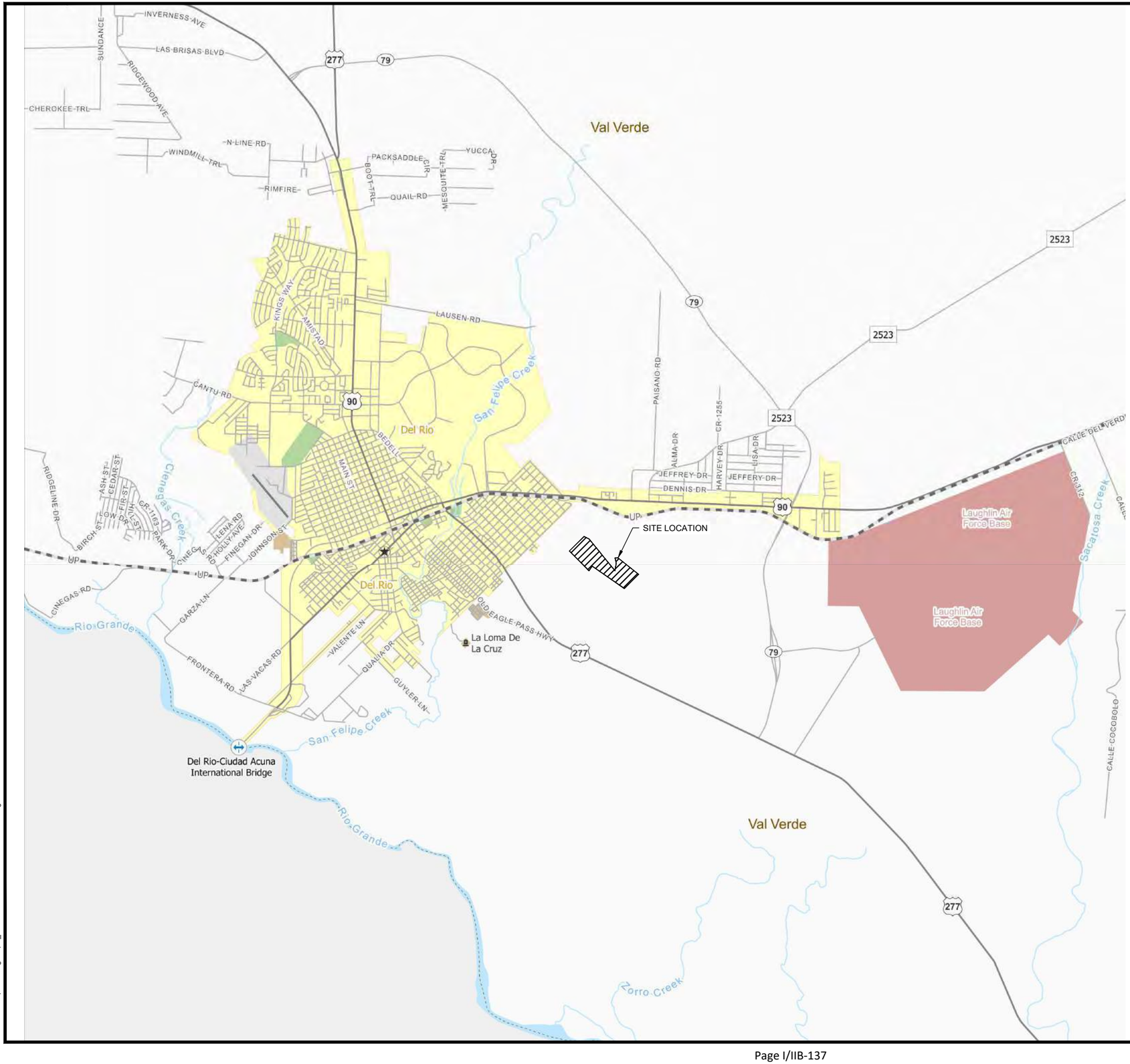
Tewobista Metaferia, P.E.
Project Manager

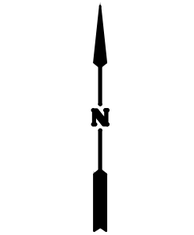
Attachments: Attachment 1: Site Location Maps

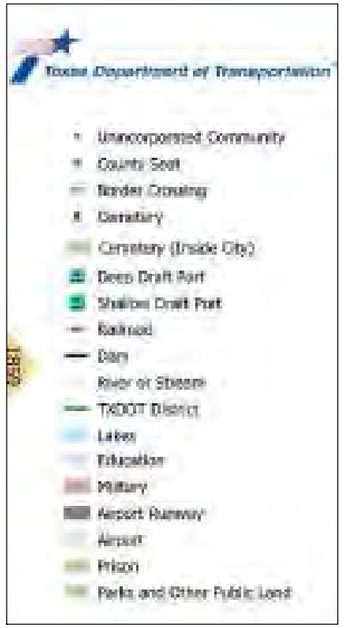
cc: Manuel Chavez, Interim City Manager
Rene Maldonado, City of Del Rio Landfill Coordinator

ATTACHMENT 1

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Dallas, TX 75240
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NOTES:

1. THIS MAP IS REPRODUCED 2019 TEXAS DEPARTMENT OF TRANSPORTATION VAL VERDE COUNTY MAPS NO. 1858 AND 1896.

STV
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
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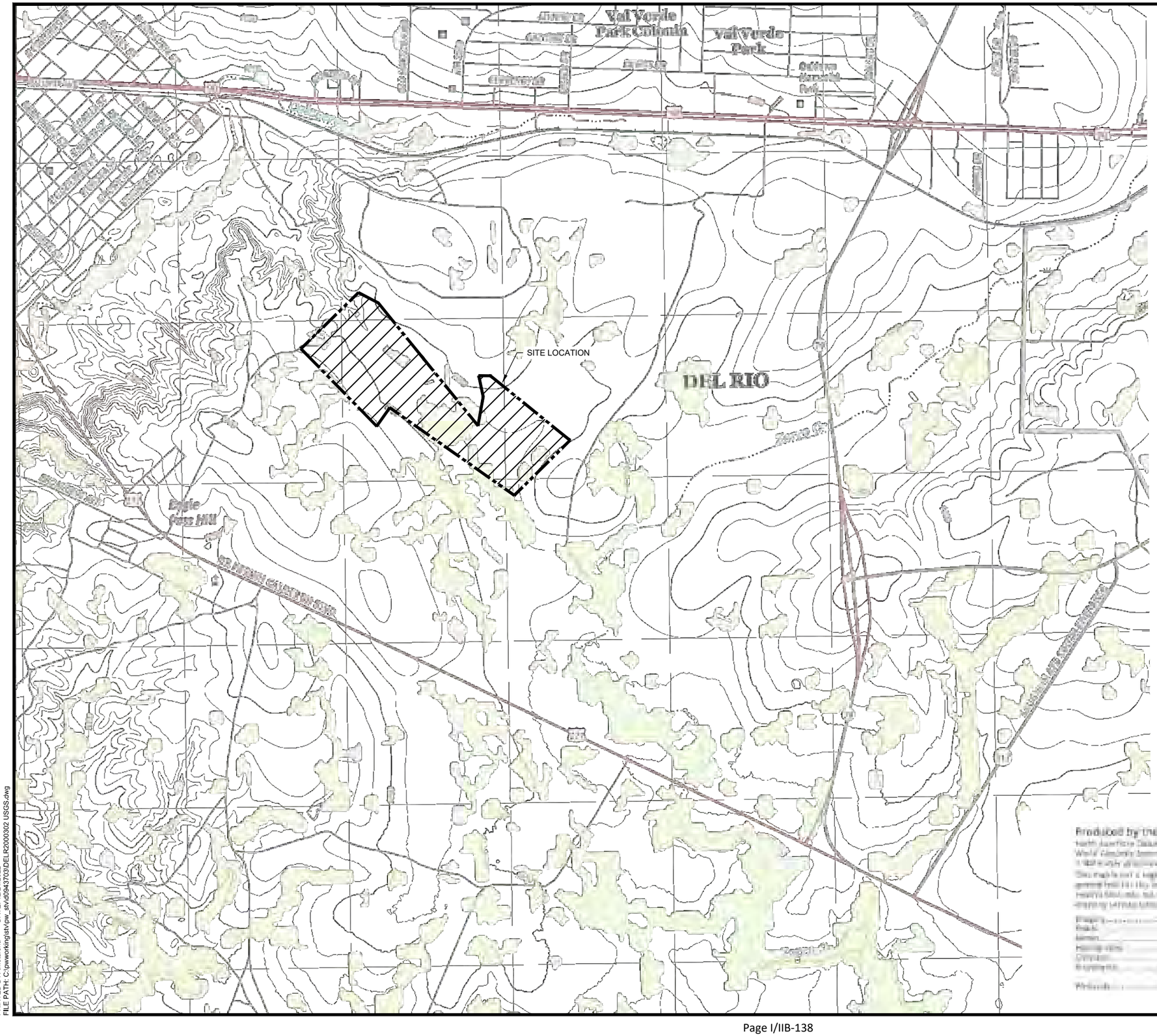
CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

SITE LOCATION MAP

DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
1

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SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

NO.	REVISION	BY	DATE

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0 1"

CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

GENERAL TOPOGRAPHIC MAP

DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
2

PRINTED BY: tmetaferia DATE: 12/21/2022
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0 500 1,000
SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

LIMIT OF WASTE

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE JANUARY 19, 2017.

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

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AND ADJUST SCALE ACCORDINGLY

CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

AERIAL PHOTOGRAPH

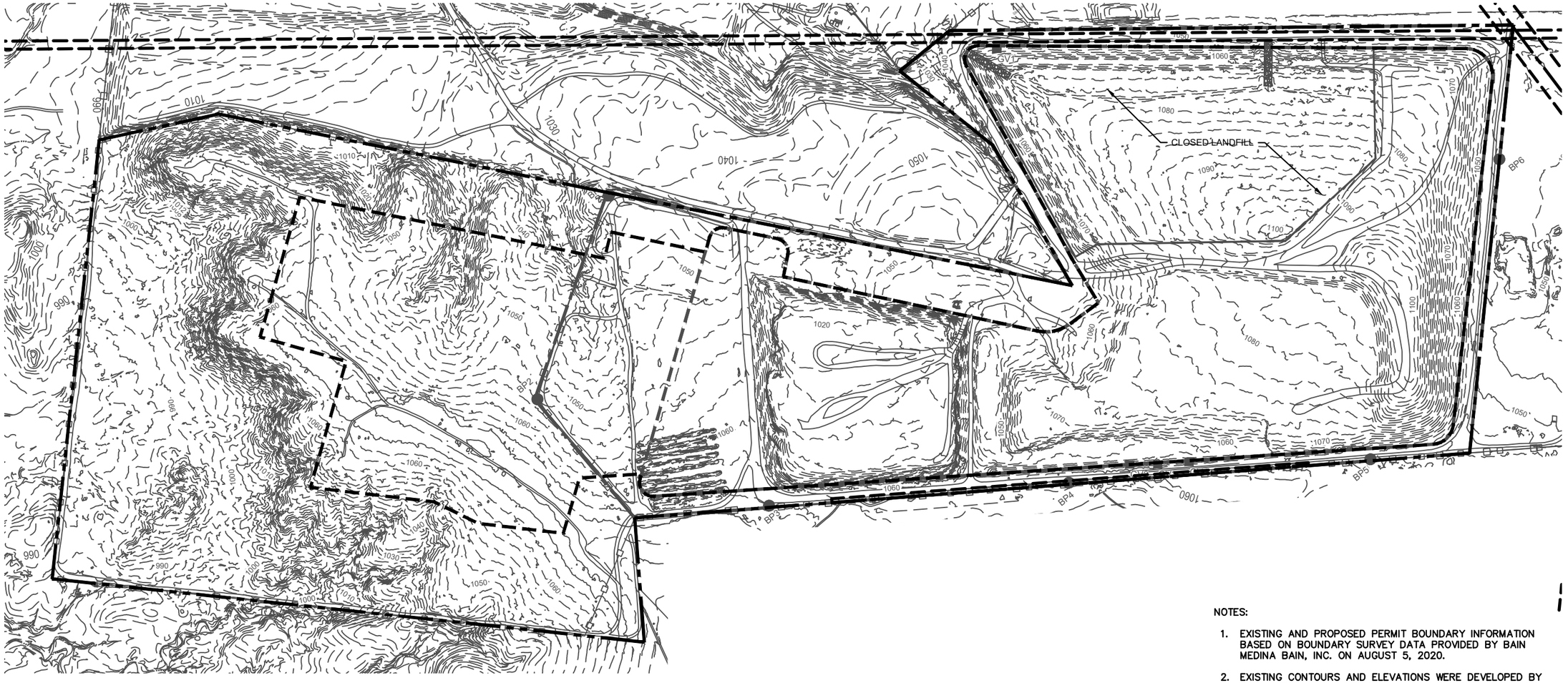
DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
3

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LEGEND

- EXISTING PERMIT BOUNDARY
- EXISTING LIMIT OF WASTE
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- 1080 EXISTING GRADES
- 1010 PROPOSED FINAL COVER GRADES



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.
3. POTENTIAL WATERS OF THE US DELINEATED AND IDENTIFIED BY CP&Y Inc. USACE COORDINATION IS NEED TO VERIFY IF STREAMS ARE CONSIDERED WATERS OF THE US.

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

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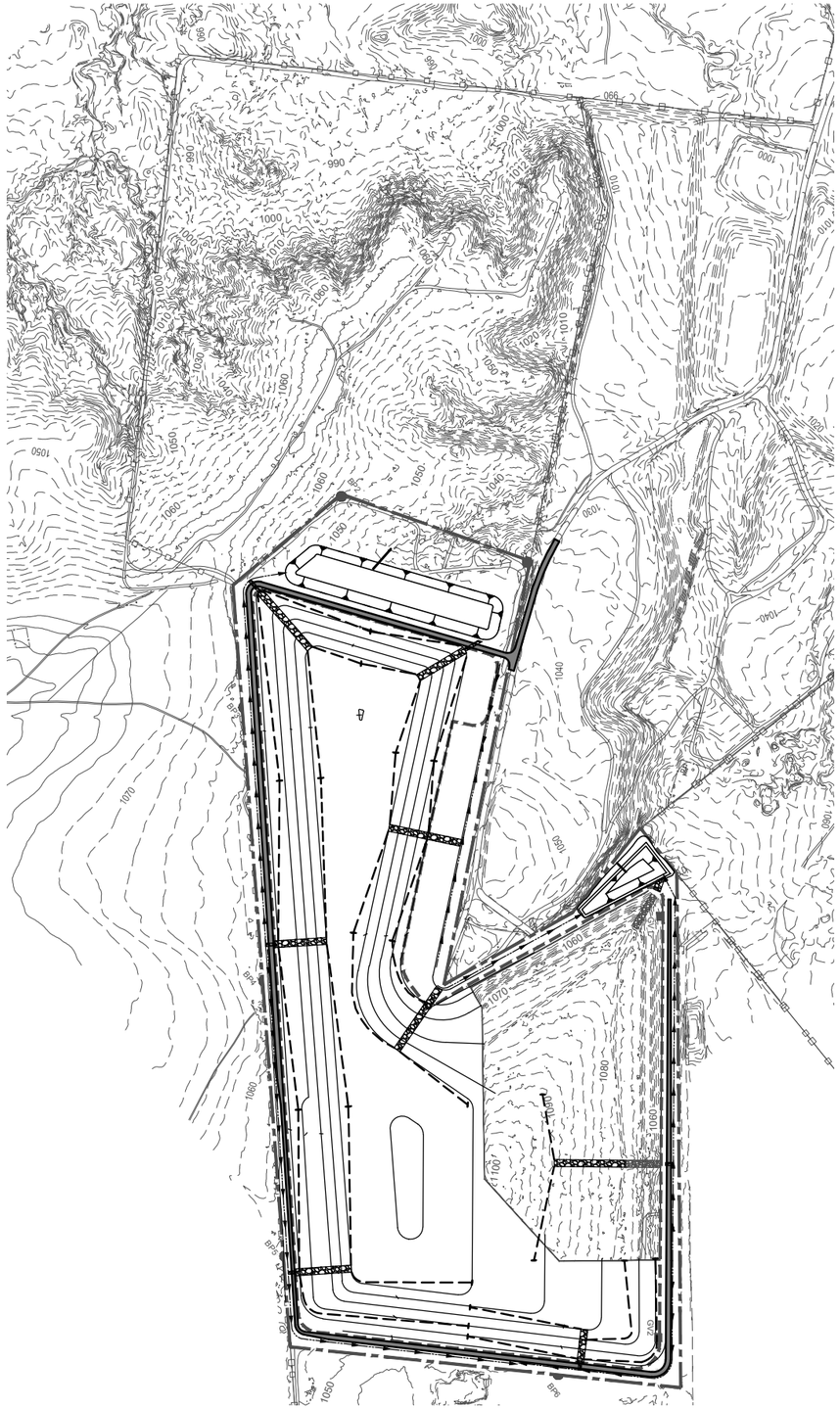
CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

EXISTING SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	J. TORRES
REVIEW:	B. HINDMAN
CP&Y:	DELR2000302
CLIENT:	CITY OF DEL RIO

FIGURE
4

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PERMITTED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207B)

PROPOSED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207C)

TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

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CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

PERMITTED VS PROPOSED SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	J. TORRES
REVIEW:	B. HINDMAN
CP&Y:	DELR2000302
CLIENT:	CITY OF DEL RIO

FIGURE
5

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COORDINATION WITH
TEXAS PARKS AND WILDLIFE DEPARTMENT

- TPWD conclusion of no anticipated significant adverse impacts to rare, threatened or endangered species or other fish and wildlife resources letter has not been received yet.
- July 5, 2024, Request for Review Letter.

Page left blank for Texas Parks and Wildlife Response Ltr

July 5, 2024

Wildlife Habitat Assessment Program
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Re: Compliance with Endangered or Threatened Species Assessment
Proposed City of Del Rio Municipal Landfill Permit Amendment
Val Verde County, Texas

CP&Y an STV Company. is in the process of developing a major permit amendment application, on behalf of the City of Del Rio, to expand its existing landfill located in Val Verde County, Texas. The Texas Commission on Environmental Quality (TCEQ), per Title 30 Texas Administrative Code (TAC) §330.61(n)(2), requires that all applicants undergoing a major permit amendment application coordinate with the Texas Parks and Wildlife Department regarding compliance with the Endangered Species Act. The purpose of this letter is to provide an overview of the proposed landfill expansion and demonstrate coordination with the Texas Parks and Wildlife Department to TCEQ consistent with TAC §330.61(n)(2).

> *"For landfill applications, the owner or operator shall submit Endangered Species Act compliance demonstrations as required under state and federal laws and determine whether the facility is in the range of endangered or threatened species. If the facility is located in the range of endangered or threatened species, the owner or operator shall have a biological assessment prepared by a qualified biologist in accordance with standard procedures of the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department to determine the effect of the facility on the endangered or threatened species."*

Project Background

The City of Del Rio Landfill is an existing Type I landfill in Del Rio, Texas that is owned by the City and operated by Platform Waste Solutions. The site locations maps are in Attachment 1. Figures 1 through 3 shows the site location overlaid on a TxDOT map, USGS map, and an aerial photograph map. The existing landfill (TCEQ Permit No. 207B) is a 105.6-acre facility with a waste footprint of approximately 79 acres. Figure 4 in Attachment 1 shows the existing site plan.

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The landfill has been servicing the residents of the City of Del Rio and the surrounding areas for over 40 years. The City of Del Rio Landfill started accepting waste in 1972 under Permit No. 207. Permit 207A was issued in 1989 for the current 105.6-acre facility. In 1994 the City submitted a Class I Permit Modification to upgrade the facility to meet the Subtitle-D requirements. The landfill was then expanded vertically in 2022 under Permit No. 207B. Although the recent vertical expansion extended the site life of the facility, the lateral expansion project will allow the City to provide long-term disposal capacity for municipal solid waste to the residents of the City of Del Rio and the surrounding areas. Figure 5 shows the permitted landfill completion plan and the proposed expansion completion plan. This is a horizontal expansion that will increase the existing 105.6-acre permit boundary by 75 acres to 180.6 acres. The permitted limit of waste will be expanded by 55.31 acres from approximately 79 to approximately 134.31 acres.

Project Design Summary

The following information presents a summary of the design and operations of the proposed City of Del Rio Landfill expansion. The permit application will be submitted to TCEQ and undergo a detailed review by the TCEQ before the operative permit for the expansion of this facility is issued.

- Accepted wastes will remain consistent with the current MSW landfill permit. The major classifications of solid waste to be accepted at the City of Del Rio Landfill include household waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special wastes.

- No change is anticipated to the existing site access. Access to the site will be provided via the existing site access road.

- No change is anticipated to the liner and final cover system, that will be designed for the regulatory requirements for solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management systems) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that may collect on the liner system. Collected leachate will be pumped and disposed of at an authorized treatment facility. The construction procedures of the liner and cover systems follow strict TCEQ-approved quality control procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the TCEQ before solid waste is placed in the landfill.

- Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify that landfill gas does not migrate off-site. The existing system is sampled and tested periodically. The results are filed with the TCEQ and are public record. No change is anticipated to control landfill gas emissions. If gas collection and control system is need

for the site per TCEQ requirements, the application will incorporate system into the landfill permit application.

- Site Operations. No change is anticipated to the existing site operations. The City of Del Rio Municipal Landfill will continue to be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.

To assist the Texas Parks and Wildlife Department with review, please find the attached following information:

- Attachment 1: Site Location Maps
  - Figure 1 – Site Location Map
  - Figure 2 – General Topographic Map
  - Figure 3 – Aerial Photograph
  - Figure 4 – Existing Site Plan
  - Figure 5 – Permitted and Proposed Landfill Completion Plans

- Attachment 2: Federally Listed Threatened, Endangered, and Candidate Species Memo

The Federally Listed Threatened, Endangered, and Candidate Species Memo was prepared by CP&Y an STV Company, to assess if a suitable habitat for the federally listed species was observed within the project area. Habitat assessments of the project area by desktop review and field investigation show that there is no suitable habitat for the seven federally listed species was observed within the project area.CP&Y an STV Company will need to include a letter from the Texas Parks and Wildlife Department within the permit application to comply with 30 TAC §330.61(n)(2). It is requested that the Texas Parks and Wildlife Department concur with the conclusions make in the attached memo.

The Texas Parks and Wildlife Department's response to this coordination and assistance in this matter is sincerely appreciated. Please do not hesitate to contact CP&Y an STV Company, if there are any questions or additional information needed.

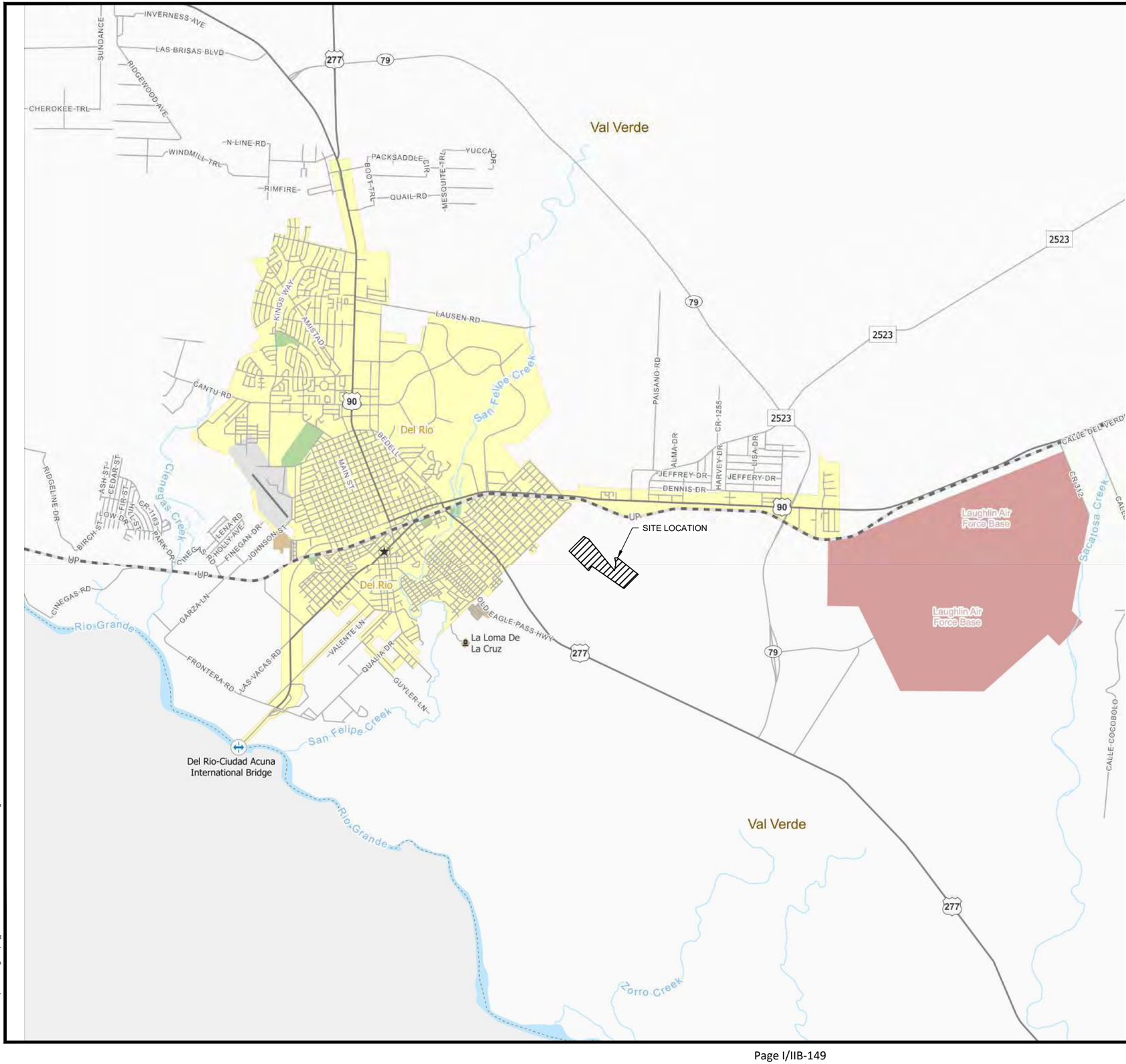
Sincerely,
CP&Y an STV Company

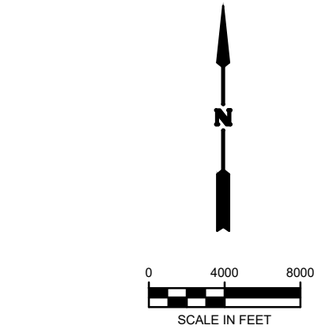
Tewobista Metaferia, P.E.
Project Engineer

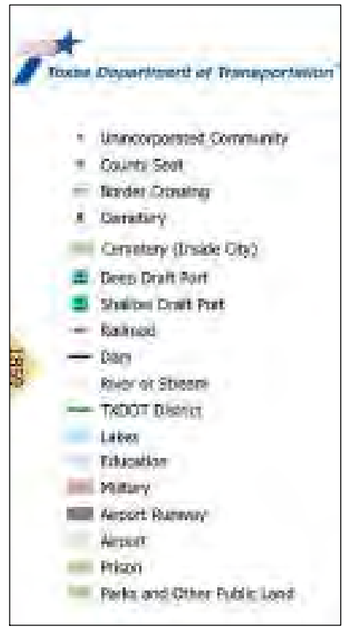
Attachments: Attachment 1: Site Location Maps
Attachment 2: Federally Listed Threatened, Endangered, and Candidate Species Memo

cc: Manuel Chavez, Interim City Manager
Rene Maldonado, City of Del Rio Landfill Coordinator

Attachment 1







NOTES:

1. THIS MAP IS REPRODUCED 2019 TEXAS DEPARTMENT OF TRANSPORTATION VAL VERDE COUNTY MAPS NO. 1858 AND 1896.

STV
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
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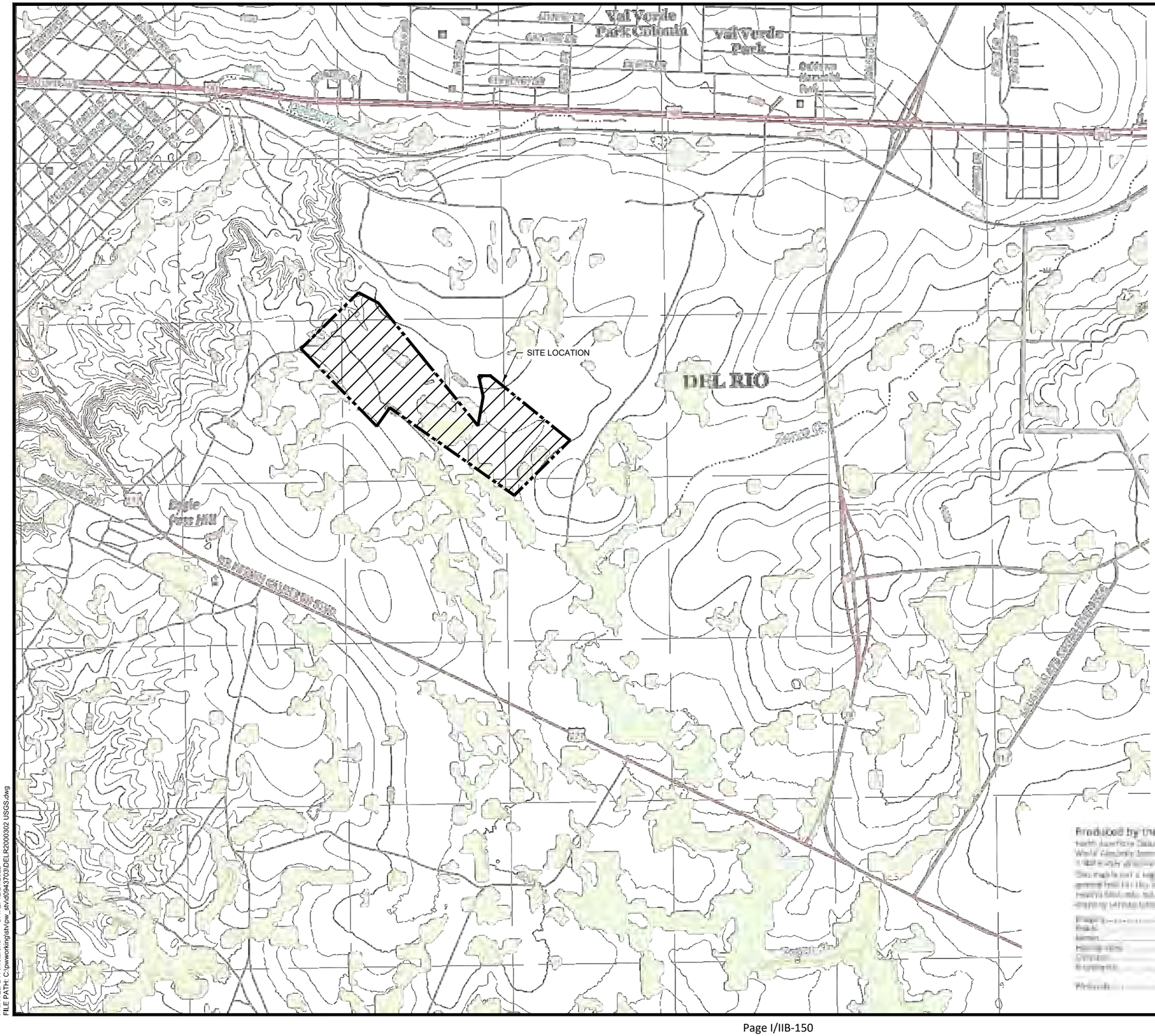
CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

SITE LOCATION MAP

DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
1

PRINTED BY: tmetaferia DATE: 12/21/2022
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SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
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CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

GENERAL TOPOGRAPHIC MAP

DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
2

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SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

LIMIT OF WASTE

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE JANUARY 19, 2017.

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

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AND ADJUST SCALE ACCORDINGLY
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CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

AERIAL PHOTOGRAPH

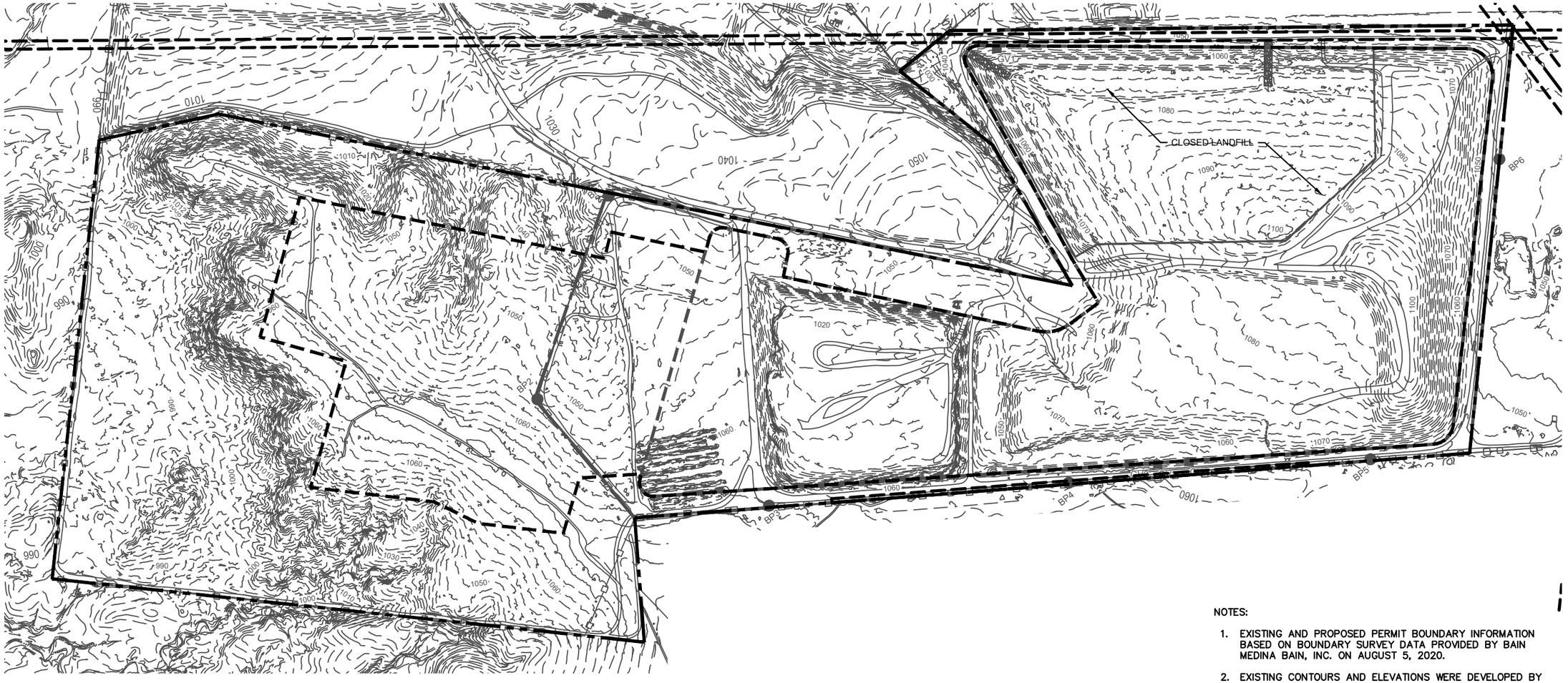
DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
3

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LEGEND

- EXISTING PERMIT BOUNDARY
- EXISTING LIMIT OF WASTE
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- 1080 EXISTING GRADES
- 1010 PROPOSED FINAL COVER GRADES



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.
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stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

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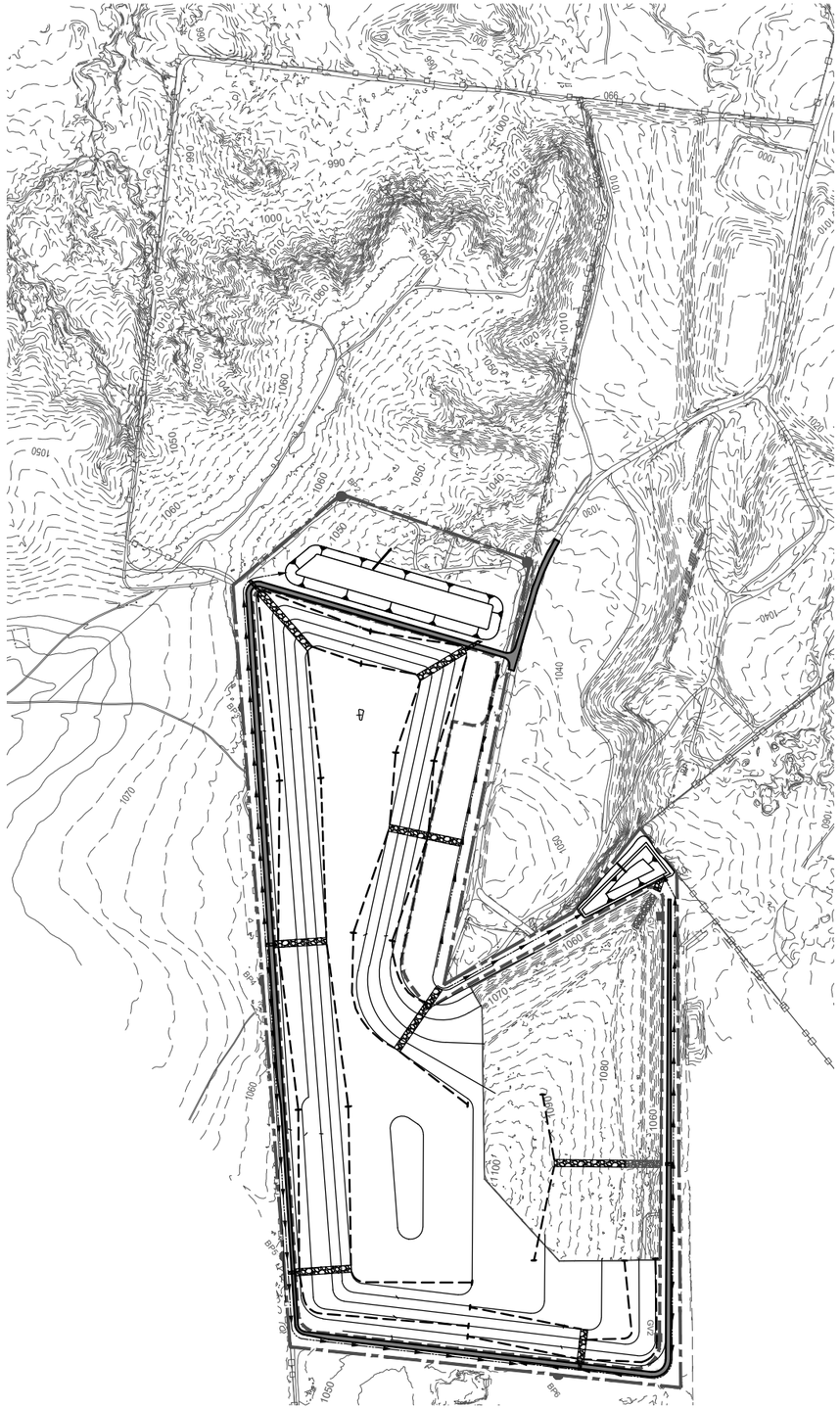
CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

EXISTING SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	J. TORRES
REVIEW:	B. HINDMAN
CP&Y:	DELR2000302
CLIENT:	CITY OF DEL RIO

FIGURE
4

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FILE PATH: C:\pwworkingstv\pw_stvd0943703\EXISTING SITE PLAN.dwg



PERMITTED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207B)

PROPOSED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207C)

N

0 300 600
SCALE IN FEET

LEGEND

- PERMITTED PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- PERMITTED LIMIT OF WASTE
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- 1090 — FINAL COVER GRADES
- 1084 — EXISTING GRADES
- SWALES
- PERIMETER CHANNEL
- CHUTES
- BP1 — EXISTING GAS PROBE
- EXISTING SITE FENCE
- PROPOSED SITE FENCE
- PROPOSED ACCESS ROAD
- CUT/FILL MARKERS
- EXISTING CHUTE
- GV2 — EXISTING GAS VENT
- GP-5 — PROPOSED GAS PROBE
- UV-1 — PROPOSED GAS VENTS

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

PERMITTED VS PROPOSED SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	J. TORRES
REVIEW:	B. HINDMAN
CP&Y:	DELR2000302
CLIENT:	CITY OF DEL RIO

FIGURE
5

PRINTED BY: MetafeT DATE: 7/5/2024
FILE PATH: C:\pwworking\stv\pw_stv\tmetaferia\d0943703\DELR2000302 PERMITTED VS PROPOSED.dwg

Attachment 2

Federally Listed Threatened, Endangered, and Candidate Species Memorandum

City of Del Rio Landfill Expansion Project

Del Rio, Val Verde County, Texas

Prepared for:

Prepared by:

One Countryside Place
12500 San Pedro, Ste. 450
San Antonio, Texas 78216

October 2022

Project Background

The proposed Del Rio Landfill Expansion Project involves the acquisition of an approximately 75-acre property southeast of Del Rio, Texas by the City of Del Rio for the purpose of expanding the existing City of Del Rio Landfill. The property is north-adjacent to the existing landfill property and currently owned by the City of Del Rio. The entire property was examined as the designated project area for this species memorandum. The National Hydrography Dataset (NHD), National Wetland Inventory (NWI), United States Geological Survey (USGS) Topographic Map, and Federal Emergency Management Agency (FEMA) Floodplain Panels were evaluated for relevant water resources within the project area. No mapped water resources were identified within the project area.

The project area was evaluated for federally listed threatened, endangered, and candidate species and their habitat. This memorandum details the findings of a desktop review and habitat assessment within the project area. **Appendix A** contains the following project maps:

- Project Vicinity Map (**Figure1**)
- Aerial Map (**Figure 2**)
- USGS Topographic Map (**Figure 3**)
- NWI and Floodplain Map (**Figure 4**)

Federally Listed Endangered, Threatened, and Candidate Species

Information from the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was obtained on September 16, 2022, to determine which federally listed endangered, threatened, or candidate species could potentially occur in the project area. A copy of the IPaC results can be found in **Appendix B**. The USFWS Critical Habitat Portal and the Texas Natural Diversity Database were accessed to determine if any critical habitat or documented protected species occurrences were located in or near the project area. According to these resources, there are no designated critical habitats or protected species occurrences in the vicinity of the project area.

The USFWS lists eight endangered, threatened, and candidate species with potential to occur in the vicinity of the project area. A summary of these species, their habitat requirements, potential for the habitat to occur in the project area, and an effect call for each species is provided in **Table 1**.

Table 1. Threatened, Endangered, and Candidate Species of Potential Occurrence in the Project area

Common Name	Scientific Name	Federal Status	Habitat	Potential for Habitat to Occur in Project Area	Effect Call
Birds					
Golden-cheeked Warbler	*Dendroica chrysoparia*	E	Required juniper-oak woodlands; dependent on Ashe juniper (aka cedar) for long, fine bark strips only available from mature trees, used in nest construction; nests in a variety of trees and only requires a few mature junipers for nesting materials.	No habitat for this species exists in the project area. The project area does not contain any oak-juniper woodlands.	No effect
Piping Plover	*Charadrius melodus*	T	Wintering Migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats.	No habitat exists for this species within the project area. The project area does not include beaches, or bayside mud or salt flats. In addition, USFWS concern only extends to this species for wind energy project.	No effect
Red Knot	*Calidris canutus rufa*	T	Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and tidal flat/shore.	No habitat for this species exists in the project area. No shorelines, tidal flats, or mudflats exist in the project area. In addition, USFWS concern only extends to this species for wind energy projects.	No effect

Common Name	Scientific Name	Federal Status	Habitat	Potential for Habitat to Occur in Project Area	Effect Call
Fishes					
Devils River minnow	*Dionda diaboli*	T	Devils River, San Felipe and Sycamore creeks in Val Verde County; Las Moras (extirpated) and Pinto creeks in Kinney County. Restricted to clear, spring-fed waters having little temperature variation. Found over gravel-cobble substrate, usually associated with aquatic macrophytes.	No habitat for this species exists within the project area. All streams and wetlands mapped within the project area are ephemeral and fed by overland flow.	No effect
Mexican blindcat (catfish)	*Prietella phreatophila*	E	Discovered in a deep limestone cave at Amistad National Recreation Area near Del Rio, Texas.	No habitat for this species exists in the project area. No caves or springs are present within the project area.	No effect
Rio Grande silvery minnow	*Hybognathus amarus*	EPNE	Historical range included the Rio Grande and Pecos River systems, Texas, New Mexico, and Mexico; in the Rio Grande, this species occurred from Española, New Mexico, downstream to the Gulf of Mexico; in the Pecos River it occurred from the Rio Grande to Santa Rosa, New Mexico; it also occurred in the lower Rio Chama and the lower Jemez River, tributaries of the Rio Grande in New Mexico (USFWS 2010). Currently, the species is known to occur only in one reach of the Rio Grande in New Mexico, a 280-km stretch of river that runs from Cochiti Dam to the headwaters of Elephant Butte Reservoir; this includes a small portion of the lower Jemez River, a tributary to the Rio Grande north of Albuquerque (Sublette et al. 1990; Bestgen and Platania 1991; USFWS 1994, 1999, 2007; 2010; Bestgen and Propst 1996; Dudley et al. 2005).	No habitat for this species exists in the project area. The project area does not contain any tributaries to the Rio Grande nor any perennial or consistent water sources. Additionally, the project area is outside of the known species range.	No effect

Common Name	Scientific Name	Federal Status	Habitat	Potential for Habitat to Occur in Project Area	Effect Call
Mollusks					
Texas hornshell	*Popenaias popeii*	E	Occurs in small streams to large rivers in slow to moderate current, often residing in rock crevices, travertine shelves, and under large boulders, where small-grained material, such as clay, silt, or sand gathers. Can also occur in riffles that are clean swept of soft silt; not known from reservoirs (Carman 2007; Inoue et al. 2014; Randklev et al. 2017b; Randklev et al. forthcoming). [Mussels of Texas 2019].	No potentially suitable habitat is present within the project area as no perennial waterbodies exist within the project area.	No effect
Insects					
Monarch Butterfly	*Danaus plexippus*	C	Adults are found in a variety of habitats including native prairies, pastures, open woodlands, and savannas, dessert scrub, roadsides, and other habitats with abundant of nectar plants, including urbanized areas. This migratory species lays eggs on milkweed (Asclepias spp.)	The project area contains suitable nectar plants.	May effect

E – Endangered; EPNE – Experimental Population, Non-Essential; T – Threatened; C – Candidate
Source: USWFS IPaC Report, generated September 16, 2022

Field Investigation Results

Two habitat assessments were conducted by two qualified CP&Y biologists between June 23-24, 2020, and September 14, 2022. The project area was investigated for the presence of federally listed endangered, threatened, and candidate species as well as their potential habitat. The biologists performed a pedestrian survey of the entire 75-acre property on both visits. Photographs were taken throughout the project area to depict the current site conditions (**Appendix C**).

The project area consists mainly of mesquite-cenizo shrubland, rocky bare ground, and disturbed grassland in the upland portions of the project area. Dried drainage features, isolated wetlands and ponded areas were noted in the lower-elevation portions of the project area. The project area is an undeveloped parcel where the herbaceous vegetation consists mainly of buffalo grass (*Bouteloua dactyloides*), various small muhly grasses (*Muhlenbergia spp*.), curly mesquite grass (*Hilaria belangeri*), sideoats gramma (*Bouteloua curtipendula*), Gregg's dalea (*Dalea greggii*), green sprangletop (*Leptochloa dubia*), and diamanita (*Chrysactinia mexicana*). Notable woody and succulent species include mesquite (*Prosopis glandulosa*), cenizo (*Leucophyllum frutescens*), retama (*Parkinsonia aculeata*), huisache (*Vachellia farnesiana*), catclaw acacia (Acacia greggii), Texas ebony (*Ebano ebanopsis*), sotol (*Dasylirion wheeleri*), hackberry (*Celtis occidentalis*), black willow (*Salix nigra*), ephedra (*Ephedra trifurca*), claret cup cactus (*Echinocereus coccineus*), and Spanish dagger (*Yucca gloriosa*). No woody vines were noted within the project area.

No federally listed endangered, threatened, or candidate species were observed within the project area during the field investigations. However, suitable habitat for the Monarch butterfly was observed within the project area.

Conclusions

Habitat assessments of the project area by desktop review and field investigation were conducted to assess potential effects of the proposed project on federally listed endangered, threatened, and candidate species.

Suitable habitat for the Monarch butterfly occurs within the project area. At this time, the Monarch butterfly is listed as a candidate species and does not have official protection from the USFWS. This species is proposed for listing sometime in Fiscal Year 2024. No coordination would be required with USFWS prior to the official listing decision of this species; however, should the species become federally listed as threatened or endangered at any time during the construction phase of this project, coordination with USFWS would become necessary. No suitable habitat for any of the remaining seven federally listed species was observed within the project area and therefore no coordination with USFWS is necessary.

Appendix A
Exhibits



Figure 1 - Project Vicinity

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Study Area
Val Verde County
County Boundary

Miles
0 5 10



Source: ESRI World Street Map

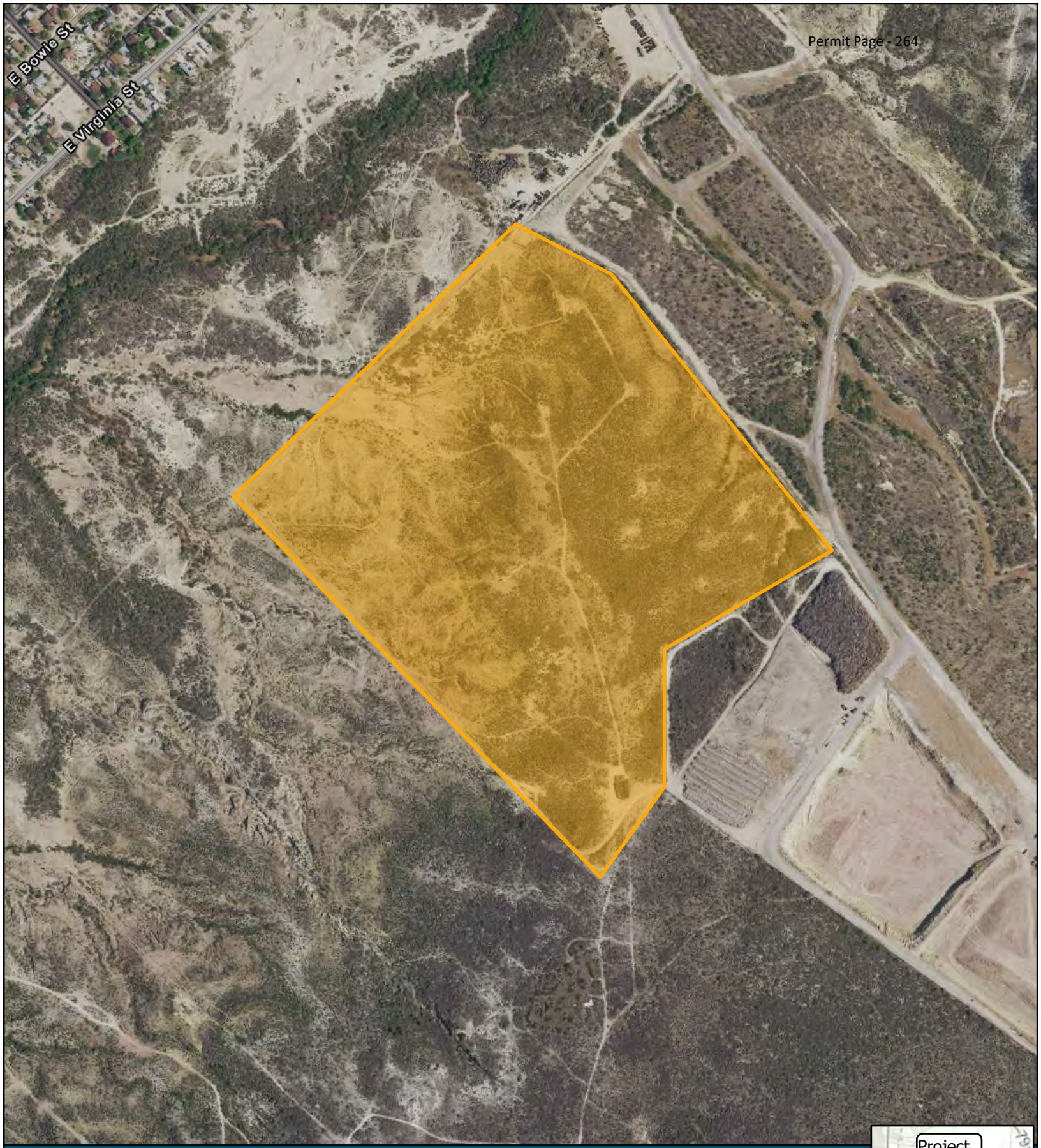


Figure 2 - Aerial Map

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Study Area

Feet
0 200 400



Source: TNRIS Imagery 2019



Figure 3 - USGS Topographic Map

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Source: ESRI USA Topographic Map, Quadrangle Del Rio

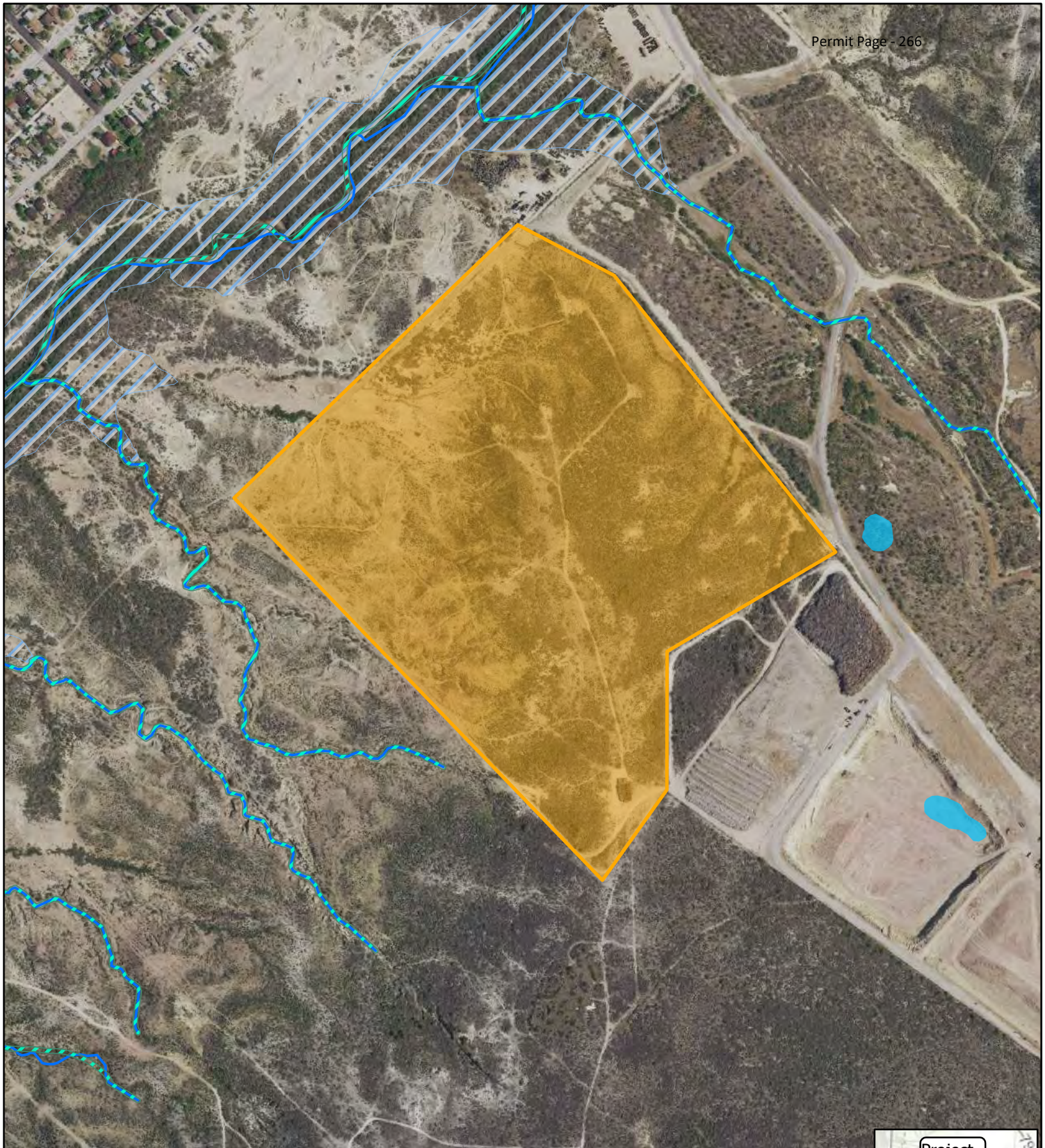


Figure 4 - NWI and Floodplain Map

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Source: TNRIS Imagery 2019, NWI 2022, NHD 2022

Appendix B
IPaC Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
Phone: (512) 490-0057 Fax: (512) 490-0974

In Reply Refer To:
Project Code: 2022-0086118
Project Name: City of Del Rio Landfill Expansion

September 16, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
(512) 490-0057

Project Summary

Project Code: 2022-0086118
Project Name: City of Del Rio Landfill Expansion
Project Type: Acquisition of Lands
Project Description: The City of Del Rio, in Val Verde County, Texas, plans to expand its existing landfill with a 75-acre parcel adjacent to the existing landfill property. The parcel is already owned by the City.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.35943795,-100.86100482902012,14z



Counties: Val Verde County, Texas

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Golden-cheeked Warbler *Setophaga chrysoparia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/33	Endangered
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Fishes

NAME	STATUS
Devils River Minnow *Dionda diaboli* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7661	Threatened
Mexican Blindcat (catfish) *Prietella phreatophila* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7657	Endangered
Rio Grande Silvery Minnow *Hybognathus amarus* Population: Rio Grande, from Little Box Canyon to Amistad Dam No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1391	Experimental Population, Non-Essential

Clams

NAME	STATUS
Texas Hornshell *Popenaias popeii* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/919	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: CP&Y Inc., an STV Company
Name: Kameryn Strickland
Address: 1820 Regal Row
City: Dallas
State: TX
Zip: 75235
Email kstrickland@cpyi.com
Phone: 2142766543

Appendix C
Site Photographs



Photograph 1: An example of the bare ground and cenizo-mesquite shrubland observed throughout the project area.



Photograph 2: At higher elevations in the project area, the shrubland was interspersed with disturbed grasslands of mostly native grasses.



Photograph 3: An ant nest observed within the project area. These nests were observed in areas of mostly bare ground with poorly developed soils crusts. No lizards or birds were observed predating these ants.



Photograph 4: A native tarantula observed within the project area. Tarantula dens were observed at the foot of the rocky slopes throughout the project area.



Photograph 5: An ephedra observed adjacent to a pond mapped in a low-lying area of the project area. Most ephedra specimens were observed at these low-lying areas where the soil was notably sandy.



Photograph 6: A view of the vegetation found at the margin of a pond mapped in a low-lying region of the project area. The vegetation here was less desert-adapted than the vegetation at the higher points of the project area.



Photograph 7: Another view of the cenizo-mesquite shrubland and the mosaic it forms with the native disturbed grassland in the higher elevation regions of the project area.

Appendix D
Staff Resumes



Garrett Weiberg

Ecologist/GIS Specialist

Education
Master of Science, Biology, Texas Tech University, 2018

Bachelor of Science, Natural Resources Management, Texas Tech University, 2014

Years of Experience
5

Years with CP&Y
<1

Certifications
Geographic Information Science and Technology, Texas Tech University, 2018

Permits
Permittee, USFWS Species Recovery Permit No. TE168185-6 (Arkansas River Shiner, Sharpnose Shiner, and Smalleye Shiner)

Sub-permittee, TPWD Scientific Research Permit No. SPR-0691-409

Permit Holder, ODWC Scientific Collector's Permit No. 4213193

Professional Activities and Continuting Education
Inland Fish Identification Short Course, Texas State University, San Marcos, TX, 2019

OSHA 10 Hour – General Industry Certification, 2018

Basic Wetland Delineation Training, Wetland Training Institute, 2018

Background

Garrett is an Ecologist and GIS Specialist with five years of experience. He has in-depth knowledge of limnology with experience in river surveying and fish husbandry. Garrett is also well-versed in conducting wetland delineations, habitat assessments, threatened and endangered species surveys, vegetative assessments and Migratory Bird Treaty Act compliance surveys. He is proficient with geographic information science (GIS) software and is skilled in environmental report preparation as primary author for much of the field work that he leads. He is also responsible for conducting thorough QA/QC of a wide range of his team's reports.

Much of Garrett's graduate research was aimed at recovery activities for the federally threatened Arkansas River Shiner (Notropis girardi), federally endangered Sharpnose Shiner *(Notropis oxyrhynchus)*, and federally endangered Smalleye Shiner *(Notropis buccula)*. He is familiar with the identification of these species, their habitat and survey methodology. He currently holds a United States Fish and Wildlife Service Species Recovery Permit (No. TE168185-6) for the Arkansas River Shiner, Sharpnose Shiner and Smalleye Shiner. Garrett has participated in a broad range of research opportunities under Texas Parks and Wildlife Permit (SPR-0691-409) and as a permit holder on Oklahoma Department of Conservation Scientific Collector's Permit (No. 4213193). He has accrued hundreds of hours of field research in Texas, New Mexico, Oklahoma and Louisiana.

Project Experience

Solar Development, Private Client, 644-acre Tract, Solar Site, Washington Parish, Louisianna
Construction of solar electric generation facility in Washington Parish, Louisiana. Qualified biologists were responsible for conducting a waters of the U.S. Delineation and Gopher Tortoise Habitat Assessment. Biologist responsible for conducting Wetlands and Waters of the U.S. Delineation, locating potential gopher tortoise burrows, and preparation of GIS data for client review. 2022. Client: Undisclosed Client

Undisclosed Client in Plaquemines Parish, Louisianna
Biologists tasked with conducting a water of the U.S. Delineation on an undeveloped tract of land along the Mississippi River. Coordination with several Agency contacts were conducted due to problematic atypical wetland delineation factors associated with Hurricane Ida, a Category 4 major hurricane, that made landfall in late August 2021. A waters of the U.S. Delineation Report and GIS files were supplied to the client. 2022. Client: Undisclosed Client

Solar/Battery Storage Development, Private Client, 16 Solar Sites (14,222 acres), Texas
Construction of solar electric generation facilities and battery storage in Bandera County (767 acres), Bosque County (1,772 acres; 514 acres), Cooke County (413 acres), Denton County (1,958 acres; 1,712 acres), Falls County (837 acres), Kaufman County (506 acres; 41 acres), Van Zandt County (396 acres), Fannin County (1,015 acres; 91 acres), Hill County (1,128 acres; 638 acres), Hopkins County (971 acres), and Young County (1,463 acres), Texas. Qualified biologists were responsible for

conducting a waters of the U.S. Delineation and Threatened and Endangered Species Habitat Assessment. An Ecological Assessment Technical Report was prepared for the Client. Biologist responsible for conducting Wetlands and Waters of the U.S. Delineation, Threatened and Endangered Species Habitat Assessment, and primary author of the Ecological Assessment Technical Report. 2018-2022. Client: Undisclosed Clients

Undisclosed Client in Mayes County Oklahom
Biologist responsible for field work on three subject properties, each considered single and complete projects which include: a 555-acre tract, a 425-acre tract, and a 235-acre tract. The scope of work included Environmental Services, Section 404 of the Clean Water Act, Delineation and AJD Submittal for the three subject properties in Mayes County, OK. Biologist responsible for performing the following tasks pursuant to Section 404 of the Clean Water Act regulations regarding waters of the U.S. This work was conducted in accordance with the 1987 Wetland Delineation Manual, and the applicable Regional Supplement to the 1987 manual. AJD issuance for each of the proposed project areas was issued by the Tulsa-District USACE in 2021 and 2022. 2021-2022 Client contact: Undisclosed Client

Private Gas Pipeline Development in Texas
Several proposed projects were assessed for a private gas pipeline developer in Cooke County, Dallas County, Denton County, Ellis County, Fannin County, Grayson County, Hamilton County, Kaufman County, Lamar County, Montague County, and Tarrant County. Project sites ranged from 0.5 miles to 20 miles in length. Biologist responsible for conducting waters of the U.S. delineations, threatened and endangered species habitat assessments, and migratory bird surveys. Desktop reports, Waters of the U.S. Delineation Reports, Biological Resources Technical Reports, and Migratory Bird Survey Reports were prepared for the client following these field investigations. Biologist responsible for the coordination with the client and contractors for entry to the sites and communicating the results of the migratory bird surveys and waters of the U.S. delineation through the construction phase. 2018-2022. Client contact: Private Client

Bitter Creek Impoundment Aquatic Resource Relocation Plan, Travis County, Texas
Lead ichthyologist responsible for implementing an aquatic resource relocation effort conducted on August 18 and 19, 2020 for the Bitter Creek Impoundment Drain and Dredge Operation project in the City of Austin, Travis County, Texas. Electrofishing units and seines were used to capture fish during the dewatering of the impoundment. The fish were then transferred into an insulated and aerated cooler for relocation to the approved relocation site on Onion Creek within the City of Austin's Onion Creek Metropolitan Park. A total of 8,169 fishes were collected during the electrofishing and seining effort prior to and after the dewatering process. Relocated species included Western Mosquitofish (Gambusia affinis), Green Sunfish (Lepomis cyanellus), Bluegill (Lepomis macropchirus), and hybrids of the two Lepomis species (Lepomis macrochirus X Lepomis cyanellus). 2020. Client contact: Hardin Camp II | Smith Contracting Co., Inc.

White-tailed Deer Spotlight Census Counts, Fort Wolters, Palo Pinto County and Camp Maxey, Lamar County, Texas
Biologist whose field work included providing the Texas Military Department (TXMD) and the Texas Parks and Wildlife Department (TPWD) with four years of population census survey for white-tailed deer at two North Texas military installations. Coordinated field efforts with local installation staff and local TPWD game wardens. Data collected on white-tailed deer present within the approximately 3,500-acre Fort Wolters installation and approximately 6,500-acre Camp Maxey installation were collected by linear transects (driving routes) at dusk by spotlight. Additional data were collected on the landscape of each observer to calculate a representative area of the installation that was visible to observers as part of the survey effort. Population estimation and age/sex demographics were calculated using a TPWD-approved rubric for annual hunting takes. Lead biologist for the effort in providing this data to TPWD and creating annual management plans to the TXMD for improving age/sex demographics and overall management of the species across the installations. Species-specific management objectives and recommendations were made and included harvest recommendation, vegetation management, providing supplemental food/water, and predator control. Incidental observations of mesocarnivores and invasive (feral pigs) were also noted as possible interspecific competition. 2017-2021. Client contact: Nicholas Kolbe | Texas Military Department

Texas Military Department Forested Wetland Restoration, Camp Maxey, Lamar County, Texas
Camp Maxey is a 6,424-acre training facility located near the town of Powderly in Lamar County, Texas. There are several wetlands at Camp Maxey and all are being impacted by wild pigs. There is a forested wetland that has the potential to host a variety of rare plants. Several surveys have identified the potential and have recommended protection from wild pig damage. Biologist responsible for overseeing hog exclusion fence installation and initial floral survey prior to the exclusion of wild pigs. 2021 Client contact: Nicholas Kolbe | Texas Military Department

Effects of the Red River Chloride Control Project on Wichita River fish assemblages—The Wichita River in North Central Texas is fed by brine springs high in sulfates and calcium chloride. The United States Army Corps of Engineers began the Red River Chloride Control Project in the early 1980's. The goal for this project was to reduce the salinity in the river by installing low-flow dams on the river's headwaters and pumping water to a brine disposal lake. The project's purpose was to make water more suitable for irrigation and municipal water supplies. The effects of dam construction on Wichita River fish assemblages were studied. 17 sites on the North and South Forks and mainstem of the Wichita River were sampled in the spring, summer, fall, and winter. Habitat characteristics, river morphology, water quality, and fish assemblages were studied. Research on the impacts of this project is ongoing. 2014-2015. PI: Dr. Gene Wilde | United State Army Corps of Engineers and Texas Tech University

Capture-mark-recapture study of three species of fish on the Canadian River—Arkansas River Shiner (Notropis girardi), Peppered Chub (Macrhybopsis tetranema), and Plains Minnow (Hybognathus placitus) were collected from the Canadian River upstream from Lake Meredith near Hwy 27 North of Amarillo, TX. The fish were tagged with VIE and released in early spring of 2013, 2014, and 2015. A crew was then sent out to sample 7 sites between the release location and the next upstream impoundment, Ute Lake, New Mexico to monitor movement capabilities of these species. The sampling generally occurred biweekly (weather permitting). 1 km of river was sampled with a seine at each site. The crew made an effort to sample characteristic habitat for these species. Recaptured (tagged) fish were documented with the date released (determined by VIE tag color) and recapture location (Garmin GPS). The distance (river miles) travelled upstream was estimated using ArcGIS. During the search for tagged fish, any untagged fish of these species were tallied to estimate population abundance at each site. 2014-2015. PI: Dr. Gene Wilde | Texas Tech University

Field spawning of native fishes in the Canadian River near Logan, NM— Arkansas River Shiner (Notropis girardi), Peppered Chub (Macrhybopsis tetranema), and Plains Minnow (Hybognathus placitus) were spawned in the field. Fish were captured and injected with carp pituitary extract to elevate reproductive hormones and placed in containers with vents which allowed throughflow and placed in the river. The fish were held in containers in the river for approximately 10 hours. Fish were released back into the wild and any fertilized ova yielded from natural spawning were collected and transported back to Texas Tech University for lab research. 2015. PI: Dr. Gene Wilde | Texas Tech University

Analysis of isolated pools on the Wichita River near Seymour, TX—Periods of minimal rain in the Great Plains region often create no flow conditions in certain headwater stretches of the Wichita River. During these periods of no-flow, fish are isolated in pools and backwaters. These pools generally occur in areas where the river has scoured out holes in the substrate. The pools serve as refugia for many species of fish until baseline flow commences. Population dynamics in these pools are dictated by competition and predator-prey interactions. At each site where no-flow conditions existed, 3 pools (small, medium, and large) were selected for research. Fish were captured using a seine and counted. Water quality parameters were recorded in the morning and mid-day for each site. 2014. PI: Dr. Gene Wilde | Texas Tech University

Previous Work Experience

Cox|McLain Environmental Consulting, Inc., now Stantec, Ecologist/GIS Specialist, 2017-2022



Kameryn Strickland

Biologist

Education
Bachelor of Science, Forestry – Wildlife Management, Stephen F. Austin State University, 2020

Years of Experience
2

Years with CP&Y
2

Affiliations

The Wildlife Society

Texas Chapter of The Wildlife Society

Training/Seminars
Wetland Delineation Training

Making Jurisdictional Determinations Under the Navigable Waters Protection Rule

S.W.I.F.T. Training (CDOT)

Species analysis Training (TxDOT)

A Revised ASTM Standard Webinar (ERIS)

Certifications
eRailSafe System

Protected Species Observer

Background

Kameryn has close to two years of experience in the environmental field. She has experience in threatened and endangered species surveys, wetlands delineation and mitigation, habitat evaluations and surface water assessments in Texas and Oklahoma. She has prepared wetland delineation reports, biological evaluations, and helped clients maintain regulatory compliance with federal agencies. Kameryn has also prepared documentation for various projects including ASTM Phase I Environmental Site Assessments (ESA), hazardous materials technical reports, habitat assessments, jurisdictional determinations, wetland delineations and USACE 404 Permits.

Kameryn has participated in multiple projects that included preparation of various NEPA and specialized documents. Her client list includes Oklahoma Department of Transportation (ODOT), Texas Department of Transportation (TxDOT) and various other municipalities.

Project Experience

SL 1853 Madisonville Loop, Bryan, Texas
Biologist. Project consists of constructing a limited access, new location roadway. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Hazardous Materials ISA and the appropriate attachments.

FM 646 from Edmunds Way to FM 3436, TxDOT, Galveston County, Texas
Biologist. Project consists of improvements to the existing two-lane undivided roadway, including adding lanes to the existing main lanes, widening existing shoulders and adding a raised center median. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Tier 1 Assessment, Hazardous Materials ISA and the appropriate attachments.

Mound Road Extension Project, Greenhouse Road to Cypress Drive in Cypress, Harris County, Texas
Biologist. Project consists of the extension of Mound Road from Greenhouse Road to Cypress Drive. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Species Analysis, Wetland Delineation Report, Phase I ESA and the appropriate attachments.

IH 35 Capital Express South Design Refinement from SH 71/Ben White Boulevard to SH 45SE, Travis and Hays Counties, Texas
Environmental Specialist. Project consists of improvements to IH 35 from US 290 West/SH 71 to SH 45 southeast (SE) in Travis County, with a transition area extending to Main Street in Buda, Hays County. Assisting in the creation of the Hazardous Materials Initial Site Assessment ISA, Hazardous Materials Memo and the appropriate tables.

Westgreen Boulevard at the Intersection of Westgreen and IH-10 in Katy, Harris County, Texas
Environmental Specialist. Project consists of pavement widening for the addition of turn lanes and increased storage along Westgreen Boulevard. Assisting in the creation of the Phase I ESA and the appropriate

tables.

Blue Stores Solar, Town of Livingston, Columbia County, New York
Environmental Specialist. Project consists of due diligence services to support the development of a community solar site. Assisting in the creation of the Phase I ESA reporting materials and attachments.

Jefferson Tract, Habitat for Humanity of San Antonio
Biologist. Project consists of land acquisition to develop a residential community for lower income families of the San Antonio area. Assisting in the creation of the Phase I ESA reporting materials and attachments.

Strawser Property, Wellborn SUD, Robertson County, Texas
Environmental Specialist. Project consists of easements proposed as part of the water improvement project. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Landowner Questionnaire, the User Questionnaire and the Phase 1 ESA.

County Road 112 Improvements, City of Round Rock, Williamson County, Texas
Environmental Specialist. Project consists of improvements to the existing County Road 112, including expanding and realigning. Assisting in the creation of the Landowner Questionnaire, the User Questionnaire and the Phase 1 ESA.

Grade, Drain, Bridge and Surface Drake Road and Reactor Road Over Low Water Crossing 50E1805N3390001, ODOT, Murray County, Oklahoma
Biologist. Project consists of improvements to the existing two-lane paved roadways, including grade, drain, bridge and surfacing of the existing Drake and Reactor Roads. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report, and the appropriate attachments.

Bridge and Approaches (EW-139) Over Washita River, 1.7 miles South and 4.5 Miles East of JCT IH 44/US 81, ODOT, Grady County, Oklahoma
Biologist. Project consists of replacing the existing EW-139 bridge (NBI# 21697) over the Washita River. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report, and the appropriate attachments.

Bridge and Approaches (EW-123) Over Sugar Creek, ODOT, Caddo County, Oklahoma
Biologist. Project includes constructing a new, 26-foot wide bridge on the existing alignment and expanding the approach roadway to have two 11-foot wide driving lanes with 2-foot wide gravel shoulders. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also preparing the Biological Assessment, the Waters and Wetlands Evaluation Report, and the associated maps.

Williamson County Line from RM 1174 to SH 29, TxDOT, Bertram, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including widening to four-lane with a continuous two-way left turn lane and shoulders. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report, the Hazardous Materials Initial Site Assessment (ISA) and the appropriate tables.

CDR Landfill Expansion, City of Del Rio, Del Rio, Texas
Biologist. Project includes expanding the existing landfill by 75 acres. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Landowner Questionnaire and the Phase 1 ESA.

SH 146 from Fairmont Parkway to Red Bluff Road, TxDOT, Harris County, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including adding lanes to the existing main-lanes, side paths, adding additional frontage road lanes, adding or removing AUX lane and a new bridge. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report and the appropriate tables.

SH 146 from Spencer Highway to Fairmont Parkway, TxDOT, Harris County, Texas

Biologist. Project consists of improvements to the existing four-lane arterial, including adding lanes to the existing main-lanes, side paths, adding additional frontage road lanes, adding or removing AUX lane and a new bridge. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report, Surface Water Analysis Form, Wetland Delineation Report and the appropriate tables.

US Hwy 90 from 0.50 Miles West of Purple Sage Road, Greens Bayou to 0.27 Miles East of Purple Sage Road, TxDOT, Harris County, Texas
Biologist. Project consists of completing previously incomplete segments of the existing US 90 and Purple Sage Road. Assisted in field surveys including biological assessments and nighttime naval surveys. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report and the appropriate tables.

SH 146 from FM 518 to Dickinson Bayou, TxDOT, Galveston County, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including widening the existing four-lane divided highway to a six-lane divided highway and constructing a grade separated intersection at SH 146 and SH 96. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Air Quality Technical Report, Wetland Delineation Report, USACE Individual Permit and the appropriate attachments.

Widen and Resurface Existing Lanes (SH 6) over Armstrong Creek, ODOT, Greer County, Oklahoma
Biologist. Project consists of improvements to the existing four-lane arterial, including widening and resurfacing of the divided SH 6. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report and the appropriate attachments.

Dates in blue are Amy's actual dates she worked on the project, not dates of the project.



Amy Esguerra, ENV SP

Environmental Project Manager

Education
Masters of Applied Geography, Environmental and Resource Studies, Texas State University, 2013

Bachelor of Science, Rangeland Ecology and Management, Texas A&M University, 2005

Certifications
Envision Sustainability Professional #50037, 2022

Years of Experience
16

Years with CP&Y
7

TxDOT Precertifications
1.8.1 Public Involvement
2.3.1 Wetland Delineation
2.3.2 Conditional/Functional Assessment
2.4.1 Nationwide Permit
2.4.2 Clean Water Act Sec 404 Permits
2.6.2 Impact Evaluation Assessments Currently suspended 7/2022. Amy has submitted a renewal.
2.6.4 Biological Evaluations/ Assessments Currently suspended 7/2022. Amy has submitted renewal.
2.13.1 Hazardous Materials Initial Site Assessment

Professional Affiliations
Women Transportation Seminar (WTS) – San Antonio Chapter

Training Courses
Texas A&M University and Texas Parks and Wildlife Department-

Background

Amy Esguerra has 16 years of experience as a biologist, with an emphasis in waters and wetlands. She has experience in working on and managing the preparation of various NEPA documents including categorical exclusions (CE), environmental assessments (EA) and environmental impact statements (EIS).

Amy has also prepared specialized documentation for various projects including Phase I ESAs, habitat assessments, jurisdictional determinations, wetland delineations for USACE permitting requirements, USACE preconstruction notices, USACE individual permit, Texas Water Development Board (TWDB) Environmental Information Documents (EID) and HUD NEPA documentation. Her client experience includes various municipalities and counties, San Antonio Water System (SAWS), San Antonio River Authority (SARA), Texas Department of Transportation (TxDOT), Oklahoma Department of Transportation (ODOT), multiple Regional Mobility Authorities, Habitat for Humanity, VIA Metropolitan Transit, the Texas General Land Office and the Department of Homeland Security.

Amy understands the local impacts of federal legislation, including National Environmental Policy Act (NEPA) regulations, the Clean Water Act, Endangered Species Act and Historic Preservation Act.

Project Experience

FM 1103, TxDOT San Antonio District, Guadalupe County, Texas
Environmental Manager. The proposed improvements would include the addition of one lane in each direction with center turn lanes, medians, shared-use paths to each side of the roadway and various turning lanes at select intersections from Rodeo Way to FM 78. Responsibilities included overseeing the environmental team in the preparation of the biological evaluation and Tier I form, jurisdictional waters report, noise analysis, community impact assessment, hazardous materials ISA, PCR and an archeological desktop report. Completed field work for jurisdictional waters, served as QC reviews on all materials and coordinated with the engineering team to ensure current design was used in impact assessments. Advised engineers on design changes needed to avoid waters and wetland mitigation requirements. Prepared public meeting report, including a response to comments. The project is anticipated to be environmentally cleared by October 2022 to ensure the project would meet the letting date of Fall 2024. (12/2018–ongoing as of 7/2022)

On-Call Environmental Consulting Services, City of San Antonio, Texas
Project Manager. Serving as project manager to the Neighborhood and Housing Services Department by completing Environmental Review Records (ERR) for projects funded with Community Development Block Grants (CDBG). Typical projects consist of minor rehab and major rehab work on houses within the city's low-income areas. Currently, five ERRs have been completed on the contract. (4/2022–ongoing as of 7/2022)

Leon Creek Water Recycling Center to Steven M. Clouse WRC Recycled Water Interconnect, San Antonio Water System, San Antonio, Texas
Environmental Lead. The proposed project includes the installation of approximately 18,000 linear feet recycled water pipes, a new ground storage tank and a booster pump station facility. Additionally, the existing 5,000 linear feet of pipe, currently floating on Mitchell Lake, will be removed. The project will also include modifications to the existing polder pumping stations used to divert water from Mitchell Lake to the polder complex, located immediately north of the lake. The improvements to the polder pump stations include the relocation of the stations as

Texas Freshwater Mussel Identification Workshop, August 2015

Wetland Training Institute- ID Wetland Grasses and Grasslike Species, August 2014

Environmental Review Procedures for the Entities Assuming HUD Environmental Responsibilities, Austin, Texas, August 1-3, 2012

Wetland Training Institute- Advanced Hydric Soils, February 2010

CDBG Boot Camp Training, Austin, Texas – September 21-24, 2009 presented by COSCDA Academy

U.S. Department of Housing and Urban Development Training: Foundations in Environmental Review-NEPA and 24 CFR Part 58

U.S. Department of Housing and Urban Development Environmental Training, Fort Worth Regional Office – May 5-6, 2010, presented by U.S. HUD Regional Office

necessary based on the final operating water level in Mitchell Lake, intakes for the pump stations, upgrades to electrical and instrumentation and controls equipment, fencing and site security improvements, lighting, stabilization of access roads to the pump stations and improvements to the flow control structures within/around the polder complex. Managed the development of the constraints map and report for inclusion in the PER in addition to developing a list of potential permits needed for the project. Also managing field work and report development of three jurisdictional determination reports, a Phase I ESA, a habitat assessment and a cultural resource subconsultant developing an archeological report. Any applicable USACE permits would be recommended following determination of impacts to jurisdictional waters. (11/2021-ongoing as of 7/2022)

Sorento Wastewater Interceptor, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The proposed project is intended to construct a new 11,200 linear foot wastewater decommissioning of a lift station and a flow diversion structure. Managed the environmental team, including archeological subconsultant, in completing field work and the EID and associated attachments because the project was being funded by TWDB. Planned a public meeting to present the project to the public as required by TWDB process. Coordinated with resource agencies as required. The EID was submitted to TWDB in April 2022 and is awaiting review and approval, anticipated to be approved in October 2022. (5/2021-ongoing as of 7/2022)

Weiss Lane/Kelly Lane Water Line, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The environmental team evaluated alignment recommendations of the Weiss Lane/Kelly Lane proposed water line that will connect to the Weiss Lane/Pecan Street waterline and distribute water to new and existing neighborhoods. Oversaw the environmental team to complete due diligence surveys and a summary report which included assessment of threatened and endangered species, jurisdictional waters and wetlands, cultural resources and hazardous materials. Additional studies for cultural resources clearance in the form of an archeological pedestrian survey would be required for clearance from Texas Historical Commission. (9/2021-ongoing as of 7/2022)

Salitrillo Wastewater Treatment Plant Expansion, San Antonio River Authority – Bexar County, Texas
Project Manager. Served as the environmental project manager to perform an environmental study for the expansion of the existing Salitrillo Wastewater Treatment Plant (WWTP). The study had to comply with the Texas Water Development Board (TWDB) requirements; therefore, Environmental Information Documents (EID) were prepared for the project. Coordinated and oversaw the environmental team in preparing the EID, including project description, alternatives analysis, purpose and need, socioeconomics analysis, biological impacts and water resources. Completed field investigations to delineation Salitrillo Creek, state and federal threatened and endangered species habitat evaluation and evaluated the potential for encountering hazardous material issues during development. Also coordinated with multiple local, state and federal agencies to obtain approval for the project. Coordinated and prepared material for a public meeting including handouts, maps, comment cards, a legal notice and public meeting summary. The EID was prepared but the client decided to forego TWDB funding and used the EID as their due diligence documentation. (7/2018-11/2019)

Multiple Roadways and Bridge Replacement Projects, Oklahoma Department of Transportation – Various Locations, Oklahoma
Quality Control Reviewer. Served as quality control reviewer for dozens of waters and wetlands reports, biological assessment reports and hazardous materials initial site assessment reports. Project locations include Texas County, Osage County, Grady County, McCLain County, Seminole County, Logan County, City of Madill, Muskogee County and

Ottawa County. Also completed field work and associated waters and wetlands reports, biological assessment reports and hazardous materials initial site assessments for projects in Cherokee County, Haskell County, Cotton County and Woods County. (1/2016-ongoing as of 7/2022)

Del Rio Landfill Due Diligence, City of Del Rio, Val Verde, Texas
Environmental Task Lead. The City of Del Rio is planning on expanding the existing city landfill to an approximate 75-acre parcel to the west of the existing landfill. As part of the landfill permitting process, due diligence reports were required. Managed the environmental team in the preparation of a Phase I ESA, Jurisdictional Waters Report and Threatened and Endangered Species Habitat Survey. Also managed a subconsultant in the preparation of an archeological pedestrian survey. Due diligence reports showed no concerns or items that would require further environmental permitting. (1/2020-5/2020)

> **Challenge:** Due to the nature of permitting a landfill expansion, the process takes multiple years to complete. Environmental due diligence review was needed at the beginning of the project to ensure no immediate concerns with expansion area. Environmental regulations change from this initial survey to final permitting and construction.
>
> **Solution:** Amy remains in contact with the landfill team, providing updates on regulations and how the changes to these regulations impact the environmental findings. For example, the waters of the US rule was changed from ephemeral streams being non-jurisdictional at the time of the survey, to now being jurisdictional. These streams were recorded during the initial site investigation and can be reviewed for appropriate permitting needs as the construction schedule is determined.

Northside Collection System Improvements, City of Del Rio, Val Verde County, Texas
Environmental Task Lead. The proposed project is intended to construct an approximate 36,000 linear feet of 18- to 33-inch wastewater line that will connect Silver Lake WWTP to Edwards Lift Station and provide service for future development and areas currently underserviced. The project will also consist of the decommissioning and elimination of the lift station at the northern end of the project. Managed the environmental team, including an archeological subconsultant, in completing field work and the EID and associated attachments since the project was being funded by TWDB. Planned a public meeting to present the project to the public as required by TWDB process. Coordinated with resource agencies as required. The EID was submitted to TWDB in March 2022 and is awaiting review and approval. It is anticipated to be approved in September 2022. (12/2019-ongoing as of 7/2022)

In-Fill Housing Environmental Review Records, Habitat for Humanity San Antonio, Bexar County, Texas
Environmental Task Lead. Prepared Environmental Review Records (ERRs) for the environmental clearance of vacant lots located in San Antonio, funded with Community Development Block Grants (CDBG). The environmental process adheres to the Code of Federal Regulations (CFR) Title 24 Parts 50, 51, 55 and 58 in addition to any applicable city, state and federal regulations. All projects completed qualify for assessment as a Categorical Exclusion (CE) subject to 58.5. Release of funds is issued by San Antonio. These projects are completed when Habitat for Humanity finds a vacant lot to use for in-fill construction of affordable housing. Managed staff production of ERRs. The Responsible Entity is the City of San Antonio, assuming responsibility for Habitat for Humanity. Currently 34 ERRs have been prepared under this project over the course of three years. (5/2018-10/2020)

Yucca Road Phase I Environmental Site Assessment, Habitat for Humanity San Antonio, Bexar County, Texas
Environmental Task Lead. Managed the preparation of a Phase I ESA for a 5.3-acre parcel that Habitat for Humanity intends to purchase with the purpose of constructing multiple homes. The Phase I ESA was conducted in accordance with ASTM 1527-13 standards. Staff conducted a desktop review of hazardous materials databases, historical aerial photographs and conducted a field investigation. The Phase I ESA was prepared and included a landowner survey as well as a user survey. The Phase I ESA was completed within approximately 21 days following notice to proceed. (4/2021-5/2021)

Weiss Lane/Pecan Street Water Line, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The environmental team evaluated alignment recommendations of the Weiss Lane (Ln)/Pecan Street (St) proposed water line. The proposed project would involve the installation of a transmission main which will convey water from the water treatment plant (WTP) to the west side of SH 130 where it would connect to an existing 16-inch watermain. Oversaw the environmental team to complete due diligence surveys and a summary report which included

assessment of threatened and endangered species, jurisdictional waters and wetlands, cultural resources and hazardous materials. Additional studies for cultural resources clearance in the form of an archeological pedestrian survey would be required for clearance from Texas Historical Commission. Soil sampling for hazardous materials due to a leaking above-ground storage tank that was discovered during field investigations was completed by a subconsultant managed by Ms. Esguerra. (3/2020-3/2021)

Wilbarger Creek Regional WWTF Program, City of Pflugerville, Texas
Environmental Task Lead. This wastewater program includes managing a 6.0 MGD WWTF, 54-inch wastewater interceptor project, and the planning and managing of a series of lift station removals. The purpose of this program is to transfer wastewater flows in the Wilbarger Creek Basin from being pumped through a series of lift stations to a new gravity system conveying flow to a new WWTF. Serving as part of the Owner's Representative team. Reviewing consultant environmental documents, providing recommendations on environmental questions and approach to the program. The program includes the construction of a new WWTP and new interceptor. (4/2020-ongoing as of 7/2022)

Talley Road Phase 1, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. Served as the environmental task lead, including widening the existing roadway, adding sidewalks and improving drainage. These undertakings are needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Oversaw the environmental team in the preliminary engineering portion of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey, karst survey and a archeological pedestrian survey. Also prepared the Phase I Environmental Site Assessment, Jurisdictional Waters Determination report and an environmental overview report required for the project. Coordinated a public meeting which presented the project schematics and environmental findings. Prepared meeting handouts, public notices which were provided to local HOAs, and a public meeting summary report which documented comments received at the meeting. A comment response matrix was also prepared and included in the summary report. (1/2015-9/2017)

Talley Road Phase II, Bexar County, Texas
Environmental Task Lead. Talley Road would consist of expanding the existing two lane roadway to four travel lanes, one 11-foot travel lane and one 15-foot shared-use lane in each direction, one continuous 14-foot left turn lane and 5-foot sidewalks located along both sides of the roadway for the entire length of the project area. The project is receiving federal funds and therefore must comply with all TxDOT requirements and forms. Responsibilities included overseeing the environmental team in the preparation of the species analysis spreadsheet and form, surface water analysis form, hazardous materials ISA, community impact analysis, a noise analysis and a historic project coordination request. Managed a subconsultant for the preparation of a karst survey and the archeological desktop report. Also completed materials to meet with affected property owner (MAPO) requirements by preparing notification letters and exhibits for those landowners impacted by the project. A virtual public meeting was held and Amy managed the preparation of virtual presentation and script, legal notices and other materials. Prepared an informal consultation letter for USFWS coordination for potential effects to karst species during geotechnical borings. Also managed the preparation of a Biological Assessment for potential impacts to karst species during final construction as well as mitigation as required by TxDOT and USFWS. Environmental clearance was issued by TxDOT April 2022. Oversaw the preparation of a PCN for NWP 14 in compliance with General Condition 18, impacts to federally protected species. The PCN is with USACE for review as of July 2022. (7/2019-ongoing as of 7/2022)

IH 30 from Linkcrest Drive to IH 820, TxDOT Fort Worth District, Fort Worth, Tarrant County, Texas
Environmental Manager. The proposed improvements would include widening from a four-lane freeway to a six-lane freeway, improvements to the IH 30 and Spur 580 interchange, and the construction of continuous one-way frontage roads throughout the project limits. Bike lanes and sidewalks will be added to both the eastbound and westbound frontage roads throughout the project limits. The proposed project is intended to reduce congestion, improve safety and mobility, and maintain local access along the roadway. The project length is 3.4 miles and would require minor amounts of additional right-of-way (ROW). Responsibilities included overseeing the environmental team in the preparation the species analysis form, Tier I site assessment form, surface waters analysis form, hazardous materials ISA, PCR, community impact assessment and a noise analysis. Managed a subconsultant for the preparation of an archeological desktop report. Attended a public meeting open house to answer questions related to environmental constraints and studies for the project. Assisted in preparing slides related to the environmental review and studies for the virtual public hearing, and prepared responses to comments received during the public hearing as they related to the environmental studies. A pre-construction notification is also being completed and managed for impacts to wetlands at a frontage road expansion at several locations but is currently awaiting engineering design. Environmental clearance is pending and anticipated in July 2022. (10/2018 – ongoing as of 7/2022)

Del Rio International Bridge Expansion, Del Rio, Val Verde County, Texas
Environmental Manager. The Del Rio Port Director, US Customs and Border Patrol (CBP), presented to the City of Del Rio several months ago the need of a new 2-lane roadway from the base of the International Bridge to the newly established expedited cargo lanes (about 1,700 lineal feet (LF) of roadway total; roughly 1,300 LF on City property and 400 LF on Federal property) and requested that the City consider constructing the 2-lane roadway and appurtenances (drainage, signage, lighting, fencing) and then donating all improvements on Federal property under the US CBP's Donations Acceptance Program. Managed the completion of a DHS CE document to assess potential impacts of the proposed project and an archeological subconsultant that completed a desktop review and letter to the THC for cultural clearance. The document was completed with a tight turn-around of three weeks from NTP due to the impending deadline the city faced with the DHS. (11/2020-12/2020)

County Road 112, City of Round Rock, Williamson County, Texas
Environmental Task Lead. The City of Round Rock is planning on expanding and realigning CR 112 for approximately 1.2 miles. As part of the environmental approval process, due diligence reports were required. Managed the environmental team in the preparation of a Phase I ESA, Jurisdictional Waters Report, and Threatened and Endangered Species Habitat Survey. Due diligences reports showed no concerns or items that would require further environmental permitting. (2/2020-1/2021)

Phase 1B Water Supply Project (5 year contract), Alliance Regional Water Authority (ARWA), Caldwell, Guadalupe and Hays Counties, Texas
Environmental Task Lead. ARWA is planning for and building groundwater wells, raw water lines, water treatment plant, transmission mains, an administrative operations facility, booster pump station and delivery points to provide water to its clients in central Texas. ARWA is utilizing the State Water Implementation Fund for Texas (SWIFT) to finance its work. Providing environmental oversight for the completion of the proposed project by managing the environmental consultant that was obtained to complete the environmental documents for the program. Oversees day-to-day coordination between the environmental consultant with the engineers, ARWA, state and federal agencies such as Texas Water Development Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department, and reviews all environmental documents including the Environmental Data Form (EDF) required by the TWDB for SWIFT funding. Provides direction and recommendations on environmental issues, schedules, and other related items to the Owner's Representative team and ARWA. Assists in overseeing construction aspects as it relates to compliance with environmental commitments, laws and regulations. Manages migratory bird nest surveys completed each week prior to vegetation clearing, advises on changes in limits of construction to ensure the project is still in compliance with approvals, prepared a USACE NWP 58 for a tunnel collapse at a jurisdictional crossing and any additional issues that arise during construction. (11/2017-ongoing as of 6/2022)

San Felipe Creek Footbridges and Bank Improvements, City of Del Rio, Texas
Environmental Project Manager. Served as the environmental project manager for improvements to two pedestrian bridges, bank retaining wall repairs and repairs to sidewalks along an approximate 0.65-mile section of San Felipe Creek. The San Felipe Creek is designated by the U.S. Fish and Wildlife Service (USFWS) as a critical habitat for the endangered Devils River Minnow. CP&Y provided environmental permitting services, which included all agency coordination necessary for project approval and construction. Managed the preparation of a U.S. Army Corps of Engineers (USACE) Permit Nationwide Permit (NWP) 3 Pre-Construction Notification (PCN) for impacts that would occur to the creek as a result of the project. Per NWP General Condition 18, impacts to endangered species, a Biological Assessment was also prepared to conduct Section 7 Consultation. After extensive coordination with USFWS to reach an agreement on feasible best management practices (BMPs) and conservation measures, the USFWS issued a Biological Opinion and USACE issued approval for NWP 3. Additionally, was responsible for managing a cultural resources subconsultant that prepared a desktop report in order to obtain approval from the Texas Historical Commission. Prepared an aquatic relocation plan in compliance with Texas Parks and Wildlife requirements and received approval in anticipation of construction. Will oversee monitoring and conservation measures required by USFWS and USACE during construction and complete post-construction reporting requirements. Construction expected to be complete 10/2022. (10/2018-ongoing as of 7/2022)

FM 725, TxDOT San Antonio District, Guadalupe County, Texas
Environmental Manager. The proposed improvements would include the addition of center turn lanes and shoulders from Zipp Road to FM 78. All improvements took place within the existing ROW. Responsibilities included overseeing the environmental subconsultant in the preparation of the biological evaluation and Tier I form, jurisdictional waters report, hazardous materials ISA, PCR and an archeological desktop report. Completed QC reviews on all materials and coorindated with the engineering team to ensure current design was used in impact assessments. The project was environmentally cleared in April 2021, six months after the start of the project to ensure the project would meet the letting date. (11/2020-4/2021)

Basin Planning Consultant (BPC) Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. As part of SAWS' efforts on the Sanitary Sewer Overflow Reduction Program, served as the environmental task lead to two engineering firms selected as Basin Planning Consultants to assess the East, West and Central Basins. Efforts for the environmental task manager included coordination with the engineering teams and the archeological subconsultant to complete the 10% desktop analysis and 30% field analysis for all capacity constraints and the open-cut condition constraint sanitary sewer lines within the three basins across most of Bexar County. Constraints assessed via the desktop survey included hazardous materials, jurisdictional waters and wetlands, and threatened and endangered species which includes reviewing reported occurrences, designated critical habitat and karst zones. The desktop analysis also included providing recommendations of potential problem areas along alternatives, required environmental permits and agency approvals, and actions needed to obtain environmental clearance for the constraint lines. Completed site visits for the 30% design level field investigations which included field surveys for threatened and endangered species habitat, jurisdictional waters and wetlands, and hazardous materials. Also provided quality control and mapping support to complete environmental memorandums summarizing field finds, jurisdictional water and wetland reports, and Phase I ESAs. The 30% design reports included more defined findings and permitting requirements for the final design engineer to follow for compliance with environmental laws and regulations. Managed the environmental team which has included an internal team of biologists and GIS personnel, as well as an archaeological and karst survey subconsultant. (8/2016-2/2018)

Blanco Road Phase II, Alamo Regional Mobility Authority, Bexar County, Texas
Environmental Task Manager. Improvements to a 3.6-mile segment of Blanco Road between West Oak Estates Drive and Borgfeld Drive in Bexar County from a 2-lane roadway to a 4-lane roadway with two 12-foot travel lanes and 6-foot shoulders/bike lanes in each direction. The roadway would have a raised median, curb and sidewalk on the northbound side of the project. The project is receiving federal funds and therefore must comply with all TxDOT requirements and forms. Responsibilities included overseeing the environmental team in the preparation of the biological evaluation and Tier I form, waters technical report, hazardous materials ISA, air quality report and a noise analysis. Managed a subconsultant for the preparation of a karst survey and the cultural resources report. Coordinated a public meeting which presented the project schematics. Prepared meeting handouts, public notices which were provided to local HOAs and adjacent property owners, and a public meeting summary report which documented comments received at the meeting. A comment response report was also prepared and included in the summary report. A public hearing was also held in which Amy oversaw material preparation including legal notices, notices to adjacent property owners, presentation and script and other handouts. A public hearing summary report was prepared following the end of the comment period. Environmental clearance was provided by TxDOT in April 2019. (3/2017-2/2019)

FM 16, TxDOT Tyler District, Smith County, Texas
Biologist/NEPA Specialist. The proposed project would consist of widening the roadway and straightening out curves to accommodate future traffic demands and improve safety along the 4.4-mile corridor. Assisted in preparing final versions of the Hazardous Materials ISA, Water Technical Report and the Biological Evaluation and Tier I form. This consisted of updating necessary information such as vegetation impacts, acreage updates and re-evaluation of right-of-way due to design changes made after the reports were prepared. Prepared all sections of the Environmental Assessment including the purpose and need, affected environment utilizing the various technical reports and forms, indirect and cumulative impacts, permits and approvals, commitments, and with input from the design engineer, the alternatives analysis. A FONSI was issued for the project in March 2019. (2/2016-3/2019)

Kenney Fort Boulevard, City of Round Rock, Round Rock, Williamson County, Texas
Deputy ENV PM/Biologist. Kenney Fort Boulevard Segments 2 and 3 will extend the existing limits from Forest Creek Drive to Gattis School Road (Segment 2) and from Gattis School Road to SH 45 (Segment 3). The project area covers a total area of 35.9 acres. Project was funded with CAMPO federal funds and therefore had to adhere to the TxDOT approval process. Responsibilities included completing field work to delineate waters and wetlands, review potential habitat within the project area and determine the potential for encountering hazardous materials along the project corridor. Reviewed technical reports prior to submittal. Prepared Environmental Assessment based on final technical reports and addressed TxDOT comments. Prepared and obtained a PCN and coordinated with USACE for project approval due to unavoidable wetland impacts. A FONSI was issued for the project in May 2021. (1/2019-12/2021)

Vista Ridge Regional Supply Project, Garney Construction, Central Texas
Biologist/Internal Task Lead. This design build project consisted of a well field, seven miles of well collection line, 140 miles of large diameter treated transmission main, three pump stations, water treatment facilities and a metering station/ customer delivery point through primarily rural areas. Responsibilities included surveying approximately 77 miles of transmission line easements for waters and wetlands of the U.S. through rural areas as well as providing photo documentation for the surveyed areas. (2/2015-3/2016)

Martinez IV Wastewater Treatment Plant, Collection Line, and Lift Station, San Antonio River Authority, Bexar County, Texas
Environmental Project Manager. Led the environmental study for the construction of the new Martinez IV Wastewater Treatment Plant (WWTP) and the associated collection line and lift station, evaluated as two separate projects. The study had to comply with the Texas Water Development Board (TWDB) requirements to receive Clean Water State Revolving Funds (CWSRF); therefore, two Environmental Information Documents (EID) were prepared. Coordinated and oversaw the environmental team in preparing the EID, completed field investigations to delineate four streams, three wetlands, state and federal threatened and endangered species habitat evaluation, and evaluated the potential for encountering hazardous material issues during development. Coordinated with multiple local, state and federal agencies to obtain approval for the project. Coordinated and prepared material for two public meetings, including handouts, maps, comment cards, legal notices and public meeting summaries. Both EIDs were approved by the TWDB and received a Finding of No Significant Impact (FONSI). (1/2017-10/2017, 1/2019)

> **Challenge:** The new WWTP, collection line and lift station were slated to be part of the overall project; however, the WWTP needed to be constructed on an accelerated schedule due to existing infrastructure currently at the site. The lift station parcel was not acquired and had to under-go several additional studies for property acquisition that would have delayed environmental approval on the WWTP.
>
> **Solution:** The WWTP and the collection line and lift station were split into two environmental documents. Amy was able to show that the WWTP had independent utility without the collection line and lift station being constructed because there was an existing sewer line at the site that would soon be operational and require the plant to be constructed. This allowed for the WWTP to be approved ahead of the collection line and lift station, thereby keeping construction of the WWTP on schedule.

IH 14 Needs Assessment, TxDOT Planning and Programing Division, Texas
Technical Formatting Editor. The IH 14 corridor extends from IH 10 in Pecos County, east approximately 590 miles, to the Texas/Louisiana border. The corridor follows the existing alignment of US 190 for most of its length, diverging from US 190 east of Jasper in Jasper County and following the existing SH 63 alignment to the Texas/Louisiana state line. There are also two alternate routes that were assessed; one from the west that extends from the junction of IH 20/SH 158 in Midland County eastward approximately 185 miles to US 377/US 190 in McCulloch County which follows SH 158 and US 87; and an eastern alignment that generally follows the existing alignment of US 69 from its intersection with US 190 in Tyler County, south approximately 54 miles to its intersection with IH 10 in Jefferson County. Responsibilities included preparing templates used as go-bys for the environmental technical reports in order to have uniform document from multiple staff members. Formatted and prepared final submittal documents of the cultural resources, ecological, hazardous materials and community resources existing conditions reports for each of the three routes assessed. (08/2016-03/2018)

San Filipe Golf Course, City of Del Rio, Texas
Project Manager. Provided services to the City of Del Rio to complete an environmental due diligence study for expanding the San Filipe Golf Course to an 18-hole facility. Outlined the required tasks for the study, consulted with the city engineer, city manager and other city staff to outline the benefits of completing the environmental study prior to purchasing the property. Advised the City of the environmental risks that are associated with the project including the presence of critical habitat for the Devils River Minnow on the golf course property and that a portion of the property occurs within a designated archeological district, which is protected by state and federal laws. Presented the proposal and issues to the city council and responded to questions during the October, 2016 city council meeting. Field work was conducted and an environmental report prepared and presented at the May, 2017 city council meeting. Managed the schedule and budget of the project as well as an archaeology subconsultant that preformed an intensive survey of the property. (1/2017-8/2017)

E-19 Seguin Road to Nacogdoches Road Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. The proposed project, referred to as E-19, will replace a wastewater line from Seguin Road to Nacogdoches Road for a length of 6.3 miles. The proposed project is split into two segments, Segment 1 and Segment 2. Managed the completion of environmental tasks for both segments. A field survey was conducted to assess waters and wetlands, hazardous materials and wildlife habitat. Reports for environmental clearance and approval included a Phase I ESA, Jurisdictional Waters and Wetlands reports, Threatened and Endangered Species Habitat Assessment reports, and a Cultural Resources Surveys. Prepared the Phase I ESA and the Jurisdictional Waters and Wetland Report for both segments. (2/2016-2/2017)

E-20 Wurzbach Parkway Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. The project will replace E-20 wastewater line from a point north of the existing Marymount siphon south of Nacogdoches Road to the intersection of Jones Maltsberger Road and Wurzbach Parkway for a length of 4.3 miles. The project also includes the installation of a bore under the UPRR right-of-way adjacent to Wetmore Road near Salado Creek in order to extend two 18-inch bypass force mains. This portion of the project is referred to as the bypass bore. A field survey was conducted to assess jurisdictional waters and wetlands, hazardous materials and wildlife habitat along the project alignment. (5/2016-12/2020)

FM 1560 at SH 16, TxDOT San Antonio District, Helotes, Texas
Biologist. The project was needed to realign FM 1560 intersection at SH 16 to improve traffic operations and reduce delays. Completed a field investigation to document potential hazardous materials and biological features, including vegetation, threatened and endangered species habitat, and waters resources. Prepared the biological evaluation form, ISA form, and a waters and biological technical report for the project. (01/2015-03/2015)

FM 2113, TxDOT Waco District, Hewitt, Texas
Public Involvement Lead. Assisted engineering team in preparing for a public meeting for the project which included coordinating the project meeting date, handout materials, legal notice, meeting exhibits which consisted of schematic roll plots, typical section boards, and a television displaying the project design on Google Earth with a KMZ file. A comment station and sign-in table were also available to the public. Oversaw the preparation of a public meeting summary report which was provided to the engineer and district following the close of the comment period. (10/2016-10/2017)

Categorical Exclusions, TxDOT Fort Worth District, Erath and Hood Counties, Texas
Biologist. Categorical Exclusions (CEs) were required for three projects consisting of the addition of shoulders to existing roadways within existing right-of-way. Completed field investigations to document wildlife, vegetation, waters and wetlands, hazardous materials and other environmental concerns. Data was used to complete biological evaluation forms which assess the vegetation within the project limits and potential for threatened and endangered species to occur within the project limits. Water resource technical reports were also completed for the three projects with a determination of need for Section 404 permit for each project. (03/2015-05/2017)

Old FM 471 and Talley Road, Bexar County Public Works, Bexar County, Texas
Environmental Task Lead. Served as the environmental task lead for the proposed project which is needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Oversaw the environmental team in the preparation of the preliminary engineering portion of the project and prepared a Phase I Environmental Site Assessment. The preliminary engineering consisted of completing field work for biological resources, a historical windshield survey and report, and an archaeological desktop survey. An archaeological pedestrian survey and a jurisdictional waters report was prepared when design plans were finalized. (6/2016-8/2018) (as sub 5/2015-12/2015)

Talley Road, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. The project included widening the existing roadway, adding sidewalks, and improving drainage. These undertakings are needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Amy oversaw the environmental team in the preliminary engineering portion of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey, karst survey, archeological pedestrian survey. She also prepared the Phase I Environmental Site Assessment, Jurisdictional Waters Determination report, and an environmental overview report required for the project. Coordinated a public meeting which presented the project schematics and environmental findings. Prepared meeting handouts, public notices which were provided to local HOAs, and a public meeting summary report which documented comments received at the meeting. A comment response matrix was also prepared and included in the summary report.

Old Corpus Christi Road, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. Served as the environmental task leader for this project, consisting of roadway reconstruction and adding shoulders. Oversaw the environmental team in the preliminary and intermediate design phase of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey and an archaeological pedestrian survey. Also prepared the Phase I Environmental Site Assessment and a Jurisdictional Waters Determination report required for the project. Once design plans at the jurisdictional creek reached 60% design phase, a Section 404 permitting memorandum document was prepared with the impacts to the jurisdictional water, the assumed NWP 14, and BMPs that would be in place in order to comply with Section 404 and 401 of the Clean Water Act. (12/2015-8/2016)

Sixmile Creek Individual Permit (IP), Bexar County Flood Control Program, Bexar County, Texas
Biologist. Performed a delineation for the area downstream of the project which is anticipated to be used for enhancement mitigation, completed the Texas Rapid Assessment Method to determine mitigation credits required to compensate for the proposed impacts from the project, completed portions of the IP and prepared the associated mitigation plan. The IP was abandoned due to mitigation costs required for impacts to the stream. (2/2015-8/2015)

US 183 North Mobility Project, Central Texas Regional Mobility Authority, Travis and Williamson Counties, Texas
Biologist. Served as a biologist on the preparation of the Water Resources Technical Report as part of the Environmental Assessment for the proposed improvements to US 183 from SH 45/RM 620 to Loop 1 (MoPac). Completed delineations of water features and report preparation which included analysis of jurisdictional waters and wetlands, floodplain impacts, water quality and indirect effects of the proposed project. (1/2015-4/2016)

US 90 Pedestrian Bridge, TxDOT San Antonio District, San Antonio, Texas
Biologist. The proposed project was to construct a pedestrian bridge over the existing US 90 as well as add approximately 7,300 feet of sidewalks along both the north and south sides of the US 90 frontage roads within the existing right-of-way. Prepared a water resources technical memorandum for the project which documented resources present within the NEPA study area, impacts to those resources and permitting requirements for the project. (1/2015)

Forney Sanitary Sewer Line Project, North Texas Municipal Water District, Forney, Texas
Environmental Project Manager. Serving as the environmental project manager for installation of a new sanitary sewer line parallel to an existing line. Managing the preparation of a U.S. Army Corps of Engineers Permit for impacts that would occur to waters and wetlands, including forested wetlands. Completed field work to calculate TxRAM scores for mitigation, prepared the Nationwide Permit 12 application, the conceptual mitigation plans and determination of credits. The USACE returned no comments on the application and approved it within the initial 30-day review period which resulted in saving a minimum of one month on the project timeline. Also coordinated the purchase of the credits with the selected mitigation bank on behalf of the client. (4/2019-11/2019)

Tonk Creek Road and N. Crooked Creek Road Bridge Projects, McLennan County, McLennan County, Texas
Environmental Task Manager. The proposed project will repair a wingwall and road embankment on Tonk Creek Road at Tonk Creek and replace a collapsed bridge on N. Crooked Creek Road at Crooked Creek in McLennan County. Amy is overseeing the environmental team in the preparation of a cultural resources desktop survey, which has been submitted to THC for review, and an environmental report which was a combined habitat assessment and a waters delineation and impacts report. Assessed anticipated impacts and Section 404 permitting requirements. Also completed field work for the water delineation. (11/2019-6/2020)

Gibb Sprawl Pump Station Phase I Environmental Site Assessment, San Antonio Water Systems (SAWS), San Antonio, Texas
Environmental Task Manager. Completed field work and managed the completion of a Phase I ESA for a parcel proposed for purchase by SAWS. The parcel was owned by KB Homes and was undevelopable due to its proximity to the floodplain. The parcel was found to have piles of soil, broken concrete and asphalt, dumped household waste, tires, presumably paint can and five gallon buckets which contained unknown materials. Due to the extensive dumping on the site, a Phase II ESA with soil and subsurface testing was recommended. (3/2020-5/2020)

IH 10 at San Jacinto River Navigation System Replacement, TxDOT Houston District, Harris County, Texas
Biologist/QC Reviewer. Prepared a Categorial Exclusion (CE) document for the replacement of bridge fenders and four dolphin structures on the San Jacinto River and IH 10 crossing due to the navigation accidents which damaged the bridge. The project also required a U.S. Coast Guard permit for which Amy served as QC on the permit applications and all associated attachments and USACE Individual Permit. (11/2019-2/2020)

Gilliland Road Bridge Replacement Project, TxDOT Fort Worth District, Parker County, Texas
Environmental Project Manager. The project required preparation of a Historic Studies Project Coordination Request form, a Hazardous Materials Initial Site Assessment (ISA), a Biological Evaluation Form and Tier I site assessment, and a Water Resources report. Completed field work consisting of a waters and wetland delineation, review of potential habitat, and review of hazardous materials within the project area and oversaw the preparation of all reports. Coordinated with the project engineer to remove riprap from impacting a wetland in order to avoid the need for a USACE Preconstruction Notification. (5/2019-9/2019)

Marksheffel Road, City of Colorado Springs, Colorado Springs, Colorado

Environmental Task Manager. The City of Colorado Springs proposes to construct new approaches and a buried structure on Marksheffel Road over Sand Creek in northeastern Colorado Springs. The project includes a structure spanning over Sand Creek, stream channel improvements, including drop structures, roadway design for approximately 355 LF of asphalt pavement, sidewalks, a connection beneath the structure for Sand Creek trail and other miscellaneous items. Prepared and submitted a NWP 14 PCN and RGP 37 to the USACE Albuquerque District along with a Bank Use Mitigation plan, the first to be prepared for the district, due to impacts to shrub/scrub and emergent wetlands in addition to Sand Creek. Coordinated the purchase of the credits with the USACE approved mitigation bank for the client. The permit was issued July 2019. (1/2019-10/2020)

FM 725, TxDOT San Antonio District, New Braunfels, Comal, and Guadalupe Counties, Texas
Environmental Task Manager. The proposed improvements would include the addition of a combination of raised medians and center turn lanes and left and right turn lanes at various points along the project limits, a shared use path along the south side of the road and a sidewalk along the north side of the roadway. The proposed project would be 1.65 miles in length and would require 4.58 acres of additional right-of-way (ROW). Responsibilities included overseeing the environmental team in the preparation of the species analysis form, Tier I site assessment, surface water analysis form, hazardous materials ISA, PCR, historical resources survey report, community impact assessment and a noise analysis. Managed a subconsultant for the preparation of a cultural resources desktop report. Completed field work for the biological components and note noise receivers for the noise analysis. Planned and setup meetings with affected property owners with the project team to go over the project and ROW acquisition process. These were held virtually due to COVID-19. Planned and developed virtual public meeting material including virtual sign-in, presentation and associated script, flyer notifications, letters to elected officials, traditional comment cards and virtual comment cards. A public meeting summary report with a response to comments was also prepared. Environmental clearance was received March 2021. A pre-construction notification is also being completed and managed by Amy for impacts to wetlands at a culvert extension. A noise workshop will also be conducted for a proposed noise barrier along a portion of the project. (8/2018-ongoing as of 6/2022)

Candlemeadow Road, Alamo Regional Mobility Authority, San Antonio, Bexar County, Texas
Environmental Task Manager. The proposed project will reconstruct the current roadway to include two 12-foot travel lanes, 10-foot shoulders, curb and 4.75-foot sidewalks. Oversaw the environmental team in the preparation a cultural resources desktop survey and a water resources technical report. Also completed field work for the water resources technical report. The report desktop cultural report was approved by THC with no further surveys required and the waters report was approved by Bexar County. (2/2019-1/2020)

Corridor F/US 183 Project, Williamson County, Texas
Biologist/NEPA Specialist. The proposed project would consist of improvements which would enhance safety and mobility by constructing a controlled access facility from SH 29 to the north Williamson County line. The project area encompasses 794.6 acres. Approximately 5.3 acres would be drainage easement, 191.8 is existing public right-of-way and 597.5 is proposed (new) right-of-way. The project is currently locally funded and only due diligence documentation is being prepared. Responsible for QC of various technical reports and preparing an Executive Summary report for the proposed project. (4/2018-10/2019)

Other Firms

The Southern Gateway Project, TxDOT Dallas District, Dallas County, Texas*
Biologist. Prepared a water resources technical report and a hazardous materials technical report for inclusion as attachments to an Environmental Assessment (EA) for the improvements to IH 35E from IH 20 to Reunion Boulevard (10.5 miles) and along US 67 from FM 1382 to the IH 35E/ US 67 Split (9.4 mi.) in Dallas County, Texas. Field work was completed at the beginning of the project to determine the ordinary high water mark of all jurisdictional water features and wetlands as well as potential areas of concern for hazardous materials along the 19.9-mile corridor. Served as QC reviewer on the biological evaluation form and the threatened and endangered species technical report.

IH 35 Northeast San Antonio Expansion Project, TxDOT San Antonio District, Bexar, Comal, and Guadalupe Counties, Texas*
Biologist. An Environmental Assessment (EA) was prepared for the IH 35 corridor in San Antonio. The proposed improvements would add capacity in the form of elevated managed lanes between the existing mainlanes and frontage roads. In addition, proposed direct connectors would link the proposed managed lanes to the existing IH 410 South, IH 410 West, and Loop 1604 facilities. Prepared the water resources sections for the EA including waters and wetlands of the U.S., floodplains, water quality, and groundwater as well as the hazardous materials section of the document. Completed field work at the beginning of the project to determine the ordinary high water mark of all jurisdictional water features and potential areas of concern for hazardous materials along the 18.8-mile corridor.

Shoal Creek Restoration Project, City of Austin, Texas*
Biologist. The City of Austin is improving Shoal Creek from 15th to 28th Streets in downtown

Austin, Texas. Improvements include bank stabilization, improved access points and creek crossings, extension of a hiking trail and bike path, removal of wastewater line from the creek, and soil restoration and re-establishment. Prepared the Pre-Construction Notice to obtain the approval of the U.S. Army Corps of Engineers for work completed within the stream. The project required a combined Nationwide Permit (NWP) 13 for bank stabilization and a NWP 42 for recreational facilities. Notification was required due to the bank stabilization exceeding 500 LF and discharging more than one cubic yard per running foot of stream, as well as the use of NWP 42. The permit was issued in early 2015 by the Fort Worth District USACE.

Galm Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. This project included jurisdictional determinations at two creek crossings (Culebra Creek and a tributary to Culebra Creek) for the Bexar County. Site investigations were conducted and high water mark for both creeks were delineated using Trimble GPS equipment. A jurisdictional determination report was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

West Rail Wetland Mitigation, Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Completed wetland mitigation monitoring site visits and associated reports as required by the USACE Individual Permit issued for the West Rail Relocation project in Brownsville, Texas. The first evaluation occurred one year after the wetland mitigation site was established. The monitoring visit was needed to complete a plant count survey. Individual plants that were planted at the wetland mitigation site were counted in order to determine survival rate of the planted wetland species. A findings report was prepared and submitted to the client, CCRMA. Completed several additional monitoring visit throughout a two year period and to determine the aerial percent cover of desirable wetland species and invasive species at the mitigation site. Summary reports were prepared and submitted to the client.

Prue Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. Completed jurisdictional determinations at French Creek for Bexar County. Site investigations were conducted to delineate the ordinary high water mark using Trimble GPS equipment. A jurisdictional determination report was prepared. A Threatened and Endangered Species Habitat Assessment report was also prepared. Two combined Nationwide Permits, 12 and 14, were required.

Real Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. Completed jurisdictional determinations at Chupaderas Creek for Bexar County. Site investigations were conducted to delineate the ordinary high water mark using Trimble GPS equipment. A jurisdictional determination report was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

Hurricanes Ike and Dolly Disaster Recovery Program, Texas General Land Office, Various Counties across South and East Texas*
Environmental Reviewer/Documentation Compliance. Served as environmental coordinator tasked with assisting in coordination and guidance between community officials, project engineers, environmental service providers, and grant administrators. Provided guidance for specific environmental permits required, potential schedule delays due to resource agencies, and direction on ensuring a project followed HUD and other agency environmental regulations. Prepared environmental guidance documents for the DR Program including: general DR Program guidance, HUD compliance requirements, USACE Section 404 permitting requirements, hazardous materials guidance, and floodplain and public notice publication requirements. Reviewed all program ERRs for accuracy and compliance with Section 404, NEPA, hazardous materials issues, and other HUD requirements. Prepared ERRs for high priority projects that required a fast turnaround or had other special considerations that were beyond a typical ERR for the program.

VIA Program Management, VIA Metropolitan Transit, San Antonio, Texas*
QC/QA. Completed the environmental section of an alternative site analysis report that was prepared to review constraints for all potential sites for the VIA Street Car Maintenance Facility. The environmental section reviewed hazardous material, water and wetland resources, parks and cemeteries, as well as cultural resources (completed by others). Provided QC services on various items from the document controls group for the program. Performed QC on various documents including meeting minutes, technology instruction manuals and the program contact database.

South Padre Island 2nd Access EIS, Cameron County RMA (CCRMA), South Padre Island, Texas*
Biologist. Involved in preparing an environmental impact statement (EIS) for the construction of a second access for South

Padre Island. Conducted field work to determine potential wetlands within the various alternative alignments on both the mainland and island sides of the project. Various sample points were taken where right-of-entry had been obtained in order to make preliminary determinations for the DEIS. Where right-of-entry was not obtained, visual determinations from right-of-way had to be made based on soil maps, vegetation, and visible wetland indicators. Prepared various portions of the Final EIS including, surface water, waters of the U.S., floodplains, hazardous materials, and cumulative impacts for water quality, floodplains, and wetlands. Assisted in several public meetings for the Draft EIS process, interacting with the public attendees.

FM 511/SH 550 EA Re-Evaluation, Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Involved in preparing a re-evaluation for the construction of mainlanes for the FM 511 and SH 550 project for the CCRMA. Provided support for the public meeting by answering questions regarding the previous environmental document and the proposed changes which would result from tolling the roadway. The document received a Finding of No Significant Impact from FHWA in August, 2009. Composed a jurisdictional determination (JD) report due to wetlands found within the project right-of-way. This JD report was composed with data provided by a local environmental firm. An individual permit was required.

RM 473 West Sister Creek Bridge Replacement, TxDOT San Antonio District, Kendall County, Texas*
Biologist. Conducted a site investigation and wetland delineation as part of a Pre-Construction Notice (PCN). Wetlands were staked out and GPS points were taken. Prepared a PCN report which was approved by the U.S. Army Corps of Engineers Office and granted a Nationwide Permit 14.

Ingram Road Jurisdictional Determination (JD), Bexar County, San Antonio, Texas*
Biologist. This project included JDs at two creek crossings (Huebner Creek and Leon Creek) for the Bexar County Flood Improvement Project. Site investigations were conducted. With another environmental planner, marked the ordinary high water mark for both creeks using spray paint and flagging for survey crews to take points. A JD was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

Shepherd Road Jurisdictional Determination (JD), Bexar County, San Antonio, Texas*
Biologist. This project included JDs at two creek crossings (Blackhill Branch and Elm Creek) for the Bexar County Flood Improvement Project. Site investigations were conducted. With another environmental planner, delineated the ordinary high water mark for both creeks using Trimble GPS equipment. A JD report and Pre-Construction Notice were prepared. Final mitigation plans were developed and implemented for the project.

Centennial Corridor Project, Caltrans, Bakersfield, California*
Team Member/Surveyor. Assisted with the development of a Community Impact Assessment study for the Centennial Corridor project. The project is in Bakersfield, California for the City's Thomas Roads Improvement Program and the California Department of Transportation. Developed a neighborhood survey as well as a business owner survey that was mailed to residents and businesses throughout the four alternative corridors study area. Over 1,000 neighborhood surveys were received in response to the mail-out. One-on-one interviews were also conducted with residents along the alternatives corridors. Incorporated survey and interview responses into the Community Impact Assessment.

Secure Border Initiative, Cochise, Pima, Pinal, and Santa Cruz Counties, Arizona*
Biologist. Involved with the Federal Services division contracted with the US Department of Homeland security. The project involved conducting site investigations along the southern border to determine environmental impacts to proposed roads and construction areas. This included analyzing riparian and upland areas for any possible alterations needed and determining the necessary permits required for each site. Gathered data alongside survey crews, engineers, and hydrologist to assist with in-office planning and design.

IH 10 Weigh Station Relocation, TxDOT San Antonio District, Guadalupe County, Texas*
Biologist. Conducted a site investigation and prepared preliminary reports for the relocation of a weigh station in Guadalupe County, Texas. The sites consisted of an active weigh station and the proposed location, which is an abandoned and decimated rest area along IH 10. Prepared a preliminary categorical exclusion and blue lines for the project.

West Loop Environmental Assessment (EA), Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Involved in preparing an EA for the construction of a new location thoroughfare for the CCRMA. The roadway would

be a limited access toll road. Assisted in the preparation of the Public Meeting Comment Response Report. Assisted in the preparation of a jurisdictional determination report. A Nationwide Permit 14 was anticipated.

Loop 375 César Chávez (Border Highway West Extension), TxDOT El Paso District, El Paso, Texas*
Biologist/Public Involvement. Conducted preliminary research on wetlands, vegetation, and invasive species for preparation of the draft EIS. Assisted in coordinating and provided support for the first round of agency and public scoping meetings for the project. Assisted in preparation of the Agency Scoping Meeting Report and the Public Scoping Meeting Report. Assisted in the finalization of the overall schedule of the project, as well as in the development of a more detailed review process schedule.

US 281 Environmental Assessment (EA), TxDOT San Antonio District, San Antonio, Texas*
Technical Writer. Compiled the Administrative Record for the project, which included gathering and organizing documents used throughout the planning and development of the project, some of which date back to the 1950s. Reviews of the record were completed by TxDOT and FHWA. Developed the draft decisional document to submit to FHWA for final clearance. The project received a Finding of No Significant Impact from FHWA in 2007.

Loop 1604 Environmental Assessment (EA), TxDOT San Antonio District, San Antonio, Texas*
Technical Writer/Public Involvement. Compiled the Administrative Record for the project, which included gathering and organizing documents used throughout planning and development of the project, some of which date back to the 1950's. Reviews of the record were completed by TxDOT and the Federal Highways Administration (FHWA). Provided support for the public hearing, by answering the public's questions. Assisted in the preparation of the Public Hearing Summary Report and the Comment Response Report. Helped to finalize the EA for final submission to TxDOT and FHWA. Assisted in the development of the draft decisional document to submit to FHWA for final clearance.

Phase I Environmental Site Assessments (ESA), Central Texas*
Biologist. Conducted numerous Phase I ESAs throughout Central Texas, including Bexar, Comal, Kendall, and Hays Counties. Conducted site investigations for threatened and endangered species, wetlands, hazardous materials, and other pertinent environmental conditions. Conducted database searches (CERCLIS, LPST, UST, NPL, etc.) for any hazardous conditions in the property area.

Over-the-Horizon Backscatter Radar Transmitter Site Environmental Baseline Survey, US Air Force, Moscow, Maine*
Environmental Scientist. Contracted by the Air Force, Air Combat Command (ACC) division. The project included a site investigation for threatened and endangered species, wetlands, hazardous materials, and other environmental conditions. Served as the technical writer and researcher for the environmental document. The environmental document was approved by the Air Force ACC.

COORDINATION WITH
U.S. ARMY CORPS OF ENGINEERS

- August 13, 2023, USAGE determination that authorization pursuant to Section 404 is not required.
- August 2023, Jurisdictional Determination Report

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

August 13, 2022

Regulatory Division

SUBJECT: Project Number SWF-2023-00046, Del Rio Landfill Expansion Site

Mr. Alberto Quintanilla
Director, City of Del Rio Public Works
114 W. Martin Street
Del Rio, Texas 78840
alberto.quintanilla@cityofdelrio.com

Dear Mr. Quintanilla:

This letter is in regard to the information letter received January 20, 2023, and additional information received May 26 and August 8, 2023, concerning a request for a preliminary jurisdictional determination (PJD) for potential waters of the US on a 75-acre tract of land associated with the Del Rio Landfill site located in the city of Del Rio, Val Verde County, Texas. This request has been assigned the above referenced project number which should be included in all future correspondence concerning this project.

We have reviewed the site in question in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Under Section 404, the USACE regulates the discharge of dredged and fill material into waters of the United States, including wetlands. Our responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the United States.

The original submittal requested an Approved Jurisdictional Determination (AJD) but was modified to a delineation concurrence and lastly to a PJD. Based on our review of the information provided, as well as a March 1, 2023 site visit, and other information available to us, it has been determined that the subject property/project area contains potential waters of the U.S. that may be under the Corps' regulatory jurisdiction. These potential waters of the US are accurately shown on the plans entitled Field-Verified Waters Map, City of Del Rio Landfill Expansion Project, Figure 7, Overview and Figure 7, Pages 1 thru 10 of 10, consisting of 11 sheets, and undated. This PJD is not appealable. You have the right to request and obtain an AJD at your discretion, which can be appealed. If it is your intent to request an AJD, do not begin work until one is obtained. **This PJD replaces the delineation concurrence erroneously issued August 10, 2023 by this office.**

Department of the Army authorization would be required for the discharge of dredged or fill material into any areas identified as waters of the United States. If you anticipate a discharge, please provide us with a detailed description of the proposed project, a suitable map of the proposed project area showing the location of proposed discharges, the type and amount of material (temporary or permanent), if any, to be discharged, and plan and cross-section views of

the proposed project. Please refer to the enclosed guidance for Department of the Army submittals for additional details about what you should submit. Please note that it is unlawful to start work without a Department of the Army permit if one is required.

Thank you for your interest in our nation's water resources. If you have any questions concerning our regulatory program you may go to http://www.swf.usace.army.mil/Missions/Regulatory. If you have any questions concerning this letter you may contact Mr. Chandler J. Peter at the address above, by telephone at (817) 886-1736, or by email at Chandler.J.Peter@usace.army.mil , and refer to your assigned project number.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Sincerely,

Brandon Mobley

Brandon W. Mobley
Chief, Regulatory Division

Copy furnished:

Amy Esguerra, CP&Y, aesguerra@cpyi.com

Jurisdictional Determination Report

City of Del Rio Landfill Expansion Project
Val Verde County, Texas

Prepared for:

Prepared by:

One Countryside Place
12500 San Pedro, Ste. 450
San Antonio, Texas 78216

August 2023

Jurisdictional Determination Report

City of Del Rio Landfill Expansion Project
Val Verde County, Texas

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List of Preparers

Garrett Weiberg, Biologist	Field Work
Kameryn Strickland, Biologist	Field Work and Report Preparation
Amy Esguerra, Project Manager	Report QA/QC

Acronyms

CDR	City of Del Rio
FEMA	Federal Emergency Management Agency
GIS	Geographic Information Systems
GPS	Global Positioning System
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary High Water Mark
RGL	Regulatory Guidance Letter
TNW	Traditionally Navigable Waters
TPWD	Texas Parks and Wildlife Department
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WOUS	Waters of the United States

Summary

The City of Del Rio (CDR) is proposing a Landfill Expansion Project, which involves the environmental evaluation of an approximately 75-acre property southeast of Del Rio (**Figure 1**). This report is prepared as part of the environmental permitting process for work to be performed within the property. The property is north-adjacent to the existing landfill property and currently owned by the City of Del Rio. The entire property was examined as the designated project area for this waters and wetlands Jurisdictional Determination Report. The National Hydrography Dataset (NHD), National Wetland Inventory (NWI), United States Geological Survey (USGS) Topographic Map, and Federal Emergency Management Agency (FEMA) floodplain map were evaluated for relevant water resources within the project area.

The exhibits listed below show the project area and are provided in **Appendix A**. Area photographs are provided in **Appendix B**.

- Project Location Map (**Figure 1**)
- USGS Topographic Map (**Figure 2**)
- Mapped Water Resources (**Figure 3**)
- USGS Geologic Map (**Figure 4**)
- Natural Resources Conservation Service (NRCS) Soils Map (**Figure 5**)
- LiDAR (**Figure 6**)
- Field-Verified Waters Map (**Figure 7**)

No mapped streams or wetlands are depicted within the project area. According to the FEMA floodplain map, the project area is outside of any mapped floodplain in the area.

Seventeen water features were assessed within the project area. Georeferenced data was taken during the field investigations using a Trimble GeoXT Global Positioning System (GPS) capable of sub-meter accuracy. GPS data such as locations of ordinary high water mark (OHWM) boundaries and OHWM widths were recorded during the field surveys. These data were later transferred into Geographic Information System (GIS) software for analysis purposes. Indicators that were used in delineating the OHWMs and wetland boundaries included the presence of a clear natural line, shelving, topography, and the absence of terrestrial vegetation.

Within the project area, there are 68 field-verified water features totaling approximately 18,713.15 linear feet (LF) and 1.56 acres of waters, including wetlands. None of the field-verified waters are shown on the USGS topographic map and five of the features held water during field investigations. The field verified features include: Pond 1, Wetland 1, Pond 2, Wetland 2, Stream 1, Stream 2, Drainages 1a-1b, 2a-2d, 3a-3p, 4a-4c, 5a-5r, 6a-6c, 7a-7h, 8a1-8f, and 9. Wetland 1 and Wetland 2 met all three criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) required to be considered a wetland per U.S. Army Corps of Engineers (USACE) guidelines and are likely hydrologically connected through drainages to Calaveras Creek below the topographic gradient of the project area. In addition, the ponds, streams, and remaining 62 drainages are also likely hydrologically connected to Calaveras Creek below the topographic gradient of the project area. It should be noted that the USACE is the official agency that makes the final determination of the location and extent of jurisdictional waters.

The 1987 USACE Wetland Delineation Manual (USACE, 1987) along with the 2010 Regional Supplement for the Great Plains Region (USACE, 2010) were used to aid in determining any potential wetlands within the vicinity of the project. Wetland determination data forms are included in **Appendix C**.

GIS software was used to determine watercourse locations, analyze OHWMs, interpret land use, and prepare field maps and exhibits.

Preliminary Data Gathering and Synthesis

The waters and wetlands study for the CDR landfill Expansion Project began with a review of available maps and photographs. The USGS 7.5-minute topographic map (**Figure 2**) for the Val Verde SE quadrangle, the USGS NHD, and the U.S. Fish and Wildlife Service (USFWS) NWI digital data were reviewed to determine locations of potential wet areas and streams. According to the 2019 USGS topographic map for the Val Verde SE quadrangle, no streams, ponds, or wetlands are mapped within the project area.

According to the NWI data, there are no wetland areas mapped within the project area. The FEMA floodplain information provided by panel 48465C1755D (dated July 22, 2010) was also obtained. No floodplains are mapped within the project area. Mapped water resources are shown in **Figure 3**.

Aerial photographs used for this study are provided in the GeoSearch Historic Aerials Report (**Appendix D).**

Additional information used for this determination includes the following:

- 2019 USGS 7.5-min Topographic Map, Val Verde SE quadrangle, Texas
- Digital NWI data, USFWS webarea: http://www.fws.gov/wetlands/Data/Mapper.html

According to the Texas Parks and Wildlife Department (TPWD) Map of Texas Ecoregions, the project area is located within the southwestern reaches of the Edwards Plateau Ecoregion. Typical vegetation in the Edwards Plateau includes Ashe juniper (*Juniperus ashei*), plateau live oak (*Quercus fusiformis*), Mexican persimmon (*Diospyros texana*), prickly pear (*Opuntia engelmannii*), and little bluestem (*Schizachryrium scoparium*).

According to the USGS Geologic Database of Texas (USGS, BEG 2007), the project area is located over the Buda Limestone (Kbu), the Del Rio Clay (Kdr), and the Ulvalde Gravel (QTu) (**Figure 4**).

According to the NRCS Custom Soil Survey for Val Verde Counties (NRCS, 2023), four soil mapping units were identified within the project area (**Figure 5**): Acuna silty clay, 0 to 3 percent slopes (AcB); Coahuila clay loam, 0 to 3 percent slopes (CoB); Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG); and Zapata-Vinegarroon complex, 1 to 5 percent slopes (ZaC). None of the soils are listed as hydric (NRCS, 2020).

According to the U.S. Drought Monitor (http://droughtmonitor.unl.edu/), as of June 22 and 23, 2020 (the days of the initial field investigations), the project area was not in a drought, and conditions were typical for the season. The region experienced a light rainfall during the 2020 field investigations. However, the U.S. Drought Monitor determined that the project area was in a severe drought during the September 13, 2022, and March 2023 field investigations. Conditions were typical for the season these field investigation were completed.

ESRI ArcMap GIS software was used to determine watercourses, analyze potential OHWMs and potential wetland areas, and prepare field maps and exhibits.

Routine Determination

Field Investigations

The project area was surveyed on June 22 and 23, 2020, September 13, 2022, and March 21 and 22, 2023. Indicators listed in 33 Code of Federal Regulations 328.3I and the USACE Regulatory Guidance Letter (RGL) 05-05 were used in delineating the OHWM of waters found within the project area.

Georeferenced data was taken during the field investigations using a Trimble GeoXT GPS unit. GPS data such as locations of OHWM boundaries, OHWM widths, and soil stations were recorded during the field surveys. The general methodology of the field investigation was to walk the length of the water feature within the project area, measure and estimate widths of the OHWMs in the channels, estimate the elevation level of the OHWM from the existing grade, record GPS data, identify and record vegetative species, and take notes and photographs. Photographs of the project area are provided in **Appendix B**.

Soil Sample

Fourteen soil samples were taken during the field investigations and are shown on **Figure 6**. The corresponding wetland data forms are included in **Appendix C**. The soil was sampled near determined transects across the property and at all potential wetlands, where the area exhibited wetland hydrology and potentially hydrophytic vegetation. The soil pits were excavated to 16 inches unless a restrictive layer was present. Munsell Soil Color Charts were used to determine the matrix and chroma soil colors.

Identification and Delineation of Waters and Wetlands

Delineation fieldwork on the project area was conducted on June 22 and 23, 2020, September 13, 2022, and March 21 and 22, 2023. The 1987 USACE Wetland Delineation Manual along with the 2010 Regional Supplement for the Great Plains Region were used to aid in identifying any wetlands within the project area. Potential WOTUS in the project area were also delineated.

According to the NWI data, there are no wetland areas mapped within the project area. During the field effort, two areas were observed to display wetland hydrology and potentially hydrophytic vegetation. These areas were sampled for hydric soils and determined to meet the USACE criteria for hydric soil characteristics. Upland sample points were taken for reference against both wetland sample points. The soil sample points are shown on **Figure 6**. Wetland data sheets are provided in **Appendix C**.

In addition to the two wetland areas, 66 other water resources were delineated across the project area for a total of 68 field-verified waters: 62 drainage features, two unnamed tributaries to Calaveras Creek, and two ponds. Each feature is shown on **Figure 6** and discussed individually in the **Principal Findings of the Field Investigations** section below.

Conditions Documented Within the Project Area

Vegetation

The project area consists mainly of mesquite-cenizo shrubland, rocky bare ground, and disturbed grassland in the upland portions, and dried drainage features and poorly developed wetlands and pond areas in the lower-elevation portions of the project area. The project area is an undeveloped parcel where the herbaceous vegetation consists mainly of buffalo grass (*Bouteloua dactyloides*), various small muhly grasses (*Muhlenbergia spp*.), curly mesquite grass (*Hilaria belangeri*), sideoats gramma (*Bouteloua*

curtipendula), Gregg's dalea (*Dalea greggii*), green sprangletop (*Leptochloa dubia*), and diamanita (*Chrysactinia mexicana*). Notable woody and succulent species include mesquite (*Prosopis glandulosa*), cenizo (*Leucophyllum frutescens*), retama (*Parkinsonia aculeata*), huisache (*Vachellia farnesiana*), catclaw acacia (*Acacia greggii*), Texas ebony (*Ebano ebanopsis*), sotol (*Dasylirion wheeleri*), hackberry (*Celtis occidentalis*), black willow (*Salix nigra*), ephedra (*Ephedra trifurca*), claret cup cactus (*Echinocereus coccineus*), and Spanish dagger (*Yucca gloriosa*) No woody vines were noted within the project area.

Hydrology

According to the USGS topographic maps, there are no mapped waters depicted within the project area. However, two ephemeral streams were observed, and two potential wetland areas were delineated with in the project area based on hydrophytic vegetation, hydric soil samples, and wetland hydrology. The project area is outside of any mapped floodplain in the vicinity (**Figure 3**).

Geology

The project area is located over three geologic groups: the Buda Limestone (Kbu), the Del Rio Clay (Kdr), and the Uvalde Gravel (T-Qu) (**Figure 4**). Descriptions of the geologic units are provided below.

- T-Qu – Uvalde Gravel – Caliche-cemented gravel. Some boulders up to 1 foot in diameter. Well-rounded cobbler of chert, some cobbles of quartz, limestone, and igneous rock. Occupies topographically high areas not associated with present drainage. Thickness ranges from several feet of gravel lag to around 30 feet. Cretaceous in age.

- Kbu – Buda Limestone – Fine-grained, bioclastic, commonly glauconitic, pyritiferous, hard, massive, poorly bedded to nodular, thinner bedded and argillaceous near upper contact, light grey to pale orange. Weather dark grey to brown. Burrows filled with chalky marl, abundant pelecypods. Thickness 45-100 feet, thickens eastward. Cretaceous in age.

- Kdr – Del Rio Clay – calcareous and gypsiferous becoming less calcareous and more gypsiferous upward, pyrite common., blocky, medium grey, weathers light grey to yellowish gray. Some thin lenticular beds of highly calcareous siltstone. Marine megafossils include abundant *Exogyra arietina* and other pelesypods. Thickness up to 200 feet, feathers out northward. Cretaceous age unit.

Soils

According to the Val Verde Custom Soils Report (NRCS, 2023), four soil mapping units (**Table 1**) were identified within the project area. None of the soils in the project area are hydric. Soils mapped within the project area are presented in **Figure 5**.

Table 1. Soil Mapping Units

Mapping Unit	Permeability	Drainage Class	Listed as Hydric by NRCS
Acuna silty clay, 0 to 3 percent slopes (AcB)	0.57 to 1.98 in/hr	Well drained	No
Coahuila clay loam, 0 to 3 percent slopes (CoB)	0.57 to 1.98 in/hr	Well drained	No

Mapping Unit	Permeability	Drainage Class	Listed as Hydric by NRCS
Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG)	0.00 to 0.06 in/hr	Well drained	No
Zapata-Vinegarroon complex, 1 to 5 percent slopes (ZaC)	0.06 to 0.57 in/hr	Well drained	No

Principal Findings of the Field Investigations

A total of 68 features were mapped across the project area (**Figure 6**). Limits of the stream boundaries were recorded in the field using a sub-meter accuracy GPS unit. These data were later transferred into GIS software to analyze and measure. Indicators that were used in delineating the OHWMs included presence of a clear natural line, shelving, the absence of terrestrial vegetation, change in vegetation community, presence of stagnant or flowing water, and a change in topography. Wetlands were determined using the three indicators outlined in the USACE wetland delineation guidelines. The stream channel widths range from approximately 2 to 3 feet.

The waters that were field-verified and delineated within the project area are displayed in **Table 2** and additional details regarding these water features are listed below.

- **Pond 1** is in the easternmost portion of the project area and was field verified to be 0.17 acre within the project area. This pond is not mapped by the USGS. This pond consisted of an OHWM with water present at the time of the September 2022 and March 2023 field investigation. The average width of this feature within the project area is 21 feet (ft). Two wetland determination points were taken on both sides of the feature within the field observed OHWM to show the lack of wetland characteristics. This pond is likely the result of overland flow; however, this pond would likely have a speculative effect on the physical, chemical, biological integrity of Calaveras Creek that occurs below the topographic gradient of the project area. See **page 2** of **Figures 6** and **7** in **Appendix A**, **Photos 1-3** in **Appendix B** and **WPs 1 and 2** in **Appendix C**.

- **Pond 2** is in the eastern portion of the project area and was field verified to be 0.23 acre within the project area. This pond is not mapped by the USGS. This pond consisted of an OHWM with water present at the time of the June 2020, September 2022, and March 2023 field investigations. The average width of this feature within the project area is 68 ft. This pond is likely the result of overland flow; however, this pond would likely have a speculative effect on the physical, chemical, biological integrity of Calaveras Creek that occurs below the topographic gradient of the project area. See **page 2** of **Figures 6** and **7** in **Appendix A**, **Photos 3 and 4** in **Appendix B**.

- **Wetland 1** was field verified as a palustrine emergent wetland located as a fringe to Pond 2. This wetland was verified to be 0.04 acre within the project area. This wetland is not mapped by the USGS or on the NWI map. The average width of this feature is 15 ft. Vegetation within the sampled location met the dominance test and the hydric soil indicator, sandy redox (S5), was observed. Hydrology indicators met include surface water (A1), saturation (A3), and inundation visible on aerial imagery (B7). This feature met the three necessary criteria to be considered a wetland and is hydrologically connected through drainages to Calaveras Creek below the topographic gradient of the project area. See **pages 1** and **2** of **Figures 6** and **7** in **Appendix A**, **Photos 4 and 5** in **Appendix B**, and **WP 4** in **Appendix C**.

- **Drainages 1a-1b** are located in the eastern portion of the project area. These drainages are not mapped by the USGS. According to LiDAR data, these features occur at the bottom of a significant slope. These features consisted of erosional drainage with water present in Drainage 1a at the time of the September 2022 and March 2023 field investigations. The average width of Drainage 1a within the project area is 2 ft, while the average width of Drainage 1b is 1 ft. Drainage 1a was field verified to be 0.01 acre and 260.95 LF within the project area Drainage 1b was field verified to be less than 0.01 acre and 86.00 LF with the project area. A wetland determination point was taken within Drainage 1a to show the lack of wetland characteristics. These features are likely the result of overland flow abrasion that is hydrologically connected to Calaveras Creek. See **page 1** of **Figures 6** and **7** in **Appendix A**, **Photos 6-8** in **Appendix B**, and **WP 5** in **Appendix C**.

- **Wetland 2** was field verified as a palustrine emergent wetland located within the northeastern portion of the project area at the bottom of a significant slope. This wetland was verified to be 0.21 acre within the project area. This wetland is not mapped by the USGS or on the NWI map. The average width of this feature is 25 ft. This feature is likely the result of surface runoff pooling at this low point within the project area. A wetland determination point was taken to determine if a wetland was present. Vegetation within the sampled location met the dominance test and the hydric soil indicator, depleted matrix (F3), was observed. Hydrology indicators included surface water (A1), high water table (A2), saturation (A3), saturation visible on aerial imagery (C9), geomorphic position (D2), and FAC-neutral test (D5). This feature met the three necessary criteria to be considered a wetland and is hydrologically connected through drainages and streams to Calaveras Creek below the topographic gradient of the project area. See **pages 2, 3,** and **4** of **Figures 6** and **7** in **Appendix A**, **Photos 9 and 10** in **Appendix B**, and **WP 7** in **Appendix C**.

- **Stream 1** is in the northeastern portion of the project area and was field verified to be 0.01 acre and 216.42 LF within the project area. This stream is not mapped by the USGS. This feature consisted of an OHWM with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. This feature was field verified to have an ephemeral flow regime that flows from southeast to northwest and is likely formed from surface runoff channeled by the hilly topography. The average width of this feature within the project area is 2.5 ft. A wetland determination point was taken within the field observed OHWM to show the lack of wetland characteristics. This OHWM included sediment sorting, shelving, and scour which determined its defined bed and banks. This feature maintained a contiguous OHWM within the project area. See **pages 3** and **5** of **Figures 6** and **7** in **Appendix A**, **Photos 11-14** in **Appendix B**, and **WP 9** in **Appendix C**.

- **Drainages 2a-2d** are in the northeastern portion of the project area These drainages are not mapped by the USGS. According to LiDAR data, these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 2 ft. The acreages of these features range from less than 0.01 acre to 0.03 acre. The LF of these features range from 100.24 to 382.63 LF. Exact acreages and LF measurements can be reviewed in **Table 2**. These features are likely the result of overland flow abrasion that is hydrologically connected to Calaveras Creek below the topographic gradient of the project area. See **pages 3** and **5** of **Figures 6** and **7** in **Appendix A**, **Photos 15-18** in **Appendix B**.

- **Drainages 3a-3p** are in the northern portion of the project area. These drainages are not mapped by the USGS but according to LiDAR data, these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 1 ft. The acreages of these features range from less than 0.01 acre to 0.05 acre. The LF of these features range from 16.47 to 907.50 LF. Exact acreages and LF measurements can be reviewed in **Table 2.** A wetland determination point was taken within Drainage 3t to show the lack of wetland characteristics. These features are likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **pages 3, 4, 5, 6,** and **7** of **Figures 6** and **7** in **Appendix A**, **Photos 19—31, 34-36, and 37** in **Appendix B,** and **WP 10** in **Appendix C**.

- **Drainages 4a-4c** are in the northern portion of the project area. These drainages are not mapped by the USGS but according to LiDAR data, these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 1 ft. The acreages of these features range from less than 0.01 acre to 0.03 acre. The LF of these features range from 145.67 to 381.33 LF. Exact acreages and LF measurements can be reviewed in **Table 2.** These features are likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **page 6** of **Figures 6** and **7** in **Appendix A**, **Photos 32-34** in **Appendix B**.

- **Drainages 5a-5r** are in the northwestern portion of the project area. These drainages are not mapped by the USGS but according to LiDAR data, some of these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 2 ft. The acreages of these features range from less than 0.01 acre to 0.06 acre. The LF of these features range from 66.32 to 998.37 LF. Exact acreages and LF measurements can be reviewed in **Table 2.** A wetland determination point was taken between Drainages 5a and 5r to show the lack of wetland characteristics. These features are likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **pages 6, 7, 8,** and **9** of **Figures 6** and **7** in **Appendix A**, **Photos 35-50** in **Appendix B, and WP 11 in Appendix C**.

- **Drainages 6a-6c** are in the northwestern portion of the project area. These drainages are not mapped by the USGS but according to LiDAR data, some of these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 4 ft. The acreages of these features range from 0.01 acre to 0.06 acre. The LF of these features range from 139.70 to 431.17 LF. Exact acreages and LF measurements can be reviewed in **Table 2.** These features are likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **pages 7** and **8** of **Figures 6** and **7** in **Appendix A**, **Photos 51 and 52** in **Appendix B.**

- **Drainages 7a-7h** are in the western portion of the project area. These drainages are not mapped by the USGS but according to LiDAR data, some of these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 2 ft. The acreages of these features range from less than 0.01 acre to 0.05 acre. The LF of these features range from 109.18 to 760.26 LF. Exact acreages and LF measurements can be reviewed in **Table 2.** These features are likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **pages 8** and **9** of **Figures 6** and **7** in **Appendix A**, **Photos 53-61** in **Appendix B**.

- **Stream 2** is in the western portion of the project area and was field verified to be 0.01 acre and 72.00 LF within the project area. This stream is not mapped by the USGS. This feature consisted of an OHWM with no water present at the time of the June 2020 or the September 2022 field

investigations. This feature was field verified to have an ephemeral flow regime that flows from southeast to northwest out of the project area and is likely formed from surface runoff channeled by the hilly topography within the project area. The average width of this feature within the project area is 2.5 ft. A wetland determination point was taken within the field observed OHWM to show the lack of wetland characteristics. This OHWM included sediment sorting, shelving, scour which determined its defined bed and banks. This feature maintained a contiguous OHWM within the project area and appears to converge with Calaveras Creek northwest of the project area outside of its boundaries. See **pages 8** and **9** of **Figures 6** and **7** in **Appendix A**, **Photos 62 and 63** in **Appendix B**, and **WP 12** in **Appendix C**.

- **Drainages 8a1-8f** are in the western portion of the project area. These drainages are not mapped by the USGS but according to LiDAR data, some of these features occur at the bottom of a significant slope. These features consisted of erosional drainage with no water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of these features within the project area is 2 ft. The acreages of these features range from 0.01 acre to 0.04 acre. The LF of these features range from 164.99 to 492.71 LF. Exact acreages and LF measurements can be reviewed in **Table 2.** These features are likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **pages 9**, **10** and **11** of **Figures 6** and **7** in **Appendix A**, **Photos 64-69** in **Appendix B,** and **WP 13** in **Appendix C**.

- **Drainage 9** is in the southwestern portion of the project area and was field verified to be less than 0.01 acre and 83.23 LF within the project area. This drainage is not mapped by the USGS. This feature consisted of erosional drainage with water present at the time of the June 2020, September 2022, or March 2023 field investigations. The average width of this feature within the project area is 1 ft. This feature is likely the result of overland flow abrasion. However, review of historical aerials and topographic maps indicate these features would likely have a speculative effect on the physical, chemical, and biological integrity of Calaveras Creek below the topographic gradient of the project area. See **page 11** of **Figures 6** and **7** in **Appendix A, Photo 70** in **Appendix B** and **WP 14** in **Appendix C**.

Table 2. Field-Verified Waters and Wetlands in Project Area

Feature Name	Flow Regime	Delineated Area (Acres/Linear Feet)
Pond 1	Pond	0.17 ac
Wetland 1	Palustrine Emergent Wetland	0.04 ac
Pond 2	Pond	0.23 ac
Drainage 1a	Drainage Feature	0.01 ac / 260.95 lf
Drainage 1b	Drainage Feature	<0.01 ac / 86.00 lf
Wetland 2	Palustrine Emergent Wetland	0.21 ac
Stream 1	Ephemeral Stream	0.01 ac / 216.42 lf
Drainage 2a	Drainage Feature	0.02 ac / 286.12 lf
Drainage 2b	Drainage Feature	<0.01 ac / 100.24 lf
Drainage 2c	Drainage Feature	0.01 ac / 280.89
Drainage 2d	Drainage Feature	0.03 ac / 382.63 lf
Drainage 2e	Drainage Feature	<0.01 ac / 95.95 lf
Drainage 3a	Drainage Feature	0.02 ac / 276.26 lf
Drainage 3b	Drainage Feature	0.02 ac / 461.73 lf
Drainage 3c	Drainage Feature	<0.01 ac / 97.86 lf
Drainage 3d	Drainage Feature	0.04 ac / 444.35 lf
Drainage 3e	Drainage Feature	0.02 ac / 907.50 lf
Drainage 3f	Drainage Feature	<0.01 ac / 166.41 lf
Drainage 3g	Drainage Feature	0.01 ac / 227.64 lf
Drainage 3h	Drainage Feature	0.01 ac / 125.85 lf
Drainage 3i	Drainage Feature	0.01 ac / 295.84 lf
Drainage 3j	Drainage Feature	<0.01 ac / 165.48 lf
Drainage 3k	Drainage Feature	0.05 ac / 556.16 lf
Drainage 3l	Drainage Feature	<0.01 ac / 133.13 lf
Drainage 3m	Drainage Feature	0.01 ac / 224.27 lf
Drainage 3n	Drainage Feature	0.01 ac / 99.03 lf
Drainage 3o	Drainage Feature	0.03 ac / 297.56 lf
Drainage 3p	Drainage Feature	0.01 ac / 186.97 lf
Drainage 4a	Drainage Feature	<0.01 ac / 145.67 lf
Drainage 4b	Drainage Feature	0.01 ac / 226.66 lfr
Drainage 4c	Drainage Feature	0.03 ac / 381.33 lf

Drainage 5a	Drainage Feature	0.06 ac / 998.37 lf
Drainage 5b	Drainage Feature	0.01 ac / 328.68 lf
Drainage 5c	Drainage Feature	0.01 ac / 234.16 lf
Drainage 5d	Drainage Feature	<0.01 ac / 129.16 lf
Drainage 5e	Drainage Feature	<0.01 ac / 194.81 lf
Drainage 5f	Drainage Feature	<0.01 ac / 155.19 lf
Drainage 5g	Drainage Feature	<0.01 ac / 35.49 lf
Drainage 5h	Drainage Feature	0.01 ac / 175.26 lf
Drainage 5i	Drainage Feature	0.02 ac / 824.18 lf
Drainage 5j	Drainage Feature	<0.01 ac / 152.83 lf
Drainage 5k	Drainage Feature	0.01 ac / 254.96 lf
Drainage 5l	Drainage Feature	<0.01 ac / 151.62 lf
Drainage 5m	Drainage Feature	0.02 ac / 519.92 lf
Drainage 5n	Drainage Feature	<0.01 ac / 66.32 lf
Drainage 5o	Drainage Feature	0.01 ac / 510.53 lf
Drainage 5p	Drainage Feature	0.01 ac / 483.90 lf
Drainage 5q	Drainage Feature	<0.01 ac / 78.61 lf
Drainage 5r	Drainage Feature	0.03 ac / 529.76 lf
Drainage 6a	Drainage Feature	0.06 ac / 431.17 lf
Drainage 6b	Drainage Feature	0.01 ac / 139.70 lf
Drainage 6c	Drainage Feature	0.02 ac / 234.27 lf
Drainage 7a	Drainage Feature	0.05 ac / 760.26 lf
Drainage 7b	Drainage Feature	<0.01 ac / 152.07 lf
Drainage 7c	Drainage Feature	0.01 ac / 271.87 lf
Drainage 7d	Drainage Feature	<0.01 ac / 109.18 lf
Drainage 7e	Drainage Feature	0.01 ac / 308.61 lf
Drainage 7f	Drainage Feature	0.02 ac / 502.45 lf
Drainage 7g	Drainage Feature	0.01 ac / 261.40 lf
Drainage 7h	Drainage Feature	0.01 ac / 241.22 lf
Stream 2	Drainage Feature	0.01 ac / 71.95 lf
Drainage 8a1	Drainage Feature	0.03 ac / 474.32 lf

Drainage 8a2	Drainage Feature	0.01 ac / 409.78 lf
Drainage 8b	Drainage Feature	0.03 ac / 352.83 lf
Drainage 8c	Drainage Feature	0.02 ac / 252.83 lf
Drainage 8d	Drainage Feature	0.01 ac / 164.99 lf
Drainage 8e	Drainage Feature	0.01 ac / 141.64 lf
Drainage 8f	Drainage Feature	0.04 ac / 492.71 lf
Drainage 9	Drainage Feature	<0.01 ac / 83.23 lf
	Total:	**1.56 ac / 18,713.15 lf**

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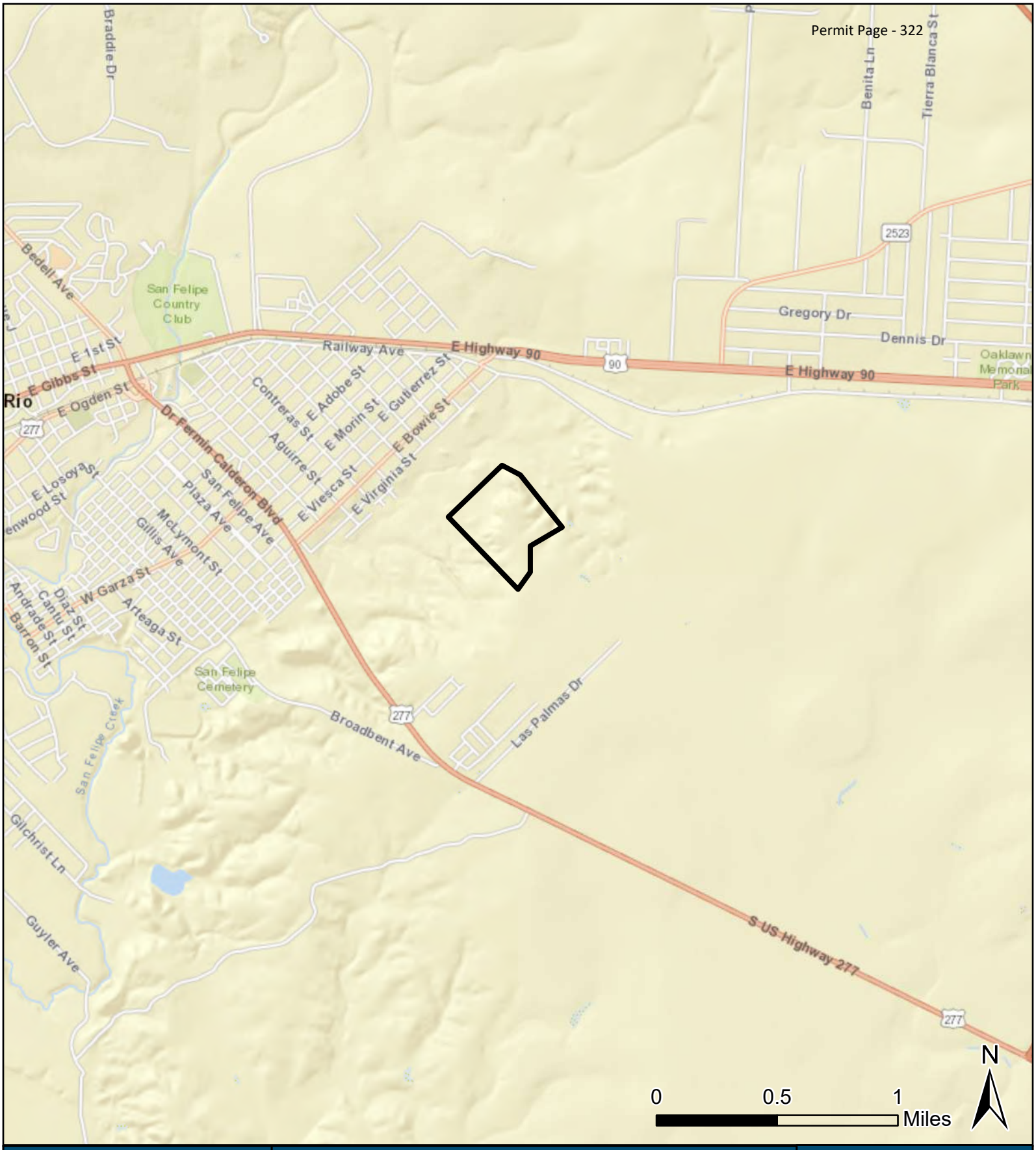
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U.S. Geological Survey. 2019. 7.5-Minute Topographic Quadrangle (1:24,000), Val Verde SE, Texas.

Appendix A – Figures





Project Location

City of Del Rio
Landfill Expansion Project
Val Verde County, TX

Project Area

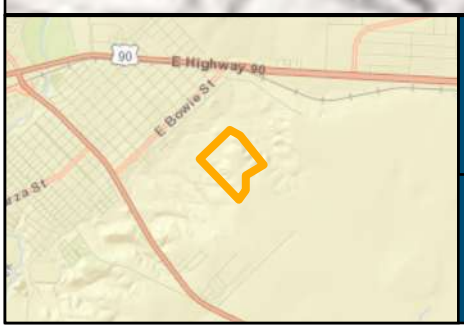
Figure No.: 1

Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: ESRI World Streets





USGS Topographic Map

City of Del Rio
Landfill Expansion Project
Val Verde County, TX

Project Area

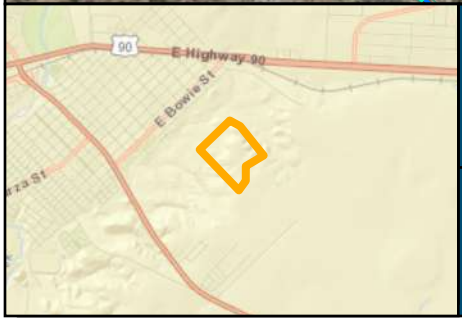
Figure No.: 2

Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: ESRI USA Topographic Map, Quadrangle Val Verde





Mapped Water Resources

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

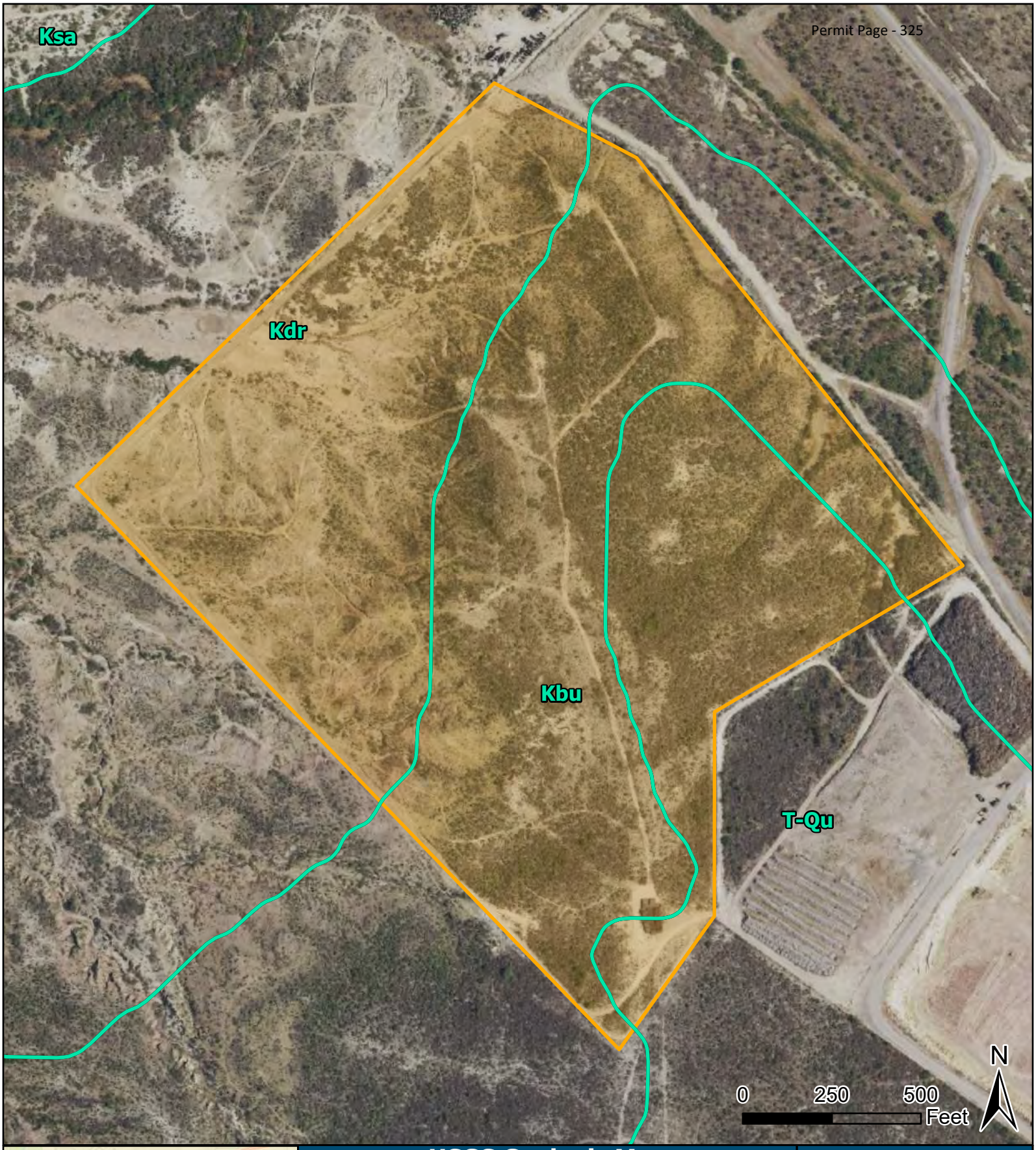
- Project Area
- River/Stream (NHD)
- NWI Mapped Wetland
- Waterbody
- 100-Year Floodzone
- 500-Year Floodzone

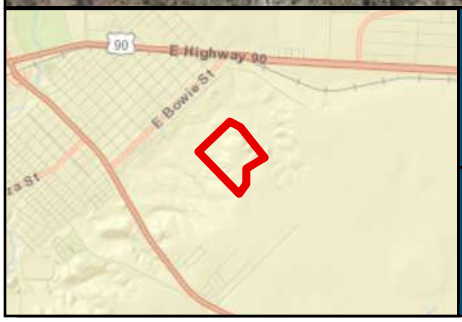
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Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019, NHD 2022, NWI 2022





USGS Geologic Map

City of Del Rio
Landfill Expansion Project
Val Verde County, TX

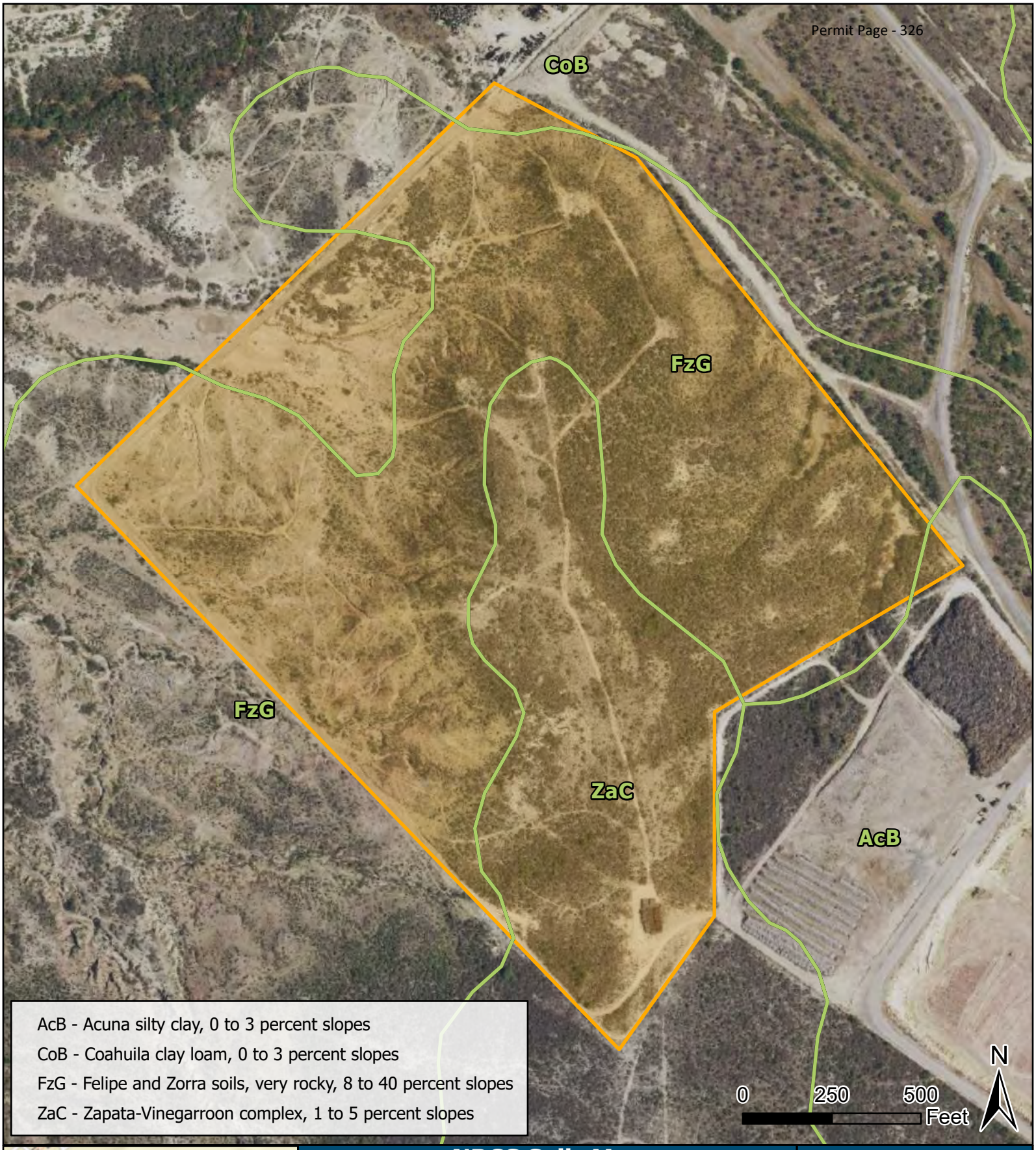
Project Area
Geologic Unit

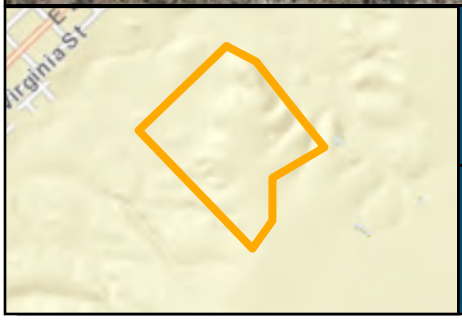
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Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019, USGS 2017





NRCS Soils Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

Project Area

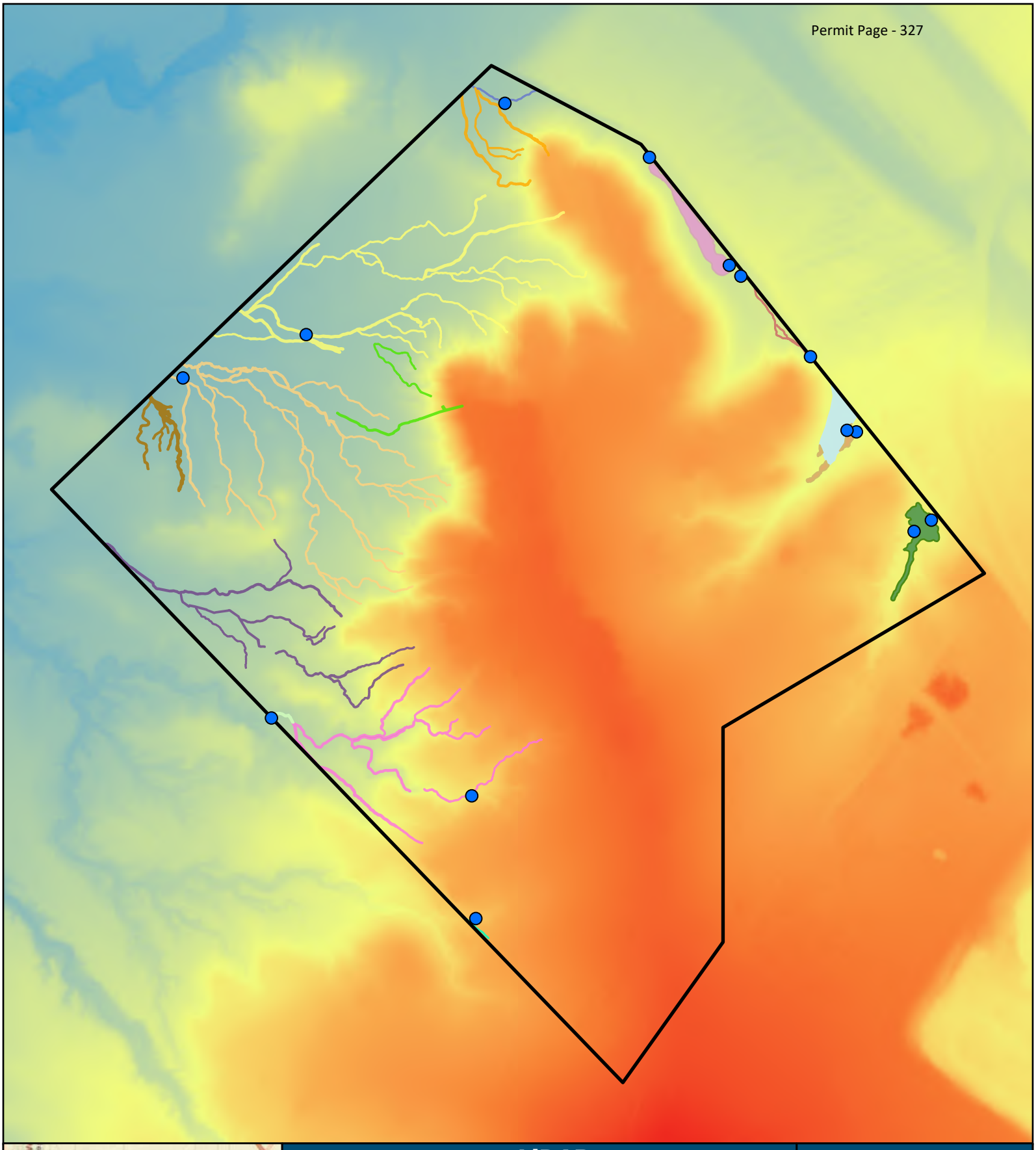
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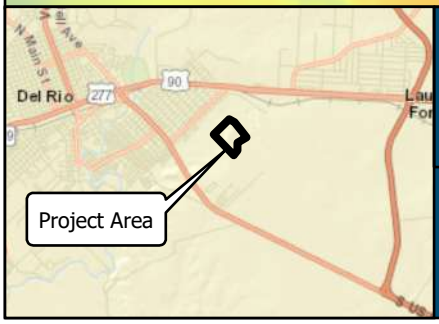
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Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: Google Imagery 2019, NRCS 2023





LiDAR

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

- Project Area
- Wetland Determination Point
- Drainage 1
- Drainage 2
- Drainage 3
- Drainage 4
- Drainage 5
- Drainage 6
- Drainage 7
- Drainage 8
- Drainage 9
- Pond 1
- Pond 2
- Stream 1
- Stream 2
- Wetland 1
- Wetland 2

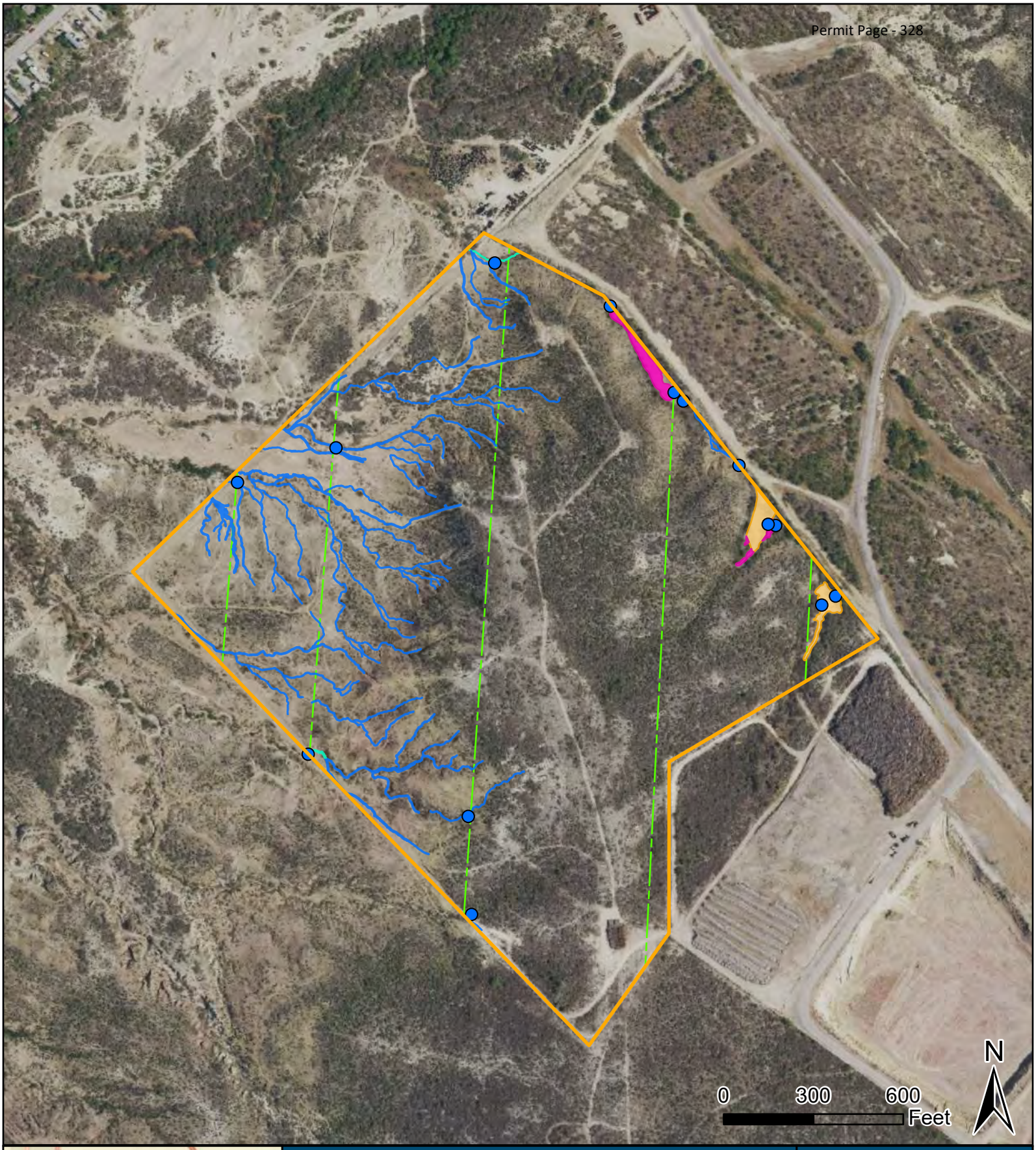
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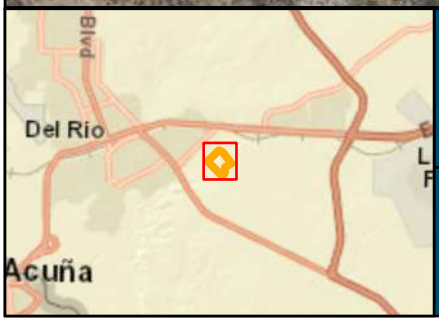
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Drawn By: CP&Y, an STV Company

Sources: ESRI Terrain 2023

0 200 400 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

- Page Extent
- Project Area
- Wetland Determination Point
- Ephemeral Stream
- Drainage Feature
- Palustrine Emergent Wetland
- Pond
- Transect

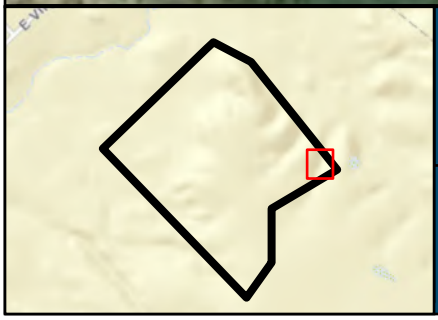
Figure No.: 7, Overview

Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project
Val Verde County, TX

N

Project Area
Pond
Wetland Determination Point
Transect

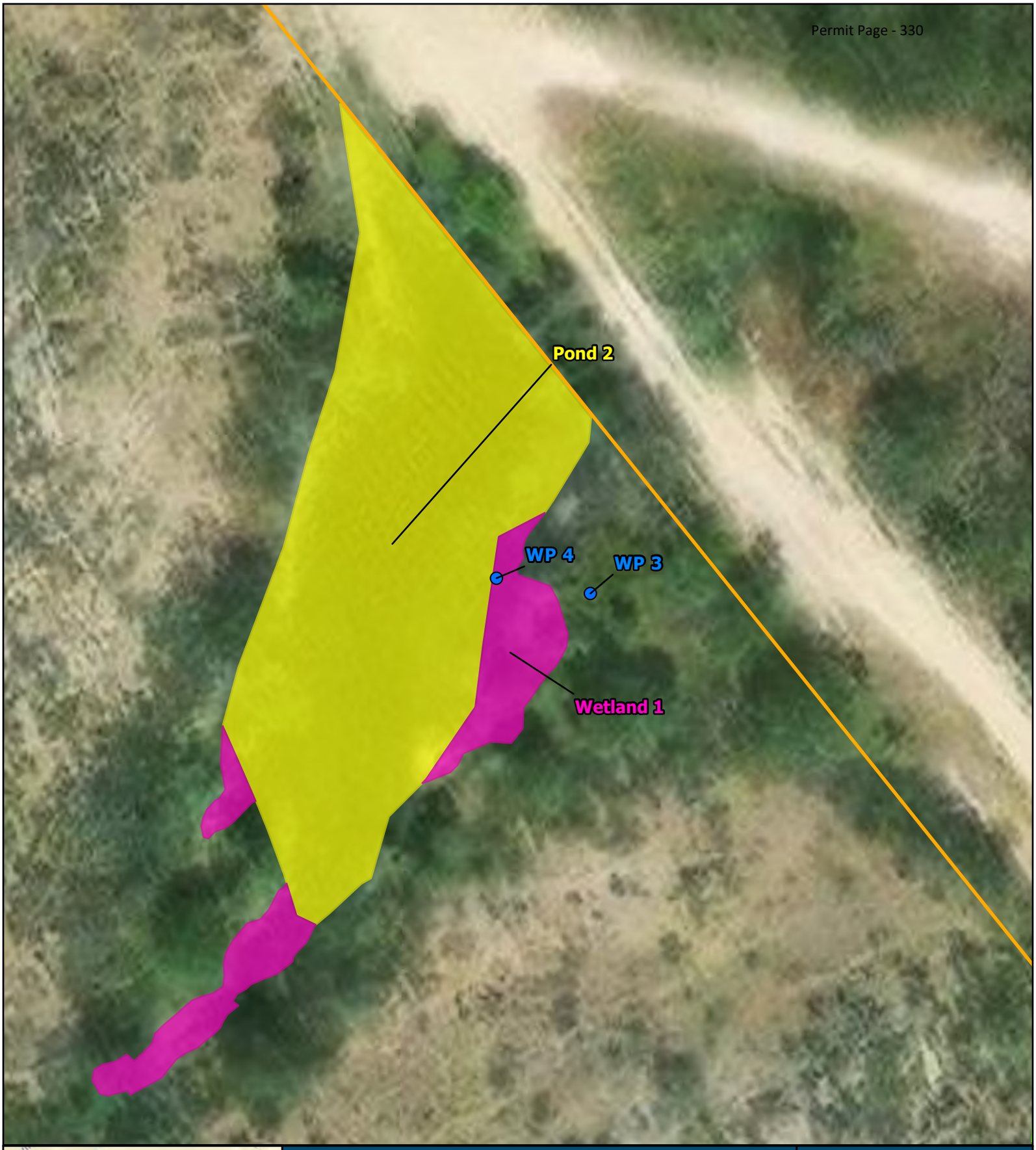
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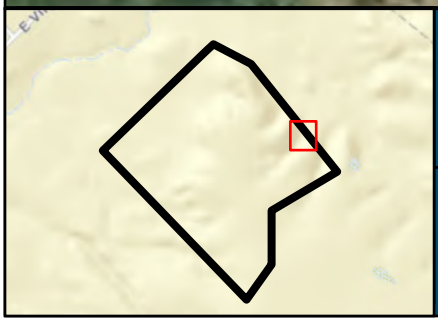
Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 20 40
Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area
Pond
Wetland Determination Point
Transect
Palustrine Emergent Wetland

Figure No.: 7, Page 2 of 10

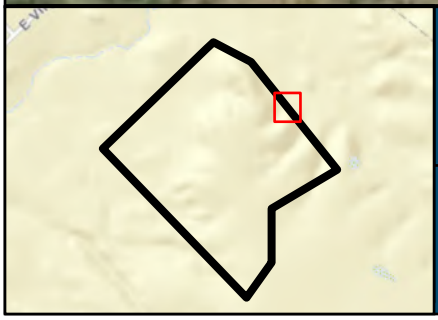
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Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 20 40 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area

Wetland Determination Point

Drainage Feature

Figure No.: 7, Page 3 of 10

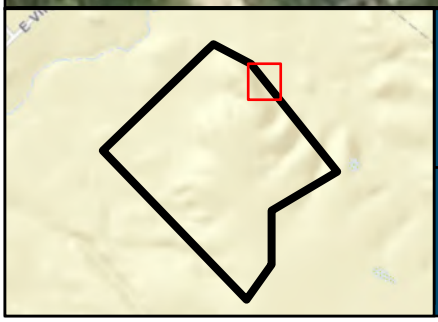
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Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 20 40 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area

Palustrine Emergent Wetland

Wetland Determination Point

Transect

Page I/IIB-233

Figure No.: 7, Page 4 of 10

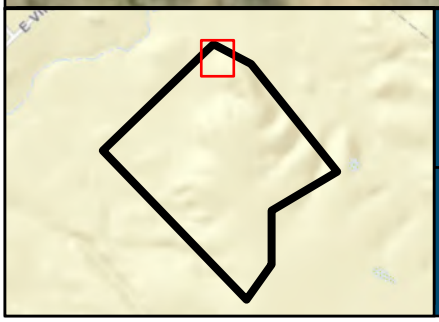
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Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 25 50 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area
Wetland Determination Point
Ephemeral Stream
Drainage Feature
Transect

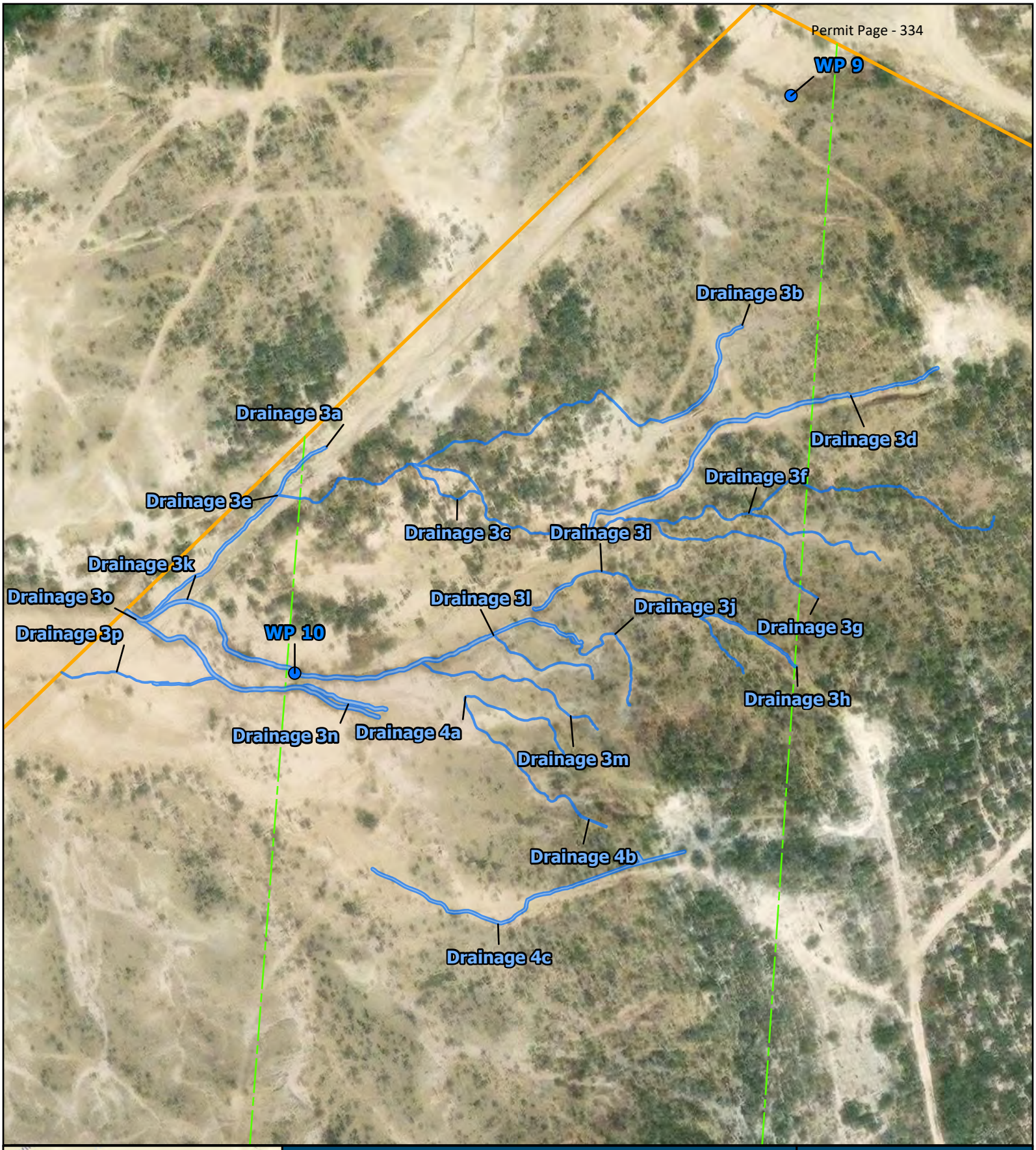
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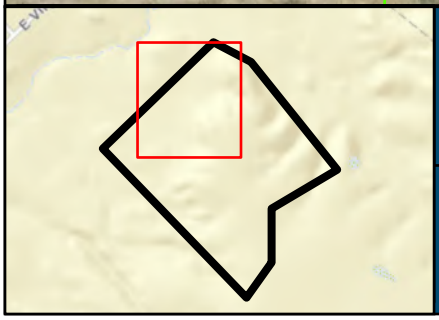
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Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 25 50 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Figure No.: 7, Page 6 of 10

Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Project Area

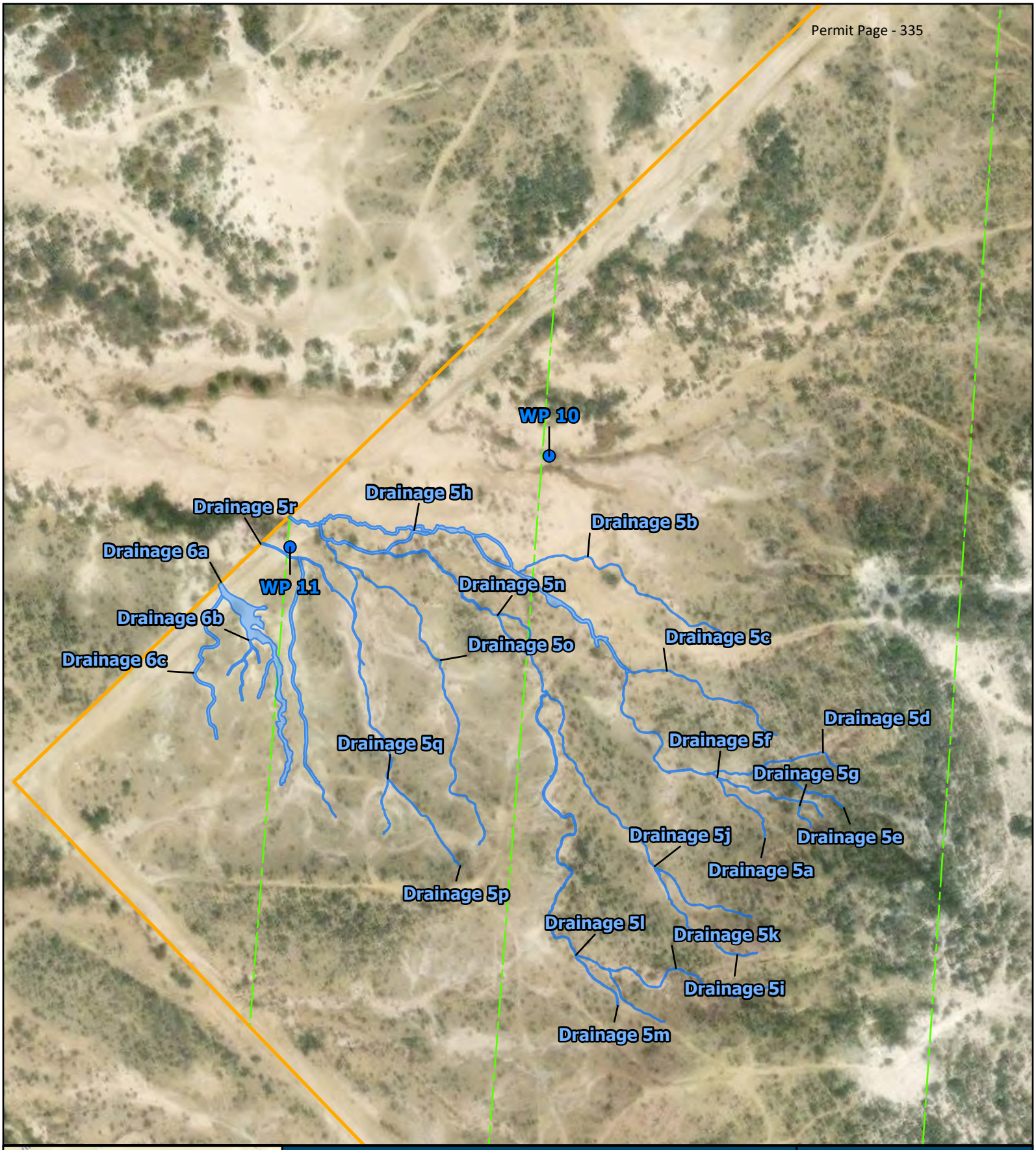
Drainage Feature

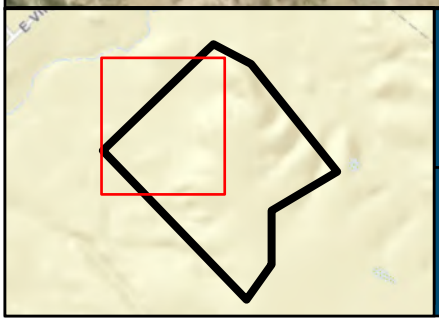
Wetland Determination Point

Transect

Sources: TNRIS Imagery 2019

0 90 180 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Figure No.: 7, Page 7 of 10

Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Project Area

Drainage Feature

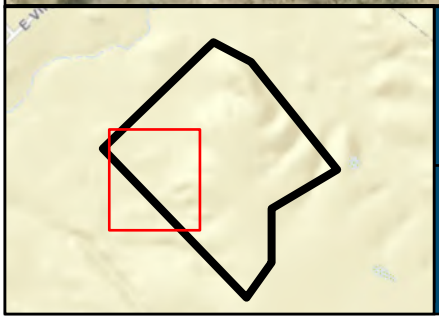
Wetland Determination Point

Transect

Sources: TNRIS Imagery 2019

0 110 220 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area
Drainage Feature
Wetland Determination Point
Transect

Figure No.: 7, Page 8 of 10

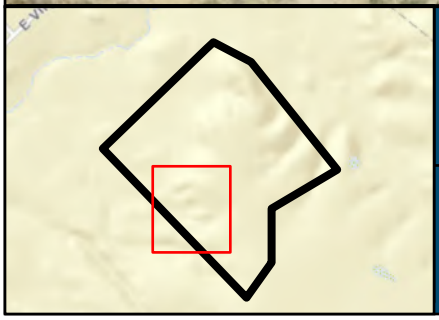
Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 80 160 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area
Wetland Determination Point
Ephemeral Stream
Drainage Feature
Transect

Figure No.: 7, Page 9 of 10

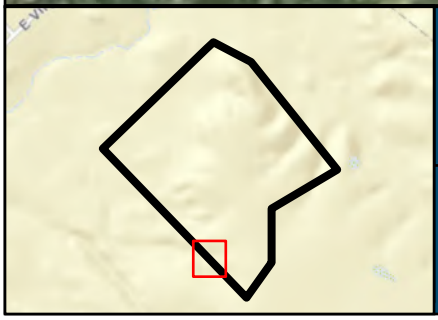
Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 65 130 Feet





Field-Verified Waters Map

City of Del Rio
Landfill Expansion Project

Val Verde County, TX

N

Project Area
Drainage Feature
Wetland Determination Point
Transect

Figure No.: 7, Page 10 of 10

Site Visit Date: June 22nd & 23rd, 2020, September 13th, 2022, March 22nd & 21st, 2023

Drawn By: CP&Y, an STV Company

Sources: TNRIS Imagery 2019

0 25 50 Feet

Appendix B – Area Photographs



Photograph 1: A view of wetland point (WP) 1 within Pond 1 located in the easternmost portion of the project area. This WP did not meet the three necessary criteria to be a wetland.



Photograph 2: A view of WP 2 along the northern boundary of Pond 1. This WP did not meet the three necessary criteria to be a wetland.



Photograph 3: A view of Wetland 1 along the fringe of Pond 2.



Photograph 4: A southwest facing view of Pond 2 located within the eastern portion of the project area.



Photograph 5: A view of WP 5 located within Drainage 1a. This WP did not meet the three necessary criteria to be a wetland.



Photograph 6: A northwest view of Drainage 1a.



Photograph 7: A northwest view of Drainage 1b.



Photograph 8: A view of WP 7 within Wetland 2. This WP met the three necessary criteria to be a wetland.



Photograph 9: A north facing view of Wetland 2 located within the northeastern portion of the project area.



Photograph 10: A view of WP 8 taken along a determined transect between Wetland 2 and Stream 1.



Photograph 11: An upstream facing view of Stream 1, an ephemeral stream located within the northeastern portion of the project area.



Photograph 12: A downstream facing view of Stream 1 outside of the project area.



Photograph 13: A view of WP 9 located along the banks of Stream 1. This WP did not meet the necessary criteria to be a wetland.



Photograph 14: An upstream view of Drainage 2a within the northeastern portion of the project area.



Photograph 15: A west-northwest view of Drainage 2b in the northern portion of the project area.



Photograph 16: A northwest facing view of Drainage 2c in the northern portion of the project area.



Photograph 17: A west-northwest facing view of Drainage 2d in the northern portion of the project area.



Photograph 18: A south facing view of view of the confluence of sections of Drainage 3.



Photograph 19: A north-northeast facing view of Drainage 3a in the northwestern portion of the project area.



Photograph 20: An east-southeast facing view of Drainage 3b in the northwest portion of the project area.



Photograph 21: A west facing view of Drainage 3c located within the northern portion of the project area.



Photograph 22: A west-southwest facing view of Drainage 3d.



Photograph 23: A west-southwest view of Drainage 3e in the northern portion of the project area.



Photograph 24: A west-northwest facing view of Drainage 3f in the northern portion of the project area.



Photograph 25: A southeast facing view of Drainage 3g.



Photograph 26: A north-northwest facing view of Drainage 3h in the northern portion of the project area.



Photograph 27: An east-southeast facing view of Drainage 3i in the northern portion of the project area.



Photograph 28: A northeast facing view of Drainage 3a, 3k, as well as 3o in the western portion of the project area.



Photograph 29: A west-northwest facing view of Drainage 3l.



Photograph 30: An east facing view of Drainage 3m.



Photograph 31: A west-northwest facing view of Drainage 3p.



Photograph 32: A southeast facing view of Drainage 4a.



Photograph 33: An east-northeast facing view of the northwestern portion of Drainage 4b.



Photograph 34: A north facing view of Drainage 4c located within the north-central portion of project area.



Photograph 35: A northwest facing view of the middle portion of a Drainage 5 confluence.



Photograph 36: A southeast facing view of Drainage 5a and 5b.



Photograph 37: A northwest facing view of Drainage 5c.



Photograph 38: An east-northeast facing view of Drainage 5d.



Photograph 39: An east-southeast facing view of Drainage 5f.



Photograph 40: A west-northwest facing view of the southeastern portion of Drainage 5i.



Photograph 41: A west-northwest facing view of Drainage 5j.



Photograph 42: An east-southeast facing view of Drainage 5k.



Photograph 43: A northwest facing view of Drainage 5l.



Photograph 44: A south-southeast facing view of Drainage 5m.



Photograph 45: A north-northwest facing view of Drainage 5o.



Photograph 46: A west-northwest facing view of a confluence of Drainages 5l-5o.



Photograph 47: A north-northwest facing view of Drainage 5p.



Photograph 48: A south-southwest facing view of Drainages 5p and 5q.



Photograph 49: A view of WP 11 located along a determined transect between Drainage 5a and 5r. This WP did not meet the three necessary criteria to be a wetland.



Photograph 50: A south facing view of Drainage 5r located within the northwestern portion of the project area.



Photograph 51: A northwest facing view of Drainage 6c.



Photograph 52: A downstream view of Drainage 6a-6c. Drainage 6 convenes at a dirt road that follows the northwest edge of the project area.



Photograph 53: A west facing view of Drainage 7a.



Photograph 54: A south-southeast facing view of Drainages 7a and 7e.



Photograph 55: A south-southeast facing view of Drainage 7b.



Photograph 56: A west facing view of Drainage 7c.



Photograph 57: A south-southwest facing view of the western portion of Drainage 7e.



Photograph 58: An east facing view of Drainage 7f located within the western portion of the project area.



Photograph 59: A south-southwest facing view of the eastern portion of Drainages 7f.



Photograph 60: A west-southwest facing view of Drainage 7g.



Photograph 61: A north facing view of Drainage 7h.



Photograph 62: A view of WP 12 located within Stream 2. This WP did not meet the three necessary criteria to be a wetland. This area appeared to have been recently disturbed by heavy machinery.



Photograph 18: A west-facing view of Stream 2, an ephemeral stream.



Photograph 64: A view of WP 13 located along a determined transect and southeast of Drainage 8a1. This WP did not meet the three necessary criteria to be a wetland.



Photograph 65: Southwest view of Drainage 8b.



Photograph 66: A south-southwest facing view of Drainage 8c.



Photograph 67: A southwest facing view of Drainage 8d.



Photograph 68: A south-southwest facing view of Drainage 8e.



Photograph 69: A south-southwest facing view of Drainage 8a2.



Photograph 70: A view of WP 14 located along a determined transect and near the southwest corner of the project area and Drainage 9. This WP did not meet the three necessary criteria to be a wetland.

Appendix C – Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 6/22/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 1

Investigator(s): C. Miller & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 0-1%

Subregion (LRR): LRR I Lat: 29.359876 Long: -100.857815 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes ✔	No _____	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks: The point was not a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. Vitex agnus-castus	15	Y	UPL
2. Prosopis glandulosa	10	Y	FACU
3. Acacia greggii	10	Y	UPL
4. Salix nigra	5	N	FACW
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 10' x 10')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	0	x 3 =	0
FACU species	10	x 4 =	40
UPL species	25	x 5 =	125
Column Totals:	40 (A)		175 (B)

Prevalence Index = B/A = 4.375

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 6/1	90	10 YR 5/6	10	C	M	sandy clay	
3-16	10 YR 5/2	80	10 YR 5/6	20	C	M	sandy clay	slightly wet

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ✔ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ____

Remarks:

Hydric soil was present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ✔ Sparsely Vegetated Concave Surface (B8)
- ✔ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✔ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): _____

Water Table Present? Yes ____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ✔ No ____ Depth (inches): at 4"

Wetland Hydrology Present? Yes ✔ **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was present within the sample point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 6/22/2020

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 2

Investigator(s): C. Miller & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 0-1%

Subregion (LRR): LRR I Lat: 29.359794 Long: -100.857957 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____ No ✔	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The point is not a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. Vitex agnus-castus	20	Y	UPL
2.			
3.			
4.			
	20 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1. Cynodon dactylon	30	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	50	x 5 =	250
Column Totals:	50 (A)		250 (B)

Prevalence Index = B/A = 5.0

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation is not present at the sampling point.

SOIL

Sampling Point: WP 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 6/1	98	10 YR 5/6	2	C	M	sandy clay	rocky clay layer at 4"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) **(LRR F)**
___ 1 cm Muck (A9) **(LRR F, G, H)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRRI, J)**
___ Coast Prairie Redox (A16) **(LRR F, G, H)**
___ Dark Surface (S7) **(LRR G)**
___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: clay hardpan
Depth (inches): 4

Hydric Soil Present? Yes _____ No ✔

Remarks:
Hydric soil was not present at the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
___ Presence of Reduced Iron (C4)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)
___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____
Water Table Present? Yes _____ No ✔ Depth (inches): _____
Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology is not present at the sample point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 6/22/2020

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 3

Investigator(s): C. Miller & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 0-1%

Subregion (LRR): LRR I Lat: 29.360518 Long: -100.858450 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____ No ✔	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The point is not a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. Vitex agnus-castus	10	Y	UPL
2. Acacia greggii	5	Y	UPL
3.			
4.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. Ephedra trifurca	15	Y	UPL
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1. Muhlenbergia emersleyi	30	Y	UPL
2. Phyla nodifera	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	35 = Total Cover		
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 20%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	60	x 5 =	300
Column Totals:	65 (A)		315 (B)

Prevalence Index = B/A = 4.85

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation is not present at the sampling point.

SOIL

Sampling Point: WP 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10 YR 6/1	100					sandy clay	rocky

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: rocky layer

Depth (inches): 2

Hydric Soil Present? Yes ____ No ✔

Remarks:

Hydric soil was not present at the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): ____

Water Table Present? Yes ____ No ✔ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology is not present at the sample point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 6/22/2020

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 4

Investigator(s): C. Miller & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 0-1%

Subregion (LRR): LRR I Lat: 29.360521 Long: -100.858528 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks: The point is a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix nigra	20	Y	FACW
2.			
3.			
4.			
	20 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1. Setaria parviflora	10	Y	FAC
2. Sorghum halepense	5	Y	FACU
3. Phyla nodifera	5	Y	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 30%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation is not present at the sampling point.

SOIL

Sampling Point: WP 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-0.5	10 YR 4/1	100					duff	organic duff layer
0.5-4	10 YR 6/1	90	10 YR 5/6	10	C	M	sandy clay	no resistance to shovel
4-16	10 YR 5/2	80	10 YR 5/6	20	C	M	sandy clay	some rocks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ✔ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No ____

Remarks:

Hydric soil was present at the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ___ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ✔ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ✔ Surface Soil Cracks (B6)
- ✔ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ✔ No ____ Depth (inches): <1

Water Table Present? Yes ____ No ✔ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ✔ No ____ Depth (inches): at 2"

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology is present at the sample point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 5

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Drainage ditch Local relief (concave, convex, none): concave Slope (%): 3

Subregion (LRR): LRR I Lat: 29.361062 Long: -100.858846 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____ No ✔	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. Parkinsonia aculeata	15	Y	UPL
2.			
3.			
4.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. Prosopis glandulosa	5	Y	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 15' x 15')			
1. Malvastrum coromandelianum	5	N	FAC
2. Sphaeralcea angustifolia	5	N	UPL
3. Sorghum halepense	30	Y	FACU
4. Bothriochloa ischaemum	55	Y	UPL
5. Chloris virgata	5	N	FACU
6.			
7.			
8.			
9.			
10.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 15' x 15')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	40	x 4 =	160
UPL species	75	x 5 =	375
Column Totals:	120 (A)		550 (B)

Prevalence Index = B/A = 4.58

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 4	10 YR 5/2	98	10 YR 5/6	2	C	M	Clay silt	Pebbles
4 - 16	10 YR 5/1	95	10 YR 5/6	5	C	M	Clay	Smaller pebbles and less

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) **(LRR F)**
___ 1 cm Muck (A9) **(LRR F, G, H)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRRI, J)**
___ Coast Prairie Redox (A16) **(LRR F, G, H)**
___ Dark Surface (S7) **(LRR G)**
___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** ✔

Remarks:

Hydric soil was not present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

✔ Surface Water (A1)
✔ High Water Table (A2)
✔ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
___ Presence of Reduced Iron (C4)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)
___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ✔ No _____ Depth (inches): 2"

Water Table Present? Yes ✔ No _____ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes ✔ No _____ Depth (inches): 3"

Wetland Hydrology Present? **Yes** ✔ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was present within the sample point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 6

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-3

Subregion (LRR): LRR I Lat: 29.361645 Long: -100.859439 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The point was not within a wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis velutina	30	Y	FACU
2.			
3.			
4.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. Tamarix ramosissima	5	Y	FACU
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5' x 5')			
1. Bothriochloa ischaemum	90	Y	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30' x 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	5	x 4 =	20
UPL species	90	x 5 =	450
Column Totals:	95 (A)		470 (B)

Prevalence Index = B/A = 4.9

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point

SOIL

Sampling Point: WP 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 16	10 YR 5/2	80	10 YR 5/6	15	C	M	Clay	
	10 YR 6/1	5					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No ____

Remarks:

Hydric soil was present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✔ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): _____

Water Table Present? Yes ____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was not present within the sample point

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 7

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion (LRR): LRR I Lat: 29.361723 Long: -100.859538 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✔ No _____	**Is the Sampled Area within a Wetland?** Yes ✔ No _____
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes ✔ No _____	

Remarks: The point was within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1.			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: 5' x 5')			
1. Eleocharis palustris	40	Y	OBL
2. Typha domingensis	20	Y	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30' x 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

✔ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✔ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was present within the sampling point

SOIL

Sampling Point: WP 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10 YR 5/1	90	10 YR 5/6	10	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No ____

Remarks:

Hydric soil was present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✔ Surface Water (A1)
- ✔ High Water Table (A2)
- ✔ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ✔ Saturation Visible on Aerial Imagery (C9)
- ✔ Geomorphic Position (D2)
- ✔ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ✔ No ____ Depth (inches): 2"

Water Table Present? Yes ✔ No ____ Depth (inches): 5"

Saturation Present? (includes capillary fringe) Yes ✔ No ____ Depth (inches): 5"

Wetland Hydrology Present? Yes ✔ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was present within the sample point

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 8

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Wetland Fringe Local relief (concave, convex, none): None Slope (%): 1 - 3

Subregion (LRR): LRR I Lat: 29.362506 Long: -100.860221 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. Prosopis glandulosa	25	Y	FACU
2. Prosopis velutina	10	Y	FACU
3. Parkinsonia aculeata	10	Y	FAC
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 5' x 5')			
1. Bothriochloa ischaemum	40	Y	UPL
2. Tridens strictus	10	N	FAC
3. Tridens albescens	5	N	FAC
4. Ruellia nudiflora	5	N	UPL
5.			
6.			
7.			
8.			
9.			
10.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30' x 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	35	x 4 =	140
UPL species	45	x 5 =	225
Column Totals:	105 (A)		440 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1 - 13	10 YR 5/2	98	10 YR 5/4	2	C	PL	Clay	
13 - 16	10 YR 5/2	98	10 YR 5/4	1	C	M	Clay	
	10 YR 5/1	10 YR 5/1						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ No ____

Remarks:

Hydric soil was present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✔ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): _____

Water Table Present? Yes ____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was not present within the sampling point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 9

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): stream bank Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): LRR I Lat: 29.362885 Long: -100.861439 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. Citharexylum brachyanthum	30	Y	UPL
2. Prosopis glandulosa	20	Y	FACU
3. Parkinsonia aculeata	10	N	UPL
4.			
5.			
	60 = Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1. Bothriochloa ischaemum	60	Y	UPL
2. Ruellia nudiflora	35	Y	UPL
3. Cynodon dactylon	10	N	FACU
4. Tridens albescens	5	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	110 = Total Cover		
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	30	x 4 =	120
UPL species	135	x 5 =	675
Column Totals:	170 (A)		810 (B)

Prevalence Index = B/A = 4.7

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 5	10 YR 5/2	100					Clayey sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 5" +

Hydric Soil Present? Yes _____ No ✔

Remarks:

Hydric soil was not present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ✔ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Recent rainfall led to flowing water in channel.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 10

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): LRR I Lat: 29.361165 Long: -100.863072 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes ✔	No _____	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. Parkinsonia aculeata	60	Y	UPL
2. Larrea tridentata	30	Y	UPL
3.			
4.			
5.			
	90 = Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1. Ruellia nudiflora	10	Y	UPL
2. Sorghum halepense	15	Y	FACU
3. Tridens albescens	10	Y	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	35 = Total Cover		
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 65

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	15	x 4 =	60
UPL species	100	x 5 =	500
Column Totals:	115 (A)		590 (B)

Prevalence Index = B/A = 5.1

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 -16	10 YR 4/3	70					Sandy clay	small sand pebbles
	10 YR 6/3	30					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) **(LRR F)**
___ 1 cm Muck (A9) **(LRR F, G, H)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRRI, J)**
___ Coast Prairie Redox (A16) **(LRR F, G, H)**
___ Dark Surface (S7) **(LRR G)**
___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

Hydric soil was not present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
___ Presence of Reduced Iron (C4)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

✔ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
✔ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)
___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was present within the sample point, but there was no flowing water.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 11

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR): LRR I Lat: 29.360833 Long: -100.864099 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____	No ✔	
Wetland Hydrology Present?	Yes _____	No ✔	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. Parkinsonia aculeata	10	N	UPL
2. Citharexylum brachyanthum	5	N	UPL
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 15' x 15')			
1. Bahia absinthifolia	5	N	UPL
2. Hoffmannseggia glauca	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 15' x 15')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column Totals:	25 (A)		115 (B)

Prevalence Index = B/A = 4.6

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 4	10 YR 4/3	70					Clayey sand	
4 - 16	10 YR 6/3	30					Clayey sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) **(LRR F)**
___ 1 cm Muck (A9) **(LRR F, G, H)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRRI, J)**
___ Coast Prairie Redox (A16) **(LRR F, G, H)**
___ Dark Surface (S7) **(LRR G)**
___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

Hydric soil was not present within the sampling point and is dry clay.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
___ Presence of Reduced Iron (C4)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)
___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was not present within the sampling point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 12

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Fence line Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR): LRR I Lat: 29.358349 Long: -100.863312 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation ✔ Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The site appeared to be disturbed by heavy machinery. The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 10' x 10')			
1. Citharexylum brachyanthum	5	Y	UPL
2. Tiquilia canescens	5	Y	UPL
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 10' x 10')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: 10' x 10')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	10	x 5 =	50
Column Totals:	10 (A)		50 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point. This area has been heavily disturbed.

SOIL

Sampling Point: WP 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 12	10 YR 4/2	76	10 YR 7/6	2			Clay	with sand pockets
	10 YR 3/3	20					Clay	
	10 YR 6/1	2					Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✔ **No** ____

Remarks:

Hydric soil was present within the sampling point but has been heavily disturbed. The soil pit was taken beneath the area of the new soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): _____

Water Table Present? Yes ____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was not present within the sampling point. This area has been heavily disturbed.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 13

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Hillslope/erosional feature Local relief (concave, convex, none): None Slope (%): 2 - 5

Subregion (LRR): LRR I Lat: 29.357801 Long: -100.861624 Datum: NAD 83

Soil Map Unit Name: Felipe and Zorra soils, very rocky, 8 to 40 percent slopes (FzG) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes _____ No ✔	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. Senegalia greggii	15	Y	UPL
2. Yucca constricta	15	Y	UPL
3. Guaiacum angustifolium	10	Y	UPL
4. Prosopis velutina	5	N	UPL
5. Ziziphus obtusifolia	5	N	UPL
	50 = Total Cover		
Herb Stratum (Plot size: 15' x 15')			
1. Hoffmannseggia glauca	10	Y	FAC
2. Wedelia acapulcensis	5	Y	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	15 = Total Cover		
Woody Vine Stratum (Plot size: 30' x 30')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 85

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	55	x 5 =	275
Column Totals:	65 (A)		305 (B)

Prevalence Index = B/A = 4.7

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 16	10 YR 5/3	92	10 YR 5/6	1	C	M	Clay	Mixed Matrix
	10 YR 5/2	5					Clay	
	10 YR 4/2	2					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) **(LRR F)**
___ 1 cm Muck (A9) **(LRR F, G, H)**
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) **(LRRI, J)**
___ Coast Prairie Redox (A16) **(LRR F, G, H)**
___ Dark Surface (S7) **(LRR G)**
___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✔

Remarks:

Hydric soil was not present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Dry-Season Water Table (C2)
___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
___ Presence of Reduced Iron (C4)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Sparsely Vegetated Concave Surface (B8)
___ Drainage Patterns (B10)
___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Geomorphic Position (D2)
___ FAC-Neutral Test (D5)
___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes _____ No ✔ Depth (inches): _____

Water Table Present? Yes _____ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was not present within the sampling point.

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Del Rio Landfill Expansion City/County: Del Rio/Val Verde County Sampling Date: 9/13/2022

Applicant/Owner: City of Del Rio State: TX Sampling Point: WP 14

Investigator(s): G. Weiberg & K. Strickland (CP&Y, Inc.) Section, Township, Range: N/A

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0 - 1

Subregion (LRR): LRR I Lat: 29.356902 Long: -100.861574 Datum: NAD 83

Soil Map Unit Name: Zapata-Vinegarroon complex, 1 to 5 percent slopes (ZaC) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✔ No _____ (If no, explain in Remarks.)

Are Vegetation _____ Soil _____, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No _____

Are Vegetation _____ Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✔	**Is the Sampled Area within a Wetland?** Yes _____ No ✔
Hydric Soil Present?	Yes ✔ No _____	
Wetland Hydrology Present?	Yes _____ No ✔	

Remarks: The point was not within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 15' x 15')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. Prosopis velutina	30	Y	FACU
2. Ziziphus obtusifolia	10	Y	FACU
3. Prosopis glandulosa	5	N	FACU
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 15' x 15')			
1. Bothriochloa ischaemum	10	Y	UPL
2. Tridens strictus	5	N	FAC
3. Wedelia acapulcensis	2	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	17 = Total Cover		
Woody Vine Stratum (Plot size: 15' x 15')			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	45	x 4 =	180
UPL species	10	x 5 =	50
Column Totals:	60 (A)		245 (B)

Prevalence Index = B/A = 4.08

Hydrophytic Vegetation Indicators:

___ 1 – Rapid Test for Hydrophictic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✔

Remarks: (Include photo numbers here or on a separate sheet.)

Hydrophytic vegetation was not present within the sampling point.

SOIL

Sampling Point: WP 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0 - 2	10 YR 5/2	100					Clay	
2 - 6	10 YR 5/2	97	10 YR 5/6	3	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR F)**
- ___ 1 cm Muck (A9) **(LRR F, G, H)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✔ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRRI, J)**
- ___ Coast Prairie Redox (A16) **(LRR F, G, H)**
- ___ Dark Surface (S7) **(LRR G)**
- ___ High Plains Depressions (F16) **(LRRH outside of MLRA 72 & 73)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock

Depth (inches): 6"

Hydric Soil Present? Yes ✔ No ____

Remarks:

Hydric soil was present within the sampling point.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Dry-Season Water Table (C2)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- ___ Presence of Reduced Iron (C4)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ✔ Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)
- ___ Frost-Heave Hummocks (D7) **(LRR F)**

Field Observations:

Surface Water Present? Yes ____ No ✔ Depth (inches): ____

Water Table Present? Yes ____ No ✔ Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No ✔ Depth (inches): ____

Wetland Hydrology Present? Yes ____ No ✔

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology was not present within the sampling point.

Appendix D – GeoSearch Historic Aerials

GeoSearch
On time. On target. In touch.™

Historical Aerial Photographs

***NEW:** GeoLens by Geosearch*

Target Property:

City of Del Rio Landfill Expansion

Del Rio, Val Verde, Texas 78840

Prepared For:

CP&Y-San Antonio

Order #: 148134
Job #: 356437
Project #:
Date: 6/16/2020

Target Property Summary

City of Del Rio Landfill Expansion

Del Rio, Val Verde, Texas 78840

USGS Quadrangle: ***DEL RIO SE***
Target Property Geometry: ***Area***

Target Property Longitude(s)/Latitude(s):
(-100.860304000, 29.355817000), (-100.859540000, 29.356654000), (-100.859505000, 29.358286000), (-100.858587000, 29.358837000), (-100.858155000, 29.358401000), (-100.857233000, 29.359548000), (-100.861007000, 29.363298000), (-100.861109000, 29.363466000), (-100.865051000, 29.359978000), (-100.860436000, 29.355744000)

Aerial Research Summary

Date	Source	Scale	Frame
2016	USDA	1" = 500'	N/A
2014	USDA	1" = 500'	N/A
2012	USDA	1" = 500'	N/A
2010	USDA	1" = 500'	N/A
2006	USDA	1" = 500'	N/A
2005	USDA	1" = 500'	N/A
2004	USDA	1" = 500'	N/A
02/08/2002	USGS	1" = 500'	N/A
03/10/1996	USGS	1" = 500'	N/A
01/14/1990	USGS	1" = 700'	2395-11
02/16/1985	USGS	1" = 700'	27-204
04/21/1976	USGS	1" = 500'	3-96
03/17/1971	USGS	1" = 500'	1-275
08/13/1964	FAIRCHILD	1" = 500'	38-3748
12/04/1957	AMS	1" = 500'	21019
05/21/1950	USFWS	1" = 500'	4-104

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N
W E
S

City of Del Rio Landfill Expansion
USDA
2016

GeoSearch

JOB #: 356437 - 06/16/2020

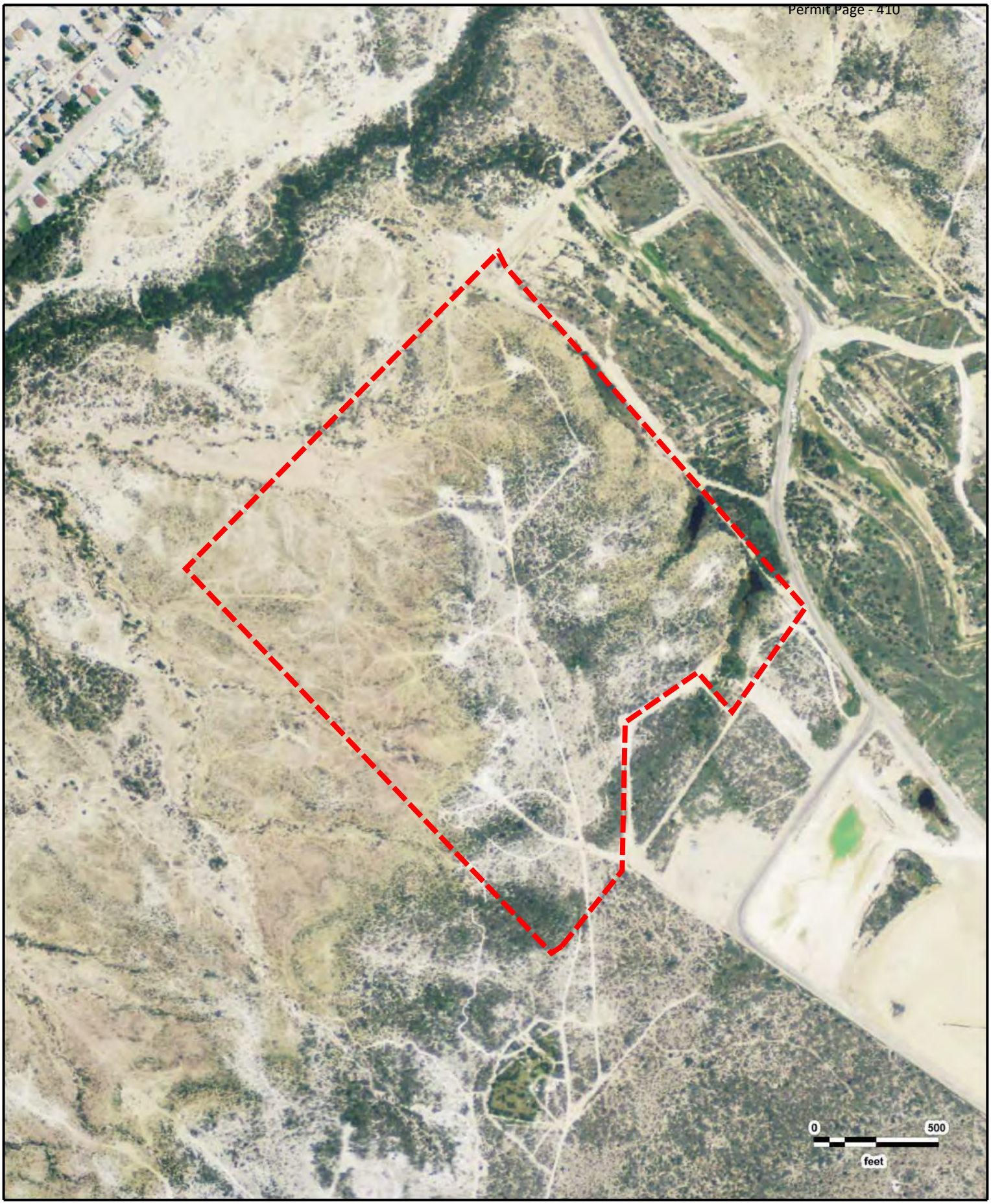


N
W E
S

City of Del Rio Landfill Expansion
USDA
2014

GeoSearch

JOB #: 356437 - 06/16/2020

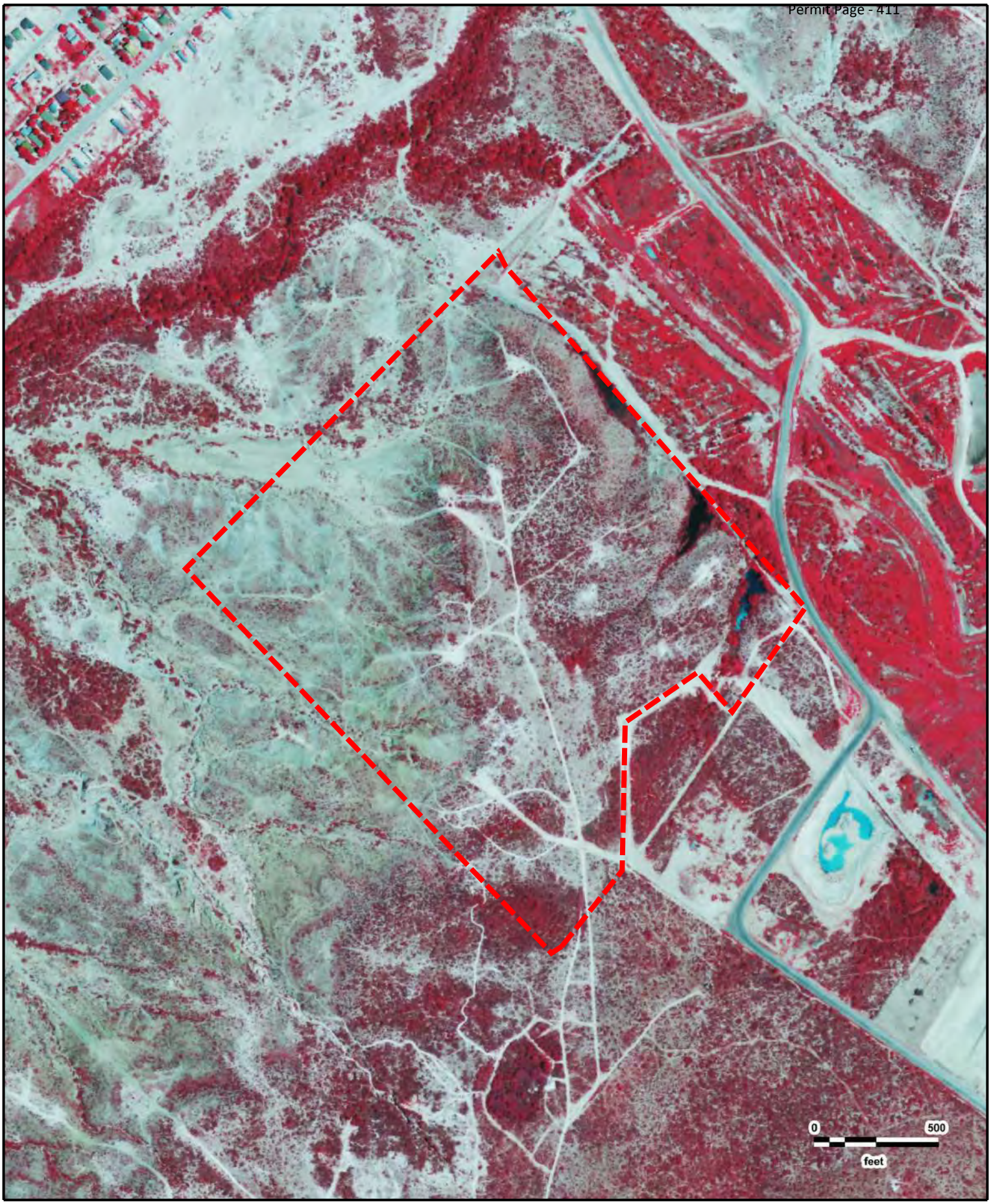


N
W E
S

City of Del Rio Landfill Expansion
USDA
2012

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
USDA
2010

GeoSearch

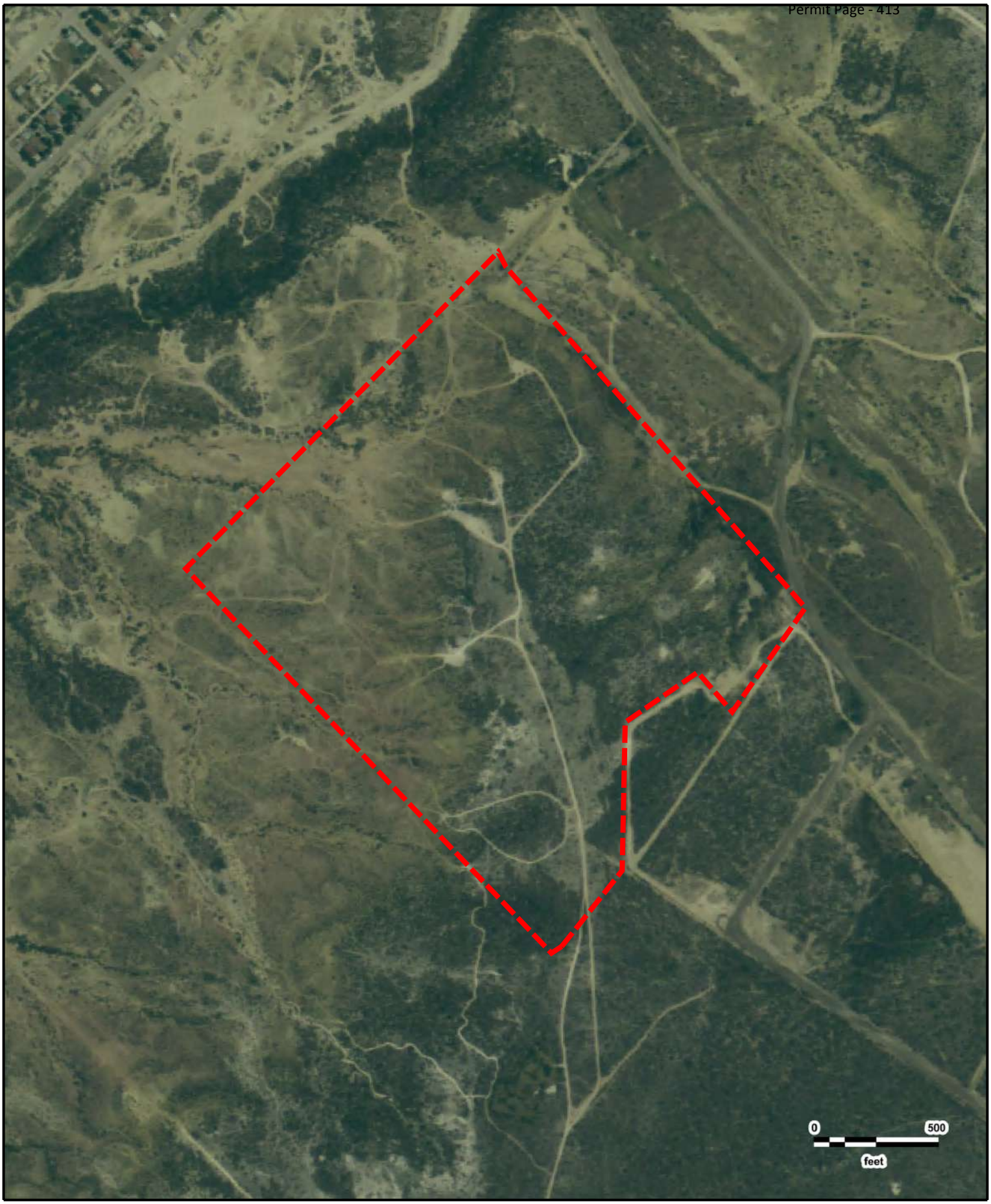


N
W E
S

City of Del Rio Landfill Expansion
USDA
2006

GeoSearch

JOB #: 356437 - 06/16/2020

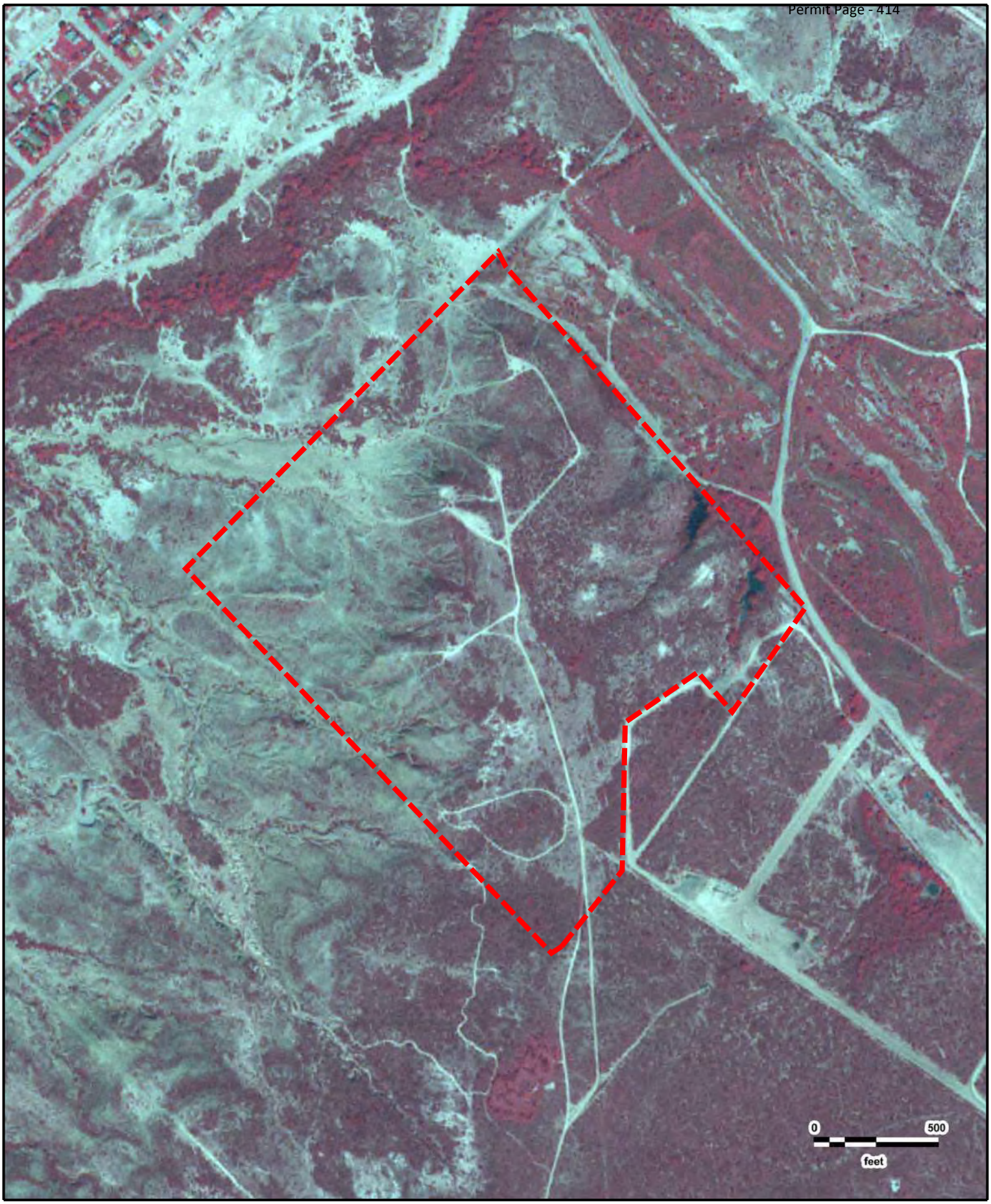


N
W E
S

City of Del Rio Landfill Expansion
USDA
2005

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
USDA
2004

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
USGS
02/08/2002

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
USGS
03/10/1996

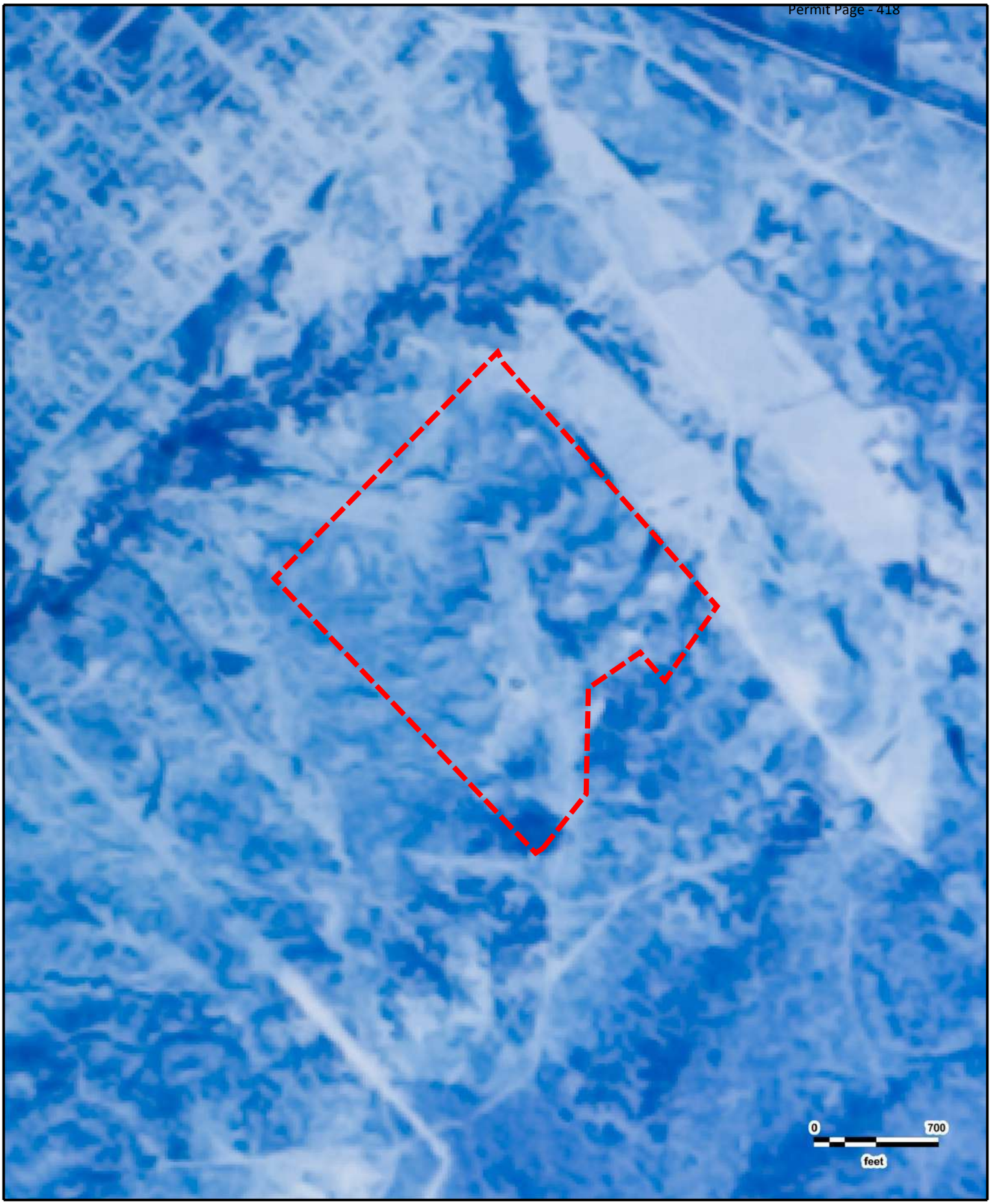
GeoSearch



N
W E
S

City of Del Rio Landfill Expansion
USGS
01/14/1990

GeoSearch



N
W E
S

City of Del Rio Landfill Expansion
USGS
02/16/1985

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
USGS
04/21/1976

GeoSearch

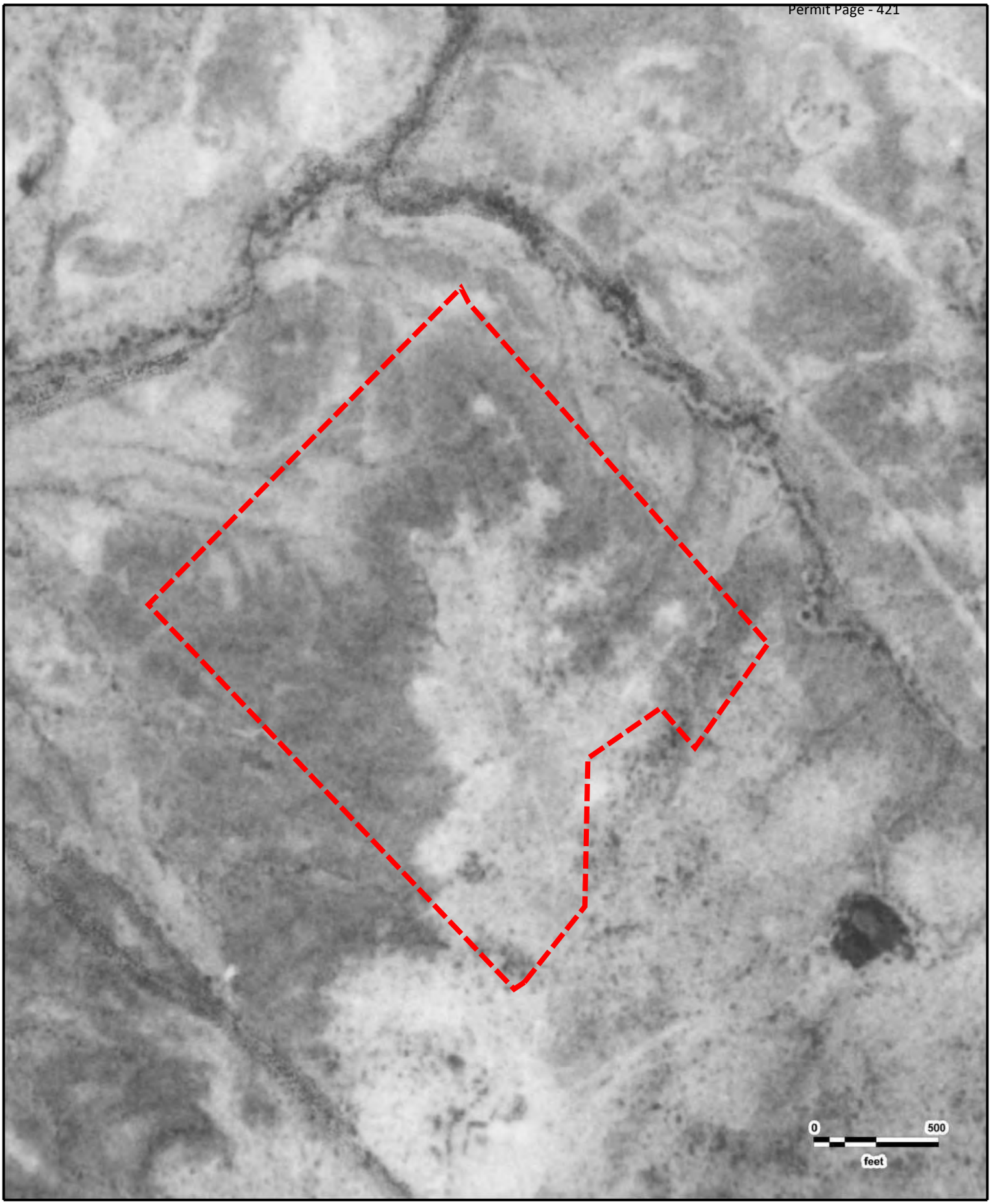


N
W E
S

City of Del Rio Landfill Expansion
USGS
03/17/1971

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
FAIRCHILD
08/13/1964

GeoSearch

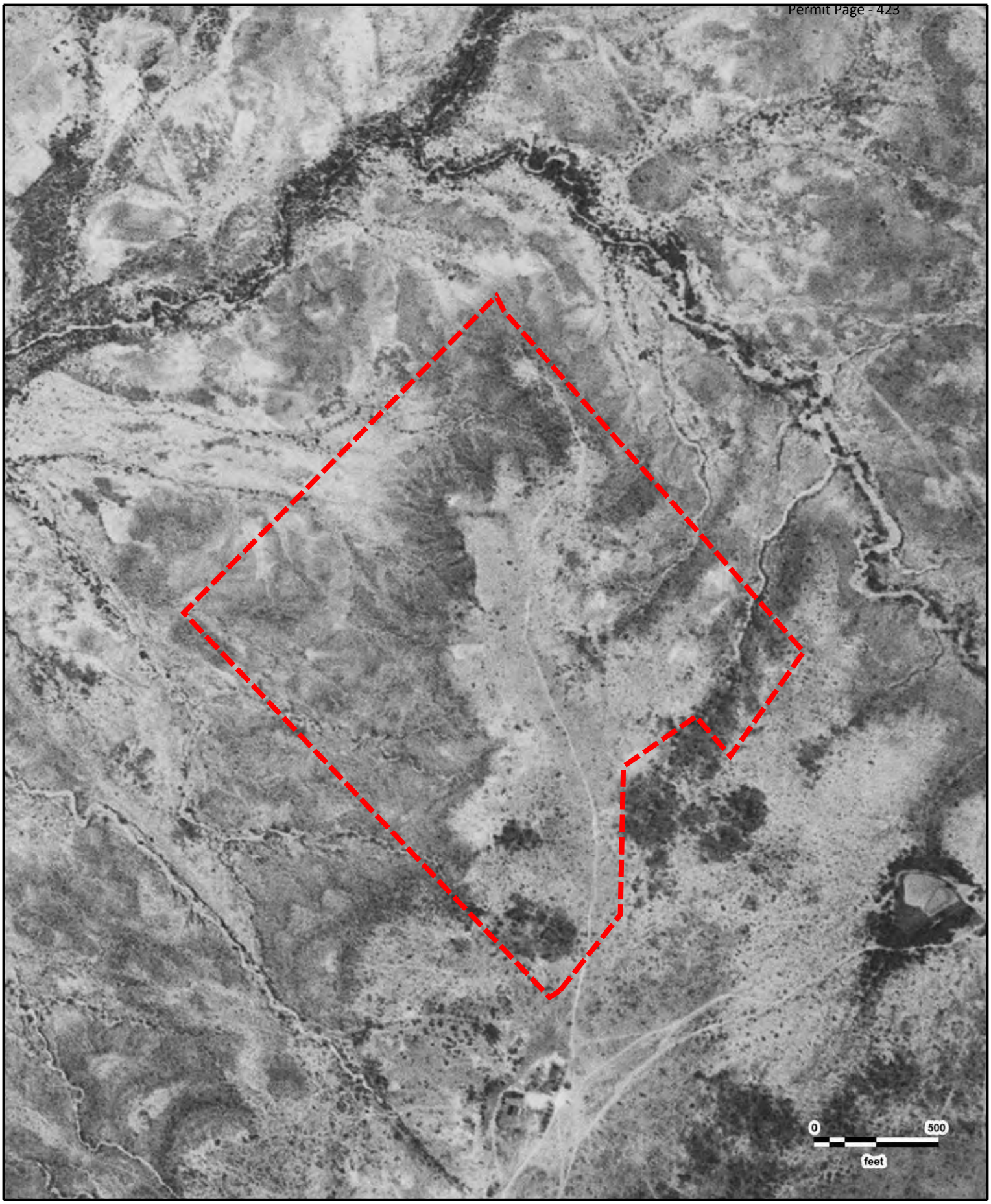


N
W E
S

City of Del Rio Landfill Expansion
AMS
12/04/1957

GeoSearch

JOB #: 356437 - 06/16/2020



N
W E
S

City of Del Rio Landfill Expansion
USFWS
05/21/1950

GeoSearch

Appendix E – Staff Resumes



Garrett Weiberg

Ecologist/GIS Specialist

Education
Master of Science, Biology, Texas Tech University, 2018

Bachelor of Science, Natural Resources Management, Texas Tech University, 2014

Years of Experience
5

Years with CP&Y
<1

Certifications
Geographic Information Science and Technology, Texas Tech University, 2018

Permits
Permittee, USFWS Species Recovery Permit No. TE168185-6 (Arkansas River Shiner, Sharpnose Shiner, and Smalleye Shiner)

Sub-permittee, TPWD Scientific Research Permit No. SPR-0691-409

Permit Holder, ODWC Scientific Collector's Permit No. 4213193

Professional Activities and Continuting Education
Inland Fish Identification Short Course, Texas State University, San Marcos, TX, 2019

OSHA 10 Hour – General Industry Certification, 2018

Basic Wetland Delineation Training, Wetland Training Institute, 2018

Background

Garrett is an Ecologist and GIS Specialist with five years of experience. He has in-depth knowledge of limnology with experience in river surveying and fish husbandry. Garrett is also well-versed in conducting wetland delineations, habitat assessments, threatened and endangered species surveys, vegetative assessments and Migratory Bird Treaty Act compliance surveys. He is proficient with geographic information science (GIS) software and is skilled in environmental report preparation as primary author for much of the field work that he leads. He is also responsible for conducting thorough QA/QC of a wide range of his team's reports.

Much of Garrett's graduate research was aimed at recovery activities for the federally threatened Arkansas River Shiner (Notropis girardi), federally endangered Sharpnose Shiner *(Notropis oxyrhynchus)*, and federally endangered Smalleye Shiner *(Notropis buccula)*. He is familiar with the identification of these species, their habitat and survey methodology. He currently holds a United States Fish and Wildlife Service Species Recovery Permit (No. TE168185-6) for the Arkansas River Shiner, Sharpnose Shiner and Smalleye Shiner. Garrett has participated in a broad range of research opportunities under Texas Parks and Wildlife Permit (SPR-0691-409) and as a permit holder on Oklahoma Department of Conservation Scientific Collector's Permit (No. 4213193). He has accrued hundreds of hours of field research in Texas, New Mexico, Oklahoma and Louisiana.

Project Experience

Solar Development, Private Client, 644-acre Tract, Solar Site, Washington Parish, Louisianna
Construction of solar electric generation facility in Washington Parish, Louisiana. Qualified biologists were responsible for conducting a waters of the U.S. Delineation and Gopher Tortoise Habitat Assessment. Biologist responsible for conducting Wetlands and Waters of the U.S. Delineation, locating potential gopher tortoise burrows, and preparation of GIS data for client review. 2022. Client: Undisclosed Client

Undisclosed Client in Plaquemines Parish, Louisianna
Biologists tasked with conducting a water of the U.S. Delineation on an undeveloped tract of land along the Mississippi River. Coordination with several Agency contacts were conducted due to problematic atypical wetland delineation factors associated with Hurricane Ida, a Category 4 major hurricane, that made landfall in late August 2021. A waters of the U.S. Delineation Report and GIS files were supplied to the client. 2022. Client: Undisclosed Client

Solar/Battery Storage Development, Private Client, 16 Solar Sites (14,222 acres), Texas
Construction of solar electric generation facilities and battery storage in Bandera County (767 acres), Bosque County (1,772 acres; 514 acres), Cooke County (413 acres), Denton County (1,958 acres; 1,712 acres), Falls County (837 acres), Kaufman County (506 acres; 41 acres), Van Zandt County (396 acres), Fannin County (1,015 acres; 91 acres), Hill County (1,128 acres; 638 acres), Hopkins County (971 acres), and Young County (1,463 acres), Texas. Qualified biologists were responsible for

conducting a waters of the U.S. Delineation and Threatened and Endangered Species Habitat Assessment. An Ecological Assessment Technical Report was prepared for the Client. Biologist responsible for conducting Wetlands and Waters of the U.S. Delineation, Threatened and Endangered Species Habitat Assessment, and primary author of the Ecological Assessment Technical Report. 2018-2022. Client: Undisclosed Clients

Undisclosed Client in Mayes County Oklahom
Biologist responsible for field work on three subject properties, each considered single and complete projects which include: a 555-acre tract, a 425-acre tract, and a 235-acre tract. The scope of work included Environmental Services, Section 404 of the Clean Water Act, Delineation and AJD Submittal for the three subject properties in Mayes County, OK. Biologist responsible for performing the following tasks pursuant to Section 404 of the Clean Water Act regulations regarding waters of the U.S. This work was conducted in accordance with the 1987 Wetland Delineation Manual, and the applicable Regional Supplement to the 1987 manual. AJD issuance for each of the proposed project areas was issued by the Tulsa-District USACE in 2021 and 2022. 2021-2022 Client contact: Undisclosed Client

Private Gas Pipeline Development in Texas
Several proposed projects were assessed for a private gas pipeline developer in Cooke County, Dallas County, Denton County, Ellis County, Fannin County, Grayson County, Hamilton County, Kaufman County, Lamar County, Montague County, and Tarrant County. Project sites ranged from 0.5 miles to 20 miles in length. Biologist responsible for conducting waters of the U.S. delineations, threatened and endangered species habitat assessments, and migratory bird surveys. Desktop reports, Waters of the U.S. Delineation Reports, Biological Resources Technical Reports, and Migratory Bird Survey Reports were prepared for the client following these field investigations. Biologist responsible for the coordination with the client and contractors for entry to the sites and communicating the results of the migratory bird surveys and waters of the U.S. delineation through the construction phase. 2018-2022. Client contact: Private Client

Bitter Creek Impoundment Aquatic Resource Relocation Plan, Travis County, Texas
Lead ichthyologist responsible for implementing an aquatic resource relocation effort conducted on August 18 and 19, 2020 for the Bitter Creek Impoundment Drain and Dredge Operation project in the City of Austin, Travis County, Texas. Electrofishing units and seines were used to capture fish during the dewatering of the impoundment. The fish were then transferred into an insulated and aerated cooler for relocation to the approved relocation site on Onion Creek within the City of Austin's Onion Creek Metropolitan Park. A total of 8,169 fishes were collected during the electrofishing and seining effort prior to and after the dewatering process. Relocated species included Western Mosquitofish (Gambusia affinis), Green Sunfish (Lepomis cyanellus), Bluegill (Lepomis macropchirus), and hybrids of the two Lepomis species (Lepomis macrochirus X Lepomis cyanellus). 2020. Client contact: Hardin Camp II | Smith Contracting Co., Inc.

White-tailed Deer Spotlight Census Counts, Fort Wolters, Palo Pinto County and Camp Maxey, Lamar County, Texas
Biologist whose field work included providing the Texas Military Department (TXMD) and the Texas Parks and Wildlife Department (TPWD) with four years of population census survey for white-tailed deer at two North Texas military installations. Coordinated field efforts with local installation staff and local TPWD game wardens. Data collected on white-tailed deer present within the approximately 3,500-acre Fort Wolters installation and approximately 6,500-acre Camp Maxey installation were collected by linear transects (driving routes) at dusk by spotlight. Additional data were collected on the landscape of each observer to calculate a representative area of the installation that was visible to observers as part of the survey effort. Population estimation and age/sex demographics were calculated using a TPWD-approved rubric for annual hunting takes. Lead biologist for the effort in providing this data to TPWD and creating annual management plans to the TXMD for improving age/sex demographics and overall management of the species across the installations. Species-specific management objectives and recommendations were made and included harvest recommendation, vegetation management, providing supplemental food/water, and predator control. Incidental observations of mesocarnivores and invasive (feral pigs) were also noted as possible interspecific competition. 2017-2021. Client contact: Nicholas Kolbe | Texas Military Department

Texas Military Department Forested Wetland Restoration, Camp Maxey, Lamar County, Texas
Camp Maxey is a 6,424-acre training facility located near the town of Powderly in Lamar County, Texas. There are several wetlands at Camp Maxey and all are being impacted by wild pigs. There is a forested wetland that has the potential to host a variety of rare plants. Several surveys have identified the potential and have recommended protection from wild pig damage. Biologist responsible for overseeing hog exclusion fence installation and initial floral survey prior to the exclusion of wild pigs. 2021 Client contact: Nicholas Kolbe | Texas Military Department

Effects of the Red River Chloride Control Project on Wichita River fish assemblages—The Wichita River in North Central Texas is fed by brine springs high in sulfates and calcium chloride. The United States Army Corps of Engineers began the Red River Chloride Control Project in the early 1980's. The goal for this project was to reduce the salinity in the river by installing low-flow dams on the river's headwaters and pumping water to a brine disposal lake. The project's purpose was to make water more suitable for irrigation and municipal water supplies. The effects of dam construction on Wichita River fish assemblages were studied. 17 sites on the North and South Forks and mainstem of the Wichita River were sampled in the spring, summer, fall, and winter. Habitat characteristics, river morphology, water quality, and fish assemblages were studied. Research on the impacts of this project is ongoing. 2014-2015. PI: Dr. Gene Wilde | United State Army Corps of Engineers and Texas Tech University

Capture-mark-recapture study of three species of fish on the Canadian River—Arkansas River Shiner (Notropis girardi), Peppered Chub (Macrhybopsis tetranema), and Plains Minnow (Hybognathus placitus) were collected from the Canadian River upstream from Lake Meredith near Hwy 27 North of Amarillo, TX. The fish were tagged with VIE and released in early spring of 2013, 2014, and 2015. A crew was then sent out to sample 7 sites between the release location and the next upstream impoundment, Ute Lake, New Mexico to monitor movement capabilities of these species. The sampling generally occurred biweekly (weather permitting). 1 km of river was sampled with a seine at each site. The crew made an effort to sample characteristic habitat for these species. Recaptured (tagged) fish were documented with the date released (determined by VIE tag color) and recapture location (Garmin GPS). The distance (river miles) travelled upstream was estimated using ArcGIS. During the search for tagged fish, any untagged fish of these species were tallied to estimate population abundance at each site. 2014-2015. PI: Dr. Gene Wilde | Texas Tech University

Field spawning of native fishes in the Canadian River near Logan, NM— Arkansas River Shiner (Notropis girardi), Peppered Chub (Macrhybopsis tetranema), and Plains Minnow (Hybognathus placitus) were spawned in the field. Fish were captured and injected with carp pituitary extract to elevate reproductive hormones and placed in containers with vents which allowed throughflow and placed in the river. The fish were held in containers in the river for approximately 10 hours. Fish were released back into the wild and any fertilized ova yielded from natural spawning were collected and transported back to Texas Tech University for lab research. 2015. PI: Dr. Gene Wilde | Texas Tech University

Analysis of isolated pools on the Wichita River near Seymour, TX—Periods of minimal rain in the Great Plains region often create no flow conditions in certain headwater stretches of the Wichita River. During these periods of no-flow, fish are isolated in pools and backwaters. These pools generally occur in areas where the river has scoured out holes in the substrate. The pools serve as refugia for many species of fish until baseline flow commences. Population dynamics in these pools are dictated by competition and predator-prey interactions. At each site where no-flow conditions existed, 3 pools (small, medium, and large) were selected for research. Fish were captured using a seine and counted. Water quality parameters were recorded in the morning and mid-day for each site. 2014. PI: Dr. Gene Wilde | Texas Tech University

Previous Work Experience

Cox|McLain Environmental Consulting, Inc., now Stantec, Ecologist/GIS Specialist, 2017-2022



Kameryn Strickland

Biologist

Education
Bachelor of Science, Forestry – Wildlife Management, Stephen F. Austin State University, 2020

Years of Experience
2

Years with CP&Y
2

Affiliations

The Wildlife Society

Texas Chapter of The Wildlife Society

Training/Seminars
Wetland Delineation Training

Making Jurisdictional Determinations Under the Navigable Waters Protection Rule

S.W.I.F.T. Training (CDOT)

Species analysis Training (TxDOT)

A Revised ASTM Standard Webinar (ERIS)

Certifications
eRailSafe System

Protected Species Observer

Background

Kameryn has close to two years of experience in the environmental field. She has experience in threatened and endangered species surveys, wetlands delineation and mitigation, habitat evaluations and surface water assessments in Texas and Oklahoma. She has prepared wetland delineation reports, biological evaluations, and helped clients maintain regulatory compliance with federal agencies. Kameryn has also prepared documentation for various projects including ASTM Phase I Environmental Site Assessments (ESA), hazardous materials technical reports, habitat assessments, jurisdictional determinations, wetland delineations and USACE 404 Permits.

Kameryn has participated in multiple projects that included preparation of various NEPA and specialized documents. Her client list includes Oklahoma Department of Transportation (ODOT), Texas Department of Transportation (TxDOT) and various other municipalities.

Project Experience

SL 1853 Madisonville Loop, Bryan, Texas
Biologist. Project consists of constructing a limited access, new location roadway. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Hazardous Materials ISA and the appropriate attachments.

FM 646 from Edmunds Way to FM 3436, TxDOT, Galveston County, Texas
Biologist. Project consists of improvements to the existing two-lane undivided roadway, including adding lanes to the existing main lanes, widening existing shoulders and adding a raised center median. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Tier 1 Assessment, Hazardous Materials ISA and the appropriate attachments.

Mound Road Extension Project, Greenhouse Road to Cypress Drive in Cypress, Harris County, Texas
Biologist. Project consists of the extension of Mound Road from Greenhouse Road to Cypress Drive. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Species Analysis, Wetland Delineation Report, Phase I ESA and the appropriate attachments.

IH 35 Capital Express South Design Refinement from SH 71/Ben White Boulevard to SH 45SE, Travis and Hays Counties, Texas
Environmental Specialist. Project consists of improvements to IH 35 from US 290 West/SH 71 to SH 45 southeast (SE) in Travis County, with a transition area extending to Main Street in Buda, Hays County. Assisting in the creation of the Hazardous Materials Initial Site Assessment ISA, Hazardous Materials Memo and the appropriate tables.

Westgreen Boulevard at the Intersection of Westgreen and IH-10 in Katy, Harris County, Texas
Environmental Specialist. Project consists of pavement widening for the addition of turn lanes and increased storage along Westgreen Boulevard. Assisting in the creation of the Phase I ESA and the appropriate

tables.

Blue Stores Solar, Town of Livingston, Columbia County, New York
Environmental Specialist. Project consists of due diligence services to support the development of a community solar site. Assisting in the creation of the Phase I ESA reporting materials and attachments.

Jefferson Tract, Habitat for Humanity of San Antonio
Biologist. Project consists of land acquisition to develop a residential community for lower income families of the San Antonio area. Assisting in the creation of the Phase I ESA reporting materials and attachments.

Strawser Property, Wellborn SUD, Robertson County, Texas
Environmental Specialist. Project consists of easements proposed as part of the water improvement project. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Landowner Questionnaire, the User Questionnaire and the Phase 1 ESA.

County Road 112 Improvements, City of Round Rock, Williamson County, Texas
Environmental Specialist. Project consists of improvements to the existing County Road 112, including expanding and realigning. Assisting in the creation of the Landowner Questionnaire, the User Questionnaire and the Phase 1 ESA.

Grade, Drain, Bridge and Surface Drake Road and Reactor Road Over Low Water Crossing 50E1805N3390001, ODOT, Murray County, Oklahoma
Biologist. Project consists of improvements to the existing two-lane paved roadways, including grade, drain, bridge and surfacing of the existing Drake and Reactor Roads. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report, and the appropriate attachments.

Bridge and Approaches (EW-139) Over Washita River, 1.7 miles South and 4.5 Miles East of JCT IH 44/US 81, ODOT, Grady County, Oklahoma
Biologist. Project consists of replacing the existing EW-139 bridge (NBI# 21697) over the Washita River. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report, and the appropriate attachments.

Bridge and Approaches (EW-123) Over Sugar Creek, ODOT, Caddo County, Oklahoma
Biologist. Project includes constructing a new, 26-foot wide bridge on the existing alignment and expanding the approach roadway to have two 11-foot wide driving lanes with 2-foot wide gravel shoulders. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also preparing the Biological Assessment, the Waters and Wetlands Evaluation Report, and the associated maps.

Williamson County Line from RM 1174 to SH 29, TxDOT, Bertram, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including widening to four-lane with a continuous two-way left turn lane and shoulders. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report, the Hazardous Materials Initial Site Assessment (ISA) and the appropriate tables.

CDR Landfill Expansion, City of Del Rio, Del Rio, Texas
Biologist. Project includes expanding the existing landfill by 75 acres. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Landowner Questionnaire and the Phase 1 ESA.

SH 146 from Fairmont Parkway to Red Bluff Road, TxDOT, Harris County, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including adding lanes to the existing main-lanes, side paths, adding additional frontage road lanes, adding or removing AUX lane and a new bridge. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report and the appropriate tables.

SH 146 from Spencer Highway to Fairmont Parkway, TxDOT, Harris County, Texas

Biologist. Project consists of improvements to the existing four-lane arterial, including adding lanes to the existing main-lanes, side paths, adding additional frontage road lanes, adding or removing AUX lane and a new bridge. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report, Surface Water Analysis Form, Wetland Delineation Report and the appropriate tables.

US Hwy 90 from 0.50 Miles West of Purple Sage Road, Greens Bayou to 0.27 Miles East of Purple Sage Road, TxDOT, Harris County, Texas
Biologist. Project consists of completing previously incomplete segments of the existing US 90 and Purple Sage Road. Assisted in field surveys including biological assessments and nighttime naval surveys. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report and the appropriate tables.

SH 146 from FM 518 to Dickinson Bayou, TxDOT, Galveston County, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including widening the existing four-lane divided highway to a six-lane divided highway and constructing a grade separated intersection at SH 146 and SH 96. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Air Quality Technical Report, Wetland Delineation Report, USACE Individual Permit and the appropriate attachments.

Widen and Resurface Existing Lanes (SH 6) over Armstrong Creek, ODOT, Greer County, Oklahoma
Biologist. Project consists of improvements to the existing four-lane arterial, including widening and resurfacing of the divided SH 6. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report and the appropriate attachments.

Dates in blue are Amy's actual dates she worked on the project, not dates of the project.



Amy Esguerra, ENV SP

Environmental Project Manager

Education
Masters of Applied Geography, Environmental and Resource Studies, Texas State University, 2013

Bachelor of Science, Rangeland Ecology and Management, Texas A&M University, 2005

Certifications
Envision Sustainability Professional #50037, 2022

Years of Experience
16

Years with CP&Y
7

TxDOT Precertifications
1.8.1 Public Involvement
2.3.1 Wetland Delineation
2.3.2 Conditional/Functional Assessment
2.4.1 Nationwide Permit
2.4.2 Clean Water Act Sec 404 Permits
2.6.2 Impact Evaluation Assessments Currently suspended 7/2022. Amy has submitted a renewal.
2.6.4 Biological Evaluations/ Assessments Currently suspended 7/2022. Amy has submitted renewal.
2.13.1 Hazardous Materials Initial Site Assessment

Professional Affiliations
Women Transportation Seminar (WTS) – San Antonio Chapter

Training Courses
Texas A&M University and Texas Parks and Wildlife Department-

Background

Amy Esguerra has 16 years of experience as a biologist, with an emphasis in waters and wetlands. She has experience in working on and managing the preparation of various NEPA documents including categorical exclusions (CE), environmental assessments (EA) and environmental impact statements (EIS).

Amy has also prepared specialized documentation for various projects including Phase I ESAs, habitat assessments, jurisdictional determinations, wetland delineations for USACE permitting requirements, USACE preconstruction notices, USACE individual permit, Texas Water Development Board (TWDB) Environmental Information Documents (EID) and HUD NEPA documentation. Her client experience includes various municipalities and counties, San Antonio Water System (SAWS), San Antonio River Authority (SARA), Texas Department of Transportation (TxDOT), Oklahoma Department of Transportation (ODOT), multiple Regional Mobility Authorities, Habitat for Humanity, VIA Metropolitan Transit, the Texas General Land Office and the Department of Homeland Security.

Amy understands the local impacts of federal legislation, including National Environmental Policy Act (NEPA) regulations, the Clean Water Act, Endangered Species Act and Historic Preservation Act.

Project Experience

FM 1103, TxDOT San Antonio District, Guadalupe County, Texas
Environmental Manager. The proposed improvements would include the addition of one lane in each direction with center turn lanes, medians, shared-use paths to each side of the roadway and various turning lanes at select intersections from Rodeo Way to FM 78. Responsibilities included overseeing the environmental team in the preparation of the biological evaluation and Tier I form, jurisdictional waters report, noise analysis, community impact assessment, hazardous materials ISA, PCR and an archeological desktop report. Completed field work for jurisdictional waters, served as QC reviews on all materials and coordinated with the engineering team to ensure current design was used in impact assessments. Advised engineers on design changes needed to avoid waters and wetland mitigation requirements. Prepared public meeting report, including a response to comments. The project is anticipated to be environmentally cleared by October 2022 to ensure the project would meet the letting date of Fall 2024. (12/2018–ongoing as of 7/2022)

On-Call Environmental Consulting Services, City of San Antonio, Texas
Project Manager. Serving as project manager to the Neighborhood and Housing Services Department by completing Environmental Review Records (ERR) for projects funded with Community Development Block Grants (CDBG). Typical projects consist of minor rehab and major rehab work on houses within the city's low-income areas. Currently, five ERRs have been completed on the contract. (4/2022–ongoing as of 7/2022)

Leon Creek Water Recycling Center to Steven M. Clouse WRC Recycled Water Interconnect, San Antonio Water System, San Antonio, Texas
Environmental Lead. The proposed project includes the installation of approximately 18,000 linear feet recycled water pipes, a new ground storage tank and a booster pump station facility. Additionally, the existing 5,000 linear feet of pipe, currently floating on Mitchell Lake, will be removed. The project will also include modifications to the existing polder pumping stations used to divert water from Mitchell Lake to the polder complex, located immediately north of the lake. The improvements to the polder pump stations include the relocation of the stations as

Texas Freshwater Mussel Identification Workshop, August 2015

Wetland Training Institute- ID Wetland Grasses and Grasslike Species, August 2014

Environmental Review Procedures for the Entities Assuming HUD Environmental Responsibilities, Austin, Texas, August 1-3, 2012

Wetland Training Institute- Advanced Hydric Soils, February 2010

CDBG Boot Camp Training, Austin, Texas – September 21-24, 2009 presented by COSCDA Academy

U.S. Department of Housing and Urban Development Training: Foundations in Environmental Review-NEPA and 24 CFR Part 58

U.S. Department of Housing and Urban Development Environmental Training, Fort Worth Regional Office – May 5-6, 2010, presented by U.S. HUD Regional Office

necessary based on the final operating water level in Mitchell Lake, intakes for the pump stations, upgrades to electrical and instrumentation and controls equipment, fencing and site security improvements, lighting, stabilization of access roads to the pump stations and improvements to the flow control structures within/around the polder complex. Managed the development of the constraints map and report for inclusion in the PER in addition to developing a list of potential permits needed for the project. Also managing field work and report development of three jurisdictional determination reports, a Phase I ESA, a habitat assessment and a cultural resource subconsultant developing an archeological report. Any applicable USACE permits would be recommended following determination of impacts to jurisdictional waters. (11/2021-ongoing as of 7/2022)

Sorento Wastewater Interceptor, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The proposed project is intended to construct a new 11,200 linear foot wastewater decommissioning of a lift station and a flow diversion structure. Managed the environmental team, including archeological subconsultant, in completing field work and the EID and associated attachments because the project was being funded by TWDB. Planned a public meeting to present the project to the public as required by TWDB process. Coordinated with resource agencies as required. The EID was submitted to TWDB in April 2022 and is awaiting review and approval, anticipated to be approved in October 2022. (5/2021-ongoing as of 7/2022)

Weiss Lane/Kelly Lane Water Line, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The environmental team evaluated alignment recommendations of the Weiss Lane/Kelly Lane proposed water line that will connect to the Weiss Lane/Pecan Street waterline and distribute water to new and existing neighborhoods. Oversaw the environmental team to complete due diligence surveys and a summary report which included assessment of threatened and endangered species, jurisdictional waters and wetlands, cultural resources and hazardous materials. Additional studies for cultural resources clearance in the form of an archeological pedestrian survey would be required for clearance from Texas Historical Commission. (9/2021-ongoing as of 7/2022)

Salitrillo Wastewater Treatment Plant Expansion, San Antonio River Authority – Bexar County, Texas
Project Manager. Served as the environmental project manager to perform an environmental study for the expansion of the existing Salitrillo Wastewater Treatment Plant (WWTP). The study had to comply with the Texas Water Development Board (TWDB) requirements; therefore, Environmental Information Documents (EID) were prepared for the project. Coordinated and oversaw the environmental team in preparing the EID, including project description, alternatives analysis, purpose and need, socioeconomics analysis, biological impacts and water resources. Completed field investigations to delineation Salitrillo Creek, state and federal threatened and endangered species habitat evaluation and evaluated the potential for encountering hazardous material issues during development. Also coordinated with multiple local, state and federal agencies to obtain approval for the project. Coordinated and prepared material for a public meeting including handouts, maps, comment cards, a legal notice and public meeting summary. The EID was prepared but the client decided to forego TWDB funding and used the EID as their due diligence documentation. (7/2018-11/2019)

Multiple Roadways and Bridge Replacement Projects, Oklahoma Department of Transportation – Various Locations, Oklahoma
Quality Control Reviewer. Served as quality control reviewer for dozens of waters and wetlands reports, biological assessment reports and hazardous materials initial site assessment reports. Project locations include Texas County, Osage County, Grady County, McCLain County, Seminole County, Logan County, City of Madill, Muskogee County and

Ottawa County. Also completed field work and associated waters and wetlands reports, biological assessment reports and hazardous materials initial site assessments for projects in Cherokee County, Haskell County, Cotton County and Woods County. (1/2016-ongoing as of 7/2022)

Del Rio Landfill Due Diligence, City of Del Rio, Val Verde, Texas
Environmental Task Lead. The City of Del Rio is planning on expanding the existing city landfill to an approximate 75-acre parcel to the west of the existing landfill. As part of the landfill permitting process, due diligence reports were required. Managed the environmental team in the preparation of a Phase I ESA, Jurisdictional Waters Report and Threatened and Endangered Species Habitat Survey. Also managed a subconsultant in the preparation of an archeological pedestrian survey. Due diligence reports showed no concerns or items that would require further environmental permitting. (1/2020-5/2020)

> **Challenge:** Due to the nature of permitting a landfill expansion, the process takes multiple years to complete. Environmental due diligence review was needed at the beginning of the project to ensure no immediate concerns with expansion area. Environmental regulations change from this initial survey to final permitting and construction.
>
> **Solution:** Amy remains in contact with the landfill team, providing updates on regulations and how the changes to these regulations impact the environmental findings. For example, the waters of the US rule was changed from ephemeral streams being non-jurisdictional at the time of the survey, to now being jurisdictional. These streams were recorded during the initial site investigation and can be reviewed for appropriate permitting needs as the construction schedule is determined.

Northside Collection System Improvements, City of Del Rio, Val Verde County, Texas
Environmental Task Lead. The proposed project is intended to construct an approximate 36,000 linear feet of 18- to 33-inch wastewater line that will connect Silver Lake WWTP to Edwards Lift Station and provide service for future development and areas currently underserviced. The project will also consist of the decommissioning and elimination of the lift station at the northern end of the project. Managed the environmental team, including an archeological subconsultant, in completing field work and the EID and associated attachments since the project was being funded by TWDB. Planned a public meeting to present the project to the public as required by TWDB process. Coordinated with resource agencies as required. The EID was submitted to TWDB in March 2022 and is awaiting review and approval. It is anticipated to be approved in September 2022. (12/2019-ongoing as of 7/2022)

In-Fill Housing Environmental Review Records, Habitat for Humanity San Antonio, Bexar County, Texas
Environmental Task Lead. Prepared Environmental Review Records (ERRs) for the environmental clearance of vacant lots located in San Antonio, funded with Community Development Block Grants (CDBG). The environmental process adheres to the Code of Federal Regulations (CFR) Title 24 Parts 50, 51, 55 and 58 in addition to any applicable city, state and federal regulations. All projects completed qualify for assessment as a Categorical Exclusion (CE) subject to 58.5. Release of funds is issued by San Antonio. These projects are completed when Habitat for Humanity finds a vacant lot to use for in-fill construction of affordable housing. Managed staff production of ERRs. The Responsible Entity is the City of San Antonio, assuming responsibility for Habitat for Humanity. Currently 34 ERRs have been prepared under this project over the course of three years. (5/2018-10/2020)

Yucca Road Phase I Environmental Site Assessment, Habitat for Humanity San Antonio, Bexar County, Texas
Environmental Task Lead. Managed the preparation of a Phase I ESA for a 5.3-acre parcel that Habitat for Humanity intends to purchase with the purpose of constructing multiple homes. The Phase I ESA was conducted in accordance with ASTM 1527-13 standards. Staff conducted a desktop review of hazardous materials databases, historical aerial photographs and conducted a field investigation. The Phase I ESA was prepared and included a landowner survey as well as a user survey. The Phase I ESA was completed within approximately 21 days following notice to proceed. (4/2021-5/2021)

Weiss Lane/Pecan Street Water Line, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The environmental team evaluated alignment recommendations of the Weiss Lane (Ln)/Pecan Street (St) proposed water line. The proposed project would involve the installation of a transmission main which will convey water from the water treatment plant (WTP) to the west side of SH 130 where it would connect to an existing 16-inch watermain. Oversaw the environmental team to complete due diligence surveys and a summary report which included

assessment of threatened and endangered species, jurisdictional waters and wetlands, cultural resources and hazardous materials. Additional studies for cultural resources clearance in the form of an archeological pedestrian survey would be required for clearance from Texas Historical Commission. Soil sampling for hazardous materials due to a leaking above-ground storage tank that was discovered during field investigations was completed by a subconsultant managed by Ms. Esguerra. (3/2020-3/2021)

Wilbarger Creek Regional WWTF Program, City of Pflugerville, Texas
Environmental Task Lead. This wastewater program includes managing a 6.0 MGD WWTF, 54-inch wastewater interceptor project, and the planning and managing of a series of lift station removals. The purpose of this program is to transfer wastewater flows in the Wilbarger Creek Basin from being pumped through a series of lift stations to a new gravity system conveying flow to a new WWTF. Serving as part of the Owner's Representative team. Reviewing consultant environmental documents, providing recommendations on environmental questions and approach to the program. The program includes the construction of a new WWTP and new interceptor. (4/2020-ongoing as of 7/2022)

Talley Road Phase 1, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. Served as the environmental task lead, including widening the existing roadway, adding sidewalks and improving drainage. These undertakings are needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Oversaw the environmental team in the preliminary engineering portion of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey, karst survey and a archeological pedestrian survey. Also prepared the Phase I Environmental Site Assessment, Jurisdictional Waters Determination report and an environmental overview report required for the project. Coordinated a public meeting which presented the project schematics and environmental findings. Prepared meeting handouts, public notices which were provided to local HOAs, and a public meeting summary report which documented comments received at the meeting. A comment response matrix was also prepared and included in the summary report. (1/2015-9/2017)

Talley Road Phase II, Bexar County, Texas
Environmental Task Lead. Talley Road would consist of expanding the existing two lane roadway to four travel lanes, one 11-foot travel lane and one 15-foot shared-use lane in each direction, one continuous 14-foot left turn lane and 5-foot sidewalks located along both sides of the roadway for the entire length of the project area. The project is receiving federal funds and therefore must comply with all TxDOT requirements and forms. Responsibilities included overseeing the environmental team in the preparation of the species analysis spreadsheet and form, surface water analysis form, hazardous materials ISA, community impact analysis, a noise analysis and a historic project coordination request. Managed a subconsultant for the preparation of a karst survey and the archeological desktop report. Also completed materials to meet with affected property owner (MAPO) requirements by preparing notification letters and exhibits for those landowners impacted by the project. A virtual public meeting was held and Amy managed the preparation of virtual presentation and script, legal notices and other materials. Prepared an informal consultation letter for USFWS coordination for potential effects to karst species during geotechnical borings. Also managed the preparation of a Biological Assessment for potential impacts to karst species during final construction as well as mitigation as required by TxDOT and USFWS. Environmental clearance was issued by TxDOT April 2022. Oversaw the preparation of a PCN for NWP 14 in compliance with General Condition 18, impacts to federally protected species. The PCN is with USACE for review as of July 2022. (7/2019-ongoing as of 7/2022)

IH 30 from Linkcrest Drive to IH 820, TxDOT Fort Worth District, Fort Worth, Tarrant County, Texas
Environmental Manager. The proposed improvements would include widening from a four-lane freeway to a six-lane freeway, improvements to the IH 30 and Spur 580 interchange, and the construction of continuous one-way frontage roads throughout the project limits. Bike lanes and sidewalks will be added to both the eastbound and westbound frontage roads throughout the project limits. The proposed project is intended to reduce congestion, improve safety and mobility, and maintain local access along the roadway. The project length is 3.4 miles and would require minor amounts of additional right-of-way (ROW). Responsibilities included overseeing the environmental team in the preparation the species analysis form, Tier I site assessment form, surface waters analysis form, hazardous materials ISA, PCR, community impact assessment and a noise analysis. Managed a subconsultant for the preparation of an archeological desktop report. Attended a public meeting open house to answer questions related to environmental constraints and studies for the project. Assisted in preparing slides related to the environmental review and studies for the virtual public hearing, and prepared responses to comments received during the public hearing as they related to the environmental studies. A pre-construction notification is also being completed and managed for impacts to wetlands at a frontage road expansion at several locations but is currently awaiting engineering design. Environmental clearance is pending and anticipated in July 2022. (10/2018 – ongoing as of 7/2022)

Del Rio International Bridge Expansion, Del Rio, Val Verde County, Texas
Environmental Manager. The Del Rio Port Director, US Customs and Border Patrol (CBP), presented to the City of Del Rio several months ago the need of a new 2-lane roadway from the base of the International Bridge to the newly established expedited cargo lanes (about 1,700 lineal feet (LF) of roadway total; roughly 1,300 LF on City property and 400 LF on Federal property) and requested that the City consider constructing the 2-lane roadway and appurtenances (drainage, signage, lighting, fencing) and then donating all improvements on Federal property under the US CBP's Donations Acceptance Program. Managed the completion of a DHS CE document to assess potential impacts of the proposed project and an archeological subconsultant that completed a desktop review and letter to the THC for cultural clearance. The document was completed with a tight turn-around of three weeks from NTP due to the impending deadline the city faced with the DHS. (11/2020-12/2020)

County Road 112, City of Round Rock, Williamson County, Texas
Environmental Task Lead. The City of Round Rock is planning on expanding and realigning CR 112 for approximately 1.2 miles. As part of the environmental approval process, due diligence reports were required. Managed the environmental team in the preparation of a Phase I ESA, Jurisdictional Waters Report, and Threatened and Endangered Species Habitat Survey. Due diligences reports showed no concerns or items that would require further environmental permitting. (2/2020-1/2021)

Phase 1B Water Supply Project (5 year contract), Alliance Regional Water Authority (ARWA), Caldwell, Guadalupe and Hays Counties, Texas
Environmental Task Lead. ARWA is planning for and building groundwater wells, raw water lines, water treatment plant, transmission mains, an administrative operations facility, booster pump station and delivery points to provide water to its clients in central Texas. ARWA is utilizing the State Water Implementation Fund for Texas (SWIFT) to finance its work. Providing environmental oversight for the completion of the proposed project by managing the environmental consultant that was obtained to complete the environmental documents for the program. Oversees day-to-day coordination between the environmental consultant with the engineers, ARWA, state and federal agencies such as Texas Water Development Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department, and reviews all environmental documents including the Environmental Data Form (EDF) required by the TWDB for SWIFT funding. Provides direction and recommendations on environmental issues, schedules, and other related items to the Owner's Representative team and ARWA. Assists in overseeing construction aspects as it relates to compliance with environmental commitments, laws and regulations. Manages migratory bird nest surveys completed each week prior to vegetation clearing, advises on changes in limits of construction to ensure the project is still in compliance with approvals, prepared a USACE NWP 58 for a tunnel collapse at a jurisdictional crossing and any additional issues that arise during construction. (11/2017-ongoing as of 6/2022)

San Felipe Creek Footbridges and Bank Improvements, City of Del Rio, Texas
Environmental Project Manager. Served as the environmental project manager for improvements to two pedestrian bridges, bank retaining wall repairs and repairs to sidewalks along an approximate 0.65-mile section of San Felipe Creek. The San Felipe Creek is designated by the U.S. Fish and Wildlife Service (USFWS) as a critical habitat for the endangered Devils River Minnow. CP&Y provided environmental permitting services, which included all agency coordination necessary for project approval and construction. Managed the preparation of a U.S. Army Corps of Engineers (USACE) Permit Nationwide Permit (NWP) 3 Pre-Construction Notification (PCN) for impacts that would occur to the creek as a result of the project. Per NWP General Condition 18, impacts to endangered species, a Biological Assessment was also prepared to conduct Section 7 Consultation. After extensive coordination with USFWS to reach an agreement on feasible best management practices (BMPs) and conservation measures, the USFWS issued a Biological Opinion and USACE issued approval for NWP 3. Additionally, was responsible for managing a cultural resources subconsultant that prepared a desktop report in order to obtain approval from the Texas Historical Commission. Prepared an aquatic relocation plan in compliance with Texas Parks and Wildlife requirements and received approval in anticipation of construction. Will oversee monitoring and conservation measures required by USFWS and USACE during construction and complete post-construction reporting requirements. Construction expected to be complete 10/2022. (10/2018-ongoing as of 7/2022)

FM 725, TxDOT San Antonio District, Guadalupe County, Texas
Environmental Manager. The proposed improvements would include the addition of center turn lanes and shoulders from Zipp Road to FM 78. All improvements took place within the existing ROW. Responsibilities included overseeing the environmental subconsultant in the preparation of the biological evaluation and Tier I form, jurisdictional waters report, hazardous materials ISA, PCR and an archeological desktop report. Completed QC reviews on all materials and coorindated with the engineering team to ensure current design was used in impact assessments. The project was environmentally cleared in April 2021, six months after the start of the project to ensure the project would meet the letting date. (11/2020-4/2021)

Basin Planning Consultant (BPC) Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. As part of SAWS' efforts on the Sanitary Sewer Overflow Reduction Program, served as the environmental task lead to two engineering firms selected as Basin Planning Consultants to assess the East, West and Central Basins. Efforts for the environmental task manager included coordination with the engineering teams and the archeological subconsultant to complete the 10% desktop analysis and 30% field analysis for all capacity constraints and the open-cut condition constraint sanitary sewer lines within the three basins across most of Bexar County. Constraints assessed via the desktop survey included hazardous materials, jurisdictional waters and wetlands, and threatened and endangered species which includes reviewing reported occurrences, designated critical habitat and karst zones. The desktop analysis also included providing recommendations of potential problem areas along alternatives, required environmental permits and agency approvals, and actions needed to obtain environmental clearance for the constraint lines. Completed site visits for the 30% design level field investigations which included field surveys for threatened and endangered species habitat, jurisdictional waters and wetlands, and hazardous materials. Also provided quality control and mapping support to complete environmental memorandums summarizing field finds, jurisdictional water and wetland reports, and Phase I ESAs. The 30% design reports included more defined findings and permitting requirements for the final design engineer to follow for compliance with environmental laws and regulations. Managed the environmental team which has included an internal team of biologists and GIS personnel, as well as an archaeological and karst survey subconsultant. (8/2016-2/2018)

Blanco Road Phase II, Alamo Regional Mobility Authority, Bexar County, Texas
Environmental Task Manager. Improvements to a 3.6-mile segment of Blanco Road between West Oak Estates Drive and Borgfeld Drive in Bexar County from a 2-lane roadway to a 4-lane roadway with two 12-foot travel lanes and 6-foot shoulders/bike lanes in each direction. The roadway would have a raised median, curb and sidewalk on the northbound side of the project. The project is receiving federal funds and therefore must comply with all TxDOT requirements and forms. Responsibilities included overseeing the environmental team in the preparation of the biological evaluation and Tier I form, waters technical report, hazardous materials ISA, air quality report and a noise analysis. Managed a subconsultant for the preparation of a karst survey and the cultural resources report. Coordinated a public meeting which presented the project schematics. Prepared meeting handouts, public notices which were provided to local HOAs and adjacent property owners, and a public meeting summary report which documented comments received at the meeting. A comment response report was also prepared and included in the summary report. A public hearing was also held in which Amy oversaw material preparation including legal notices, notices to adjacent property owners, presentation and script and other handouts. A public hearing summary report was prepared following the end of the comment period. Environmental clearance was provided by TxDOT in April 2019. (3/2017-2/2019)

FM 16, TxDOT Tyler District, Smith County, Texas
Biologist/NEPA Specialist. The proposed project would consist of widening the roadway and straightening out curves to accommodate future traffic demands and improve safety along the 4.4-mile corridor. Assisted in preparing final versions of the Hazardous Materials ISA, Water Technical Report and the Biological Evaluation and Tier I form. This consisted of updating necessary information such as vegetation impacts, acreage updates and re-evaluation of right-of-way due to design changes made after the reports were prepared. Prepared all sections of the Environmental Assessment including the purpose and need, affected environment utilizing the various technical reports and forms, indirect and cumulative impacts, permits and approvals, commitments, and with input from the design engineer, the alternatives analysis. A FONSI was issued for the project in March 2019. (2/2016-3/2019)

Kenney Fort Boulevard, City of Round Rock, Round Rock, Williamson County, Texas
Deputy ENV PM/Biologist. Kenney Fort Boulevard Segments 2 and 3 will extend the existing limits from Forest Creek Drive to Gattis School Road (Segment 2) and from Gattis School Road to SH 45 (Segment 3). The project area covers a total area of 35.9 acres. Project was funded with CAMPO federal funds and therefore had to adhere to the TxDOT approval process. Responsibilities included completing field work to delineate waters and wetlands, review potential habitat within the project area and determine the potential for encountering hazardous materials along the project corridor. Reviewed technical reports prior to submittal. Prepared Environmental Assessment based on final technical reports and addressed TxDOT comments. Prepared and obtained a PCN and coordinated with USACE for project approval due to unavoidable wetland impacts. A FONSI was issued for the project in May 2021. (1/2019-12/2021)

Vista Ridge Regional Supply Project, Garney Construction, Central Texas
Biologist/Internal Task Lead. This design build project consisted of a well field, seven miles of well collection line, 140 miles of large diameter treated transmission main, three pump stations, water treatment facilities and a metering station/ customer delivery point through primarily rural areas. Responsibilities included surveying approximately 77 miles of transmission line easements for waters and wetlands of the U.S. through rural areas as well as providing photo documentation for the surveyed areas. (2/2015-3/2016)

Martinez IV Wastewater Treatment Plant, Collection Line, and Lift Station, San Antonio River Authority, Bexar County, Texas
Environmental Project Manager. Led the environmental study for the construction of the new Martinez IV Wastewater Treatment Plant (WWTP) and the associated collection line and lift station, evaluated as two separate projects. The study had to comply with the Texas Water Development Board (TWDB) requirements to receive Clean Water State Revolving Funds (CWSRF); therefore, two Environmental Information Documents (EID) were prepared. Coordinated and oversaw the environmental team in preparing the EID, completed field investigations to delineate four streams, three wetlands, state and federal threatened and endangered species habitat evaluation, and evaluated the potential for encountering hazardous material issues during development. Coordinated with multiple local, state and federal agencies to obtain approval for the project. Coordinated and prepared material for two public meetings, including handouts, maps, comment cards, legal notices and public meeting summaries. Both EIDs were approved by the TWDB and received a Finding of No Significant Impact (FONSI). (1/2017-10/2017, 1/2019)

> **Challenge:** The new WWTP, collection line and lift station were slated to be part of the overall project; however, the WWTP needed to be constructed on an accelerated schedule due to existing infrastructure currently at the site. The lift station parcel was not acquired and had to under-go several additional studies for property acquisition that would have delayed environmental approval on the WWTP.
>
> **Solution:** The WWTP and the collection line and lift station were split into two environmental documents. Amy was able to show that the WWTP had independent utility without the collection line and lift station being constructed because there was an existing sewer line at the site that would soon be operational and require the plant to be constructed. This allowed for the WWTP to be approved ahead of the collection line and lift station, thereby keeping construction of the WWTP on schedule.

IH 14 Needs Assessment, TxDOT Planning and Programing Division, Texas
Technical Formatting Editor. The IH 14 corridor extends from IH 10 in Pecos County, east approximately 590 miles, to the Texas/Louisiana border. The corridor follows the existing alignment of US 190 for most of its length, diverging from US 190 east of Jasper in Jasper County and following the existing SH 63 alignment to the Texas/Louisiana state line. There are also two alternate routes that were assessed; one from the west that extends from the junction of IH 20/SH 158 in Midland County eastward approximately 185 miles to US 377/US 190 in McCulloch County which follows SH 158 and US 87; and an eastern alignment that generally follows the existing alignment of US 69 from its intersection with US 190 in Tyler County, south approximately 54 miles to its intersection with IH 10 in Jefferson County. Responsibilities included preparing templates used as go-bys for the environmental technical reports in order to have uniform document from multiple staff members. Formatted and prepared final submittal documents of the cultural resources, ecological, hazardous materials and community resources existing conditions reports for each of the three routes assessed. (08/2016-03/2018)

San Filipe Golf Course, City of Del Rio, Texas
Project Manager. Provided services to the City of Del Rio to complete an environmental due diligence study for expanding the San Filipe Golf Course to an 18-hole facility. Outlined the required tasks for the study, consulted with the city engineer, city manager and other city staff to outline the benefits of completing the environmental study prior to purchasing the property. Advised the City of the environmental risks that are associated with the project including the presence of critical habitat for the Devils River Minnow on the golf course property and that a portion of the property occurs within a designated archeological district, which is protected by state and federal laws. Presented the proposal and issues to the city council and responded to questions during the October, 2016 city council meeting. Field work was conducted and an environmental report prepared and presented at the May, 2017 city council meeting. Managed the schedule and budget of the project as well as an archaeology subconsultant that preformed an intensive survey of the property. (1/2017-8/2017)

E-19 Seguin Road to Nacogdoches Road Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. The proposed project, referred to as E-19, will replace a wastewater line from Seguin Road to Nacogdoches Road for a length of 6.3 miles. The proposed project is split into two segments, Segment 1 and Segment 2. Managed the completion of environmental tasks for both segments. A field survey was conducted to assess waters and wetlands, hazardous materials and wildlife habitat. Reports for environmental clearance and approval included a Phase I ESA, Jurisdictional Waters and Wetlands reports, Threatened and Endangered Species Habitat Assessment reports, and a Cultural Resources Surveys. Prepared the Phase I ESA and the Jurisdictional Waters and Wetland Report for both segments. (2/2016-2/2017)

E-20 Wurzbach Parkway Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. The project will replace E-20 wastewater line from a point north of the existing Marymount siphon south of Nacogdoches Road to the intersection of Jones Maltsberger Road and Wurzbach Parkway for a length of 4.3 miles. The project also includes the installation of a bore under the UPRR right-of-way adjacent to Wetmore Road near Salado Creek in order to extend two 18-inch bypass force mains. This portion of the project is referred to as the bypass bore. A field survey was conducted to assess jurisdictional waters and wetlands, hazardous materials and wildlife habitat along the project alignment. (5/2016-12/2020)

FM 1560 at SH 16, TxDOT San Antonio District, Helotes, Texas
Biologist. The project was needed to realign FM 1560 intersection at SH 16 to improve traffic operations and reduce delays. Completed a field investigation to document potential hazardous materials and biological features, including vegetation, threatened and endangered species habitat, and waters resources. Prepared the biological evaluation form, ISA form, and a waters and biological technical report for the project. (01/2015-03/2015)

FM 2113, TxDOT Waco District, Hewitt, Texas
Public Involvement Lead. Assisted engineering team in preparing for a public meeting for the project which included coordinating the project meeting date, handout materials, legal notice, meeting exhibits which consisted of schematic roll plots, typical section boards, and a television displaying the project design on Google Earth with a KMZ file. A comment station and sign-in table were also available to the public. Oversaw the preparation of a public meeting summary report which was provided to the engineer and district following the close of the comment period. (10/2016-10/2017)

Categorical Exclusions, TxDOT Fort Worth District, Erath and Hood Counties, Texas
Biologist. Categorical Exclusions (CEs) were required for three projects consisting of the addition of shoulders to existing roadways within existing right-of-way. Completed field investigations to document wildlife, vegetation, waters and wetlands, hazardous materials and other environmental concerns. Data was used to complete biological evaluation forms which assess the vegetation within the project limits and potential for threatened and endangered species to occur within the project limits. Water resource technical reports were also completed for the three projects with a determination of need for Section 404 permit for each project. (03/2015-05/2017)

Old FM 471 and Talley Road, Bexar County Public Works, Bexar County, Texas
Environmental Task Lead. Served as the environmental task lead for the proposed project which is needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Oversaw the environmental team in the preparation of the preliminary engineering portion of the project and prepared a Phase I Environmental Site Assessment. The preliminary engineering consisted of completing field work for biological resources, a historical windshield survey and report, and an archaeological desktop survey. An archaeological pedestrian survey and a jurisdictional waters report was prepared when design plans were finalized. (6/2016-8/2018) (as sub 5/2015-12/2015)

Talley Road, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. The project included widening the existing roadway, adding sidewalks, and improving drainage. These undertakings are needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Amy oversaw the environmental team in the preliminary engineering portion of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey, karst survey, archeological pedestrian survey. She also prepared the Phase I Environmental Site Assessment, Jurisdictional Waters Determination report, and an environmental overview report required for the project. Coordinated a public meeting which presented the project schematics and environmental findings. Prepared meeting handouts, public notices which were provided to local HOAs, and a public meeting summary report which documented comments received at the meeting. A comment response matrix was also prepared and included in the summary report.

Old Corpus Christi Road, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. Served as the environmental task leader for this project, consisting of roadway reconstruction and adding shoulders. Oversaw the environmental team in the preliminary and intermediate design phase of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey and an archaeological pedestrian survey. Also prepared the Phase I Environmental Site Assessment and a Jurisdictional Waters Determination report required for the project. Once design plans at the jurisdictional creek reached 60% design phase, a Section 404 permitting memorandum document was prepared with the impacts to the jurisdictional water, the assumed NWP 14, and BMPs that would be in place in order to comply with Section 404 and 401 of the Clean Water Act. (12/2015-8/2016)

Sixmile Creek Individual Permit (IP), Bexar County Flood Control Program, Bexar County, Texas
Biologist. Performed a delineation for the area downstream of the project which is anticipated to be used for enhancement mitigation, completed the Texas Rapid Assessment Method to determine mitigation credits required to compensate for the proposed impacts from the project, completed portions of the IP and prepared the associated mitigation plan. The IP was abandoned due to mitigation costs required for impacts to the stream. (2/2015-8/2015)

US 183 North Mobility Project, Central Texas Regional Mobility Authority, Travis and Williamson Counties, Texas
Biologist. Served as a biologist on the preparation of the Water Resources Technical Report as part of the Environmental Assessment for the proposed improvements to US 183 from SH 45/RM 620 to Loop 1 (MoPac). Completed delineations of water features and report preparation which included analysis of jurisdictional waters and wetlands, floodplain impacts, water quality and indirect effects of the proposed project. (1/2015-4/2016)

US 90 Pedestrian Bridge, TxDOT San Antonio District, San Antonio, Texas
Biologist. The proposed project was to construct a pedestrian bridge over the existing US 90 as well as add approximately 7,300 feet of sidewalks along both the north and south sides of the US 90 frontage roads within the existing right-of-way. Prepared a water resources technical memorandum for the project which documented resources present within the NEPA study area, impacts to those resources and permitting requirements for the project. (1/2015)

Forney Sanitary Sewer Line Project, North Texas Municipal Water District, Forney, Texas
Environmental Project Manager. Serving as the environmental project manager for installation of a new sanitary sewer line parallel to an existing line. Managing the preparation of a U.S. Army Corps of Engineers Permit for impacts that would occur to waters and wetlands, including forested wetlands. Completed field work to calculate TxRAM scores for mitigation, prepared the Nationwide Permit 12 application, the conceptual mitigation plans and determination of credits. The USACE returned no comments on the application and approved it within the initial 30-day review period which resulted in saving a minimum of one month on the project timeline. Also coordinated the purchase of the credits with the selected mitigation bank on behalf of the client. (4/2019-11/2019)

Tonk Creek Road and N. Crooked Creek Road Bridge Projects, McLennan County, McLennan County, Texas
Environmental Task Manager. The proposed project will repair a wingwall and road embankment on Tonk Creek Road at Tonk Creek and replace a collapsed bridge on N. Crooked Creek Road at Crooked Creek in McLennan County. Amy is overseeing the environmental team in the preparation of a cultural resources desktop survey, which has been submitted to THC for review, and an environmental report which was a combined habitat assessment and a waters delineation and impacts report. Assessed anticipated impacts and Section 404 permitting requirements. Also completed field work for the water delineation. (11/2019-6/2020)

Gibb Sprawl Pump Station Phase I Environmental Site Assessment, San Antonio Water Systems (SAWS), San Antonio, Texas
Environmental Task Manager. Completed field work and managed the completion of a Phase I ESA for a parcel proposed for purchase by SAWS. The parcel was owned by KB Homes and was undevelopable due to its proximity to the floodplain. The parcel was found to have piles of soil, broken concrete and asphalt, dumped household waste, tires, presumably paint can and five gallon buckets which contained unknown materials. Due to the extensive dumping on the site, a Phase II ESA with soil and subsurface testing was recommended. (3/2020-5/2020)

IH 10 at San Jacinto River Navigation System Replacement, TxDOT Houston District, Harris County, Texas
Biologist/QC Reviewer. Prepared a Categorial Exclusion (CE) document for the replacement of bridge fenders and four dolphin structures on the San Jacinto River and IH 10 crossing due to the navigation accidents which damaged the bridge. The project also required a U.S. Coast Guard permit for which Amy served as QC on the permit applications and all associated attachments and USACE Individual Permit. (11/2019-2/2020)

Gilliland Road Bridge Replacement Project, TxDOT Fort Worth District, Parker County, Texas
Environmental Project Manager. The project required preparation of a Historic Studies Project Coordination Request form, a Hazardous Materials Initial Site Assessment (ISA), a Biological Evaluation Form and Tier I site assessment, and a Water Resources report. Completed field work consisting of a waters and wetland delineation, review of potential habitat, and review of hazardous materials within the project area and oversaw the preparation of all reports. Coordinated with the project engineer to remove riprap from impacting a wetland in order to avoid the need for a USACE Preconstruction Notification. (5/2019-9/2019)

Marksheffel Road, City of Colorado Springs, Colorado Springs, Colorado

Environmental Task Manager. The City of Colorado Springs proposes to construct new approaches and a buried structure on Marksheffel Road over Sand Creek in northeastern Colorado Springs. The project includes a structure spanning over Sand Creek, stream channel improvements, including drop structures, roadway design for approximately 355 LF of asphalt pavement, sidewalks, a connection beneath the structure for Sand Creek trail and other miscellaneous items. Prepared and submitted a NWP 14 PCN and RGP 37 to the USACE Albuquerque District along with a Bank Use Mitigation plan, the first to be prepared for the district, due to impacts to shrub/scrub and emergent wetlands in addition to Sand Creek. Coordinated the purchase of the credits with the USACE approved mitigation bank for the client. The permit was issued July 2019. (1/2019-10/2020)

FM 725, TxDOT San Antonio District, New Braunfels, Comal, and Guadalupe Counties, Texas
Environmental Task Manager. The proposed improvements would include the addition of a combination of raised medians and center turn lanes and left and right turn lanes at various points along the project limits, a shared use path along the south side of the road and a sidewalk along the north side of the roadway. The proposed project would be 1.65 miles in length and would require 4.58 acres of additional right-of-way (ROW). Responsibilities included overseeing the environmental team in the preparation of the species analysis form, Tier I site assessment, surface water analysis form, hazardous materials ISA, PCR, historical resources survey report, community impact assessment and a noise analysis. Managed a subconsultant for the preparation of a cultural resources desktop report. Completed field work for the biological components and note noise receivers for the noise analysis. Planned and setup meetings with affected property owners with the project team to go over the project and ROW acquisition process. These were held virtually due to COVID-19. Planned and developed virtual public meeting material including virtual sign-in, presentation and associated script, flyer notifications, letters to elected officials, traditional comment cards and virtual comment cards. A public meeting summary report with a response to comments was also prepared. Environmental clearance was received March 2021. A pre-construction notification is also being completed and managed by Amy for impacts to wetlands at a culvert extension. A noise workshop will also be conducted for a proposed noise barrier along a portion of the project. (8/2018-ongoing as of 6/2022)

Candlemeadow Road, Alamo Regional Mobility Authority, San Antonio, Bexar County, Texas
Environmental Task Manager. The proposed project will reconstruct the current roadway to include two 12-foot travel lanes, 10-foot shoulders, curb and 4.75-foot sidewalks. Oversaw the environmental team in the preparation a cultural resources desktop survey and a water resources technical report. Also completed field work for the water resources technical report. The report desktop cultural report was approved by THC with no further surveys required and the waters report was approved by Bexar County. (2/2019-1/2020)

Corridor F/US 183 Project, Williamson County, Texas
Biologist/NEPA Specialist. The proposed project would consist of improvements which would enhance safety and mobility by constructing a controlled access facility from SH 29 to the north Williamson County line. The project area encompasses 794.6 acres. Approximately 5.3 acres would be drainage easement, 191.8 is existing public right-of-way and 597.5 is proposed (new) right-of-way. The project is currently locally funded and only due diligence documentation is being prepared. Responsible for QC of various technical reports and preparing an Executive Summary report for the proposed project. (4/2018-10/2019)

Other Firms

The Southern Gateway Project, TxDOT Dallas District, Dallas County, Texas*
Biologist. Prepared a water resources technical report and a hazardous materials technical report for inclusion as attachments to an Environmental Assessment (EA) for the improvements to IH 35E from IH 20 to Reunion Boulevard (10.5 miles) and along US 67 from FM 1382 to the IH 35E/ US 67 Split (9.4 mi.) in Dallas County, Texas. Field work was completed at the beginning of the project to determine the ordinary high water mark of all jurisdictional water features and wetlands as well as potential areas of concern for hazardous materials along the 19.9-mile corridor. Served as QC reviewer on the biological evaluation form and the threatened and endangered species technical report.

IH 35 Northeast San Antonio Expansion Project, TxDOT San Antonio District, Bexar, Comal, and Guadalupe Counties, Texas*
Biologist. An Environmental Assessment (EA) was prepared for the IH 35 corridor in San Antonio. The proposed improvements would add capacity in the form of elevated managed lanes between the existing mainlanes and frontage roads. In addition, proposed direct connectors would link the proposed managed lanes to the existing IH 410 South, IH 410 West, and Loop 1604 facilities. Prepared the water resources sections for the EA including waters and wetlands of the U.S., floodplains, water quality, and groundwater as well as the hazardous materials section of the document. Completed field work at the beginning of the project to determine the ordinary high water mark of all jurisdictional water features and potential areas of concern for hazardous materials along the 18.8-mile corridor.

Shoal Creek Restoration Project, City of Austin, Texas*
Biologist. The City of Austin is improving Shoal Creek from 15th to 28th Streets in downtown

Austin, Texas. Improvements include bank stabilization, improved access points and creek crossings, extension of a hiking trail and bike path, removal of wastewater line from the creek, and soil restoration and re-establishment. Prepared the Pre-Construction Notice to obtain the approval of the U.S. Army Corps of Engineers for work completed within the stream. The project required a combined Nationwide Permit (NWP) 13 for bank stabilization and a NWP 42 for recreational facilities. Notification was required due to the bank stabilization exceeding 500 LF and discharging more than one cubic yard per running foot of stream, as well as the use of NWP 42. The permit was issued in early 2015 by the Fort Worth District USACE.

Galm Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. This project included jurisdictional determinations at two creek crossings (Culebra Creek and a tributary to Culebra Creek) for the Bexar County. Site investigations were conducted and high water mark for both creeks were delineated using Trimble GPS equipment. A jurisdictional determination report was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

West Rail Wetland Mitigation, Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Completed wetland mitigation monitoring site visits and associated reports as required by the USACE Individual Permit issued for the West Rail Relocation project in Brownsville, Texas. The first evaluation occurred one year after the wetland mitigation site was established. The monitoring visit was needed to complete a plant count survey. Individual plants that were planted at the wetland mitigation site were counted in order to determine survival rate of the planted wetland species. A findings report was prepared and submitted to the client, CCRMA. Completed several additional monitoring visit throughout a two year period and to determine the aerial percent cover of desirable wetland species and invasive species at the mitigation site. Summary reports were prepared and submitted to the client.

Prue Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. Completed jurisdictional determinations at French Creek for Bexar County. Site investigations were conducted to delineate the ordinary high water mark using Trimble GPS equipment. A jurisdictional determination report was prepared. A Threatened and Endangered Species Habitat Assessment report was also prepared. Two combined Nationwide Permits, 12 and 14, were required.

Real Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. Completed jurisdictional determinations at Chupaderas Creek for Bexar County. Site investigations were conducted to delineate the ordinary high water mark using Trimble GPS equipment. A jurisdictional determination report was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

Hurricanes Ike and Dolly Disaster Recovery Program, Texas General Land Office, Various Counties across South and East Texas*
Environmental Reviewer/Documentation Compliance. Served as environmental coordinator tasked with assisting in coordination and guidance between community officials, project engineers, environmental service providers, and grant administrators. Provided guidance for specific environmental permits required, potential schedule delays due to resource agencies, and direction on ensuring a project followed HUD and other agency environmental regulations. Prepared environmental guidance documents for the DR Program including: general DR Program guidance, HUD compliance requirements, USACE Section 404 permitting requirements, hazardous materials guidance, and floodplain and public notice publication requirements. Reviewed all program ERRs for accuracy and compliance with Section 404, NEPA, hazardous materials issues, and other HUD requirements. Prepared ERRs for high priority projects that required a fast turnaround or had other special considerations that were beyond a typical ERR for the program.

VIA Program Management, VIA Metropolitan Transit, San Antonio, Texas*
QC/QA. Completed the environmental section of an alternative site analysis report that was prepared to review constraints for all potential sites for the VIA Street Car Maintenance Facility. The environmental section reviewed hazardous material, water and wetland resources, parks and cemeteries, as well as cultural resources (completed by others). Provided QC services on various items from the document controls group for the program. Performed QC on various documents including meeting minutes, technology instruction manuals and the program contact database.

South Padre Island 2nd Access EIS, Cameron County RMA (CCRMA), South Padre Island, Texas*
Biologist. Involved in preparing an environmental impact statement (EIS) for the construction of a second access for South

Padre Island. Conducted field work to determine potential wetlands within the various alternative alignments on both the mainland and island sides of the project. Various sample points were taken where right-of-entry had been obtained in order to make preliminary determinations for the DEIS. Where right-of-entry was not obtained, visual determinations from right-of-way had to be made based on soil maps, vegetation, and visible wetland indicators. Prepared various portions of the Final EIS including, surface water, waters of the U.S., floodplains, hazardous materials, and cumulative impacts for water quality, floodplains, and wetlands. Assisted in several public meetings for the Draft EIS process, interacting with the public attendees.

FM 511/SH 550 EA Re-Evaluation, Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Involved in preparing a re-evaluation for the construction of mainlanes for the FM 511 and SH 550 project for the CCRMA. Provided support for the public meeting by answering questions regarding the previous environmental document and the proposed changes which would result from tolling the roadway. The document received a Finding of No Significant Impact from FHWA in August, 2009. Composed a jurisdictional determination (JD) report due to wetlands found within the project right-of-way. This JD report was composed with data provided by a local environmental firm. An individual permit was required.

RM 473 West Sister Creek Bridge Replacement, TxDOT San Antonio District, Kendall County, Texas*
Biologist. Conducted a site investigation and wetland delineation as part of a Pre-Construction Notice (PCN). Wetlands were staked out and GPS points were taken. Prepared a PCN report which was approved by the U.S. Army Corps of Engineers Office and granted a Nationwide Permit 14.

Ingram Road Jurisdictional Determination (JD), Bexar County, San Antonio, Texas*
Biologist. This project included JDs at two creek crossings (Huebner Creek and Leon Creek) for the Bexar County Flood Improvement Project. Site investigations were conducted. With another environmental planner, marked the ordinary high water mark for both creeks using spray paint and flagging for survey crews to take points. A JD was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

Shepherd Road Jurisdictional Determination (JD), Bexar County, San Antonio, Texas*
Biologist. This project included JDs at two creek crossings (Blackhill Branch and Elm Creek) for the Bexar County Flood Improvement Project. Site investigations were conducted. With another environmental planner, delineated the ordinary high water mark for both creeks using Trimble GPS equipment. A JD report and Pre-Construction Notice were prepared. Final mitigation plans were developed and implemented for the project.

Centennial Corridor Project, Caltrans, Bakersfield, California*
Team Member/Surveyor. Assisted with the development of a Community Impact Assessment study for the Centennial Corridor project. The project is in Bakersfield, California for the City's Thomas Roads Improvement Program and the California Department of Transportation. Developed a neighborhood survey as well as a business owner survey that was mailed to residents and businesses throughout the four alternative corridors study area. Over 1,000 neighborhood surveys were received in response to the mail-out. One-on-one interviews were also conducted with residents along the alternatives corridors. Incorporated survey and interview responses into the Community Impact Assessment.

Secure Border Initiative, Cochise, Pima, Pinal, and Santa Cruz Counties, Arizona*
Biologist. Involved with the Federal Services division contracted with the US Department of Homeland security. The project involved conducting site investigations along the southern border to determine environmental impacts to proposed roads and construction areas. This included analyzing riparian and upland areas for any possible alterations needed and determining the necessary permits required for each site. Gathered data alongside survey crews, engineers, and hydrologist to assist with in-office planning and design.

IH 10 Weigh Station Relocation, TxDOT San Antonio District, Guadalupe County, Texas*
Biologist. Conducted a site investigation and prepared preliminary reports for the relocation of a weigh station in Guadalupe County, Texas. The sites consisted of an active weigh station and the proposed location, which is an abandoned and decimated rest area along IH 10. Prepared a preliminary categorical exclusion and blue lines for the project.

West Loop Environmental Assessment (EA), Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Involved in preparing an EA for the construction of a new location thoroughfare for the CCRMA. The roadway would

be a limited access toll road. Assisted in the preparation of the Public Meeting Comment Response Report. Assisted in the preparation of a jurisdictional determination report. A Nationwide Permit 14 was anticipated.

Loop 375 César Chávez (Border Highway West Extension), TxDOT El Paso District, El Paso, Texas*
Biologist/Public Involvement. Conducted preliminary research on wetlands, vegetation, and invasive species for preparation of the draft EIS. Assisted in coordinating and provided support for the first round of agency and public scoping meetings for the project. Assisted in preparation of the Agency Scoping Meeting Report and the Public Scoping Meeting Report. Assisted in the finalization of the overall schedule of the project, as well as in the development of a more detailed review process schedule.

US 281 Environmental Assessment (EA), TxDOT San Antonio District, San Antonio, Texas*
Technical Writer. Compiled the Administrative Record for the project, which included gathering and organizing documents used throughout the planning and development of the project, some of which date back to the 1950s. Reviews of the record were completed by TxDOT and FHWA. Developed the draft decisional document to submit to FHWA for final clearance. The project received a Finding of No Significant Impact from FHWA in 2007.

Loop 1604 Environmental Assessment (EA), TxDOT San Antonio District, San Antonio, Texas*
Technical Writer/Public Involvement. Compiled the Administrative Record for the project, which included gathering and organizing documents used throughout planning and development of the project, some of which date back to the 1950's. Reviews of the record were completed by TxDOT and the Federal Highways Administration (FHWA). Provided support for the public hearing, by answering the public's questions. Assisted in the preparation of the Public Hearing Summary Report and the Comment Response Report. Helped to finalize the EA for final submission to TxDOT and FHWA. Assisted in the development of the draft decisional document to submit to FHWA for final clearance.

Phase I Environmental Site Assessments (ESA), Central Texas*
Biologist. Conducted numerous Phase I ESAs throughout Central Texas, including Bexar, Comal, Kendall, and Hays Counties. Conducted site investigations for threatened and endangered species, wetlands, hazardous materials, and other pertinent environmental conditions. Conducted database searches (CERCLIS, LPST, UST, NPL, etc.) for any hazardous conditions in the property area.

Over-the-Horizon Backscatter Radar Transmitter Site Environmental Baseline Survey, US Air Force, Moscow, Maine*
Environmental Scientist. Contracted by the Air Force, Air Combat Command (ACC) division. The project included a site investigation for threatened and endangered species, wetlands, hazardous materials, and other environmental conditions. Served as the technical writer and researcher for the environmental document. The environmental document was approved by the Air Force ACC.

COORDINATION WITH
U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE

- July 8, 2024, U.S. Department of the Interior Fish and Wildlife Service conclusion of no impact on Fish and Wildlife.
- July 5, 2024, Request for Review Letter.

Baboo, Het

From: Williams, Christina <christina_williams@fws.gov>
Sent: Monday, July 8, 2024 11:17 AM
To: Baboo, Het
Cc: Metaferia, Tewobista
Subject: RE: [EXTERNAL] Del Rio Landfill TCEQ Permit Application - U.S Department of the Interior Fish and Wildlife Permit Application Coordination Requirement

This e-mail is from outside STV

Het,

Thank you for the submission. The Service has no comment due to your determination that there will be no effects on listed or proposed species.

Thank you,

Christina

Christina Williams
Supervisory Fish and Wildlife Biologist
Consultation and HCPs Branch
1505 Ferguson Lane
Austin, Texas 78754
512-850-0980

Mission: work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.

From: Baboo, Het <Het.Baboo@stvinc.com>
Sent: Friday, July 5, 2024 4:40 PM
To: Williams, Christina <christina_williams@fws.gov>
Cc: Metaferia, Tewobista <Tewobista.Metaferia@stvinc.com>
Subject: [EXTERNAL] Del Rio Landfill TCEQ Permit Application - U.S Department of the Interior Fish and Wildlife Permit Application Coordination Requirement

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Christina,

We are in the process of obtaining a major permit amendment from TCEQ, on behalf of the City of Del Rio, to expand its existing landfill located in Val Verde County, Texas. This landfill expansion project will provide long-term disposal capacity for municipal solid waste that is generated in the area. To compile with Title 30

Texas Administrative Code (TAC) §330.61(i)(4), the permit applicant for an expansion of a municipal solid waste facility must coordinate with U.S Department of the Interior Fish and Wildlife. To facility your review we have attached a pdf with the project background and Figures. To verify compliance with the TAC regulation we will need to include a letter from U.S Department of the Interior Fish and Wildlife within the permit application. If you need additional information, please let us know.

Thanks,

Het Baboo (He/Him)
Engineering Specialist, Dallas Water Practice
(o) 682.350.9871 | (c) 817.602.9372
het.baboo@stvinc.com | stvinc.com

Please consider the environment before printing this e-mail.



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July 5, 2024

Christina Williams,
U.S. Department of the Interior
Fish and Wildlife Service

Re: Compliance with Endangered or Threatened Species Assessment
Proposed City of Del Rio Municipal Landfill Permit Amendment
Val Verde County, Texas

Dear Mr. Ogdee,

CP&Y an STV Company, Inc. is in the process of developing a major permit amendment application, on behalf of the City of Del Rio, to expand its existing landfill located in Val Verde County, Texas. In accordance with Title 30 Texas Administrative Code (TAC) §330.61(n)(2), the intent of this letter is to demonstrate coordination with the U.S. Department of the Interior, Fish and Wildlife Service. The referenced regulations require that a permit applicant for an amended municipal solid waste facility permit coordinates with the U.S. Fish and Wildlife Service regarding compliance with the Endangered Species Act.

Project Background

The City of Del Rio Landfill is an existing Type I landfill in Del Rio, Texas that is owned by the City and operated by Platform Waste Solutions. The site locations maps are in Attachment 1. Figures 1 through 3 shows the site location overlaid on a TxDOT map, USGS map, and an aerial photograph map. The existing landfill (TCEQ Permit No. 207B) is a 105.6-acre facility with a waste footprint of approximately 79 acres. Figure 4 in Attachment 1 shows the existing site plan.

The landfill has been servicing the residents of the City of Del Rio and the surrounding areas for over 40 years. The City of Del Rio Landfill started accepting waste in 1972 under Permit No. 207. Permit 207A was issued in 1989 for the current 105.6-acre facility. In 1994 the City submitted a Class I Permit Modification to upgrade the facility to meet the Subtitle-D requirements. The landfill was then expanded vertically in 2022 under Permit No. 207B. Although the recent vertical expansion extended the site life of the facility, the lateral expansion project will allow the City to provide long-term disposal capacity for municipal solid waste to the residents of the City of Del Rio and the surrounding areas. Figure 5 shows the permitted landfill completion plan and the proposed expansion completion plan. This is a horizontal expansion that will increase the existing 105.6-acre permit boundary by 75 acres to 180.6 acres. The permitted limit of waste will be expanded by 55.31 acres from approximately 79 to approximately 134.31 acres.

13155 Noel Road, Suite 200
Dallas, TX 75240
(p) 214.638.0500 (f) 214.638.3723

Project Design Summary

The following information presents a summary of the design and operations of the proposed City of Del Rio Landfill expansion. The permit application will be submitted to TCEQ and undergo a detailed review by the TCEQ before the operative permit for the expansion of this facility is issued.

- Accepted wastes will remain consistent with the current MSW landfill permit. The major classifications of solid waste to be accepted at the City of Del Rio Landfill include household waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special wastes.

- No change is anticipated to the existing site access. Access to the site will be provided via the existing site access road.

- No change is anticipated to the liner and final cover system, that will be designed for the regulatory requirements for solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management systems) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that may collect on the liner system. Collected leachate will be pumped and disposed of at an authorized treatment facility. The construction procedures of the liner and cover systems follow strict TCEQ-approved quality control procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the TCEQ before solid waste is placed in the landfill.

- Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify that landfill gas does not migrate off-site. The existing system is sampled and tested periodically. The results are filed with the TCEQ and are public record. No change is anticipated to control landfill gas emissions. If gas collection and control system is need for the site per TCEQ requirements, the application will incorporate system into the landfill permit application.

- Site Operations. No change is anticipated to the existing site operations. The City of Del Rio Municipal Landfill will continue to be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.

To assist the U.S. Fish and Wildlife Service with review, please find the attached following information:

- Attachment 1: Site Location Maps
  - Figure 1 – Site Location Map
  - Figure 2 – General Topographic Map
  - Figure 3 – Aerial Photograph
  - Figure 4 – Existing Site Plan

Figure 5 – Permitted and Proposed Landfill Completion Plans

- Attachment 2: Federally Listed Threatened, Endangered, and Candidate Species Memo

To verify compliance with 30 TAC §330.61(n)(2), CP&Y an STV Company will need to include a letter from the U.S. Fish and Wildlife Service within the permit application. Given the above, it is our assessment that the site is not likely to be occupied by any federal or state-listed species.

The U.S. Fish and Wildlife Service's response to this coordination and assistance in this matter is sincerely appreciated. Please do not hesitate to contact CP&Y an STV Company, if there are any questions or additional information needed.

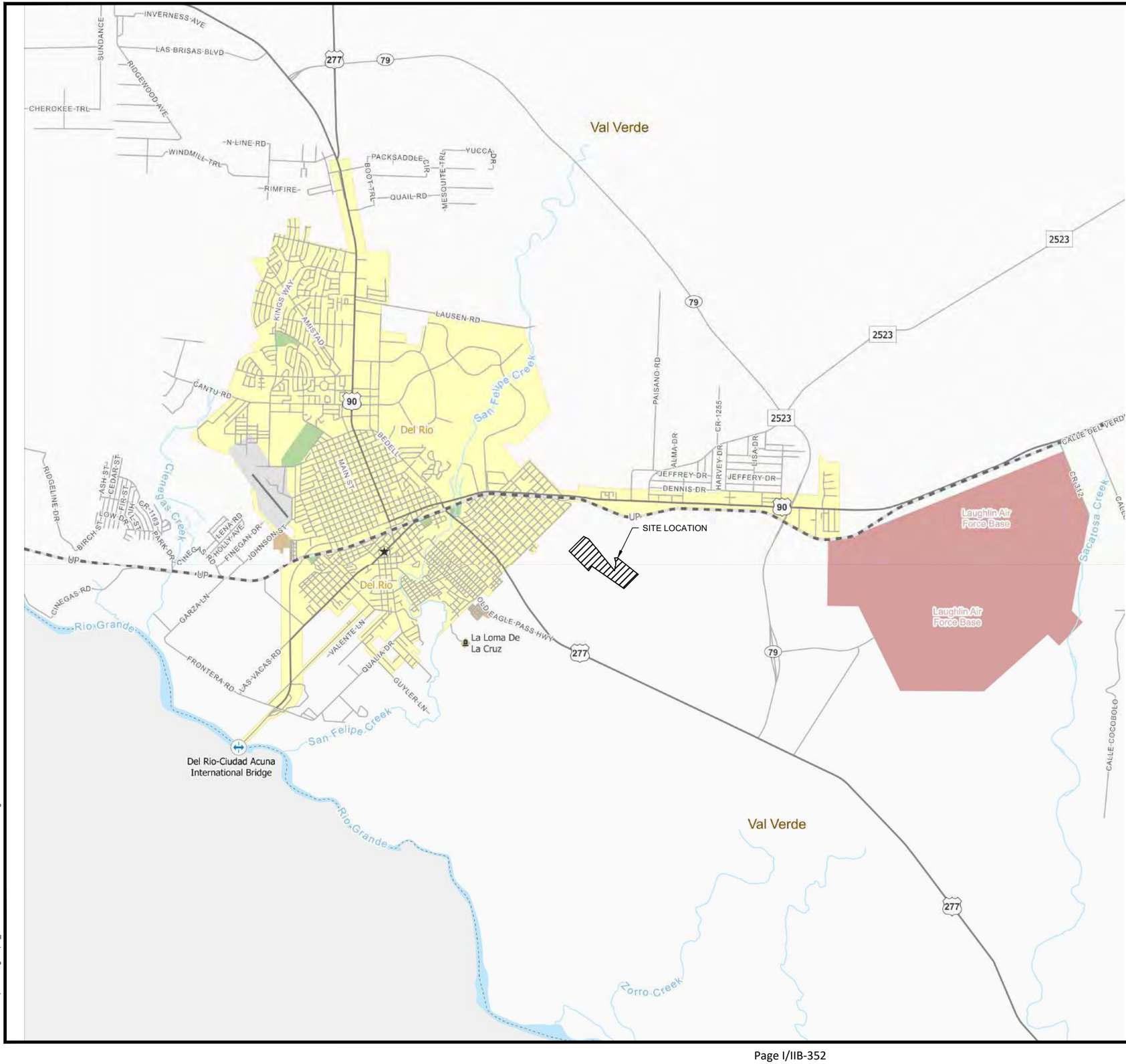
Sincerely,
CP&Y an STV Company

Tewobista Metaferia, P.E.
Project Engineer

Attachments: Attachment 1: Site Location Maps
Attachment 2: Federally Listed Threatened, Endangered, and Candidate Species Memo

cc: Manuel Chavez, Interim City Manager
Rene Maldonado, City of Del Rio Landfill Coordinator

Attachment 1



Texas Department of Transportation

- Unincorporated Community
- County Seat
- Border Crossing
- Cemetery
- Cemetery (Inside City)
- Deep Draft Port
- Shallow Draft Port
- Railroad
- Dam
- River or Stream
- TXDOT District
- Lakes
- Education
- Military
- Airport Runway
- Airport
- Prison
- Parks and Other Public Land

NOTES:

1. THIS MAP IS REPRODUCED 2019 TEXAS DEPARTMENT OF TRANSPORTATION VAL VERDE COUNTY MAPS NO. 1858 AND 1896.

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
1" DRAWING. VERIFY LENGTH ON THIS SHEET
0 AND ADJUST SCALE ACCORDINGLY.

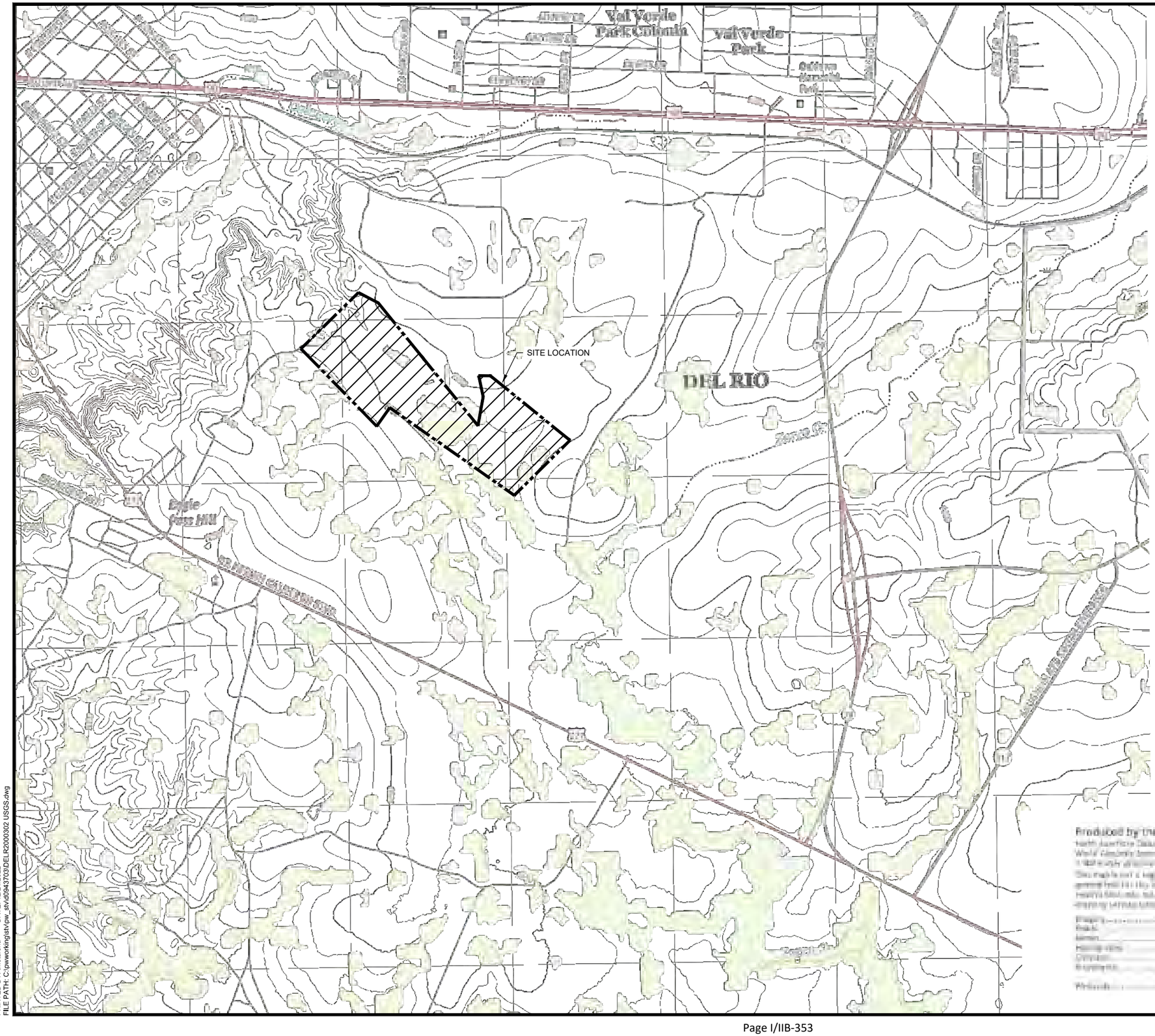
CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

SITE LOCATION MAP

DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
1

PRINTED BY: tmetaferia DATE: 12/21/2022
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SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

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CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

GENERAL TOPOGRAPHIC MAP

DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
2

PRINTED BY: tmetaferia DATE: 12/21/2022
FILE PATH: C:\pwworking\stv\pw_stv0094370\3\DELR2000302 USGS.dwg



0 500 1,000
SCALE IN FEET

LEGEND

PROPERTY BOUNDARY

LIMIT OF WASTE

NOTE:

1. AERIAL PHOTOGRAPHY PROVIDED BY GOOGLE JANUARY 19, 2017.

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
DRAWING. VERIFY LENGTH ON THIS SHEET
AND ADJUST SCALE ACCORDINGLY
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CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

AERIAL PHOTOGRAPH

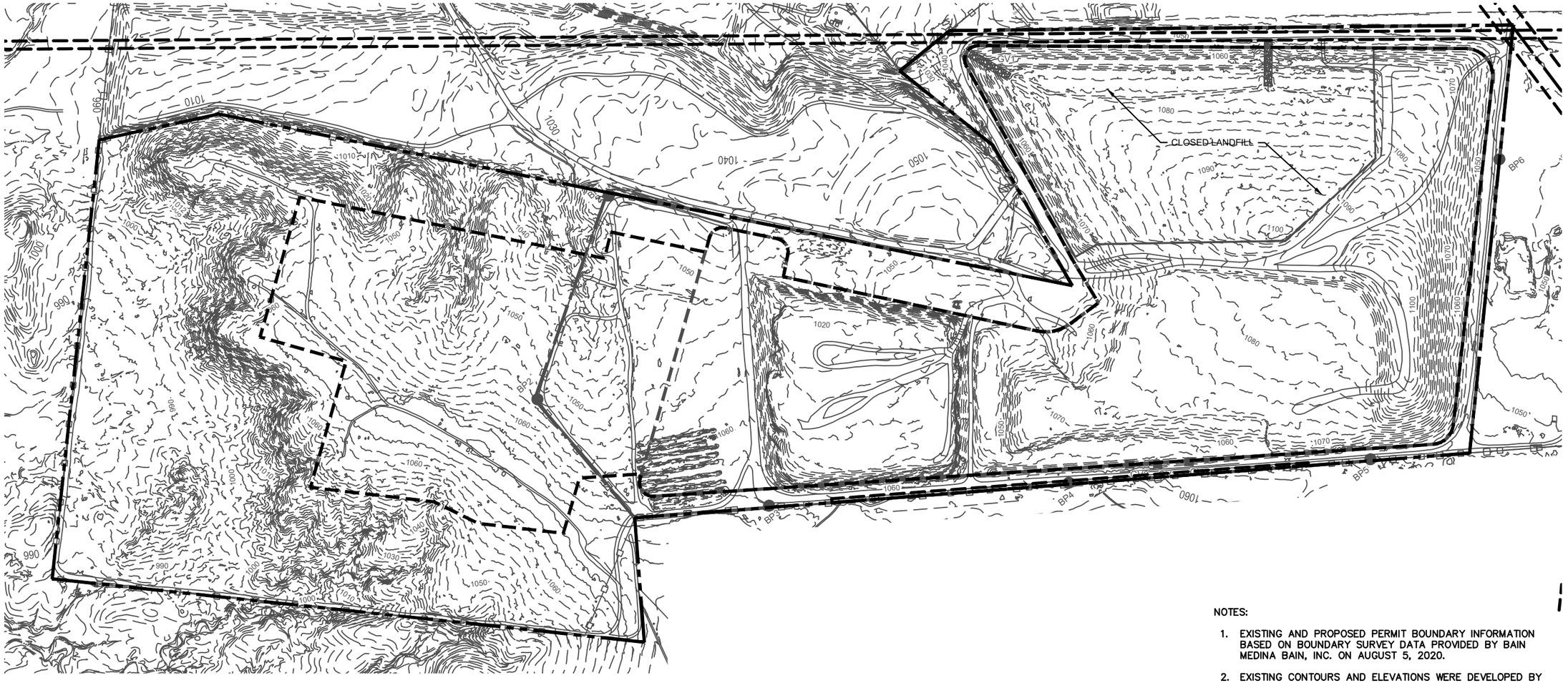
DESIGN: T. METAFERIA
DRAWN: J. TORRES
REVIEW: B. HINDMAN
CP&Y: DELR2000302
CLIENT: CITY OF DEL RIO

FIGURE
3

PRINTED BY: BabooH DATE: 7/3/2024
FILE PATH: C:\pwworking\stv\pw_stvd0843703\AERIAL.dwg

LEGEND

- EXISTING PERMIT BOUNDARY
- EXISTING LIMIT OF WASTE
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- 1080 EXISTING GRADES
- 1010 PROPOSED FINAL COVER GRADES



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.
3. POTENTIAL WATERS OF THE US DELINEATED AND IDENTIFIED BY CP&Y Inc. USACE COORDINATION IS NEED TO VERIFY IF STREAMS ARE CONSIDERED WATERS OF THE US.

stv
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

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AND ADJUST SCALE ACCORDINGLY

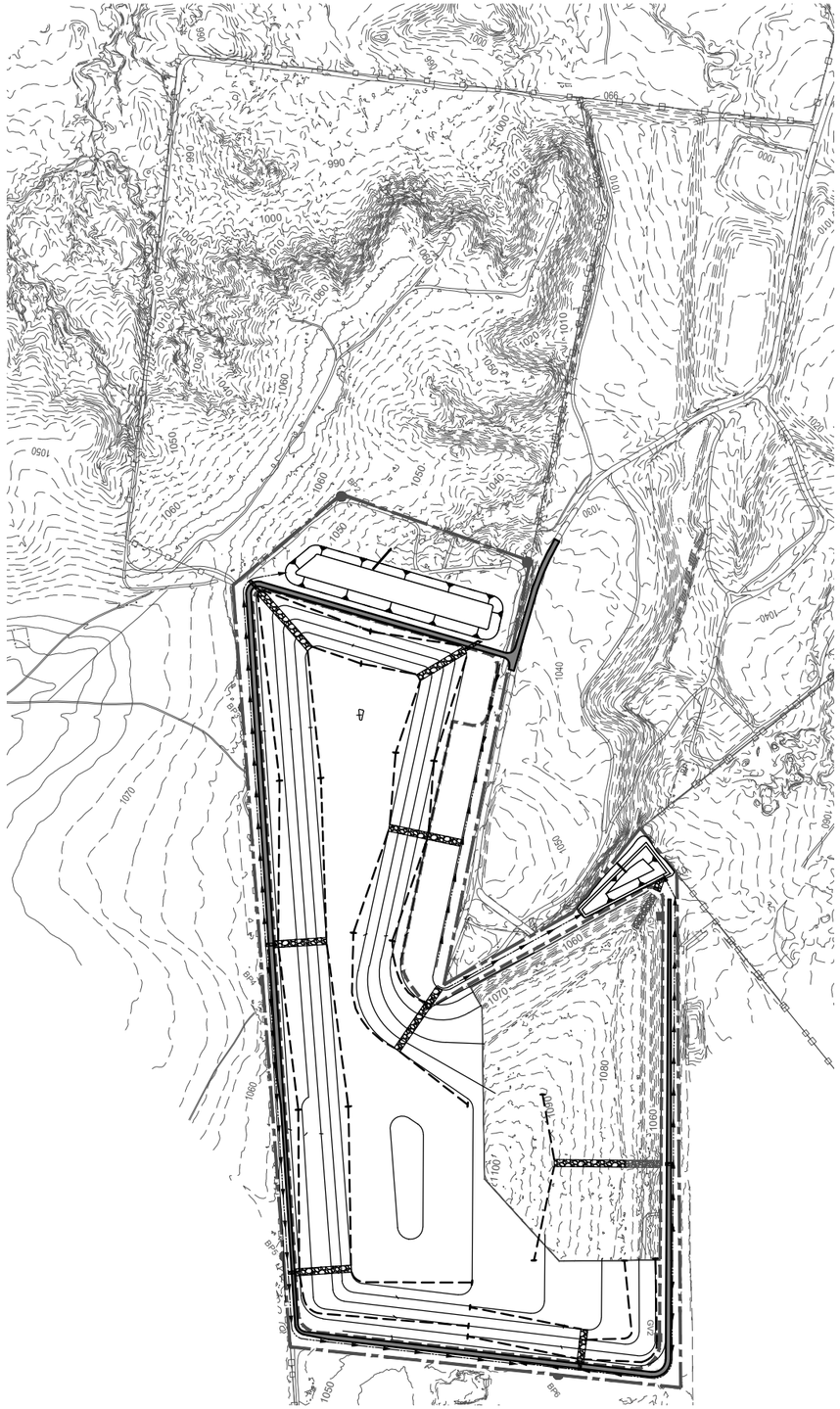
CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

EXISTING SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	J. TORRES
REVIEW:	B. HINDMAN
CP&Y:	DELR2000302
CLIENT:	CITY OF DEL RIO

FIGURE
4

PRINTED BY: tmetaferia DATE: 12/21/2022
FILE PATH: C:\pwworkingstv\pw_stvd0943703\EXISTING SITE PLAN.dwg



PERMITTED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207B)

PROPOSED LANDFILL COMPLETION PLAN
(TCEQ PERMIT NO. MSW-207C)

N

0 300 600
SCALE IN FEET

LEGEND

- PERMITTED PERMIT BOUNDARY
- CLOSED CELL BOUNDARY
- PERMITTED LIMIT OF WASTE
- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMIT OF WASTE
- 1090 — FINAL COVER GRADES
- 1084 — EXISTING GRADES
- SWALES
- PERIMETER CHANNEL
- CHUTES
- BP1 — EXISTING GAS PROBE
- EXISTING SITE FENCE
- PROPOSED SITE FENCE
- PROPOSED ACCESS ROAD
- CUT/FILL MARKERS
- EXISTING CHUTE
- GV2 — EXISTING GAS VENT
- GP-5 — PROPOSED GAS PROBE
- UV-1 — PROPOSED GAS VENTS

TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF Del Rio TEXAS

NO.	REVISION	BY	DATE

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY.
0 1"

CITY OF DEL RIO LANDFILL
VAL VERDE COUNTY

PERMITTED VS PROPOSED SITE PLAN

DESIGN:	T. METAFERIA
DRAWN:	J. TORRES
REVIEW:	B. HINDMAN
CP&Y:	DELR2000302
CLIENT:	CITY OF DEL RIO

FIGURE
5

PRINTED BY: MetafeT DATE: 7/5/2024
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Attachment 2

Federally Listed Threatened, Endangered, and Candidate Species Memorandum

City of Del Rio Landfill Expansion Project

Del Rio, Val Verde County, Texas

Prepared for:

Prepared by:

One Countryside Place
12500 San Pedro, Ste. 450
San Antonio, Texas 78216

October 2022

Project Background

The proposed Del Rio Landfill Expansion Project involves the acquisition of an approximately 75-acre property southeast of Del Rio, Texas by the City of Del Rio for the purpose of expanding the existing City of Del Rio Landfill. The property is north-adjacent to the existing landfill property and currently owned by the City of Del Rio. The entire property was examined as the designated project area for this species memorandum. The National Hydrography Dataset (NHD), National Wetland Inventory (NWI), United States Geological Survey (USGS) Topographic Map, and Federal Emergency Management Agency (FEMA) Floodplain Panels were evaluated for relevant water resources within the project area. No mapped water resources were identified within the project area.

The project area was evaluated for federally listed threatened, endangered, and candidate species and their habitat. This memorandum details the findings of a desktop review and habitat assessment within the project area. **Appendix A** contains the following project maps:

- Project Vicinity Map (**Figure1**)
- Aerial Map (**Figure 2**)
- USGS Topographic Map (**Figure 3**)
- NWI and Floodplain Map (**Figure 4**)

Federally Listed Endangered, Threatened, and Candidate Species

Information from the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool was obtained on September 16, 2022, to determine which federally listed endangered, threatened, or candidate species could potentially occur in the project area. A copy of the IPaC results can be found in **Appendix B**. The USFWS Critical Habitat Portal and the Texas Natural Diversity Database were accessed to determine if any critical habitat or documented protected species occurrences were located in or near the project area. According to these resources, there are no designated critical habitats or protected species occurrences in the vicinity of the project area.

The USFWS lists eight endangered, threatened, and candidate species with potential to occur in the vicinity of the project area. A summary of these species, their habitat requirements, potential for the habitat to occur in the project area, and an effect call for each species is provided in **Table 1**.

Table 1. Threatened, Endangered, and Candidate Species of Potential Occurrence in the Project area

Common Name	Scientific Name	Federal Status	Habitat	Potential for Habitat to Occur in Project Area	Effect Call
Birds					
Golden-cheeked Warbler	*Dendroica chrysoparia*	E	Required juniper-oak woodlands; dependent on Ashe juniper (aka cedar) for long, fine bark strips only available from mature trees, used in nest construction; nests in a variety of trees and only requires a few mature junipers for nesting materials.	No habitat for this species exists in the project area. The project area does not contain any oak-juniper woodlands.	No effect
Piping Plover	*Charadrius melodus*	T	Wintering Migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats.	No habitat exists for this species within the project area. The project area does not include beaches, or bayside mud or salt flats. In addition, USFWS concern only extends to this species for wind energy project.	No effect
Red Knot	*Calidris canutus rufa*	T	Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and tidal flat/shore.	No habitat for this species exists in the project area. No shorelines, tidal flats, or mudflats exist in the project area. In addition, USFWS concern only extends to this species for wind energy projects.	No effect

Common Name	Scientific Name	Federal Status	Habitat	Potential for Habitat to Occur in Project Area	Effect Call
Fishes					
Devils River minnow	*Dionda diaboli*	T	Devils River, San Felipe and Sycamore creeks in Val Verde County; Las Moras (extirpated) and Pinto creeks in Kinney County. Restricted to clear, spring-fed waters having little temperature variation. Found over gravel-cobble substrate, usually associated with aquatic macrophytes.	No habitat for this species exists within the project area. All streams and wetlands mapped within the project area are ephemeral and fed by overland flow.	No effect
Mexican blindcat (catfish)	*Prietella phreatophila*	E	Discovered in a deep limestone cave at Amistad National Recreation Area near Del Rio, Texas.	No habitat for this species exists in the project area. No caves or springs are present within the project area.	No effect
Rio Grande silvery minnow	*Hybognathus amarus*	EPNE	Historical range included the Rio Grande and Pecos River systems, Texas, New Mexico, and Mexico; in the Rio Grande, this species occurred from Española, New Mexico, downstream to the Gulf of Mexico; in the Pecos River it occurred from the Rio Grande to Santa Rosa, New Mexico; it also occurred in the lower Rio Chama and the lower Jemez River, tributaries of the Rio Grande in New Mexico (USFWS 2010). Currently, the species is known to occur only in one reach of the Rio Grande in New Mexico, a 280-km stretch of river that runs from Cochiti Dam to the headwaters of Elephant Butte Reservoir; this includes a small portion of the lower Jemez River, a tributary to the Rio Grande north of Albuquerque (Sublette et al. 1990; Bestgen and Platania 1991; USFWS 1994, 1999, 2007; 2010; Bestgen and Propst 1996; Dudley et al. 2005).	No habitat for this species exists in the project area. The project area does not contain any tributaries to the Rio Grande nor any perennial or consistent water sources. Additionally, the project area is outside of the known species range.	No effect

Common Name	Scientific Name	Federal Status	Habitat	Potential for Habitat to Occur in Project Area	Effect Call
Mollusks					
Texas hornshell	*Popenaias popeii*	E	Occurs in small streams to large rivers in slow to moderate current, often residing in rock crevices, travertine shelves, and under large boulders, where small-grained material, such as clay, silt, or sand gathers. Can also occur in riffles that are clean swept of soft silt; not known from reservoirs (Carman 2007; Inoue et al. 2014; Randklev et al. 2017b; Randklev et al. forthcoming). [Mussels of Texas 2019].	No potentially suitable habitat is present within the project area as no perennial waterbodies exist within the project area.	No effect
Insects					
Monarch Butterfly	*Danaus plexippus*	C	Adults are found in a variety of habitats including native prairies, pastures, open woodlands, and savannas, dessert scrub, roadsides, and other habitats with abundant of nectar plants, including urbanized areas. This migratory species lays eggs on milkweed (Asclepias spp.)	The project area contains suitable nectar plants.	May effect

E – Endangered; EPNE – Experimental Population, Non-Essential; T – Threatened; C – Candidate
Source: USWFS IPaC Report, generated September 16, 2022

Field Investigation Results

Two habitat assessments were conducted by two qualified CP&Y biologists between June 23-24, 2020, and September 14, 2022. The project area was investigated for the presence of federally listed endangered, threatened, and candidate species as well as their potential habitat. The biologists performed a pedestrian survey of the entire 75-acre property on both visits. Photographs were taken throughout the project area to depict the current site conditions (**Appendix C**).

The project area consists mainly of mesquite-cenizo shrubland, rocky bare ground, and disturbed grassland in the upland portions of the project area. Dried drainage features, isolated wetlands and ponded areas were noted in the lower-elevation portions of the project area. The project area is an undeveloped parcel where the herbaceous vegetation consists mainly of buffalo grass (*Bouteloua dactyloides*), various small muhly grasses (*Muhlenbergia spp*.), curly mesquite grass (*Hilaria belangeri*), sideoats gramma (*Bouteloua curtipendula*), Gregg's dalea (*Dalea greggii*), green sprangletop (*Leptochloa dubia*), and diamanita (*Chrysactinia mexicana*). Notable woody and succulent species include mesquite (*Prosopis glandulosa*), cenizo (*Leucophyllum frutescens*), retama (*Parkinsonia aculeata*), huisache (*Vachellia farnesiana*), catclaw acacia (Acacia greggii), Texas ebony (*Ebano ebanopsis*), sotol (*Dasylirion wheeleri*), hackberry (*Celtis occidentalis*), black willow (*Salix nigra*), ephedra (*Ephedra trifurca*), claret cup cactus (*Echinocereus coccineus*), and Spanish dagger (*Yucca gloriosa*). No woody vines were noted within the project area.

No federally listed endangered, threatened, or candidate species were observed within the project area during the field investigations. However, suitable habitat for the Monarch butterfly was observed within the project area.

Conclusions

Habitat assessments of the project area by desktop review and field investigation were conducted to assess potential effects of the proposed project on federally listed endangered, threatened, and candidate species.

Suitable habitat for the Monarch butterfly occurs within the project area. At this time, the Monarch butterfly is listed as a candidate species and does not have official protection from the USFWS. This species is proposed for listing sometime in Fiscal Year 2024. No coordination would be required with USFWS prior to the official listing decision of this species; however, should the species become federally listed as threatened or endangered at any time during the construction phase of this project, coordination with USFWS would become necessary. No suitable habitat for any of the remaining seven federally listed species was observed within the project area and therefore no coordination with USFWS is necessary.

Appendix A
Exhibits



Figure 1 - Project Vicinity

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Study Area
Val Verde County
County Boundary

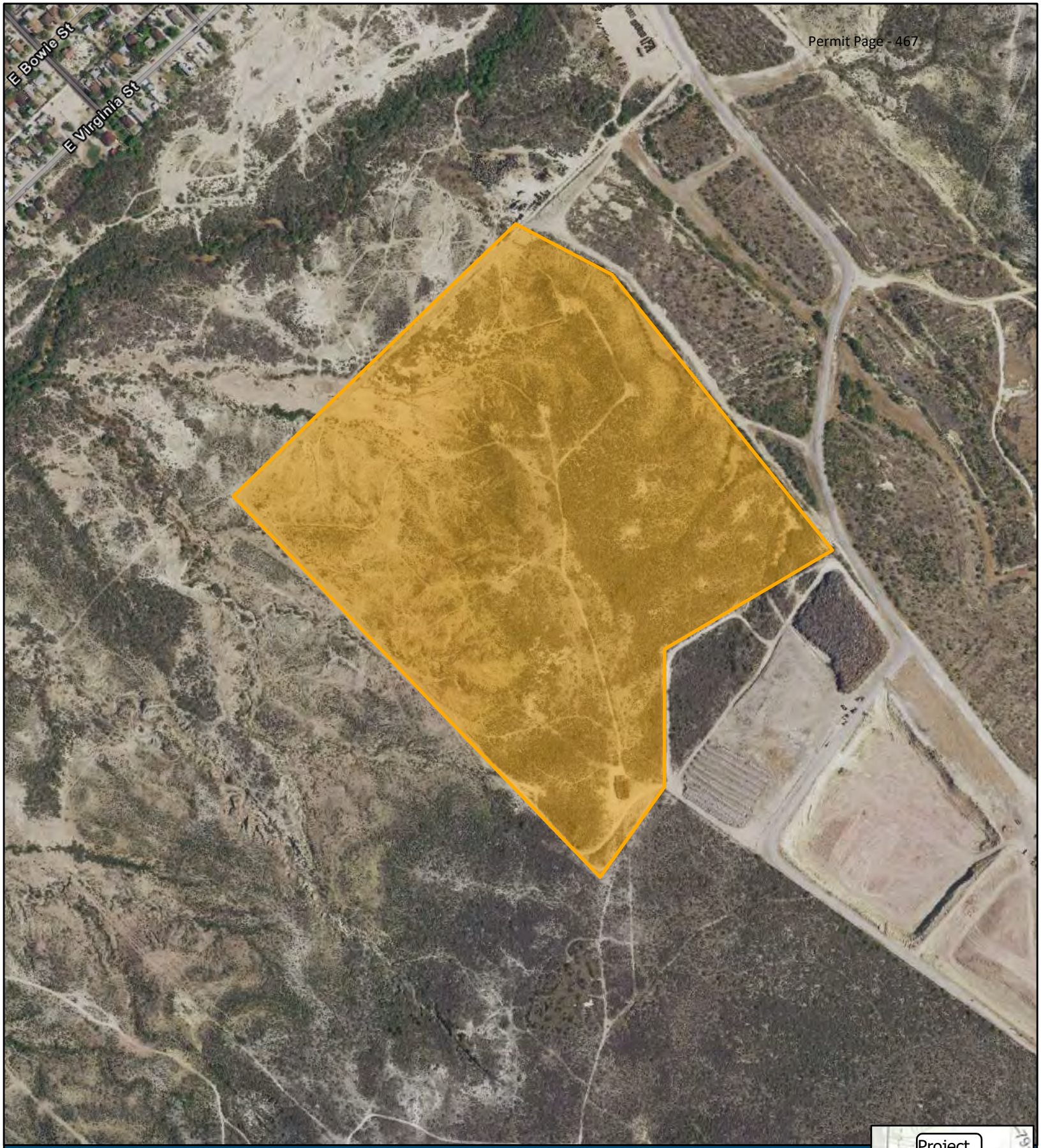


Figure 2 - Aerial Map

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Study Area

Feet
0 200 400



Source: TNRIS Imagery 2019



Figure 3 - USGS Topographic Map

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Study Area

Feet
0 200 400



Source: ESRI USA Topographic Map, Quadrangle Del Rio

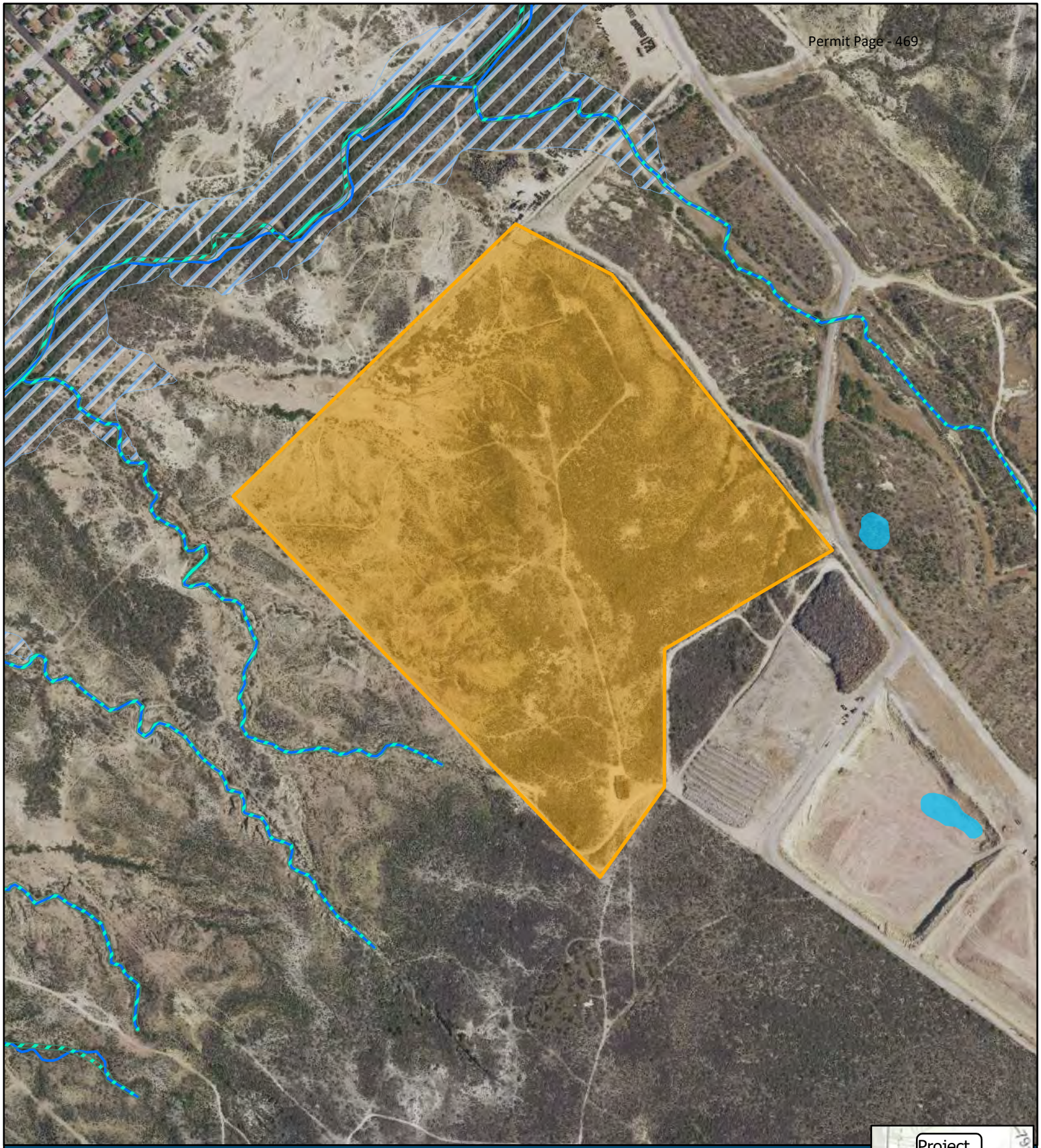


Figure 4 - NWI and Floodplain Map

City of Del Rio
Landfill Expansion Project

Val Verde County, Texas

Study Area
NWI Mapped Wetland
River/Stream
100-year Floodplain
Waterbody

Feet
0 200 400



Source: TNRIS Imagery 2019, NWI 2022, NHD 2022

Appendix B
IPaC Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
Phone: (512) 490-0057 Fax: (512) 490-0974

In Reply Refer To:
Project Code: 2022-0086118
Project Name: City of Del Rio Landfill Expansion

September 16, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
(512) 490-0057

Project Summary

Project Code: 2022-0086118
Project Name: City of Del Rio Landfill Expansion
Project Type: Acquisition of Lands
Project Description: The City of Del Rio, in Val Verde County, Texas, plans to expand its existing landfill with a 75-acre parcel adjacent to the existing landfill property. The parcel is already owned by the City.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@29.35943795,-100.86100482902012,14z



Counties: Val Verde County, Texas

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 2 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Golden-cheeked Warbler *Setophaga chrysoparia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/33	Endangered
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Fishes

NAME	STATUS
Devils River Minnow *Dionda diaboli* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7661	Threatened
Mexican Blindcat (catfish) *Prietella phreatophila* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7657	Endangered
Rio Grande Silvery Minnow *Hybognathus amarus* Population: Rio Grande, from Little Box Canyon to Amistad Dam No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1391	Experimental Population, Non-Essential

Clams

NAME	STATUS
Texas Hornshell *Popenaias popeii* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/919	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: CP&Y Inc., an STV Company
Name: Kameryn Strickland
Address: 1820 Regal Row
City: Dallas
State: TX
Zip: 75235
Email kstrickland@cpyi.com
Phone: 2142766543

Appendix C
Site Photographs



Photograph 1: An example of the bare ground and cenizo-mesquite shrubland observed throughout the project area.



Photograph 2: At higher elevations in the project area, the shrubland was interspersed with disturbed grasslands of mostly native grasses.



Photograph 3: An ant nest observed within the project area. These nests were observed in areas of mostly bare ground with poorly developed soils crusts. No lizards or birds were observed predating these ants.



Photograph 4: A native tarantula observed within the project area. Tarantula dens were observed at the foot of the rocky slopes throughout the project area.



Photograph 5: An ephedra observed adjacent to a pond mapped in a low-lying area of the project area. Most ephedra specimens were observed at these low-lying areas where the soil was notably sandy.



Photograph 6: A view of the vegetation found at the margin of a pond mapped in a low-lying region of the project area. The vegetation here was less desert-adapted than the vegetation at the higher points of the project area.



Photograph 7: Another view of the cenizo-mesquite shrubland and the mosaic it forms with the native disturbed grassland in the higher elevation regions of the project area.

Appendix D
Staff Resumes



Garrett Weiberg

Ecologist/GIS Specialist

Education
Master of Science, Biology, Texas Tech University, 2018

Bachelor of Science, Natural Resources Management, Texas Tech University, 2014

Years of Experience
5

Years with CP&Y
<1

Certifications
Geographic Information Science and Technology, Texas Tech University, 2018

Permits
Permittee, USFWS Species Recovery Permit No. TE168185-6 (Arkansas River Shiner, Sharpnose Shiner, and Smalleye Shiner)

Sub-permittee, TPWD Scientific Research Permit No. SPR-0691-409

Permit Holder, ODWC Scientific Collector's Permit No. 4213193

Professional Activities and Continuting Education
Inland Fish Identification Short Course, Texas State University, San Marcos, TX, 2019

OSHA 10 Hour – General Industry Certification, 2018

Basic Wetland Delineation Training, Wetland Training Institute, 2018

Background

Garrett is an Ecologist and GIS Specialist with five years of experience. He has in-depth knowledge of limnology with experience in river surveying and fish husbandry. Garrett is also well-versed in conducting wetland delineations, habitat assessments, threatened and endangered species surveys, vegetative assessments and Migratory Bird Treaty Act compliance surveys. He is proficient with geographic information science (GIS) software and is skilled in environmental report preparation as primary author for much of the field work that he leads. He is also responsible for conducting thorough QA/QC of a wide range of his team's reports.

Much of Garrett's graduate research was aimed at recovery activities for the federally threatened Arkansas River Shiner (Notropis girardi), federally endangered Sharpnose Shiner *(Notropis oxyrhynchus)*, and federally endangered Smalleye Shiner *(Notropis buccula)*. He is familiar with the identification of these species, their habitat and survey methodology. He currently holds a United States Fish and Wildlife Service Species Recovery Permit (No. TE168185-6) for the Arkansas River Shiner, Sharpnose Shiner and Smalleye Shiner. Garrett has participated in a broad range of research opportunities under Texas Parks and Wildlife Permit (SPR-0691-409) and as a permit holder on Oklahoma Department of Conservation Scientific Collector's Permit (No. 4213193). He has accrued hundreds of hours of field research in Texas, New Mexico, Oklahoma and Louisiana.

Project Experience

Solar Development, Private Client, 644-acre Tract, Solar Site, Washington Parish, Louisianna
Construction of solar electric generation facility in Washington Parish, Louisiana. Qualified biologists were responsible for conducting a waters of the U.S. Delineation and Gopher Tortoise Habitat Assessment. Biologist responsible for conducting Wetlands and Waters of the U.S. Delineation, locating potential gopher tortoise burrows, and preparation of GIS data for client review. 2022. Client: Undisclosed Client

Undisclosed Client in Plaquemines Parish, Louisianna
Biologists tasked with conducting a water of the U.S. Delineation on an undeveloped tract of land along the Mississippi River. Coordination with several Agency contacts were conducted due to problematic atypical wetland delineation factors associated with Hurricane Ida, a Category 4 major hurricane, that made landfall in late August 2021. A waters of the U.S. Delineation Report and GIS files were supplied to the client. 2022. Client: Undisclosed Client

Solar/Battery Storage Development, Private Client, 16 Solar Sites (14,222 acres), Texas
Construction of solar electric generation facilities and battery storage in Bandera County (767 acres), Bosque County (1,772 acres; 514 acres), Cooke County (413 acres), Denton County (1,958 acres; 1,712 acres), Falls County (837 acres), Kaufman County (506 acres; 41 acres), Van Zandt County (396 acres), Fannin County (1,015 acres; 91 acres), Hill County (1,128 acres; 638 acres), Hopkins County (971 acres), and Young County (1,463 acres), Texas. Qualified biologists were responsible for

conducting a waters of the U.S. Delineation and Threatened and Endangered Species Habitat Assessment. An Ecological Assessment Technical Report was prepared for the Client. Biologist responsible for conducting Wetlands and Waters of the U.S. Delineation, Threatened and Endangered Species Habitat Assessment, and primary author of the Ecological Assessment Technical Report. 2018-2022. Client: Undisclosed Clients

Undisclosed Client in Mayes County Oklahom
Biologist responsible for field work on three subject properties, each considered single and complete projects which include: a 555-acre tract, a 425-acre tract, and a 235-acre tract. The scope of work included Environmental Services, Section 404 of the Clean Water Act, Delineation and AJD Submittal for the three subject properties in Mayes County, OK. Biologist responsible for performing the following tasks pursuant to Section 404 of the Clean Water Act regulations regarding waters of the U.S. This work was conducted in accordance with the 1987 Wetland Delineation Manual, and the applicable Regional Supplement to the 1987 manual. AJD issuance for each of the proposed project areas was issued by the Tulsa-District USACE in 2021 and 2022. 2021-2022 Client contact: Undisclosed Client

Private Gas Pipeline Development in Texas
Several proposed projects were assessed for a private gas pipeline developer in Cooke County, Dallas County, Denton County, Ellis County, Fannin County, Grayson County, Hamilton County, Kaufman County, Lamar County, Montague County, and Tarrant County. Project sites ranged from 0.5 miles to 20 miles in length. Biologist responsible for conducting waters of the U.S. delineations, threatened and endangered species habitat assessments, and migratory bird surveys. Desktop reports, Waters of the U.S. Delineation Reports, Biological Resources Technical Reports, and Migratory Bird Survey Reports were prepared for the client following these field investigations. Biologist responsible for the coordination with the client and contractors for entry to the sites and communicating the results of the migratory bird surveys and waters of the U.S. delineation through the construction phase. 2018-2022. Client contact: Private Client

Bitter Creek Impoundment Aquatic Resource Relocation Plan, Travis County, Texas
Lead ichthyologist responsible for implementing an aquatic resource relocation effort conducted on August 18 and 19, 2020 for the Bitter Creek Impoundment Drain and Dredge Operation project in the City of Austin, Travis County, Texas. Electrofishing units and seines were used to capture fish during the dewatering of the impoundment. The fish were then transferred into an insulated and aerated cooler for relocation to the approved relocation site on Onion Creek within the City of Austin's Onion Creek Metropolitan Park. A total of 8,169 fishes were collected during the electrofishing and seining effort prior to and after the dewatering process. Relocated species included Western Mosquitofish (Gambusia affinis), Green Sunfish (Lepomis cyanellus), Bluegill (Lepomis macropchirus), and hybrids of the two Lepomis species (Lepomis macrochirus X Lepomis cyanellus). 2020. Client contact: Hardin Camp II | Smith Contracting Co., Inc.

White-tailed Deer Spotlight Census Counts, Fort Wolters, Palo Pinto County and Camp Maxey, Lamar County, Texas
Biologist whose field work included providing the Texas Military Department (TXMD) and the Texas Parks and Wildlife Department (TPWD) with four years of population census survey for white-tailed deer at two North Texas military installations. Coordinated field efforts with local installation staff and local TPWD game wardens. Data collected on white-tailed deer present within the approximately 3,500-acre Fort Wolters installation and approximately 6,500-acre Camp Maxey installation were collected by linear transects (driving routes) at dusk by spotlight. Additional data were collected on the landscape of each observer to calculate a representative area of the installation that was visible to observers as part of the survey effort. Population estimation and age/sex demographics were calculated using a TPWD-approved rubric for annual hunting takes. Lead biologist for the effort in providing this data to TPWD and creating annual management plans to the TXMD for improving age/sex demographics and overall management of the species across the installations. Species-specific management objectives and recommendations were made and included harvest recommendation, vegetation management, providing supplemental food/water, and predator control. Incidental observations of mesocarnivores and invasive (feral pigs) were also noted as possible interspecific competition. 2017-2021. Client contact: Nicholas Kolbe | Texas Military Department

Texas Military Department Forested Wetland Restoration, Camp Maxey, Lamar County, Texas
Camp Maxey is a 6,424-acre training facility located near the town of Powderly in Lamar County, Texas. There are several wetlands at Camp Maxey and all are being impacted by wild pigs. There is a forested wetland that has the potential to host a variety of rare plants. Several surveys have identified the potential and have recommended protection from wild pig damage. Biologist responsible for overseeing hog exclusion fence installation and initial floral survey prior to the exclusion of wild pigs. 2021 Client contact: Nicholas Kolbe | Texas Military Department

Effects of the Red River Chloride Control Project on Wichita River fish assemblages—The Wichita River in North Central Texas is fed by brine springs high in sulfates and calcium chloride. The United States Army Corps of Engineers began the Red River Chloride Control Project in the early 1980's. The goal for this project was to reduce the salinity in the river by installing low-flow dams on the river's headwaters and pumping water to a brine disposal lake. The project's purpose was to make water more suitable for irrigation and municipal water supplies. The effects of dam construction on Wichita River fish assemblages were studied. 17 sites on the North and South Forks and mainstem of the Wichita River were sampled in the spring, summer, fall, and winter. Habitat characteristics, river morphology, water quality, and fish assemblages were studied. Research on the impacts of this project is ongoing. 2014-2015. PI: Dr. Gene Wilde | United State Army Corps of Engineers and Texas Tech University

Capture-mark-recapture study of three species of fish on the Canadian River—Arkansas River Shiner (Notropis girardi), Peppered Chub (Macrhybopsis tetranema), and Plains Minnow (Hybognathus placitus) were collected from the Canadian River upstream from Lake Meredith near Hwy 27 North of Amarillo, TX. The fish were tagged with VIE and released in early spring of 2013, 2014, and 2015. A crew was then sent out to sample 7 sites between the release location and the next upstream impoundment, Ute Lake, New Mexico to monitor movement capabilities of these species. The sampling generally occurred biweekly (weather permitting). 1 km of river was sampled with a seine at each site. The crew made an effort to sample characteristic habitat for these species. Recaptured (tagged) fish were documented with the date released (determined by VIE tag color) and recapture location (Garmin GPS). The distance (river miles) travelled upstream was estimated using ArcGIS. During the search for tagged fish, any untagged fish of these species were tallied to estimate population abundance at each site. 2014-2015. PI: Dr. Gene Wilde | Texas Tech University

Field spawning of native fishes in the Canadian River near Logan, NM— Arkansas River Shiner (Notropis girardi), Peppered Chub (Macrhybopsis tetranema), and Plains Minnow (Hybognathus placitus) were spawned in the field. Fish were captured and injected with carp pituitary extract to elevate reproductive hormones and placed in containers with vents which allowed throughflow and placed in the river. The fish were held in containers in the river for approximately 10 hours. Fish were released back into the wild and any fertilized ova yielded from natural spawning were collected and transported back to Texas Tech University for lab research. 2015. PI: Dr. Gene Wilde | Texas Tech University

Analysis of isolated pools on the Wichita River near Seymour, TX—Periods of minimal rain in the Great Plains region often create no flow conditions in certain headwater stretches of the Wichita River. During these periods of no-flow, fish are isolated in pools and backwaters. These pools generally occur in areas where the river has scoured out holes in the substrate. The pools serve as refugia for many species of fish until baseline flow commences. Population dynamics in these pools are dictated by competition and predator-prey interactions. At each site where no-flow conditions existed, 3 pools (small, medium, and large) were selected for research. Fish were captured using a seine and counted. Water quality parameters were recorded in the morning and mid-day for each site. 2014. PI: Dr. Gene Wilde | Texas Tech University

Previous Work Experience

Cox|McLain Environmental Consulting, Inc., now Stantec, Ecologist/GIS Specialist, 2017-2022



Kameryn Strickland

Biologist

Education
Bachelor of Science, Forestry – Wildlife Management, Stephen F. Austin State University, 2020

Years of Experience
2

Years with CP&Y
2

Affiliations

The Wildlife Society

Texas Chapter of The Wildlife Society

Training/Seminars
Wetland Delineation Training

Making Jurisdictional Determinations Under the Navigable Waters Protection Rule

S.W.I.F.T. Training (CDOT)

Species analysis Training (TxDOT)

A Revised ASTM Standard Webinar (ERIS)

Certifications
eRailSafe System

Protected Species Observer

Background

Kameryn has close to two years of experience in the environmental field. She has experience in threatened and endangered species surveys, wetlands delineation and mitigation, habitat evaluations and surface water assessments in Texas and Oklahoma. She has prepared wetland delineation reports, biological evaluations, and helped clients maintain regulatory compliance with federal agencies. Kameryn has also prepared documentation for various projects including ASTM Phase I Environmental Site Assessments (ESA), hazardous materials technical reports, habitat assessments, jurisdictional determinations, wetland delineations and USACE 404 Permits.

Kameryn has participated in multiple projects that included preparation of various NEPA and specialized documents. Her client list includes Oklahoma Department of Transportation (ODOT), Texas Department of Transportation (TxDOT) and various other municipalities.

Project Experience

SL 1853 Madisonville Loop, Bryan, Texas
Biologist. Project consists of constructing a limited access, new location roadway. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Hazardous Materials ISA and the appropriate attachments.

FM 646 from Edmunds Way to FM 3436, TxDOT, Galveston County, Texas
Biologist. Project consists of improvements to the existing two-lane undivided roadway, including adding lanes to the existing main lanes, widening existing shoulders and adding a raised center median. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Tier 1 Assessment, Hazardous Materials ISA and the appropriate attachments.

Mound Road Extension Project, Greenhouse Road to Cypress Drive in Cypress, Harris County, Texas
Biologist. Project consists of the extension of Mound Road from Greenhouse Road to Cypress Drive. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Species Analysis, Wetland Delineation Report, Phase I ESA and the appropriate attachments.

IH 35 Capital Express South Design Refinement from SH 71/Ben White Boulevard to SH 45SE, Travis and Hays Counties, Texas
Environmental Specialist. Project consists of improvements to IH 35 from US 290 West/SH 71 to SH 45 southeast (SE) in Travis County, with a transition area extending to Main Street in Buda, Hays County. Assisting in the creation of the Hazardous Materials Initial Site Assessment ISA, Hazardous Materials Memo and the appropriate tables.

Westgreen Boulevard at the Intersection of Westgreen and IH-10 in Katy, Harris County, Texas
Environmental Specialist. Project consists of pavement widening for the addition of turn lanes and increased storage along Westgreen Boulevard. Assisting in the creation of the Phase I ESA and the appropriate

tables.

Blue Stores Solar, Town of Livingston, Columbia County, New York
Environmental Specialist. Project consists of due diligence services to support the development of a community solar site. Assisting in the creation of the Phase I ESA reporting materials and attachments.

Jefferson Tract, Habitat for Humanity of San Antonio
Biologist. Project consists of land acquisition to develop a residential community for lower income families of the San Antonio area. Assisting in the creation of the Phase I ESA reporting materials and attachments.

Strawser Property, Wellborn SUD, Robertson County, Texas
Environmental Specialist. Project consists of easements proposed as part of the water improvement project. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Landowner Questionnaire, the User Questionnaire and the Phase 1 ESA.

County Road 112 Improvements, City of Round Rock, Williamson County, Texas
Environmental Specialist. Project consists of improvements to the existing County Road 112, including expanding and realigning. Assisting in the creation of the Landowner Questionnaire, the User Questionnaire and the Phase 1 ESA.

Grade, Drain, Bridge and Surface Drake Road and Reactor Road Over Low Water Crossing 50E1805N3390001, ODOT, Murray County, Oklahoma
Biologist. Project consists of improvements to the existing two-lane paved roadways, including grade, drain, bridge and surfacing of the existing Drake and Reactor Roads. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report, and the appropriate attachments.

Bridge and Approaches (EW-139) Over Washita River, 1.7 miles South and 4.5 Miles East of JCT IH 44/US 81, ODOT, Grady County, Oklahoma
Biologist. Project consists of replacing the existing EW-139 bridge (NBI# 21697) over the Washita River. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report, and the appropriate attachments.

Bridge and Approaches (EW-123) Over Sugar Creek, ODOT, Caddo County, Oklahoma
Biologist. Project includes constructing a new, 26-foot wide bridge on the existing alignment and expanding the approach roadway to have two 11-foot wide driving lanes with 2-foot wide gravel shoulders. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also preparing the Biological Assessment, the Waters and Wetlands Evaluation Report, and the associated maps.

Williamson County Line from RM 1174 to SH 29, TxDOT, Bertram, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including widening to four-lane with a continuous two-way left turn lane and shoulders. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report, the Hazardous Materials Initial Site Assessment (ISA) and the appropriate tables.

CDR Landfill Expansion, City of Del Rio, Del Rio, Texas
Biologist. Project includes expanding the existing landfill by 75 acres. Assisted in field surveys including biological assessments, mapping of jurisdictional waters and hazmat. Also assisting in the creation of the Landowner Questionnaire and the Phase 1 ESA.

SH 146 from Fairmont Parkway to Red Bluff Road, TxDOT, Harris County, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including adding lanes to the existing main-lanes, side paths, adding additional frontage road lanes, adding or removing AUX lane and a new bridge. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report and the appropriate tables.

SH 146 from Spencer Highway to Fairmont Parkway, TxDOT, Harris County, Texas

Biologist. Project consists of improvements to the existing four-lane arterial, including adding lanes to the existing main-lanes, side paths, adding additional frontage road lanes, adding or removing AUX lane and a new bridge. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report, Surface Water Analysis Form, Wetland Delineation Report and the appropriate tables.

US Hwy 90 from 0.50 Miles West of Purple Sage Road, Greens Bayou to 0.27 Miles East of Purple Sage Road, TxDOT, Harris County, Texas
Biologist. Project consists of completing previously incomplete segments of the existing US 90 and Purple Sage Road. Assisted in field surveys including biological assessments and nighttime naval surveys. Also assisting in the creation of the Tier 1 Assessment, Species Analysis Report and the appropriate tables.

SH 146 from FM 518 to Dickinson Bayou, TxDOT, Galveston County, Texas
Biologist. Project consists of improvements to the existing four-lane arterial, including widening the existing four-lane divided highway to a six-lane divided highway and constructing a grade separated intersection at SH 146 and SH 96. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Air Quality Technical Report, Wetland Delineation Report, USACE Individual Permit and the appropriate attachments.

Widen and Resurface Existing Lanes (SH 6) over Armstrong Creek, ODOT, Greer County, Oklahoma
Biologist. Project consists of improvements to the existing four-lane arterial, including widening and resurfacing of the divided SH 6. Assisted in field surveys including biological assessments and mapping of jurisdictional waters. Also assisting in the creation of the Biological Assessment, the Waters and Wetlands Evaluation Report and the appropriate attachments.

Dates in blue are Amy's actual dates she worked on the project, not dates of the project.



Amy Esguerra, ENV SP

Environmental Project Manager

Education
Masters of Applied Geography, Environmental and Resource Studies, Texas State University, 2013

Bachelor of Science, Rangeland Ecology and Management, Texas A&M University, 2005

Certifications
Envision Sustainability Professional #50037, 2022

Years of Experience
16

Years with CP&Y
7

TxDOT Precertifications
1.8.1 Public Involvement
2.3.1 Wetland Delineation
2.3.2 Conditional/Functional Assessment
2.4.1 Nationwide Permit
2.4.2 Clean Water Act Sec 404 Permits
2.6.2 Impact Evaluation Assessments Currently suspended 7/2022. Amy has submitted a renewal.
2.6.4 Biological Evaluations/ Assessments Currently suspended 7/2022. Amy has submitted renewal.
2.13.1 Hazardous Materials Initial Site Assessment

Professional Affiliations
Women Transportation Seminar (WTS) – San Antonio Chapter

Training Courses
Texas A&M University and Texas Parks and Wildlife Department-

Background

Amy Esguerra has 16 years of experience as a biologist, with an emphasis in waters and wetlands. She has experience in working on and managing the preparation of various NEPA documents including categorical exclusions (CE), environmental assessments (EA) and environmental impact statements (EIS).

Amy has also prepared specialized documentation for various projects including Phase I ESAs, habitat assessments, jurisdictional determinations, wetland delineations for USACE permitting requirements, USACE preconstruction notices, USACE individual permit, Texas Water Development Board (TWDB) Environmental Information Documents (EID) and HUD NEPA documentation. Her client experience includes various municipalities and counties, San Antonio Water System (SAWS), San Antonio River Authority (SARA), Texas Department of Transportation (TxDOT), Oklahoma Department of Transportation (ODOT), multiple Regional Mobility Authorities, Habitat for Humanity, VIA Metropolitan Transit, the Texas General Land Office and the Department of Homeland Security.

Amy understands the local impacts of federal legislation, including National Environmental Policy Act (NEPA) regulations, the Clean Water Act, Endangered Species Act and Historic Preservation Act.

Project Experience

FM 1103, TxDOT San Antonio District, Guadalupe County, Texas
Environmental Manager. The proposed improvements would include the addition of one lane in each direction with center turn lanes, medians, shared-use paths to each side of the roadway and various turning lanes at select intersections from Rodeo Way to FM 78. Responsibilities included overseeing the environmental team in the preparation of the biological evaluation and Tier I form, jurisdictional waters report, noise analysis, community impact assessment, hazardous materials ISA, PCR and an archeological desktop report. Completed field work for jurisdictional waters, served as QC reviews on all materials and coordinated with the engineering team to ensure current design was used in impact assessments. Advised engineers on design changes needed to avoid waters and wetland mitigation requirements. Prepared public meeting report, including a response to comments. The project is anticipated to be environmentally cleared by October 2022 to ensure the project would meet the letting date of Fall 2024. (12/2018–ongoing as of 7/2022)

On-Call Environmental Consulting Services, City of San Antonio, Texas
Project Manager. Serving as project manager to the Neighborhood and Housing Services Department by completing Environmental Review Records (ERR) for projects funded with Community Development Block Grants (CDBG). Typical projects consist of minor rehab and major rehab work on houses within the city's low-income areas. Currently, five ERRs have been completed on the contract. (4/2022–ongoing as of 7/2022)

Leon Creek Water Recycling Center to Steven M. Clouse WRC Recycled Water Interconnect, San Antonio Water System, San Antonio, Texas
Environmental Lead. The proposed project includes the installation of approximately 18,000 linear feet recycled water pipes, a new ground storage tank and a booster pump station facility. Additionally, the existing 5,000 linear feet of pipe, currently floating on Mitchell Lake, will be removed. The project will also include modifications to the existing polder pumping stations used to divert water from Mitchell Lake to the polder complex, located immediately north of the lake. The improvements to the polder pump stations include the relocation of the stations as

Texas Freshwater Mussel Identification Workshop, August 2015

Wetland Training Institute- ID Wetland Grasses and Grasslike Species, August 2014

Environmental Review Procedures for the Entities Assuming HUD Environmental Responsibilities, Austin, Texas, August 1-3, 2012

Wetland Training Institute- Advanced Hydric Soils, February 2010

CDBG Boot Camp Training, Austin, Texas – September 21-24, 2009 presented by COSCDA Academy

U.S. Department of Housing and Urban Development Training: Foundations in Environmental Review-NEPA and 24 CFR Part 58

U.S. Department of Housing and Urban Development Environmental Training, Fort Worth Regional Office – May 5-6, 2010, presented by U.S. HUD Regional Office

necessary based on the final operating water level in Mitchell Lake, intakes for the pump stations, upgrades to electrical and instrumentation and controls equipment, fencing and site security improvements, lighting, stabilization of access roads to the pump stations and improvements to the flow control structures within/around the polder complex. Managed the development of the constraints map and report for inclusion in the PER in addition to developing a list of potential permits needed for the project. Also managing field work and report development of three jurisdictional determination reports, a Phase I ESA, a habitat assessment and a cultural resource subconsultant developing an archeological report. Any applicable USACE permits would be recommended following determination of impacts to jurisdictional waters. (11/2021-ongoing as of 7/2022)

Sorento Wastewater Interceptor, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The proposed project is intended to construct a new 11,200 linear foot wastewater decommissioning of a lift station and a flow diversion structure. Managed the environmental team, including archeological subconsultant, in completing field work and the EID and associated attachments because the project was being funded by TWDB. Planned a public meeting to present the project to the public as required by TWDB process. Coordinated with resource agencies as required. The EID was submitted to TWDB in April 2022 and is awaiting review and approval, anticipated to be approved in October 2022. (5/2021-ongoing as of 7/2022)

Weiss Lane/Kelly Lane Water Line, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The environmental team evaluated alignment recommendations of the Weiss Lane/Kelly Lane proposed water line that will connect to the Weiss Lane/Pecan Street waterline and distribute water to new and existing neighborhoods. Oversaw the environmental team to complete due diligence surveys and a summary report which included assessment of threatened and endangered species, jurisdictional waters and wetlands, cultural resources and hazardous materials. Additional studies for cultural resources clearance in the form of an archeological pedestrian survey would be required for clearance from Texas Historical Commission. (9/2021-ongoing as of 7/2022)

Salitrillo Wastewater Treatment Plant Expansion, San Antonio River Authority – Bexar County, Texas
Project Manager. Served as the environmental project manager to perform an environmental study for the expansion of the existing Salitrillo Wastewater Treatment Plant (WWTP). The study had to comply with the Texas Water Development Board (TWDB) requirements; therefore, Environmental Information Documents (EID) were prepared for the project. Coordinated and oversaw the environmental team in preparing the EID, including project description, alternatives analysis, purpose and need, socioeconomics analysis, biological impacts and water resources. Completed field investigations to delineation Salitrillo Creek, state and federal threatened and endangered species habitat evaluation and evaluated the potential for encountering hazardous material issues during development. Also coordinated with multiple local, state and federal agencies to obtain approval for the project. Coordinated and prepared material for a public meeting including handouts, maps, comment cards, a legal notice and public meeting summary. The EID was prepared but the client decided to forego TWDB funding and used the EID as their due diligence documentation. (7/2018-11/2019)

Multiple Roadways and Bridge Replacement Projects, Oklahoma Department of Transportation – Various Locations, Oklahoma
Quality Control Reviewer. Served as quality control reviewer for dozens of waters and wetlands reports, biological assessment reports and hazardous materials initial site assessment reports. Project locations include Texas County, Osage County, Grady County, McCLain County, Seminole County, Logan County, City of Madill, Muskogee County and

Ottawa County. Also completed field work and associated waters and wetlands reports, biological assessment reports and hazardous materials initial site assessments for projects in Cherokee County, Haskell County, Cotton County and Woods County. (1/2016-ongoing as of 7/2022)

Del Rio Landfill Due Diligence, City of Del Rio, Val Verde, Texas
Environmental Task Lead. The City of Del Rio is planning on expanding the existing city landfill to an approximate 75-acre parcel to the west of the existing landfill. As part of the landfill permitting process, due diligence reports were required. Managed the environmental team in the preparation of a Phase I ESA, Jurisdictional Waters Report and Threatened and Endangered Species Habitat Survey. Also managed a subconsultant in the preparation of an archeological pedestrian survey. Due diligence reports showed no concerns or items that would require further environmental permitting. (1/2020-5/2020)

> **Challenge:** Due to the nature of permitting a landfill expansion, the process takes multiple years to complete. Environmental due diligence review was needed at the beginning of the project to ensure no immediate concerns with expansion area. Environmental regulations change from this initial survey to final permitting and construction.
>
> **Solution:** Amy remains in contact with the landfill team, providing updates on regulations and how the changes to these regulations impact the environmental findings. For example, the waters of the US rule was changed from ephemeral streams being non-jurisdictional at the time of the survey, to now being jurisdictional. These streams were recorded during the initial site investigation and can be reviewed for appropriate permitting needs as the construction schedule is determined.

Northside Collection System Improvements, City of Del Rio, Val Verde County, Texas
Environmental Task Lead. The proposed project is intended to construct an approximate 36,000 linear feet of 18- to 33-inch wastewater line that will connect Silver Lake WWTP to Edwards Lift Station and provide service for future development and areas currently underserviced. The project will also consist of the decommissioning and elimination of the lift station at the northern end of the project. Managed the environmental team, including an archeological subconsultant, in completing field work and the EID and associated attachments since the project was being funded by TWDB. Planned a public meeting to present the project to the public as required by TWDB process. Coordinated with resource agencies as required. The EID was submitted to TWDB in March 2022 and is awaiting review and approval. It is anticipated to be approved in September 2022. (12/2019-ongoing as of 7/2022)

In-Fill Housing Environmental Review Records, Habitat for Humanity San Antonio, Bexar County, Texas
Environmental Task Lead. Prepared Environmental Review Records (ERRs) for the environmental clearance of vacant lots located in San Antonio, funded with Community Development Block Grants (CDBG). The environmental process adheres to the Code of Federal Regulations (CFR) Title 24 Parts 50, 51, 55 and 58 in addition to any applicable city, state and federal regulations. All projects completed qualify for assessment as a Categorical Exclusion (CE) subject to 58.5. Release of funds is issued by San Antonio. These projects are completed when Habitat for Humanity finds a vacant lot to use for in-fill construction of affordable housing. Managed staff production of ERRs. The Responsible Entity is the City of San Antonio, assuming responsibility for Habitat for Humanity. Currently 34 ERRs have been prepared under this project over the course of three years. (5/2018-10/2020)

Yucca Road Phase I Environmental Site Assessment, Habitat for Humanity San Antonio, Bexar County, Texas
Environmental Task Lead. Managed the preparation of a Phase I ESA for a 5.3-acre parcel that Habitat for Humanity intends to purchase with the purpose of constructing multiple homes. The Phase I ESA was conducted in accordance with ASTM 1527-13 standards. Staff conducted a desktop review of hazardous materials databases, historical aerial photographs and conducted a field investigation. The Phase I ESA was prepared and included a landowner survey as well as a user survey. The Phase I ESA was completed within approximately 21 days following notice to proceed. (4/2021-5/2021)

Weiss Lane/Pecan Street Water Line, City of Pflugerville, Travis County, Texas
Environmental Task Lead. The environmental team evaluated alignment recommendations of the Weiss Lane (Ln)/Pecan Street (St) proposed water line. The proposed project would involve the installation of a transmission main which will convey water from the water treatment plant (WTP) to the west side of SH 130 where it would connect to an existing 16-inch watermain. Oversaw the environmental team to complete due diligence surveys and a summary report which included

assessment of threatened and endangered species, jurisdictional waters and wetlands, cultural resources and hazardous materials. Additional studies for cultural resources clearance in the form of an archeological pedestrian survey would be required for clearance from Texas Historical Commission. Soil sampling for hazardous materials due to a leaking above-ground storage tank that was discovered during field investigations was completed by a subconsultant managed by Ms. Esguerra. (3/2020-3/2021)

Wilbarger Creek Regional WWTF Program, City of Pflugerville, Texas
Environmental Task Lead. This wastewater program includes managing a 6.0 MGD WWTF, 54-inch wastewater interceptor project, and the planning and managing of a series of lift station removals. The purpose of this program is to transfer wastewater flows in the Wilbarger Creek Basin from being pumped through a series of lift stations to a new gravity system conveying flow to a new WWTF. Serving as part of the Owner's Representative team. Reviewing consultant environmental documents, providing recommendations on environmental questions and approach to the program. The program includes the construction of a new WWTP and new interceptor. (4/2020-ongoing as of 7/2022)

Talley Road Phase 1, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. Served as the environmental task lead, including widening the existing roadway, adding sidewalks and improving drainage. These undertakings are needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Oversaw the environmental team in the preliminary engineering portion of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey, karst survey and a archeological pedestrian survey. Also prepared the Phase I Environmental Site Assessment, Jurisdictional Waters Determination report and an environmental overview report required for the project. Coordinated a public meeting which presented the project schematics and environmental findings. Prepared meeting handouts, public notices which were provided to local HOAs, and a public meeting summary report which documented comments received at the meeting. A comment response matrix was also prepared and included in the summary report. (1/2015-9/2017)

Talley Road Phase II, Bexar County, Texas
Environmental Task Lead. Talley Road would consist of expanding the existing two lane roadway to four travel lanes, one 11-foot travel lane and one 15-foot shared-use lane in each direction, one continuous 14-foot left turn lane and 5-foot sidewalks located along both sides of the roadway for the entire length of the project area. The project is receiving federal funds and therefore must comply with all TxDOT requirements and forms. Responsibilities included overseeing the environmental team in the preparation of the species analysis spreadsheet and form, surface water analysis form, hazardous materials ISA, community impact analysis, a noise analysis and a historic project coordination request. Managed a subconsultant for the preparation of a karst survey and the archeological desktop report. Also completed materials to meet with affected property owner (MAPO) requirements by preparing notification letters and exhibits for those landowners impacted by the project. A virtual public meeting was held and Amy managed the preparation of virtual presentation and script, legal notices and other materials. Prepared an informal consultation letter for USFWS coordination for potential effects to karst species during geotechnical borings. Also managed the preparation of a Biological Assessment for potential impacts to karst species during final construction as well as mitigation as required by TxDOT and USFWS. Environmental clearance was issued by TxDOT April 2022. Oversaw the preparation of a PCN for NWP 14 in compliance with General Condition 18, impacts to federally protected species. The PCN is with USACE for review as of July 2022. (7/2019-ongoing as of 7/2022)

IH 30 from Linkcrest Drive to IH 820, TxDOT Fort Worth District, Fort Worth, Tarrant County, Texas
Environmental Manager. The proposed improvements would include widening from a four-lane freeway to a six-lane freeway, improvements to the IH 30 and Spur 580 interchange, and the construction of continuous one-way frontage roads throughout the project limits. Bike lanes and sidewalks will be added to both the eastbound and westbound frontage roads throughout the project limits. The proposed project is intended to reduce congestion, improve safety and mobility, and maintain local access along the roadway. The project length is 3.4 miles and would require minor amounts of additional right-of-way (ROW). Responsibilities included overseeing the environmental team in the preparation the species analysis form, Tier I site assessment form, surface waters analysis form, hazardous materials ISA, PCR, community impact assessment and a noise analysis. Managed a subconsultant for the preparation of an archeological desktop report. Attended a public meeting open house to answer questions related to environmental constraints and studies for the project. Assisted in preparing slides related to the environmental review and studies for the virtual public hearing, and prepared responses to comments received during the public hearing as they related to the environmental studies. A pre-construction notification is also being completed and managed for impacts to wetlands at a frontage road expansion at several locations but is currently awaiting engineering design. Environmental clearance is pending and anticipated in July 2022. (10/2018 – ongoing as of 7/2022)

Del Rio International Bridge Expansion, Del Rio, Val Verde County, Texas
Environmental Manager. The Del Rio Port Director, US Customs and Border Patrol (CBP), presented to the City of Del Rio several months ago the need of a new 2-lane roadway from the base of the International Bridge to the newly established expedited cargo lanes (about 1,700 lineal feet (LF) of roadway total; roughly 1,300 LF on City property and 400 LF on Federal property) and requested that the City consider constructing the 2-lane roadway and appurtenances (drainage, signage, lighting, fencing) and then donating all improvements on Federal property under the US CBP's Donations Acceptance Program. Managed the completion of a DHS CE document to assess potential impacts of the proposed project and an archeological subconsultant that completed a desktop review and letter to the THC for cultural clearance. The document was completed with a tight turn-around of three weeks from NTP due to the impending deadline the city faced with the DHS. (11/2020-12/2020)

County Road 112, City of Round Rock, Williamson County, Texas
Environmental Task Lead. The City of Round Rock is planning on expanding and realigning CR 112 for approximately 1.2 miles. As part of the environmental approval process, due diligence reports were required. Managed the environmental team in the preparation of a Phase I ESA, Jurisdictional Waters Report, and Threatened and Endangered Species Habitat Survey. Due diligences reports showed no concerns or items that would require further environmental permitting. (2/2020-1/2021)

Phase 1B Water Supply Project (5 year contract), Alliance Regional Water Authority (ARWA), Caldwell, Guadalupe and Hays Counties, Texas
Environmental Task Lead. ARWA is planning for and building groundwater wells, raw water lines, water treatment plant, transmission mains, an administrative operations facility, booster pump station and delivery points to provide water to its clients in central Texas. ARWA is utilizing the State Water Implementation Fund for Texas (SWIFT) to finance its work. Providing environmental oversight for the completion of the proposed project by managing the environmental consultant that was obtained to complete the environmental documents for the program. Oversees day-to-day coordination between the environmental consultant with the engineers, ARWA, state and federal agencies such as Texas Water Development Board, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department, and reviews all environmental documents including the Environmental Data Form (EDF) required by the TWDB for SWIFT funding. Provides direction and recommendations on environmental issues, schedules, and other related items to the Owner's Representative team and ARWA. Assists in overseeing construction aspects as it relates to compliance with environmental commitments, laws and regulations. Manages migratory bird nest surveys completed each week prior to vegetation clearing, advises on changes in limits of construction to ensure the project is still in compliance with approvals, prepared a USACE NWP 58 for a tunnel collapse at a jurisdictional crossing and any additional issues that arise during construction. (11/2017-ongoing as of 6/2022)

San Felipe Creek Footbridges and Bank Improvements, City of Del Rio, Texas
Environmental Project Manager. Served as the environmental project manager for improvements to two pedestrian bridges, bank retaining wall repairs and repairs to sidewalks along an approximate 0.65-mile section of San Felipe Creek. The San Felipe Creek is designated by the U.S. Fish and Wildlife Service (USFWS) as a critical habitat for the endangered Devils River Minnow. CP&Y provided environmental permitting services, which included all agency coordination necessary for project approval and construction. Managed the preparation of a U.S. Army Corps of Engineers (USACE) Permit Nationwide Permit (NWP) 3 Pre-Construction Notification (PCN) for impacts that would occur to the creek as a result of the project. Per NWP General Condition 18, impacts to endangered species, a Biological Assessment was also prepared to conduct Section 7 Consultation. After extensive coordination with USFWS to reach an agreement on feasible best management practices (BMPs) and conservation measures, the USFWS issued a Biological Opinion and USACE issued approval for NWP 3. Additionally, was responsible for managing a cultural resources subconsultant that prepared a desktop report in order to obtain approval from the Texas Historical Commission. Prepared an aquatic relocation plan in compliance with Texas Parks and Wildlife requirements and received approval in anticipation of construction. Will oversee monitoring and conservation measures required by USFWS and USACE during construction and complete post-construction reporting requirements. Construction expected to be complete 10/2022. (10/2018-ongoing as of 7/2022)

FM 725, TxDOT San Antonio District, Guadalupe County, Texas
Environmental Manager. The proposed improvements would include the addition of center turn lanes and shoulders from Zipp Road to FM 78. All improvements took place within the existing ROW. Responsibilities included overseeing the environmental subconsultant in the preparation of the biological evaluation and Tier I form, jurisdictional waters report, hazardous materials ISA, PCR and an archeological desktop report. Completed QC reviews on all materials and coorindated with the engineering team to ensure current design was used in impact assessments. The project was environmentally cleared in April 2021, six months after the start of the project to ensure the project would meet the letting date. (11/2020-4/2021)

Basin Planning Consultant (BPC) Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. As part of SAWS' efforts on the Sanitary Sewer Overflow Reduction Program, served as the environmental task lead to two engineering firms selected as Basin Planning Consultants to assess the East, West and Central Basins. Efforts for the environmental task manager included coordination with the engineering teams and the archeological subconsultant to complete the 10% desktop analysis and 30% field analysis for all capacity constraints and the open-cut condition constraint sanitary sewer lines within the three basins across most of Bexar County. Constraints assessed via the desktop survey included hazardous materials, jurisdictional waters and wetlands, and threatened and endangered species which includes reviewing reported occurrences, designated critical habitat and karst zones. The desktop analysis also included providing recommendations of potential problem areas along alternatives, required environmental permits and agency approvals, and actions needed to obtain environmental clearance for the constraint lines. Completed site visits for the 30% design level field investigations which included field surveys for threatened and endangered species habitat, jurisdictional waters and wetlands, and hazardous materials. Also provided quality control and mapping support to complete environmental memorandums summarizing field finds, jurisdictional water and wetland reports, and Phase I ESAs. The 30% design reports included more defined findings and permitting requirements for the final design engineer to follow for compliance with environmental laws and regulations. Managed the environmental team which has included an internal team of biologists and GIS personnel, as well as an archaeological and karst survey subconsultant. (8/2016-2/2018)

Blanco Road Phase II, Alamo Regional Mobility Authority, Bexar County, Texas
Environmental Task Manager. Improvements to a 3.6-mile segment of Blanco Road between West Oak Estates Drive and Borgfeld Drive in Bexar County from a 2-lane roadway to a 4-lane roadway with two 12-foot travel lanes and 6-foot shoulders/bike lanes in each direction. The roadway would have a raised median, curb and sidewalk on the northbound side of the project. The project is receiving federal funds and therefore must comply with all TxDOT requirements and forms. Responsibilities included overseeing the environmental team in the preparation of the biological evaluation and Tier I form, waters technical report, hazardous materials ISA, air quality report and a noise analysis. Managed a subconsultant for the preparation of a karst survey and the cultural resources report. Coordinated a public meeting which presented the project schematics. Prepared meeting handouts, public notices which were provided to local HOAs and adjacent property owners, and a public meeting summary report which documented comments received at the meeting. A comment response report was also prepared and included in the summary report. A public hearing was also held in which Amy oversaw material preparation including legal notices, notices to adjacent property owners, presentation and script and other handouts. A public hearing summary report was prepared following the end of the comment period. Environmental clearance was provided by TxDOT in April 2019. (3/2017-2/2019)

FM 16, TxDOT Tyler District, Smith County, Texas
Biologist/NEPA Specialist. The proposed project would consist of widening the roadway and straightening out curves to accommodate future traffic demands and improve safety along the 4.4-mile corridor. Assisted in preparing final versions of the Hazardous Materials ISA, Water Technical Report and the Biological Evaluation and Tier I form. This consisted of updating necessary information such as vegetation impacts, acreage updates and re-evaluation of right-of-way due to design changes made after the reports were prepared. Prepared all sections of the Environmental Assessment including the purpose and need, affected environment utilizing the various technical reports and forms, indirect and cumulative impacts, permits and approvals, commitments, and with input from the design engineer, the alternatives analysis. A FONSI was issued for the project in March 2019. (2/2016-3/2019)

Kenney Fort Boulevard, City of Round Rock, Round Rock, Williamson County, Texas
Deputy ENV PM/Biologist. Kenney Fort Boulevard Segments 2 and 3 will extend the existing limits from Forest Creek Drive to Gattis School Road (Segment 2) and from Gattis School Road to SH 45 (Segment 3). The project area covers a total area of 35.9 acres. Project was funded with CAMPO federal funds and therefore had to adhere to the TxDOT approval process. Responsibilities included completing field work to delineate waters and wetlands, review potential habitat within the project area and determine the potential for encountering hazardous materials along the project corridor. Reviewed technical reports prior to submittal. Prepared Environmental Assessment based on final technical reports and addressed TxDOT comments. Prepared and obtained a PCN and coordinated with USACE for project approval due to unavoidable wetland impacts. A FONSI was issued for the project in May 2021. (1/2019-12/2021)

Vista Ridge Regional Supply Project, Garney Construction, Central Texas
Biologist/Internal Task Lead. This design build project consisted of a well field, seven miles of well collection line, 140 miles of large diameter treated transmission main, three pump stations, water treatment facilities and a metering station/ customer delivery point through primarily rural areas. Responsibilities included surveying approximately 77 miles of transmission line easements for waters and wetlands of the U.S. through rural areas as well as providing photo documentation for the surveyed areas. (2/2015-3/2016)

Martinez IV Wastewater Treatment Plant, Collection Line, and Lift Station, San Antonio River Authority, Bexar County, Texas
Environmental Project Manager. Led the environmental study for the construction of the new Martinez IV Wastewater Treatment Plant (WWTP) and the associated collection line and lift station, evaluated as two separate projects. The study had to comply with the Texas Water Development Board (TWDB) requirements to receive Clean Water State Revolving Funds (CWSRF); therefore, two Environmental Information Documents (EID) were prepared. Coordinated and oversaw the environmental team in preparing the EID, completed field investigations to delineate four streams, three wetlands, state and federal threatened and endangered species habitat evaluation, and evaluated the potential for encountering hazardous material issues during development. Coordinated with multiple local, state and federal agencies to obtain approval for the project. Coordinated and prepared material for two public meetings, including handouts, maps, comment cards, legal notices and public meeting summaries. Both EIDs were approved by the TWDB and received a Finding of No Significant Impact (FONSI). (1/2017-10/2017, 1/2019)

> **Challenge:** The new WWTP, collection line and lift station were slated to be part of the overall project; however, the WWTP needed to be constructed on an accelerated schedule due to existing infrastructure currently at the site. The lift station parcel was not acquired and had to under-go several additional studies for property acquisition that would have delayed environmental approval on the WWTP.
>
> **Solution:** The WWTP and the collection line and lift station were split into two environmental documents. Amy was able to show that the WWTP had independent utility without the collection line and lift station being constructed because there was an existing sewer line at the site that would soon be operational and require the plant to be constructed. This allowed for the WWTP to be approved ahead of the collection line and lift station, thereby keeping construction of the WWTP on schedule.

IH 14 Needs Assessment, TxDOT Planning and Programing Division, Texas
Technical Formatting Editor. The IH 14 corridor extends from IH 10 in Pecos County, east approximately 590 miles, to the Texas/Louisiana border. The corridor follows the existing alignment of US 190 for most of its length, diverging from US 190 east of Jasper in Jasper County and following the existing SH 63 alignment to the Texas/Louisiana state line. There are also two alternate routes that were assessed; one from the west that extends from the junction of IH 20/SH 158 in Midland County eastward approximately 185 miles to US 377/US 190 in McCulloch County which follows SH 158 and US 87; and an eastern alignment that generally follows the existing alignment of US 69 from its intersection with US 190 in Tyler County, south approximately 54 miles to its intersection with IH 10 in Jefferson County. Responsibilities included preparing templates used as go-bys for the environmental technical reports in order to have uniform document from multiple staff members. Formatted and prepared final submittal documents of the cultural resources, ecological, hazardous materials and community resources existing conditions reports for each of the three routes assessed. (08/2016-03/2018)

San Filipe Golf Course, City of Del Rio, Texas
Project Manager. Provided services to the City of Del Rio to complete an environmental due diligence study for expanding the San Filipe Golf Course to an 18-hole facility. Outlined the required tasks for the study, consulted with the city engineer, city manager and other city staff to outline the benefits of completing the environmental study prior to purchasing the property. Advised the City of the environmental risks that are associated with the project including the presence of critical habitat for the Devils River Minnow on the golf course property and that a portion of the property occurs within a designated archeological district, which is protected by state and federal laws. Presented the proposal and issues to the city council and responded to questions during the October, 2016 city council meeting. Field work was conducted and an environmental report prepared and presented at the May, 2017 city council meeting. Managed the schedule and budget of the project as well as an archaeology subconsultant that preformed an intensive survey of the property. (1/2017-8/2017)

E-19 Seguin Road to Nacogdoches Road Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. The proposed project, referred to as E-19, will replace a wastewater line from Seguin Road to Nacogdoches Road for a length of 6.3 miles. The proposed project is split into two segments, Segment 1 and Segment 2. Managed the completion of environmental tasks for both segments. A field survey was conducted to assess waters and wetlands, hazardous materials and wildlife habitat. Reports for environmental clearance and approval included a Phase I ESA, Jurisdictional Waters and Wetlands reports, Threatened and Endangered Species Habitat Assessment reports, and a Cultural Resources Surveys. Prepared the Phase I ESA and the Jurisdictional Waters and Wetland Report for both segments. (2/2016-2/2017)

E-20 Wurzbach Parkway Project, San Antonio Water System (SAWS), Bexar County, Texas
Environmental Task Lead. The project will replace E-20 wastewater line from a point north of the existing Marymount siphon south of Nacogdoches Road to the intersection of Jones Maltsberger Road and Wurzbach Parkway for a length of 4.3 miles. The project also includes the installation of a bore under the UPRR right-of-way adjacent to Wetmore Road near Salado Creek in order to extend two 18-inch bypass force mains. This portion of the project is referred to as the bypass bore. A field survey was conducted to assess jurisdictional waters and wetlands, hazardous materials and wildlife habitat along the project alignment. (5/2016-12/2020)

FM 1560 at SH 16, TxDOT San Antonio District, Helotes, Texas
Biologist. The project was needed to realign FM 1560 intersection at SH 16 to improve traffic operations and reduce delays. Completed a field investigation to document potential hazardous materials and biological features, including vegetation, threatened and endangered species habitat, and waters resources. Prepared the biological evaluation form, ISA form, and a waters and biological technical report for the project. (01/2015-03/2015)

FM 2113, TxDOT Waco District, Hewitt, Texas
Public Involvement Lead. Assisted engineering team in preparing for a public meeting for the project which included coordinating the project meeting date, handout materials, legal notice, meeting exhibits which consisted of schematic roll plots, typical section boards, and a television displaying the project design on Google Earth with a KMZ file. A comment station and sign-in table were also available to the public. Oversaw the preparation of a public meeting summary report which was provided to the engineer and district following the close of the comment period. (10/2016-10/2017)

Categorical Exclusions, TxDOT Fort Worth District, Erath and Hood Counties, Texas
Biologist. Categorical Exclusions (CEs) were required for three projects consisting of the addition of shoulders to existing roadways within existing right-of-way. Completed field investigations to document wildlife, vegetation, waters and wetlands, hazardous materials and other environmental concerns. Data was used to complete biological evaluation forms which assess the vegetation within the project limits and potential for threatened and endangered species to occur within the project limits. Water resource technical reports were also completed for the three projects with a determination of need for Section 404 permit for each project. (03/2015-05/2017)

Old FM 471 and Talley Road, Bexar County Public Works, Bexar County, Texas
Environmental Task Lead. Served as the environmental task lead for the proposed project which is needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Oversaw the environmental team in the preparation of the preliminary engineering portion of the project and prepared a Phase I Environmental Site Assessment. The preliminary engineering consisted of completing field work for biological resources, a historical windshield survey and report, and an archaeological desktop survey. An archaeological pedestrian survey and a jurisdictional waters report was prepared when design plans were finalized. (6/2016-8/2018) (as sub 5/2015-12/2015)

Talley Road, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. The project included widening the existing roadway, adding sidewalks, and improving drainage. These undertakings are needed to meet current design standards, implement operational improvements, accommodate growth and development in the area, and include bicycle/pedestrian amenities. Amy oversaw the environmental team in the preliminary engineering portion of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey, karst survey, archeological pedestrian survey. She also prepared the Phase I Environmental Site Assessment, Jurisdictional Waters Determination report, and an environmental overview report required for the project. Coordinated a public meeting which presented the project schematics and environmental findings. Prepared meeting handouts, public notices which were provided to local HOAs, and a public meeting summary report which documented comments received at the meeting. A comment response matrix was also prepared and included in the summary report.

Old Corpus Christi Road, Bexar County Public Works, San Antonio, Texas
Environmental Task Lead. Served as the environmental task leader for this project, consisting of roadway reconstruction and adding shoulders. Oversaw the environmental team in the preliminary and intermediate design phase of the project which included the preparation of a threatened and endangered species habitat assessment, a historical resources desktop survey and an archaeological pedestrian survey. Also prepared the Phase I Environmental Site Assessment and a Jurisdictional Waters Determination report required for the project. Once design plans at the jurisdictional creek reached 60% design phase, a Section 404 permitting memorandum document was prepared with the impacts to the jurisdictional water, the assumed NWP 14, and BMPs that would be in place in order to comply with Section 404 and 401 of the Clean Water Act. (12/2015-8/2016)

Sixmile Creek Individual Permit (IP), Bexar County Flood Control Program, Bexar County, Texas
Biologist. Performed a delineation for the area downstream of the project which is anticipated to be used for enhancement mitigation, completed the Texas Rapid Assessment Method to determine mitigation credits required to compensate for the proposed impacts from the project, completed portions of the IP and prepared the associated mitigation plan. The IP was abandoned due to mitigation costs required for impacts to the stream. (2/2015-8/2015)

US 183 North Mobility Project, Central Texas Regional Mobility Authority, Travis and Williamson Counties, Texas
Biologist. Served as a biologist on the preparation of the Water Resources Technical Report as part of the Environmental Assessment for the proposed improvements to US 183 from SH 45/RM 620 to Loop 1 (MoPac). Completed delineations of water features and report preparation which included analysis of jurisdictional waters and wetlands, floodplain impacts, water quality and indirect effects of the proposed project. (1/2015-4/2016)

US 90 Pedestrian Bridge, TxDOT San Antonio District, San Antonio, Texas
Biologist. The proposed project was to construct a pedestrian bridge over the existing US 90 as well as add approximately 7,300 feet of sidewalks along both the north and south sides of the US 90 frontage roads within the existing right-of-way. Prepared a water resources technical memorandum for the project which documented resources present within the NEPA study area, impacts to those resources and permitting requirements for the project. (1/2015)

Forney Sanitary Sewer Line Project, North Texas Municipal Water District, Forney, Texas
Environmental Project Manager. Serving as the environmental project manager for installation of a new sanitary sewer line parallel to an existing line. Managing the preparation of a U.S. Army Corps of Engineers Permit for impacts that would occur to waters and wetlands, including forested wetlands. Completed field work to calculate TxRAM scores for mitigation, prepared the Nationwide Permit 12 application, the conceptual mitigation plans and determination of credits. The USACE returned no comments on the application and approved it within the initial 30-day review period which resulted in saving a minimum of one month on the project timeline. Also coordinated the purchase of the credits with the selected mitigation bank on behalf of the client. (4/2019-11/2019)

Tonk Creek Road and N. Crooked Creek Road Bridge Projects, McLennan County, McLennan County, Texas
Environmental Task Manager. The proposed project will repair a wingwall and road embankment on Tonk Creek Road at Tonk Creek and replace a collapsed bridge on N. Crooked Creek Road at Crooked Creek in McLennan County. Amy is overseeing the environmental team in the preparation of a cultural resources desktop survey, which has been submitted to THC for review, and an environmental report which was a combined habitat assessment and a waters delineation and impacts report. Assessed anticipated impacts and Section 404 permitting requirements. Also completed field work for the water delineation. (11/2019-6/2020)

Gibb Sprawl Pump Station Phase I Environmental Site Assessment, San Antonio Water Systems (SAWS), San Antonio, Texas
Environmental Task Manager. Completed field work and managed the completion of a Phase I ESA for a parcel proposed for purchase by SAWS. The parcel was owned by KB Homes and was undevelopable due to its proximity to the floodplain. The parcel was found to have piles of soil, broken concrete and asphalt, dumped household waste, tires, presumably paint can and five gallon buckets which contained unknown materials. Due to the extensive dumping on the site, a Phase II ESA with soil and subsurface testing was recommended. (3/2020-5/2020)

IH 10 at San Jacinto River Navigation System Replacement, TxDOT Houston District, Harris County, Texas
Biologist/QC Reviewer. Prepared a Categorial Exclusion (CE) document for the replacement of bridge fenders and four dolphin structures on the San Jacinto River and IH 10 crossing due to the navigation accidents which damaged the bridge. The project also required a U.S. Coast Guard permit for which Amy served as QC on the permit applications and all associated attachments and USACE Individual Permit. (11/2019-2/2020)

Gilliland Road Bridge Replacement Project, TxDOT Fort Worth District, Parker County, Texas
Environmental Project Manager. The project required preparation of a Historic Studies Project Coordination Request form, a Hazardous Materials Initial Site Assessment (ISA), a Biological Evaluation Form and Tier I site assessment, and a Water Resources report. Completed field work consisting of a waters and wetland delineation, review of potential habitat, and review of hazardous materials within the project area and oversaw the preparation of all reports. Coordinated with the project engineer to remove riprap from impacting a wetland in order to avoid the need for a USACE Preconstruction Notification. (5/2019-9/2019)

Marksheffel Road, City of Colorado Springs, Colorado Springs, Colorado

Environmental Task Manager. The City of Colorado Springs proposes to construct new approaches and a buried structure on Marksheffel Road over Sand Creek in northeastern Colorado Springs. The project includes a structure spanning over Sand Creek, stream channel improvements, including drop structures, roadway design for approximately 355 LF of asphalt pavement, sidewalks, a connection beneath the structure for Sand Creek trail and other miscellaneous items. Prepared and submitted a NWP 14 PCN and RGP 37 to the USACE Albuquerque District along with a Bank Use Mitigation plan, the first to be prepared for the district, due to impacts to shrub/scrub and emergent wetlands in addition to Sand Creek. Coordinated the purchase of the credits with the USACE approved mitigation bank for the client. The permit was issued July 2019. (1/2019-10/2020)

FM 725, TxDOT San Antonio District, New Braunfels, Comal, and Guadalupe Counties, Texas
Environmental Task Manager. The proposed improvements would include the addition of a combination of raised medians and center turn lanes and left and right turn lanes at various points along the project limits, a shared use path along the south side of the road and a sidewalk along the north side of the roadway. The proposed project would be 1.65 miles in length and would require 4.58 acres of additional right-of-way (ROW). Responsibilities included overseeing the environmental team in the preparation of the species analysis form, Tier I site assessment, surface water analysis form, hazardous materials ISA, PCR, historical resources survey report, community impact assessment and a noise analysis. Managed a subconsultant for the preparation of a cultural resources desktop report. Completed field work for the biological components and note noise receivers for the noise analysis. Planned and setup meetings with affected property owners with the project team to go over the project and ROW acquisition process. These were held virtually due to COVID-19. Planned and developed virtual public meeting material including virtual sign-in, presentation and associated script, flyer notifications, letters to elected officials, traditional comment cards and virtual comment cards. A public meeting summary report with a response to comments was also prepared. Environmental clearance was received March 2021. A pre-construction notification is also being completed and managed by Amy for impacts to wetlands at a culvert extension. A noise workshop will also be conducted for a proposed noise barrier along a portion of the project. (8/2018-ongoing as of 6/2022)

Candlemeadow Road, Alamo Regional Mobility Authority, San Antonio, Bexar County, Texas
Environmental Task Manager. The proposed project will reconstruct the current roadway to include two 12-foot travel lanes, 10-foot shoulders, curb and 4.75-foot sidewalks. Oversaw the environmental team in the preparation a cultural resources desktop survey and a water resources technical report. Also completed field work for the water resources technical report. The report desktop cultural report was approved by THC with no further surveys required and the waters report was approved by Bexar County. (2/2019-1/2020)

Corridor F/US 183 Project, Williamson County, Texas
Biologist/NEPA Specialist. The proposed project would consist of improvements which would enhance safety and mobility by constructing a controlled access facility from SH 29 to the north Williamson County line. The project area encompasses 794.6 acres. Approximately 5.3 acres would be drainage easement, 191.8 is existing public right-of-way and 597.5 is proposed (new) right-of-way. The project is currently locally funded and only due diligence documentation is being prepared. Responsible for QC of various technical reports and preparing an Executive Summary report for the proposed project. (4/2018-10/2019)

Other Firms

The Southern Gateway Project, TxDOT Dallas District, Dallas County, Texas*
Biologist. Prepared a water resources technical report and a hazardous materials technical report for inclusion as attachments to an Environmental Assessment (EA) for the improvements to IH 35E from IH 20 to Reunion Boulevard (10.5 miles) and along US 67 from FM 1382 to the IH 35E/ US 67 Split (9.4 mi.) in Dallas County, Texas. Field work was completed at the beginning of the project to determine the ordinary high water mark of all jurisdictional water features and wetlands as well as potential areas of concern for hazardous materials along the 19.9-mile corridor. Served as QC reviewer on the biological evaluation form and the threatened and endangered species technical report.

IH 35 Northeast San Antonio Expansion Project, TxDOT San Antonio District, Bexar, Comal, and Guadalupe Counties, Texas*
Biologist. An Environmental Assessment (EA) was prepared for the IH 35 corridor in San Antonio. The proposed improvements would add capacity in the form of elevated managed lanes between the existing mainlanes and frontage roads. In addition, proposed direct connectors would link the proposed managed lanes to the existing IH 410 South, IH 410 West, and Loop 1604 facilities. Prepared the water resources sections for the EA including waters and wetlands of the U.S., floodplains, water quality, and groundwater as well as the hazardous materials section of the document. Completed field work at the beginning of the project to determine the ordinary high water mark of all jurisdictional water features and potential areas of concern for hazardous materials along the 18.8-mile corridor.

Shoal Creek Restoration Project, City of Austin, Texas*
Biologist. The City of Austin is improving Shoal Creek from 15th to 28th Streets in downtown

Austin, Texas. Improvements include bank stabilization, improved access points and creek crossings, extension of a hiking trail and bike path, removal of wastewater line from the creek, and soil restoration and re-establishment. Prepared the Pre-Construction Notice to obtain the approval of the U.S. Army Corps of Engineers for work completed within the stream. The project required a combined Nationwide Permit (NWP) 13 for bank stabilization and a NWP 42 for recreational facilities. Notification was required due to the bank stabilization exceeding 500 LF and discharging more than one cubic yard per running foot of stream, as well as the use of NWP 42. The permit was issued in early 2015 by the Fort Worth District USACE.

Galm Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. This project included jurisdictional determinations at two creek crossings (Culebra Creek and a tributary to Culebra Creek) for the Bexar County. Site investigations were conducted and high water mark for both creeks were delineated using Trimble GPS equipment. A jurisdictional determination report was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

West Rail Wetland Mitigation, Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Completed wetland mitigation monitoring site visits and associated reports as required by the USACE Individual Permit issued for the West Rail Relocation project in Brownsville, Texas. The first evaluation occurred one year after the wetland mitigation site was established. The monitoring visit was needed to complete a plant count survey. Individual plants that were planted at the wetland mitigation site were counted in order to determine survival rate of the planted wetland species. A findings report was prepared and submitted to the client, CCRMA. Completed several additional monitoring visit throughout a two year period and to determine the aerial percent cover of desirable wetland species and invasive species at the mitigation site. Summary reports were prepared and submitted to the client.

Prue Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. Completed jurisdictional determinations at French Creek for Bexar County. Site investigations were conducted to delineate the ordinary high water mark using Trimble GPS equipment. A jurisdictional determination report was prepared. A Threatened and Endangered Species Habitat Assessment report was also prepared. Two combined Nationwide Permits, 12 and 14, were required.

Real Road Jurisdictional Determination, Bexar County, San Antonio, Texas*
Biologist. Completed jurisdictional determinations at Chupaderas Creek for Bexar County. Site investigations were conducted to delineate the ordinary high water mark using Trimble GPS equipment. A jurisdictional determination report was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

Hurricanes Ike and Dolly Disaster Recovery Program, Texas General Land Office, Various Counties across South and East Texas*
Environmental Reviewer/Documentation Compliance. Served as environmental coordinator tasked with assisting in coordination and guidance between community officials, project engineers, environmental service providers, and grant administrators. Provided guidance for specific environmental permits required, potential schedule delays due to resource agencies, and direction on ensuring a project followed HUD and other agency environmental regulations. Prepared environmental guidance documents for the DR Program including: general DR Program guidance, HUD compliance requirements, USACE Section 404 permitting requirements, hazardous materials guidance, and floodplain and public notice publication requirements. Reviewed all program ERRs for accuracy and compliance with Section 404, NEPA, hazardous materials issues, and other HUD requirements. Prepared ERRs for high priority projects that required a fast turnaround or had other special considerations that were beyond a typical ERR for the program.

VIA Program Management, VIA Metropolitan Transit, San Antonio, Texas*
QC/QA. Completed the environmental section of an alternative site analysis report that was prepared to review constraints for all potential sites for the VIA Street Car Maintenance Facility. The environmental section reviewed hazardous material, water and wetland resources, parks and cemeteries, as well as cultural resources (completed by others). Provided QC services on various items from the document controls group for the program. Performed QC on various documents including meeting minutes, technology instruction manuals and the program contact database.

South Padre Island 2nd Access EIS, Cameron County RMA (CCRMA), South Padre Island, Texas*
Biologist. Involved in preparing an environmental impact statement (EIS) for the construction of a second access for South

Padre Island. Conducted field work to determine potential wetlands within the various alternative alignments on both the mainland and island sides of the project. Various sample points were taken where right-of-entry had been obtained in order to make preliminary determinations for the DEIS. Where right-of-entry was not obtained, visual determinations from right-of-way had to be made based on soil maps, vegetation, and visible wetland indicators. Prepared various portions of the Final EIS including, surface water, waters of the U.S., floodplains, hazardous materials, and cumulative impacts for water quality, floodplains, and wetlands. Assisted in several public meetings for the Draft EIS process, interacting with the public attendees.

FM 511/SH 550 EA Re-Evaluation, Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Involved in preparing a re-evaluation for the construction of mainlanes for the FM 511 and SH 550 project for the CCRMA. Provided support for the public meeting by answering questions regarding the previous environmental document and the proposed changes which would result from tolling the roadway. The document received a Finding of No Significant Impact from FHWA in August, 2009. Composed a jurisdictional determination (JD) report due to wetlands found within the project right-of-way. This JD report was composed with data provided by a local environmental firm. An individual permit was required.

RM 473 West Sister Creek Bridge Replacement, TxDOT San Antonio District, Kendall County, Texas*
Biologist. Conducted a site investigation and wetland delineation as part of a Pre-Construction Notice (PCN). Wetlands were staked out and GPS points were taken. Prepared a PCN report which was approved by the U.S. Army Corps of Engineers Office and granted a Nationwide Permit 14.

Ingram Road Jurisdictional Determination (JD), Bexar County, San Antonio, Texas*
Biologist. This project included JDs at two creek crossings (Huebner Creek and Leon Creek) for the Bexar County Flood Improvement Project. Site investigations were conducted. With another environmental planner, marked the ordinary high water mark for both creeks using spray paint and flagging for survey crews to take points. A JD was prepared. A Nationwide Permit 14 was required but did not require notification to the USACE. A memo with all findings and permit requirements was prepared for the county file.

Shepherd Road Jurisdictional Determination (JD), Bexar County, San Antonio, Texas*
Biologist. This project included JDs at two creek crossings (Blackhill Branch and Elm Creek) for the Bexar County Flood Improvement Project. Site investigations were conducted. With another environmental planner, delineated the ordinary high water mark for both creeks using Trimble GPS equipment. A JD report and Pre-Construction Notice were prepared. Final mitigation plans were developed and implemented for the project.

Centennial Corridor Project, Caltrans, Bakersfield, California*
Team Member/Surveyor. Assisted with the development of a Community Impact Assessment study for the Centennial Corridor project. The project is in Bakersfield, California for the City's Thomas Roads Improvement Program and the California Department of Transportation. Developed a neighborhood survey as well as a business owner survey that was mailed to residents and businesses throughout the four alternative corridors study area. Over 1,000 neighborhood surveys were received in response to the mail-out. One-on-one interviews were also conducted with residents along the alternatives corridors. Incorporated survey and interview responses into the Community Impact Assessment.

Secure Border Initiative, Cochise, Pima, Pinal, and Santa Cruz Counties, Arizona*
Biologist. Involved with the Federal Services division contracted with the US Department of Homeland security. The project involved conducting site investigations along the southern border to determine environmental impacts to proposed roads and construction areas. This included analyzing riparian and upland areas for any possible alterations needed and determining the necessary permits required for each site. Gathered data alongside survey crews, engineers, and hydrologist to assist with in-office planning and design.

IH 10 Weigh Station Relocation, TxDOT San Antonio District, Guadalupe County, Texas*
Biologist. Conducted a site investigation and prepared preliminary reports for the relocation of a weigh station in Guadalupe County, Texas. The sites consisted of an active weigh station and the proposed location, which is an abandoned and decimated rest area along IH 10. Prepared a preliminary categorical exclusion and blue lines for the project.

West Loop Environmental Assessment (EA), Cameron County RMA (CCRMA), Brownsville, Texas*
Biologist. Involved in preparing an EA for the construction of a new location thoroughfare for the CCRMA. The roadway would

be a limited access toll road. Assisted in the preparation of the Public Meeting Comment Response Report. Assisted in the preparation of a jurisdictional determination report. A Nationwide Permit 14 was anticipated.

Loop 375 César Chávez (Border Highway West Extension), TxDOT El Paso District, El Paso, Texas*
Biologist/Public Involvement. Conducted preliminary research on wetlands, vegetation, and invasive species for preparation of the draft EIS. Assisted in coordinating and provided support for the first round of agency and public scoping meetings for the project. Assisted in preparation of the Agency Scoping Meeting Report and the Public Scoping Meeting Report. Assisted in the finalization of the overall schedule of the project, as well as in the development of a more detailed review process schedule.

US 281 Environmental Assessment (EA), TxDOT San Antonio District, San Antonio, Texas*
Technical Writer. Compiled the Administrative Record for the project, which included gathering and organizing documents used throughout the planning and development of the project, some of which date back to the 1950s. Reviews of the record were completed by TxDOT and FHWA. Developed the draft decisional document to submit to FHWA for final clearance. The project received a Finding of No Significant Impact from FHWA in 2007.

Loop 1604 Environmental Assessment (EA), TxDOT San Antonio District, San Antonio, Texas*
Technical Writer/Public Involvement. Compiled the Administrative Record for the project, which included gathering and organizing documents used throughout planning and development of the project, some of which date back to the 1950's. Reviews of the record were completed by TxDOT and the Federal Highways Administration (FHWA). Provided support for the public hearing, by answering the public's questions. Assisted in the preparation of the Public Hearing Summary Report and the Comment Response Report. Helped to finalize the EA for final submission to TxDOT and FHWA. Assisted in the development of the draft decisional document to submit to FHWA for final clearance.

Phase I Environmental Site Assessments (ESA), Central Texas*
Biologist. Conducted numerous Phase I ESAs throughout Central Texas, including Bexar, Comal, Kendall, and Hays Counties. Conducted site investigations for threatened and endangered species, wetlands, hazardous materials, and other pertinent environmental conditions. Conducted database searches (CERCLIS, LPST, UST, NPL, etc.) for any hazardous conditions in the property area.

Over-the-Horizon Backscatter Radar Transmitter Site Environmental Baseline Survey, US Air Force, Moscow, Maine*
Environmental Scientist. Contracted by the Air Force, Air Combat Command (ACC) division. The project included a site investigation for threatened and endangered species, wetlands, hazardous materials, and other environmental conditions. Served as the technical writer and researcher for the environmental document. The environmental document was approved by the Air Force ACC.

COORDINATION WITH
MIDDLE RIO GRANDE DEVELOPMENT COUNCIL

- July 17, 2024 letter requesting MRGDC concurrence that the landfill expansion is consistent with the Regional Solid Waste Plan

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July 17, 2024

Michelle Garcia, Executive Director
Middle Rio Grande Regional Council
307 W. Nopal St.
Carrizo Springs, Texas 78834

Re: Middle Rio Grande Development Council Review Request
Proposed City of Del Rio Municipal Landfill Permit Amendment
Val Verde County, Texas

Dear Ms. Garcia,

CP&Y an STV Company, is in the process of developing a major permit amendment application, on behalf of the City of Del Rio, to expand its existing landfill located in Val Verde County, Texas. The Texas Commission on Environmental Quality (TCEQ), per Title 30 Texas Administrative Code (TAC) §330.61(p), requires that all applicants undergoing a major permit amendment application coordinate with council of governments for compliance with regional solid waste plans. The purpose of this letter is to provide an overview of the proposed landfill expansion and demonstrate coordination with the Middle Rio Grande Development Council (MRGRC) to TCEQ consistent with TAC §330.61(p).

The major permit amendment application was submitted to TCEQ in February 2024. The submitted permit application will undergo a detailed review by the TCEQ before the operative permit for this facility is issued. The submittal of Parts I & II of the major permit amendment application to the MRGDC is made pursuant to Title 30 TAC §330.61(p), which requires the following:

> *"Council of governments and local government review request. The owner or operator shall submit documentation that Parts I and II of the application were submitted for review to the applicable council of governments for compliance with regional solid waste plans. The owner or operator shall also submit documentation that a review letter was requested from any local governments as appropriate for compliance with local solid waste plans. A review letter is not a prerequisite to a final determination on a permit or registration application."*

Project Background

The City of Del Rio Landfill is an existing Type I landfill in Del Rio, Texas that is owned by the City and operated by Platform Waste Solutions. The site locations maps are in Attachment 1. Figures 1 through 3 shows the site location overlaid on a TxDOT map, USGS map, and an aerial photograph map. The existing landfill (TCEQ Permit No. 207B) is a 105.6-acre facility with a waste footprint of approximately 79 acres. Figure 4 in Attachment 1 shows the existing site plan.

The landfill has been servicing the residents of the City of Del Rio and the surrounding areas for over 40 years. The City of Del Rio Landfill started accepting waste in 1972 under Permit No. 207. Permit 207A

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was issued in 1989 for the current 105.6-acre facility. In 1994 the City submitted a Class I Permit Modification to upgrade the facility to meet the Subtitle-D requirements. The landfill was then expanded vertically in 2022 under Permit No. 207B. Although the recent vertical expansion extended the site life of the facility, the lateral expansion project will allow the City to provide long-term disposal capacity for municipal solid waste to the residents of the City of Del Rio and the surrounding areas. Figure 5 shows the permitted landfill completion plan and the proposed expansion completion plan. This is a horizontal expansion that will increase the existing 105.6-acre permit boundary by 75 acres to 180.6 acres. The permitted limit of waste will be expanded by 31.3 acres from approximately 79 to approximately 110.3 acres.

Project Design Summary

The following information presents a summary of the design and operations of the proposed City of Del Rio Landfill expansion. The permit application will be submitted to TCEQ and undergo a detailed review by the TCEQ before the operative permit for the expansion of this facility is issued.

- Accepted wastes will remain consistent with the current MSW landfill permit. The major classifications of solid waste to be accepted at the City of Del Rio Landfill include household waste, commercial waste, industrial waste (nonhazardous), construction-demolition waste, and some special wastes.

- No change is anticipated to the existing site access. Access to the site will be provided via the existing site access road.

- No change is anticipated to the liner and final cover system, that will be designed for the regulatory requirements for solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management systems) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that may collect on the liner system. Collected leachate will be pumped and disposed of at an authorized treatment facility. The construction procedures of the liner and cover systems follow strict TCEQ-approved quality control procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the TCEQ before solid waste is placed in the landfill.

- Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify that landfill gas does not migrate off-site. The existing system is sampled and tested periodically. The results are filed with the TCEQ and are public record. No change is anticipated to control landfill gas emissions. If gas collection and control system is need for the site per TCEQ requirements, the application will incorporate system into the landfill permit application.

- Site Operations. No change is anticipated to the existing site operations. The City of Del Rio Municipal Landfill will continue to be inspected by the TCEQ on a regular basis to ensure the site is in compliance with state regulations.

To assist the MRGDC with review, please find the attached following information:

- Attachment 1: MRGDC's Regional Solid Waste Plan Conformance Checklist
- Attachment 2: Part I & II of the City of Del Rio Municipal Landfill Permit Amendment

To verify compliance with 30 TAC §330.61(p), CP&Y an STV Company will need to include a letter from the MRGDC within the permit. It is our assessment that that the site is consistent with the MRGDC's Regional Solid Waste Management Plan, as outlined in the checklist.

The MRGDC's response to this coordination and assistance in this matter is sincerely appreciated. Please do not hesitate to contact CP&Y an STV Company, if there are any questions or additional information needed.

Sincerely,
CP&Y an STV Company,

Tewobista Metaferia, P.E.
Project Engineer

Attachments: Attachment 1: MRGDC's Regional Solid Waste Plan Conformance Checklist
Attachment 2: Parts I & II of the City of Del Rio Municipal Landfill Permit Amendment

cc: Manuel Chavez, Interim City Manager
Rene Maldonado, City of Del Rio Landfill Coordinator

Attachment 1

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Section 1: General Applicant Information

1.1 Applicant's Name: City of Del Rio

1.2 Location of Proposed Facility
Address: 1897 Railway Ave
Zip Code: 78840
Nearest City: Del Rio
County: Val Verde

1.3 ☐ New Facility ☒ Amendment to current permit/registration

1.4 Is this a permit or a registration application?

☒ Permit No. 207C ☐ Registration No. _____

1.5 What type of MSW facility is being registered or permitted?

☒	Type I Landfill	☐	Type IV AE Landfill
☐	Type I AE Landfill	☐	Type V Facility
☐	Type IV Landfill	☐	Other (please describe)

Describe "Other" below:

_____
_____
_____
_____

1.6 What types of waste(s) are currently or will be accepted at your facility?

☒	Municipal Waste	☐	Industrial Class I
☒	Industrial Class II	☒	Industrial Class III
☒	Special Waste	☐	Other (please describe)

Describe "Other" below:

_____
_____
_____
_____

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

1.7 Do you currently or do you plan to accept treatment plant sludge, treated septage or any other potentially odorous wastes?

☒ Yes ☐ No

1.8 Do you currently or do you plan to accept waste from out of state at your facility?

☐ Yes ☒ No

If yes, please specify the state(s) and the type of waste accepted.

State(s) _____

☐ Municipal Waste ☐ Industrial Class I
☐ Industrial Class II ☐ Industrial Class III
☐ Special Waste ☐ Other (please describe)

Describe "Other" below:

_____
_____
_____
_____

1.9 Do you currently or do you plan to accept waste from Mexico at your facility?

☐ Yes ☒ No

If yes, please specify the type of waste accepted.

☐ Municipal Waste ☐ Industrial Class I
☐ Industrial Class II ☐ Industrial Class III
☐ Special Waste ☐ Other (please describe)

Describe "Other" below:

_____
_____
_____
_____

1.10 What entity or entities in the MRG Region is this facility intended to serve?

The facility is intended to serve the City of Del Rio and surrounding areas.
_____
_____
_____

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

1.11 Does your facility have an operating or host agreement with any MRG entity or entities?

☐ Yes ☒ No

If yes, please summarize provisions of the agreement.

_____
_____
_____
_____

If no, do you plan to enter into an operating or host agreement with any MRG entity or entities?

☐ Yes ☒ No

1.12 If the proposed facility is other than a landfill, where will the stored or processed waste be taken for disposal?

NA _____
_____
_____
_____

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Section 2: Regional Conformance

Goal No. 1: Encourage programs that reduce the amount and toxicity of municipal solid waste and municipal sludge, and encourage programs that recycle as much as possible of the waste that is produced.

2.1.1 Will the facility provide the opportunity for any of the following items to be diverted for recycling or reuse (e.g. drop-off facilities, processing centers, etc):

☐	Paper	☒	White Goods
☐	Cardboard	☐	Construction/Demolition Debris
☐	Plastics	☒	Tires
☐	Glass	☒	Yard Waste & Brush
☐	Aluminum	☐	Scrap metal
☐	Electronics	☐	Used Oil
☐	Batteries, Antifreeze	☐	Other (please describe below)

Sludge

Please summarize the process by which each of the items checked above will be diverted for recycling or reuse.

Sludge is diverted from the landfill for land application use.

Yard waste & brush is chipped and available for City residents to pick up for use at no charge.

2.1.2 Will your facility include a composting operation?

☐ Yes ☒ No

2.1.3 If the proposed facility is other than a landfill, what, if any type of measures will be taken to minimize, reduce, or recycle the waste before it is transported for disposal?

NA

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

2.1.4 Do you plan to provide sponsorship for community electronics recycling events?

☐ Yes ☒ No

If yes, please describe.

_____
_____
_____
_____

2.1.5 Do you plan to develop a public awareness campaign to inform residents and businesses about the availability of your recycling and diversion program?

☒ Yes ☐ No

If yes, please describe.

_____
_____
_____
_____

2.1.6 Do you believe your facility will support regional planning goal number 1.

☒ Yes ☐ No

If yes, please describe.

The City has an recycle program and encourages all it's citizens to recycle. The City recycles brush and yard waste so that it's citizens can have free wood chipping to use as needed on their land. The City also reduces the amount of sludge go into the landfill by using the sludge for land application. Given the above, the facility will support regional planning goal number 1.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Goal No. 2: Encourage the development of adequate solid waste management disposal and transfer facilities in the region.

2.2.1 Do you plan to sponsor any household hazardous waste collection events?

☐ Yes ☒ No

If yes, please describe.

2.2.2 Do you plan to offer any waste exchange programs for household hazardous waste?

☐ Yes ☒ No

If yes, please describe.

2.2.3 Do you plan to sponsor any used tire collection events?

☐ Yes ☒ No

If yes, please describe.

2.2.4 Identify the local communities expected to comprise your customer base?

Residents and business of City of Del Rio and surrounding areas.

2.2.5 What is the average distance between these local communities and the proposed facility? 35 miles

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

2.2.6 What options will be available to the proposed facility for expansion in the future?

The City owns the property adjacent to the current landfill and has an option to horizontally expand the landfill in the future.

2.2.7 Please describe your plans to include the public in the siting and permitting process?

A notice will be sent to the residents living within 0.25-mile radius to notify the residents of the landfill expansion. The residents will have an opportunity to review the application and provide feedback. A public hearing will be conducted if residents object to the expansion

2.2.8 If the proposed facility is a landfill, what type of measures will be taken to compact the landfilled waste?

Waste loads will be deposited, as directed by the spotter, at the working face, and quickly spread into layers to be compacted. Compaction of the waste will be accomplished by repeated passages of landfill compaction equipment over the waste material.

2.2.9 What is your compaction ratio?

715 Pounds per cubic yard

2.2.10 What type of equipment will you use to achieve this compaction ratio?

Compactor

2.2.11 Do you believe your facility will support regional planning goal number 2.

☒ Yes ☐ No

If yes, please describe.

The Del Rio Landfill has been providing the residents of the City of Del Rio and surrounding areas with adequate solid waste management disposal for over 30 years. . The horizontal expansion at the Del Rio Landfill will extend the site life of the facility and the solid waste management disposal services for the region

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Goal No. 3: Maximize local and potential resources for effective and efficient regional solid waste management.

2.3.1 Please identify the local communities with which you plan to pursue contracts for services?

NA

2.3.2 Do you plan to cooperate with any public entities to obtain financing for the proposed facility?

☐ Yes ☒ No

If yes, please describe the level of involvement by the public entity for both financing and operations?

2.3.3 Do you believe your facility will support regional planning goal number 3.

☒ Yes ☐ No

If yes, please describe.

The City of Del Rio Landfill has been providing an effective and efficient regional solid waste management for over 30 years and therefore the facility will support regional planning goal number 3.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Goal No. 4: Ensure that all residents within the region have convenient and affordable solid waste collection services.

2.4.1 What measures will you take to make your services conveniently accessible to the public? (e.g. provide a citizens collection station)

The facility is located within the City of Del Rio so the residents would not have to travel far for any drop offs. In addition the City of Del Rio provides collection services to all it's residents and business owners within the City limits.

2.4.2 Will you develop a public education campaign to provide information regarding your services?

☒ Yes ☐ No

If yes, please describe.

Public education campaign will include an annual art contest with an elementary school or other worthy events in the city and communications with the citizens to promote awareness of the importance of proper refuse disposal, the need for recycling, how the Single Stream Recycling Program works, and other ways to have a safe and healthy environment, i.e. anti-littering campaigns, composting, etc.

2.4.3 How will you structure rates for the public? Specifically, will you have rates for low volume quantities?

The City of Del Rio has rates for residential, small commercial and commercial customers. The existing rate structure takes into account volume generated for these different customers.

2.4.4 How will your facility customer base benefit from any efficiencies or cost effectiveness?

The facility customer base will see little increase to their existing solid waste service rates.

2.4.5 What kinds of disposal services will you provide to recreational visitors within the MRG Region?

Provide roll-offs and roll-off pick up/drop off at the facility.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

2.4.6 As part of your operating plan, would you be willing to accept waste from locally sponsored litter and illegal dumping clean-up projects at no cost or at significantly reduced costs?

☒ Yes ☐ No

If yes, please explain.

The facility is owned by the City and will accept litter and illegal dumping clean-up projects that are locally sponsored.

2.4.7 Do you plan to participate in any public/private partnerships to share the cost burden of clean-up events?

☒ Yes ☐ No

If yes, please explain.

The facility is owned by the City. The City holds clean-up events.

2.4.8 Do you plan to provide sponsorship for community clean-up events (e.g., provide roll-off containers at no cost or significantly reduced cost)?

☒ Yes ☐ No

If yes, please explain.

The facility is owned by the City. When the City holds clean-up events the operator of the facility provides roll-off containers at no cost.

2.4.9 Do you believe your facility will support regional planning goal number 4.

☒ Yes ☐ No

If yes, please explain.

The Del Rio Landfill is convenient located within the city limits of Del Rio and has been providing affordable solid waste collection services for the past 30 years. This horizontal expansion will allow the City to continue to provide affordable solid waste services to it's residents.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Goal No. 5: Increase local government input into the permitting process for waste facilities in the MRG Region.

2.5.1 Is the site of your proposed facility subject to zoning or local ordinances regarding the siting of solid waste facilities?

☐ Yes ☒ No

If yes, with which government zoning or siting standards will this facility have to comply?

The Del Rio Landfill is an existing facility and expanding horizontally.

Please attach documentation from the zoning or siting entity indicating that the proposed facility is in compliance with the standards.

2.5.2 Describe the current land use within 1 mile of the proposed facility site. Please provide map(s) of the area. Please identify environmentally sensitive features (e.g., drinking water wells, or recognized historic areas).

To the North: Residential Area (there are no drinking water wells or recognized historic areas north of the site)

To the South: Rural/Open Area (there are no drinking water wells or recognized historic areas south of the site)

To the East: Rural/Open Area (there are no drinking water wells or recognized historic areas east of the site)

To the West: Open area with scattered residential area (there are no drinking water wells or recognized historic areas west of the site)

2.5.3 How will the proposed facility be built and operated to correspond with the way the adjacent properties are currently being used.

The Del Rio Landfill is an existing facility and expanding horizontally.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

2.5.4 Will vehicular traffic into and out of the proposed facility disrupt or impact the area's existing traffic patterns?

☐ Yes ☒ No

If yes, please explain.

2.5.5 What measures are you taking to ensure your facility's truck traffic will not damage the surrounding road network?

The Del Rio Landfill is an existing facility and expanding horizontally.

2.5.6 Are there any plats on file in the state or local government offices for development within one mile of the proposed facility?

☐ Yes ☒ No

If yes, please describe and provide contact information.

If so, please describe and provide contact information.

2.5.7 Does any entity or entities in the MRG planning region have proposed long-term development plans or initiatives for the proposed site or expansion area?

☐ Yes ☒ No

If yes, how does your proposal mesh with such plans or initiatives?

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

2.5.8 To the best of your knowledge, is there any pre-existing, planned development of the property adjacent to the proposed facility site?

☐ Yes ☒ No

If yes, please explain.

_____
_____
_____
_____

2.5.9 If the proposed facility is a landfill, what will be the maximum fill height of the facility? (Please provide a final contour map of the proposed facility)

60 Feet above grade

2.5.10 How high will the footprint allow the fill height to be?

60 Feet above grade

2.5.11 When the maximum fill height is reached, how will the facility compare to surrounding elevation features (surrounding meaning, "two-miles from the facility's boundary")?

The site will look like a small hill compared to the surrounding elvations.
_____
_____
_____

2.5.12 Will this be the most prominent elevation feature within a 2-mile radius?

☐ Yes ☒ No

Please explain_____
_____
_____
_____

2.5.13 What provisions are in your plan to prevent nuisance litter; either blowing from your facility or from vehicles in route to your facility?

All waste transportation vehicles using this facility will be required to have in place adequate covers or other means of containment for the waste they transport. Waste at the facility will be spread and compacted as soon as it is placed in the working face to minimize the amount of time the waste remains exposed to the wind and thereby minimize the potential for windblown waste. In addition, portable litter control fences will be used to control windblown waste.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

2.5.14 What landscaping measures will you implement on or around the facility to make it aesthetically acceptable? (Please attach any landscaping plans.)

As part of the final cover plan, all of the landfill will be vegetated at the closure of the facility.

2.5.15 Do you have any plans to use Alternative Daily Cover materials or other space-saving measures?

☒ Yes ☐ No

Please explain Tarpaulins (tarps) are used for alternative daily cover at the site.

2.5.16 What plans do you have beyond any minimum requirements to keep the vicinity free of trash, odor and any other nuisances related to your operation?

Section 2.5.13 outlines the plans to keep the vicinity free of trash. Specific methods to control potential odors on the site will vary dependent upon the potential odor source. The Site Operating Plan for the facility has an odor management plan.

2.5.17 Do you believe your proposed facility is compatible with the current land uses surrounding the proposed site.

☒ Yes ☐ No

If yes, please explain.

The Del Rio Landfill is an existing facility and expanding horizontally therefore is compatible with the current land uses surrounding site.

MIDDLE RIO GRANDE DEVELOPMENT COUNCIL
REGIONAL SOLID WASTE PLAN CONFORMANCE CHECKLIST

Section 3: Certifications

I hereby certify that the information contained herein is, to the best of my knowledge complete and accurate and that the information in fact represents the MSW facility for which this entity is requesting a TCEQ permit or registration.

Manuel Chavez
Type or Printed Name of Applicant's Chief Administrative Officer

Interim City Manager
Title of Chief Administrative Officer

M. C. S — 7/17/2014
Signature of Chief Administrative Officer **Date**

NOTE:

PLEASE COMPLETE THIS FORM AS FULLY AND AS ACCURATELY AS POSSIBLE. RESPONSES TO SECTION 2.5 OF THE CHECKLIST WHICH ADDRESS THE ISSUE OF LAND USE COMPATIBILITY WILL BE SUBMITTED TO THE PERMITS SECTION OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY ALONG WITH THE SOLID WASTE ADVISORY COMMITTEE'S CONFORMANCE REVIEW RECOMMENDATION.

CITY OF CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS
TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PARTS I/II – GENERAL APPLICATION REQUIREMENTS

APPENDIX I/II C
LOCATION RESTRICTION DEMONSTRATION

Prepared for
City of Del Rio

September 2023
Revision 1 August 2024



08/07/2024

Prepared by
CP&Y an STV Company.
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500

This document is intended for permitting purposes only.

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08/07/2024

1.0 INTRODUCTION

The purpose of this report is to provide demonstrations of the location restrictions for the City of Del Rio Landfill. Title 30 Texas Administrative Code (TAC) §330, Subchapter M identifies eleven location restrictions for the protection of human health and the environment. The eleven location restrictions include easements and buffer zones, airports, floodplains, groundwater, endangered or threatened species, wetlands, fault areas, seismic impact zones, unstable areas, coastal areas, and Type I and Type IV landfill permit issuance prohibited areas.

The Subtitle D regulations also require that the owner of a site must demonstrate either that the location restrictions do not apply or that the landfill, while located in a restricted area, is designed, and operated in such a way that it protects human health and the environment.

2.0 EASEMENTS AND BUFFER ZONES

The easement and buffer zone location restrictions within Title 30 TAC §330.543 require that:

1. No solid waste disposal unloading, storage, or processing operation shall occur within 25 feet of the center line of any utility line or pipeline easement but no closer than the easement, unless otherwise authorized by the Executive Director,
2. All pipeline and utility easements shall be clearly marked with posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet.
3. The owner or operator shall establish and maintain a 125-foot buffer zone for any newly permitted airspace (vertical or lateral expansion).

The easements within and around the permit boundary of the landfill are show on Figure I/IIC 2.1. No solid waste disposal will occur within 25 feet of the centerline of any easement. The following are the three easements within the permit boundary.

- A 30-foot Texas Gas Utilities Co. easement runs along the northeast permit boundary. A letter from the owner of the easement, West Texas Gas Utility, LLC, that approves the channel grading work within the easement is included on page I/IIC-2A.
- A 15-foot AEP Texas Central Company electric easement is also associated with the permit boundary. This easement allows for electrical service to the site's leachate pumps.
- There is a Central Power and Light Easement that clips the northeast corner of the permit boundary. The center line in the easement represents the H-Frame 138kV Transmission Line. The easement protects 100 feet of right-of-way from the center line, 50 feet on each side of the transmission line.

The proposed buffer zones for the site are also shown on Figure I/IIC 2.1. As shown on Figure I/IIC 2.1, a buffer zone of at least 125 feet is maintained between the expansion permit boundary and the proposed limits of waste. In addition, a minimum 125-foot buffer zone is maintained for vertical expansion in the permitted areas of the landfill.

All utility line and pipeline easements will be clearly marked in accordance with the Site Operating Plan. Given the above, the site is in compliance with the easements and buffer zone location restrictions.

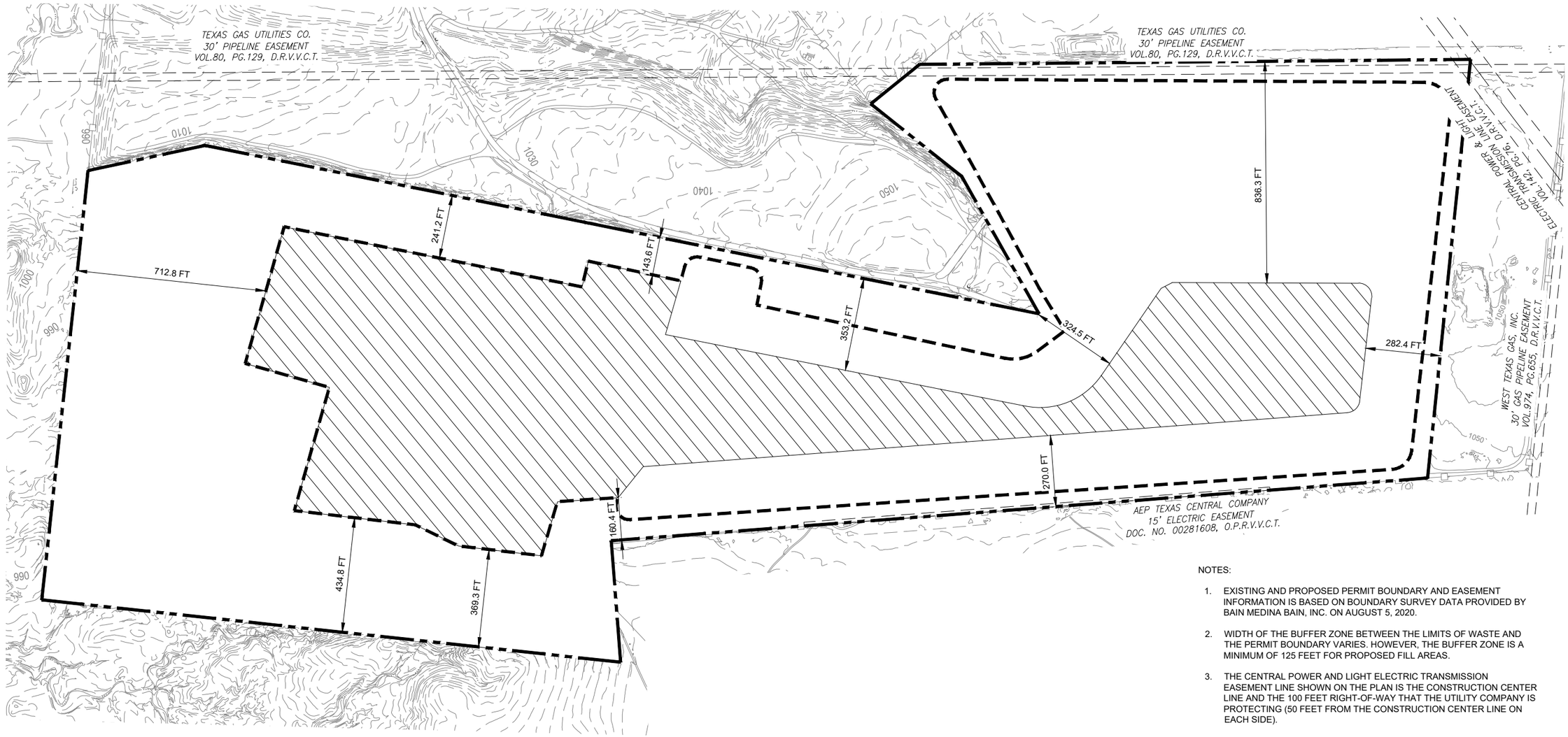
LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- EXISTING GRADE (- 1084 -)
- EXISTING SITE FENCE
- EXPANSION AREA

N

0 300 600

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NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY AND EASEMENT INFORMATION IS BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. WIDTH OF THE BUFFER ZONE BETWEEN THE LIMITS OF WASTE AND THE PERMIT BOUNDARY VARIES. HOWEVER, THE BUFFER ZONE IS A MINIMUM OF 125 FEET FOR PROPOSED FILL AREAS.
3. THE CENTRAL POWER AND LIGHT ELECTRIC TRANSMISSION EASEMENT LINE SHOWN ON THE PLAN IS THE CONSTRUCTION CENTER LINE AND THE 100 FEET RIGHT-OF-WAY THAT THE UTILITY COMPANY IS PROTECTING (50 FEET FROM THE CONSTRUCTION CENTER LINE ON EACH SIDE).

CP&Y
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO
TEXAS

TEXAS
TEMOBISTA METAFERIA
123183
LICENSED
PROFESSIONAL ENGINEER
08/07/2024

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CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

BUFFER ZONE PLAN

DESIGN:	T. METAFERIA
DRAWN:	T. METAFERIA
REVIEW:	B. HINDMAN
CP&Y:	DELR200302
CLIENT:	CITY OF DEL RIO

FIGURE
I/IIC 2.1

PRINTED BY: MetafeT DATE: 7/2/2023
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3.0 AIRPORT SAFETY

The Airport Safety Location Restrictions within Title 30 TAC §330.545 require that airports within the vicinity of the landfill site be identified. The regulation states that land disposal sites located within 10,000 feet of an airport runway end used by turbojet aircraft or within 5,000 feet of an airport runway end used by piston-type aircraft shall demonstrate that the unit is designed and operated so that the landfill does not pose a bird hazard to aircrafts.

Title 30 TAC §330.545(b) requires that small general service airports located within a six-mile radius of a lateral expansion be notified of the proposed expansion. Title 30 TAC §330.545(b) also requires that large general public commercial airports located within a five-mile radius of a lateral expansion be notified of the proposed expansion. As shown on Figure I/II-8.1 in Parts I/II, there are two airports located within the 6-mile radius of the landfill. The Del Rio International Airport is located approximately 4 miles northwest of the landfill, and is a publicly owned, general use airport. The Laughlin Air Force Base is a military airport facility operated by the United States Air Force and is located approximately 4 miles east of the landfill. As required by Title 30 TAC §330.545(b), the Del Rio International Airport, Laughlin Air Force Base, and the FAA have been notified about the lateral expansion at the City of Del Rio Landfill. The coordination letter are included in Appendix I/IIB..

Given the above, the site is in compliance with the Airport Location Restriction.

4.0 FLOODPLAINS

Title 30 TAC §330.547 prohibits waste disposal operations located in the 100-year floodway as defined by FEMA, requires that new expansion areas not restrict the flow of the 100-year flood, reduce the temporary water stage capacity of the floodplain, or result in washout of solid waste; and requires storage and processing facilities to be located outside of the 100-year floodplain. The floodplain is shown on Figure I/II-11.1 in Parts I/II. As shown on Figure I/II-11.1, the site is not located within the floodplain.

Supporting floodplain information is included in Parts I/II, Section 11.1. Compliance with each floodplain location/coordination regulation is listed in Table 4-1.

Table 4-1 Floodplain Location Restriction Requirements

Regulatory Citation	Regulation Summary	How Regulation is Addressed
330.547(a)	No disposal operations located in a 100-year floodway.	As shown on Figure I/II-11.1, no disposal operations are located in a 100-year floodway.
330.547(b)	Proposed developments shall not restrict the flow of the 100- year flood, reduce floodplain storage capacity, or result in solid waste washout	No proposed developments are located within the 100-year floodplain (refer to the effective FIRM on Figure I/II-11.1). rainfall event
330.547(c)	Storage and processing facilities located outside of 100-year floodplain unless facilities prevent washing during 100-year event	There are no proposed facilities within the limits of the 100-year floodplain.

5.0 GROUNDWATER

The groundwater location restriction within Title 30 TAC §330.549 prohibits a Type I or Type IAE landfill on the recharge zone of the Edwards Aquifer. Given that the City of Del Rio Landfill is not located on the recharge zone of the Edwards Aquifer, the site is in compliance with the groundwater location restriction.

6.0 ENDANGERED OR THREATENED SPECIES

The endangered or threatened species location restrictions within Title 30 TAC §330.551 require that the facility and the operation of the facility not result in the destruction or adverse modification of the critical habitat of endangered or threatened species or contribute to the taking of any endangered or threatened species. The U.S. Fish and Wildlife Services (FWS) and Texas Parks and Wildlife Department (TPWD) were contacted to request information regarding endangered or threatened species or their critical habitat with respect to the site. In addition, a site specific threatened and endangered species habitat assessment was completed by CP&Y, Inc. (refer to the TPWD and FWS tabs in Appendix I/IIB). This study concluded that the area within the landfill permit boundary does not provide habitat for nor has critical habitat been designated in the project area for any federally threatened or endangered species. Therefore, it is concluded that the expansion of the City of Del Rio Landfill will not result in the destruction or adverse modification of the critical habitat of any federally threatened or endangered species, or cause or contribute to the taking of any federally threatened or endangered species.

Given the above, the site is in compliance with the endangered or threatened species location restrictions.

7.0 WETLANDS

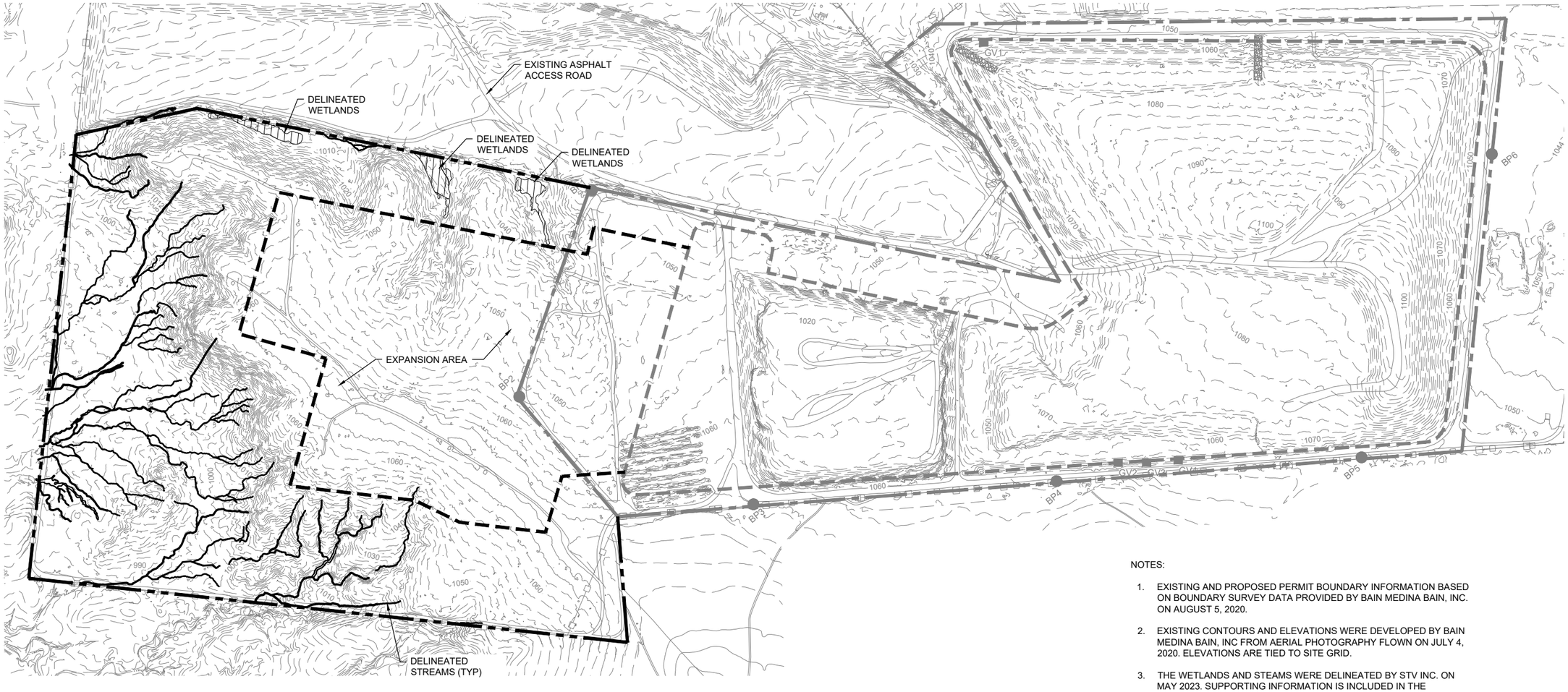
The area within the existing permit boundary of the City of Del Rio Landfill was evaluated for compliance with wetlands provisions, including the determination and identification requirements in Title 30 TAC §330.61(m)(2) and (3) and the wetlands location restriction in §330.553(b). The wetland delineation is shown on Figure I/IIC 7.1. Although there are wetlands within the permit boundary of the City of Del Rio Landfill, the limit of waste is not located in wetlands. There will be some areas of the wetlands that will be filled for perimeter channel and road grading. The area of wetland that will be filled will be less than tenth of an acre and will be covered under a 404 Nation Wide permit during construction. No waste will be placed within the wetlands, therefore the site is in compliance with the wetlands location restriction.

LEGEND

- PROPOSED PERMIT BOUNDARY
- PROPOSED LIMITS OF WASTE
- EXISTING PERMIT BOUNDARY
- EXISTING LIMITS OF WASTE
- 1084 — EXISTING GRADES
- BP1 — GAS PROBE
- GV1 — GAS VENT
- EXISTING SITE FENCE
- EXISTING CHUTES

N

0 200 400
SCALE IN FEET



NOTES:

1. EXISTING AND PROPOSED PERMIT BOUNDARY INFORMATION BASED ON BOUNDARY SURVEY DATA PROVIDED BY BAIN MEDINA BAIN, INC. ON AUGUST 5, 2020.
2. EXISTING CONTOURS AND ELEVATIONS WERE DEVELOPED BY BAIN MEDINA BAIN, INC FROM AERIAL PHOTOGRAPHY FLOWN ON JULY 4, 2020. ELEVATIONS ARE TIED TO SITE GRID.
3. THE WETLANDS AND STEAMS WERE DELINEATED BY STV INC. ON MAY 2023. SUPPORTING INFORMATION IS INCLUDED IN THE SUBMITTAL TO THE USACE IN APPENDIX I/IIB.

FOR PERMITTING PURPOSES ONLY

CP&Y an STV company
TEXAS REGISTERED ENGINEERING FIRM TBPE F-1741
CITY OF DEL RIO TEXAS
STATE OF TEXAS TEMOBISTA METAFERIA 123183 LICENSED PROFESSIONAL ENGINEER 08/07/2024

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CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

US WATERS AND WETLANDS

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIC 7.1

PRINTED BY: TorresJJ DATE: 6/21/2023
FILE PATH: c:\pwworkingstv\pw_stv\gjohnson\d0942002\DELR2000302 Figure I&IIC 7.1.dwg

8.0 FAULT AREAS

The City of Del Rio Landfill and the surrounding area were examined for indications of the presence of Holocene time geologic faulting in accordance with §330.555 criteria. The study was conducted by Trinity Engineering Testing Corporation, reviewing available literature, published topographic and geologic maps. The following is a summary of the findings from the references as part of the determination for these fault areas:

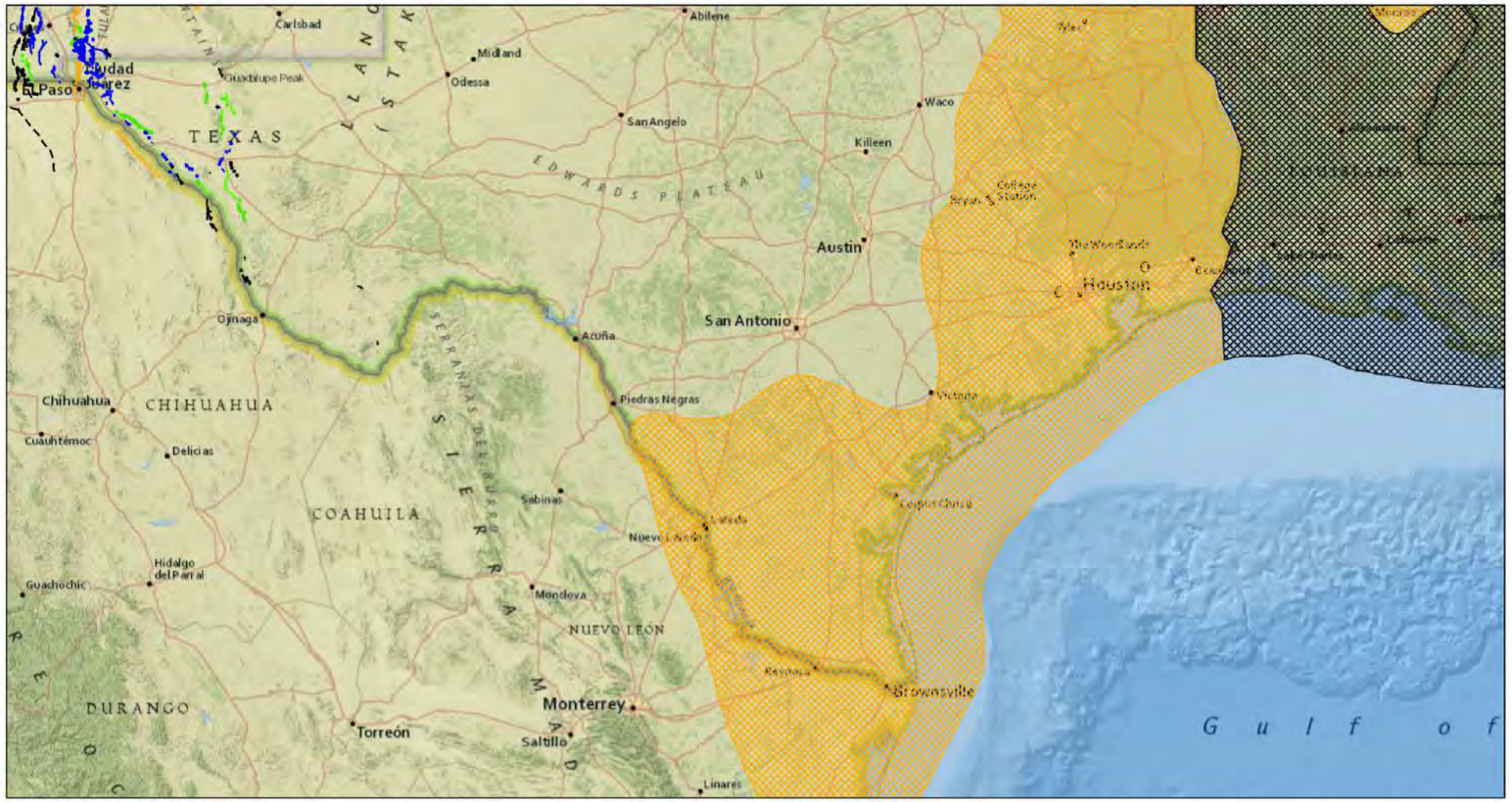
- Quaternary Fault and Fold Database for the United States, 2015, US Geological Survey and Texas Bureau of Economic Geology. Drawing I/IIC 8.1 -USGS Quaternary Fault Zones presents a USGS Quaternary fault database map that indicates no Quaternary faults are located within 0.5 miles of the site.
- City of Del Rio Landfill and the surrounding area were examined for the presence of geologic faulting in conformance with Title 30 TAC §330.555 criteria. This included a review of previous fault investigations, available literature and maps, and a current aerial photograph. The previous studies indicated that there are no faults at the landfill site. The 1994 fault study involved an extensive site inspection along outcrops and creek beds, evaluation of possible fault lineations on aerial photographs for the years 1947 (scale: 1 inch = 1000 feet), 1983 (Scale: 1 inch = 300 feet) and 1990 (Scale: 1 inch = 1000 feet) and review of geologic maps of the area. Only one possible fault was identified within 1 mile of the site located about 3/4 of a mile to the west along Highway 277. Several small displacement faults (less than 25 feet) were located in the vicinity (outside of one mile) during the previous study.

The faults in the area are believed to be associated with the Balcones Fault Zone. Faulting occurred throughout most of the Cretaceous Period and continued into early Tertiary time. Faulting along the Balcones Fault Zone has been inactive since Pleistocene time, some two million years ago.

The above published sources of potential fault information indicated no known active geologic faults are present within 0.5 miles of the facility. Therefore, the site complies with §330.555(b) which requires the site must be investigated for unknown faults when an active fault is known to exist within 0.5 miles of the site.

As no evidence of Holocene faulting within 200 feet of the site was identified, the site complies with the fault area location restriction listed in §330.555(a).

U.S. Geological Survey Quaternary Faults



8/24/2020, 4:55:06 PM

Fault Areas
- Historic (< 150 years)
- Latest Quaternary (< 15,000 years)
- Late Quaternary (< 130,000 years)
- Middle and Late Quaternary (< 750,000 years)
- Undifferentiated Quaternary (< 1.6 million years)

Quaternary Faults Database
- Historic (< 150 years), well constrained location
- Historic (< 150 years), moderately constrained location
- Historic (< 150 years), inferred location
- Latest Quaternary (<15,000 years), well constrained location
- Latest Quaternary (<15,000 years), moderately constrained location
- Latest Quaternary (<15,000 years), inferred location
- Late Quaternary (< 130,000 years), well constrained location
- Late Quaternary (< 130,000 years), moderately contrained location
- Late Quaternary (< 130,000 years), inferred location
- Middle and late Quaternary (< 750,000 years), well constrained location
- Middle and late Quaternary (< 750,000 years), moderately constrained location
- Middle and late Quaternary (< 750,000 years), inferred location

USGS, National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

USGS
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp. | USGS |

N

0 50 100
SCALE IN MILES

NOTE:

1. QUATERNARY FAULT MAPS REPRODUCED FROM USGS AND TEXAS BUREAU OF ECONOMIC GEOLOGY DATA, 2018, QUATERNARY FAULT AND FOLD DATABASE FOR THE UNITED STATES USING THE INTERACTIVE USGS MAPPING TOOL.

CP&Y a STV Company
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741
CITY OF DEL RIO TEXAS
STATE OF TEXAS
TEMOBISTA METAFERIA
123183
LICENSED PROFESSIONAL ENGINEER
08/07/2024

NO.	REVISION	BY	DATE
1.	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL DRAWING. VERIFY LENGTH ON THIS SHEET AND ADJUST SCALE ACCORDINGLY
1"
0

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

USGS QUATERNARY FAULT ZONES

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

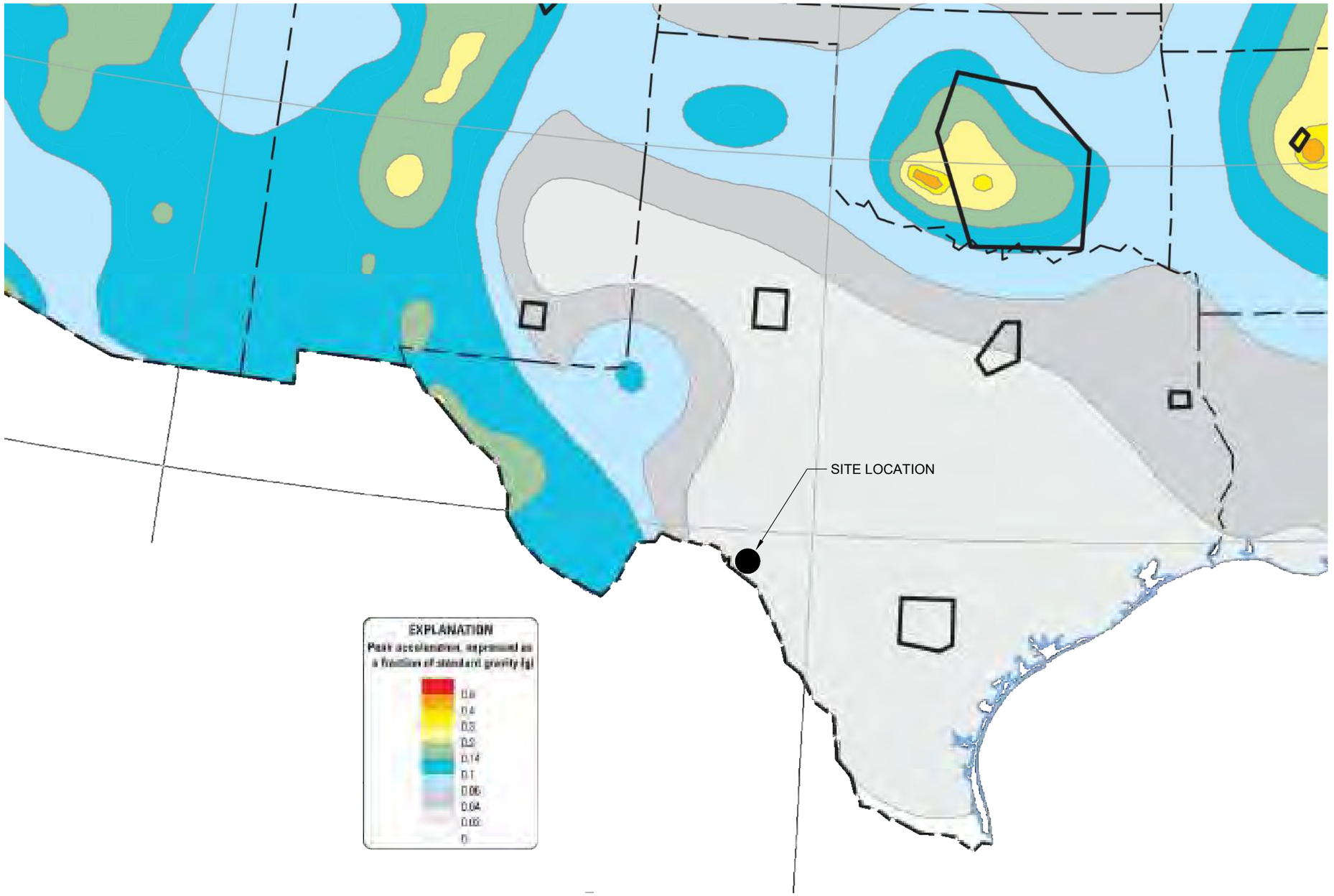
FIGURE
I/IIC 8.1

FOR PERMITTING PURPOSES ONLY

PRINTED BY: TorresJJ DATE: 6/21/2023
FILE PATH: c:\pwworkingstv\pw_stvgjohnson\d0942002\DELR2000302 Figure I&II-C 8.1.dwg

9.0 SEISMIC IMPACT ZONES

The seismic impact zone location restriction defined by Title 30 TAC §330.557 is an area with a 10 percent or greater probability that the maximum horizontal acceleration in rock, expressed as a percentage of the earth's gravitational pull, will exceed 0.10 g in 250 years. Drawing I/IIC 9.1 is a seismic impact zone map of Texas adapted from USGS seismic hazard maps for peak ground acceleration with a 2 percent in 50 years return period (USGS, 2002). According to the USGS, a 10 percent probability in 250 years is equivalent to a 2 percent probability in 50 years. As shown in this figure, the site is not within a 10 percent in 250-year probability seismic impact zone and the seismic impact zone location restriction does not apply.



NOTE:

1. SEISMIC IMPACT ZONE MAP MODIFIED FROM USGS EARTHQUAKE HAZARDS PROGRAM MAPPING OF 2.0% PROBABILITY OF EXCEEDENCE IN 50 YEARS OF PEAK GROUND ACCELERATION. USGS MAP OBTAINED FROM NATIONAL SEISMIC HAZARD MAPPING PROJECT WEBSITE.

CP&Y
TEXAS REGISTERED ENGINEERING FIRM
TBPE F-1741

CITY OF DEL RIO, TEXAS

STATE OF TEXAS
TEMOBISTA METAFERIA
123183
LICENSED
PROFESSIONAL ENGINEER
08/07/2024

NO.	REVISION	BY	DATE
1	1ST TECHNICAL NOD	STV	08/ 2024

VERIFY SCALE BAR LENGTH EQUALS ONE INCH ON ORIGINAL
0 1" DRAWING. VERIFY LENGTH ON THIS SHEET
AND ADJUST SCALE ACCORDINGLY

CITY OF DEL RIO LANDFILL NO. 207C
MAJOR PERMIT AMENDMENT

SEISMIC IMPACT ZONE MAP

DESIGN: T. METAFERIA
DRAWN: T. METAFERIA
REVIEW: B. HINDMAN
CP&Y: DELR200302
CLIENT: CITY OF DEL RIO

FIGURE
I/IIC 9.1

PRINTED BY: TorresJJ DATE: 6/21/2023
FILE PATH: c:\pwworking\stvpw_stvgjohnson\d0942002\DELR2000302 Figure I&II-C 9.1.dwg

FOR PERMITTING PURPOSES ONLY

10.0 UNSTABLE AREAS

10.1 Introduction

The location restriction criteria in Title 30 TAC §330.559 require engineering measures to be incorporated into the design of a disposal unit located in an unstable area to ensure that the integrity of the structural components of the disposal unit will not be disrupted. Unstable areas, by definition, are areas susceptible to natural or human-induced events or forces that are capable of impairing the integrity of some or all structural components (i.e., liner systems, leachate collection systems, and final cover systems) of a disposal unit. Unstable areas can include poor foundation conditions, areas susceptible to mass movement, or karst terrain.

These three potential unstable area conditions are discussed in the following three subsections.

10.2 Foundation Conditions

10.2.1 Bottom Liner Foundation Condition

A foundation settlement analysis is included in Appendix IIIL to verify that the amount of consolidation of the natural soils below the site will not adversely affect the integrity of the existing and future liner systems. As noted in Appendix IIIE, the strain on both liner systems caused by differential settlement is within acceptable limits for the liner system materials. In addition, the bottom liner leachate collection system design, included in Appendix IIIC, has been developed to account for settlement. As demonstrated in Appendix IIIC, the leachate collection system will function as designed after the final settlement of the foundation soils has occurred.

There is no significant potential for landfill subsidence due to groundwater withdrawal.

Given the above, it is concluded that no naturally induced event or forces will adversely affect the landfill or the landfill components.

10.2.2 Final Cover Foundation Condition

The geotechnical design in Appendix IIIL includes demonstrations that the proposed final cover system will function as designed after the final settlement of waste placed below the final cover area is complete. The demonstrations also include a strain analysis showing that the differential settlement of waste will not be detrimental to the final cover system and the maximum estimated strain will be below allowable strain values for each final cover system component.

10.3 Mass Movement

The geotechnical design in Appendix IIIL includes an analysis that the mass movement of natural soils and the landfill will not occur at the site. A detailed summary of the slope stability analyses is provided in Section 6 of Appendix IIIL. The analyses show that the excavated and constructed slopes will be stable. The analyses incorporate various interim fill conditions and the final configuration condition of the landfill. The results of the stability analyses indicate that the proposed excavation, constructed liner, interim waste fill slopes, and final configuration slopes are stable under the conditions analyzed. The results of the stability analyses demonstrate that the calculated factor of safety values are higher than the recommended minimum factors of safety. The recommended minimum factors of safety for the conditions analyzed were determined using recommendations from the USACE "Design and Construction

of Levees" manual (EM1110-2-1913) and the EPA's "Technical Guidance Manual for Design of Solid Waste Disposal Facilities." The results of the generalized slope stability analysis indicate that the landfill and its components will be geotechnically stable as designed.

Furthermore, to ensure interface stability of the landfill components, the minimum interface strength requirements have been incorporated into the Appendix IIID Liner Quality Control Plan for future bottom construction and Appendix IIID-A - Final Cover System Quality Control Plan for the future final cover system.

10.4 Karst Terrain

The review of area topographic maps indicates no karst topography or sinkholes exist in the site vicinity. The USGS 7.5-minute topographic maps reviewed included the Commerce, Texas (2016), and Cumby, Texas (2016) quadrangle maps.

Karst terrain formation requires thickly-bedded, fractured water-soluble rocks to be present in the near surface. Potentially karstic-producing weatherable rocks include limestone, gypsum, and halite. Where the dissolution cavities become large enough, the roof of the cavity may collapse, forming a sinkhole. In a karst terrain, sinkholes may be indicated on topographic maps as circular to sub-rounded (often concentric) closed topographic contour lines that spatially may have a sponge-like texture on the topographic map. A vanishing stream or lack of developed surface drainage on a topographic map may also indicate the presence of karst conditions. Based on the USGS topographic maps and determined that no characteristic karstic map features were present. No surface indications of karstic sinkholes were observed. Based on borehole evidence and regional stratigraphy, the conditions necessary for karst development (e.g., shallow unit of fractured or elevated porosity limestone) is not present beneath the landfill permit boundary.

10.5 Summary

In summary, the soils at the landfill site provide suitable characteristics for a stable foundation and the soils are not susceptible to settlement conditions. In addition, the final cover is designed to ensure that the integrity of these systems will be maintained. The stability analysis shows that each landfill component will be stable and no mass movements will occur*. Finally, there is no potential for karst development to occur.*

Given the above, it is concluded that no naturally induced event or forces will adversely affect the landfill or the landfill components. This conclusion is based on a review of the site in its current state, *the expected groundwater usage* and development around the site, and the facility operations itself; *there are no onsite local soil conditions, geologic conditions, geomorphologic features, or potential for karst development to occur* as well as no human induced features or events (both surface and subsurface) that would result in significant differential settlement or other unstable conditions. Therefore, the site meets the requirements of Title 30 TAC §330.559. The site is and will continue to be in compliance with this location restriction.

11.0 COASTAL AREAS

The coastal areas location restriction within Title 30 TAC §330.561 requires that a new landfill cell or expansion of an existing cell of a landfill managing Class 1 Industrial Solid Waste not be located on a barrier island or peninsula or within 1,000 feet of an active coastal shoreline erosion.

The City of Del Rio Landfill does not accept Class 1 Industrial Solid Waste and is located more than 1,000 feet from the nearest coastal shoreline, therefore the site is in compliance with the coastal areas location restriction.

12.0 TYPE I AND TYPE IV LANDFILL PERMIT ISSUANCE PROHIBITED

The Type I and Type IV Landfill Permit Issuance Prohibited location restriction within Title 30 TAC §330.563 prohibits the issuance of a permit for a Type IV landfill that is located within 100 feet of a canal that is used as a public drinking water source or for irrigation of crops used for human or animal consumption or that is located in a county with a population of more than 225,000 that is located adjacent to the Gulf of Mexico. The location restriction also prohibits the issuance of a permit for a new Type I or Type IV landfill or a permit amendment authorizing the conversion of a Type IV landfill to a Type I landfill only if the landfill is located adjacent to a county with a population of more than 3.3 million and inside the boundaries of a national forest, as designated by the United States Forest Service, on public or private land.

The City of Del Rio Landfill is a Type I landfill and is not located inside the boundaries of a national forest, so the site is complying with the Type I and Type IV Landfill Permit Issuance Prohibited location restriction.

CITY OF CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS
TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PART I/II – GENERAL APPLICATION REQUIREMENTS

APPENDIX I/II D
TPDES PERMIT

Prepared for
City of Del Rio

Revision 1 August 2024

Prepared by
CP&Y an STV company.
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500



08/07/2024

This document is intended for permitting purposes only.

Water Quality General Permits Search

Summary of Authorization TXR05BY31

Permit Number: TXR05BY31
Authorization Status: ACTIVE
Date Coverage Began: 11/15/2013
Date Coverage Ended:

Authorization Details

Site Name on Permit: CITY OF DEL RIO LANDFILL
Authorization Type: INDUSTRIAL
Primary SIC Code: 4953
Activity Code : LF
Facility Operational Status : ACTIVE
Hazardous Metals Waiver : NO
Msw Landfill Closed : NO
Sector : L
Outfall Number : 001
SEGMENT NUMBER - 2304
RECEIVING WATER BODY - CALAVERAS CREEK
OUTFALL LATITUDE - 29.36695
OUTFALL LONGITUDE - (-100.86107)
DISCHARGE TO MARINE OR FRESH - FRESH WATER
Outfall Number : 002
SEGMENT NUMBER - 2304
RECEIVING WATER BODY - CALAVERAS CREEK
OUTFALL LATITUDE - 29.36417
OUTFALL LONGITUDE - (-100.86021)
DISCHARGE TO MARINE OR FRESH - FRESH WATER
Outfall Number : 003
SEGMENT NUMBER - 2304
RECEIVING WATER BODY - CALAVERAS CREEK
OUTFALL LATITUDE - 29.35288
OUTFALL LONGITUDE - (-100.84884)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Permittee Information

Operator: CN600756290 - CITY OF DEL RIO
Address: 1897 RAILWAY DEL RIO TX 78840
Annual Fee Billing Address: ALEJANDRO GARCIA
114 W MARTIN ST DEL RIO TX 78840 5501

Permitted Site Information

RN: RN102143294
RE Name: CITY OF DEL RIO MUNICIPAL LANDFILL
Site Location: 1897 RAILWAY AVE DEL RIO TX 78840
County: VAL VERDE
TCEQ Region: REGION 16 - LAREDO
Latitude: 29.35583
Longitude: -100.85389

Regulated Entity Site Information

RE Name: CITY OF DEL RIO LANDFILL
Site Location: 1897 RAILWAY DEL RIO TX 78840
County: VAL VERDE
TCEQ Region: REGION 16 - LAREDO
Latitude: 29.35583
Longitude: -100.85389

Application History for this Authorization

Application Type	Status	Received Date	Final Action Date
NOTICE OF INTENT	APPROVED	11/15/2013	11/15/2013
NOI-RENEWAL	APPROVED	10/28/2016	03/14/2017
NOI-RENEWAL	APPROVED	11/11/2021	11/11/2021

CITY OF CITY OF DEL RIO LANDFILL

VAL VERDE COUNTY, TEXAS
TCEQ PERMIT NO. MSW-207C

MAJOR PERMIT AMENDMENT APPLICATION
PART I/II – GENERAL APPLICATION REQUIREMENTS

APPENDIX I/II E
TCEQ FORMS

Prepared for
City of Del Rio

Revision 1 August 2024



08/07/2024

Prepared by
CP&Y an STV company.
TPBE Registration No. F-1741
13155 Noel Road, Suite 200
Dallas, TX 75240
214-638-0500

This document is intended for permitting purposes only.

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TCEQ FORM 20719 – TRANSPORTATION DATA AND REPORT FORM……I/IIE-9



08/07/2024

TCEQ FORM 20873
WASTE ACCEPTANCE PLAN

Texas Commission on Environmental Quality

Waste Acceptance Plan Form
Type I and Type IAE Landfill Facilities

This form is designed to address the requirements for Waste Acceptance Plans in Part II of an application, as required by Title 30 Texas Administrative Code, Chapter 330, §330.61(b)(1). Rules are from Chapter 330 unless otherwise specified. If more space is needed for a line item or table item, include the information on a separate sheet and reference the line or table item.

A. Applicant Information

1. Facility Name: City of Del Rio Landfill
2. MSW Permit No.: 207C

B. Waste Generation Areas and Population Estimates

Table 1. Areas contributing waste to the facility and estimate of population or population equivalent served by the facility. Values are estimates, not permit limits.

Waste Generation Area	Estimate of Population or Population Equivalent Served in each Area
City of Del Rio	51,580

Estimated population or population equivalent served by the facility

51,580 (based on 2022 Annual Rpt)

C. General Sources and Types of Waste to be Accepted at the Facility

General sources of waste to be received (household, commercial, industrial, etc.).

household, yard, commercial, industrial (nonhazardous), construction/demolition, and special waste

2. Types of Waste to be Accepted for Disposal at the Facility

   a. Indicate whether the following wastes will be accepted for disposal (check "Yes" for will accept or "No" for will not accept).

      i. ☑ Yes ☐ No Municipal solid waste [§330.3(88)]

      ii. ☑ Yes ☐ No Construction or demolition waste [§330.3(33)]

      iii. ☑ Yes ☐ No Brush [§330.3(18)]

      iv. ☑ Yes ☐ No Rubbish [§330.3(130)]

      v. ☑ Yes ☐ No Used or scrap tires that have been processed (such as by splitting, shredding, quartering or sidewall removal) in a manner acceptable to the executive director [§330.3(130)]

      vi. ☑ Yes ☐ No Class 2 nonhazardous industrial solid waste [§330.3(22), §330.173(i)]

      vii. ☑ Yes ☐ No Class 3 nonhazardous industrial solid waste [§330.3(23), §330.173(j)]

   b. Indicate whether the following special wastes will be accepted for disposal. These wastes must have been or are to be treated and the treated materials have been tested and are certified to contain no free liquids.

      i. ☑ Yes ☐ No Municipal wastewater treatment plant sludge. [§330.3(148)(D), §330.171(c)(7)]

      ii. ☑ Yes ☐ No Other types of domestic sewage treatment plant sludge [§330.3(148)(D), §330.171(c)(7)]

      iii. ☑ Yes ☐ No Municipal water-supply treatment plant sludge. [§330.3(148)(D), §330.171(c)(7)]

      iv. ☐ Yes ☑ No Septic tank pumping waste [§330.171(c)(7)]

      v. ☑ Yes ☐ No Grease trap waste. [§330.3(59), §330.171(c)(7)]

      vi. ☑ Yes ☐ No Grit trap waste [TAC §330.3(60), §330.171(c)(7)]

      vii. ☑ Yes ☐ No Waste from commercial or industrial wastewater treatment plants [§330.3(148)(G), §330.171(b)]

      viii. ☐ Yes ☑ No Other liquid waste. Explain _____ [§330.171(c)(7)]

      ix. Specify other special wastes to be accepted for disposal that are not listed above and for which free liquids may be an issue.

      None

   c. Indicate whether the following Special Wastes will be accepted for disposal.

      i. ☐ Yes ☑ No Municipal hazardous waste from conditionally exempt small quantity generators [§330.171(c)(6), §330.3(32)].

      ii. ☐ Yes ☑ No Class 1 industrial nonhazardous solid waste (excluding waste that is Class 1 only because of asbestos content). May be accepted only at Type I landfills with a Class 1 cell [§330.3(21), §330.171(b), §330.3(148)(B), §330.173]; may not be accepted at arid exempt [AE] landfills [330.173(a)].

      iii. ☐ Yes ☑ No Waste that is Class 1 only because of asbestos content [§330.3(21), §330.171(b), §330.3(148)(B), §330.171(c)(3)(I), 30 TAC §330.171(c)(3)]

iv.	☐ Yes ☑ No	Waste from commercial air pollution control devices [§330.171(b), §330.3(148)(G), §330.331(e)]
v.	☐ Yes ☑ No	Tanks, drums, or containers that were used for shipping or storing any material that has been listed as a hazardous constituent in 40 CFR Part 261, Appendix VII but has not been listed as a commercial chemical product in 40 CFR §261.33(e) or (f) [§330.171(b), §330.3(148)(G)]
vi.	☐ Yes ☑ No	Drugs, other than those contained in normal household waste [§330.171(b), §330.3(148)(J)]
vii.	☐ Yes ☑ No	Contaminated foods, other than those contained in normal household waste [§330.171(b), §330.3(148)(J)]
viii.	☐ Yes ☑ No	Contaminated beverages, other than those contained in normal household waste [§330.171(b), §330.3(148)(J)]
ix.	☑ Yes ☐ No	Empty containers that have been used for pesticide, herbicide, fungicide, or rodenticide, that have been triple-rinsed before receipt at the landfill, are rendered unusable before receipt or on arrival, and are covered by the end of the same working day they are received [§330.171(c)(5)(A)]
x.	☑ Yes ☐ No	Empty containers for which triple-rinsing is not feasible or practical (e.g. paper bags, cardboard containers) that are managed as a municipal hazardous waste from a conditionally exempt small quantity generator or in accordance with requirements for disposal of industrial wastes [§330.171(c)(5)(B), §330.171(c)(6), §330.173]
xi.	☑ Yes ☐ No	Regulated asbestos-containing material (RACM) [40 CFR 261, §330.171(c)(3), §330.3(126)]
xii.	☑ Yes ☐ No	Non-regulated asbestos-containing material (non-RACM) [40 CFR 261, §330.171(c)(4), §330.3(93)]
xiii.	☐ Yes ☑ No	Incinerator ash [§330.3(148)(M), §330.171(b)]
xiv.	☐ Yes ☑ No	Soil contaminated by petroleum products, crude oils, or chemicals in concentrations of greater than 1,500 mg/kg total petroleum hydrocarbons; or contaminated by constituents of concern that exceed the concentrations listed in §335.521(a)(1) [§330.3(148)(N), §330.171(b)(4)] (may be accepted at Type I landfills with Class 1 cells. [§330.331(e)] (Excluded from Type I AE. [§330.173(a)])
xv.	☑ Yes ☐ No	Household-generated used oil filters that have been crushed to less than 20% of original volume or processed by a method other than crushing to remove all free-flowing used oil. The processing method may include (1) having the filter separated into component parts and free-flowing used oil removed from the filter element by compression; (2) having a replaceable filter medium that has been compressed to remove free-flowing used oil; **or** (3) having a housing that has been punctured and the filter drained for at least 24 hours. [§330.171(d)].
xvi.	☐ Yes ☑ No	Waste from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas) [§330.171(b), §330.3(148)(P)]

xvii. ☐ Yes ☑ No Waste generated outside the boundaries of Texas that contains any industrial waste; any waste associated with oil, gas, and geothermal exploration; or any of the special wastes that are indicated in §330.3(148) [§330.171(b), §330.3(148)(Q)]

xviii. ☑ Yes ☐ No Dead animals [§330.171(c)(2)]

xix. ☑ Yes ☐ No Slaughterhouse wastes [§330.171(c)(2)]

xx. ☑ Yes ☐ No Treated medical waste from health care-related facilities. [§330.3(85), §326.75(r)]

xxi. Specify other special wastes to be accepted for disposal that are not listed above:
None.

D. Waste Prohibited from Disposal

The following wastes are prohibited from disposal.

- Any waste not authorized for disposal above, including those for which "No" has been indicated.
- Untreated medical waste. This prohibition may be superseded by the executive director in writing when disposal of untreated medical waste is required to protect human health and the environment from the effects of a natural or man-made disaster. [§330.171(c)(1), §330.3(85)]
- Lead-acid storage batteries. [§330.15(e)(1)]
- Used motor vehicle oil. [§330.15(e)(2)]
- Used oil filters from internal combustion engines except for used oil filters from households that have been processed as described in §330.171(d). [§330.15(e)(3)]
- Whole used or scrap tires. [§330.15(e)(4)]
- Items containing CFCs that have not been handled in accordance with 40 CFR §82.156(f). [§330.15(e)(5)]
- Bulk or noncontainerized liquid waste unless the waste is household waste other than septic waste and as defined by the Paint Filter Test, EPA Method 9095. [§330.15(e)(6), §330.3(81)]
- Containers holding liquids unless: the container is similar in size to those found in household waste, the container is designated to hold liquids for other than storage, **or** the waste is household waste. [§330.15(e)(6), §330.3(81)]
- Regulated hazardous waste [40 CFR §261.3] that is not excluded from regulation as a hazardous waste [40 CFR §261.4(b)] or that was not generated by a conditionally exempt small-quantity generator. [§330.15(e)(7), §330.3(127)]
- Waste that exhibits the characteristics for hazardous waste [40 CFR §261.3] from oil, gas, and geothermal activities subject to regulation by the Railroad Commission of Texas. [§330.15(e)(7)]
- Polychlorinated biphenyl (PCB) wastes, [40 CFR Part 761] unless authorized by the United States Environmental Protection Agency. [§330.15(e)(8)]
- Radioactive materials, [Chapter 336] except as authorized in Chapter 336 or that are subject to an exemption of the Department of State Health Services. [§330.15(e)(9)]

Specify any other wastes to be prohibited for disposal that are not listed above.
None.

E. Material Recovery

Will the facility recover materials from incoming waste? ☑ Yes ☐ No

If yes, provide a descriptive narrative describing the percentage of incoming waste, if applicable, that must be recovered and its intended use.

Brush is diverted and chipped at the site. The chipped wood is used for erosion control at the facility and is available for pickup to any residents of Del Rio at no charge.
Wastewater sludge is diverted and is used for land application.

F. Estimated Maximum Annual Waste Acceptance Rate Projected for Five Years [§330.61(b)(1)(C)]

Provide an **estimated** maximum annual waste acceptance rates at the facility, projected for five years. These rates are not permit limitations.

Table 1. Five-Year Projection for Waste Acceptance.

Year	Estimated Maximum Annual Waste Acceptance Rate
2023	47,727
2024	48,397
2025	49,076
2026	49,764
2027	50,462

G. Storage and Processing Units

Indicate units that will store or process waste at the facility. Describe the wastes that will be stored or processed in these units. Provide the final disposition or use (e.g., landfill disposal, composting) of the processed materials. **Waste storage and processing authorized separately (such as a registered transfer station within the permit boundary of a landfill) should not be included on this form.**

Storage and processing units must be illustrated (or locations described) on site layout figures in Part II of the application.

Examples:

1. Unit: liquid stabilization unit, Purpose: process, Waste Type: liquid waste, Disposition: solidified material to be disposed in a properly authorized landfill; or
2. Unit: grease separation and dewatering unit, Purpose: process, Disposition: water to WWTP and grease to composter or Type I landfill.

Table 1. Waste storage and processing units.

Unit	Purpose	Waste Type Stored or Processed	Final Disposition or Use
	☐Store ☐Process		
	☐Store ☐Process		
	☐Store ☐Process		
	☐Store ☐Process		
	☐Store ☐Process		
	☐Store ☐Process		

H. Prohibited from Processing

The following wastes are prohibited from processing:

- Any wastes not authorized for processing above.
- Lead-acid storage batteries may not be incinerated. [§330.15(e)(1)]
- Used motor vehicle oil may not be incinerated. [§330.15(e)(2)]
- Regulated hazardous waste [40 CFR §261.3] that is not excluded from regulation as a hazardous waste [40 CFR §261.4(b)] or that was not generated by a conditionally exempt small-quantity generator. [§330.15(e)(7), §330.3(127)]

Specify any other wastes to be prohibited for storage or processing that are not listed above.

None.

I. Special Waste Acceptance Plan [§330.171(b)(2)]

Does this application include an **optional** Special Waste Acceptance Plan?
☐ Yes ☑ No

If yes, please provide its location in the application.

J. Limiting Parameters [§330.61(b)(1)]

1. Regulated Hazardous Waste
   MSW landfills may not accept regulated hazardous waste [§330.3(127)] for processing or disposal. The presence or characteristic of any material meeting the definition of a regulated hazardous waste is a limiting parameter for waste disposal or processing.
2. Free Liquids
   The presence of free liquids, as defined by the Paint Filter Test, EPA Method 9095, in waste, but not household waste and not liquid in containers similar in size to those found in household waste, is a limiting parameter for waste disposal. [§330.15(e)(6), §330.3(81)]
3. PCBs
   The presence of polychlorinated biphenyls (PCB) wastes [40 CFR Part 761] unless authorized by the United States Environmental Protection Agency is a limiting parameter for waste disposal or processing. [§330.15(e)(8)]
4. Radioactive Materials
   The presence of radioactive materials [Chapter 336], except as authorized in Chapter 336 or that are subject to an exemption of the Department of State Health Services, is a limiting parameter for waste disposal or processing. [§330.15(e)(9)]
5. Class 1 Solid Waste

   For all Type I AE landfills and for Type I landfills that do not have a Class 1 cell [330.331(e)] or have chosen to excluded Class 1 industrial nonhazardous solid waste, 1,500 mg/kg TPH and the concentrations in 30 TAC §335.521(a)(1) are limiting parameters for waste disposal.
6. Other limitations:

TCEQ FORM 20719
TRANSPORTATION DATA AND REPORT FORM

Texas Commission on Environmental Quality

Transportation Data and Coordination Report Form for Municipal Solid Waste Type I Landfills

This form is for use by applicants or site operators of Municipal Solid Waste (MSW) Type I landfills to provide data and information to address the availability and adequacy of access roads to a landfill site, the volume of vehicular traffic on and generated by the facility on area roadways, and to provide coordination information as required under 30 TAC §330.61(i). Roadways that provide primary access to a landfill facility must be adequate and possess appropriate design capacity to safely accommodate the additional volumes and weights of traffic generated or expected to be generated by this landfill facility during its active life. Data provided in this form should correspond with data contained in the coordination documents submitted to the Texas Department of Transportation or other agency that has jurisdiction over affected area roads.

If you need assistance in completing this form, please contact the Municipal Solid Waste Permits Section of the Waste Permits Division at (512) 239-2335.

I. General Information

Facility Name: **City of Del Rio Landfill**

MSW Permit No.: **207C**

Site Operator/Permittee Name and Mailing Address: **City of Del Rio**
114 W Martin St., Del Rio, TX 78840

II. Documentation of Coordination with the Texas Department of Transportation (TXDOT) for Traffic and Location Restrictions

1. A traffic study document and cover letter was submitted to TXDOT as Coordination for traffic and location restrictions for the subject facility and a copy of the documents submitted to TXDOT is attached herein: ☒ Yes ☐ No

   If you checked "No" , provide explanation:

2. Date of submission of the coordination documents to TXDOT: **07/05/2024**

3. TXDOT's response received? ☐ Yes ☒ No

   If "No" is checked in response to Item I.3 above, complete Items I.4 and I.5 below only after TxDOT's response is received.

4. Did TxDOT's response include recommendation of improvements to any of the roadways or intersections that lead to the site? ☐ Yes ☐ No

5. If you checked "Yes" in Item I.5 above, proceed to Section III., TxDOT's Recommended Roadway or Intersection Improvements (as applicable).

6. If you checked "No" in Item I.5 above, provide TxDOT's response to the traffic and location restrictions compliance coordination for the subject site: *(Enter TxDOT's response to coordination correspondence)* **Still waiting for response from TxDOT**

III. TxDOT Recommended Roadway or Intersection Improvements (as applicable)

Enter TxDOT's recommendations for improvement of roadways or intersections that lead to the site:

1. **NA at this time**

2.

3.

IV. Documentation of Coordination of Improvement Designs of Public Roadways (turning lanes, storage lanes, acceleration/deceleration lanes, etc.) at and Near the Site Entrances with Agencies that Exercise Maintenance Responsibility

1. Complete Table 1 with information regarding documentation of coordination of improvement designs for existing and proposed roads.

Table 1: Public Roadway Improvements Coordination

Existing and Proposed Roads Associated with the Site Entrance(s)	Agency Exercising Maintenance Responsibility	Date of Coordination Correspondence from the Applicant or Site Operator to the Agency Responsible	Date of the Coordination Response Letter from the Agency Responsible	Did the Agency Responsible Require Improvements to the Roadway(s) Associated with the Site Entrance(s) (check Yes or No as applicable)
Railway Ave	City of Del Rio	Landfill is Owned by the City	NA	☐Yes ☒No
US 90	TxDOT	July 5, 2024	Still waiting on response	☐Yes ☐No
US 277	TxDOT	July 5, 2024	Still waiting on response	☐Yes ☐No
				☐Yes ☐No

2. If you checked "Yes" in the last column of Table 1, indicating that improvements are required, address the following:

   (a) Briefly describe the improvements proposed for the public roadway(s) associated with the site entrance(s):

   (b) A copy of the proposed improvement design submitted to the agency exercising maintenance responsibility over the roadway is attached herein: ☐Yes ☐No. If you checked "No" please explain:

   (c) A copy of the response letter from the agency exercising maintenance responsibility over the roadway(s) associated with the site entrance(s) approving the improvement design is attached herein: ☐Yes ☐No. If you checked "No" please explain:

V. Facility Location and Operation Information Used in Estimating Transportation Data

1. Facility Location Information

City of Del Rio Landfill
1987 Railway Ave
Del Rio, Val Verde County, Texas 78840

2. Waste Acceptance Rates

   (a) Initial Waste Acceptance Rate: **47,068 tons/year**

   (b) Estimated Maximum Waste Acceptance Rate at any Time During Facility Life: **76,752 tons/year**

3. Hours of Operation and Site Life

   (a) Operating Hours: **Monday - Friday 6:00 AM to 6:00 PM**
   Saturday 7:00 AM - 3:00 PM

   (b) Waste Acceptance Hours: **Monday - Friday 7:00 AM to 5:00 PM**
   Saturday 8:00 AM - 2:00 PM

   (c) Estimated Site Life: **44 years**

4. Other Information Used or Assumed in Estimating Transportation Data: **NA**

VI. Facility Daily Traffic Volume Data

1. Complete Table 2 with estimated existing daily volume of traffic generated by the facility.

Table 2: Estimated Existing Daily Volume of Traffic Generated

Vehicle Type	Traffic Volume to Facility (vehicles per day, vpd)	Traffic Volume from Facility (vpd)
Trucks	**224**	**224**
Employee Vehicles	**15**	**15**
Visitors Vehicles	**15** (assumed based on City personnel's comments)	**15** (assumed based on City personnel's comments)
Other Vehicles	**10** (assumed based on City personnel's comments)	**10** (assumed based on City personnel's comments)
Summation of Daily Volume of Traffic to and from the Facility		
Total Daily Volume of Traffic	**264**	**224**

(a) Describe the source(s) of or method(s) used to obtain the existing daily volume of traffic generated by the facility: **Truck traffic count based on scale house**

(b) Location(s) of traffic counts (if applicable): **Facility entrance**

2. Complete Table 3 with estimated future daily volume of traffic generated by the facility.

Table 3: Estimated Future Daily Volume of Traffic Generated

Vehicle Type	Traffic Volume to Facility (vpd)	Traffic Volume from Facility (vpd)
Trucks	**362**	**362**
Employee Vehicles	**25**	**25**
Visitors Vehicles	**15** (assumed based on City personnel's comments)	**15** (assumed based on City personnel's comments)
Other Vehicles	**10** (assumed based on City personnel's comments)	**10** (assumed based on City personnel's comments)
Summation of Daily Volume of Traffic to and from the Facility		
Total Daily Volume of Traffic	**412**	**412**

3. Describe the method(s) used to obtain the estimated future daily volume of traffic generated by the facility, including dates, traffic growth rates, and sources of the

growth rates: **The projected traffic volumes were obtained using projected growth rates for the surrounding population area growth rate**

4. Maps showing the facility boundary and roads within 1 mile of the facility that provide access to the site are attached herein. Yes ☒ No☐. If you checked "No" please explain:

VII. Availability and Adequacy of Roads

1. Complete Table 4 with information regarding the primary access roadways.

Table 4: Roadway Characteristics of the Primary Access Roadways

List the roads that the owner or operator will use as primary access to the site	Existing Annual Average Daily Traffic on Roadway (vpd)	Expected Annual Average Daily Traffic on Roadway (vpd)	Existing Roadway Capacity	Expected Roadway Capacity	Max Gross Weight Allowed (lbs)	Max/Min Posted Speed Limit (mph)	Min Vertical Clearance (ft)	Surface Type and No. of Lanes	Level of Service	Existing Traffic Generated by the Facility on Each Roadway	Expected Traffic Generated by the Facility on Each Roadway
Railway Ave	2,371	3,835				35	13' 10"	2-lane Asphalt		224	362
US 90	18,394	29,751				60		4-lane asphalt		224	362

2. Complete Table 5 with information regarding other access roadways within one mile.

Table 5: Roadway Characteristics of Other Access Roadways within One Mile of the Facility Boundary

List other access roadways within 1 mile of the facility	Existing Annual Average Daily Traffic on Roadway	Expected Annual Average Daily Traffic on Roadway	Existing Roadway Capacity	Expected Roadway Capacity	Max Gross Weight Allowed (lbs)	Max/Min Posted Speed Limit (mph)	Min Vertical Clearance (ft)	Surface Type and No. of Lanes	Level of Service	Existing Traffic Generated by the Facility on Each Roadway	Expected Traffic Generated by the Facility on Each Roadway
US 277	18,473	29,879				30		4-lane asphalt		224	362

3. Complete Table 6 with information regarding access roadway intersections within one mile.

Table 6: Roadway Intersection Characteristics

Please list major (signalized) roadway intersections for access roads within 1 mile of facility	Existing Capacity	Existing Level of Service
Railway Ave and US 90	NA	NA

4. (For applicants that conducted traffic counts) Peak period traffic counts were conducted at critical intersections and roadways in the area: ☐ Yes ☐ No

   If "No" is checked, please explain: **The traffic count coming into the facility is minimal when compared to the overall traffic on the road.**

VIII. Conclusions on the availability and adequacy of roads to be used for accessing the facility

Enter conclusions regarding the availability and adequacy of roads to be used for accessing the facility using information obtained from access roadway data; data on the volume of existing and expected vehicular traffic on the access roads within one mile of the facility; and the projection of the volume of traffic expected to be generated by the facility on the access roads:

Based on the traffic count provided by TxDOT for US 90 and US 277, the traffic volume created by the facility is minimal and will not adversely impact the availability and adequacy of the roads to be used for accessing the facility.

IX. Highway Beautification

Enter facility distance from interstate or primary highways and screening information as required by 30 TAC 330.23(a).

1. Distance of Facility from Interstate or Primary Highway: 0.5 miles

2. Type of Facility Screening Provided, if applicable: **Facility located far enough from US 90 and cannot be seen from the highway**.

Transportation Data and Coordination Report for MSW Type I Landfills
Facility Name: City of Del Rio Landfill Revision No.: 0
Permit No: MSW-207C Date: August 7, 2024

X. Analysis of the Impact of the Facility upon Airports

Enter the Part, Appendix, Attachment, Section, and Page Number of the application where analysis of the impact of the facility upon airports is provided: **Parts I/II Section 8, page I/II-9**

XI. Documentation of Coordination with the Federal Aviation Administration for Compliance with Airport Location Restrictions

1. Applicant has submitted written information to FAA describing the facility location, maximum height of waste units, type of waste accepted at the facility, and other facility-relevant data and information as required: ☒ Yes ☐ No

   (a) Enter Date of Coordination Letter to FAA: **July 5, 2024**

   (b) Enter Date of FAA Response: **Still waiting for a response**

2. Indicate FAA Response and Final Action:

   ☐ FAA Acknowledged No Adverse Impact.

   ☐ FAA Recommended Safety Improvements. (*Complete Section XII if you check this item.*)

3. A copy of the Documentation of Coordination with FAA for compliance with airport location restrictions is attached herein. ☒Yes ☐No. If you checked "No" please explain:

   Coordination with FAA is documented in Appendix I/IIB.

XII. FAA Recommended Changes or Improvements for Airport Safety, (as applicable)

Enter FAA's recommended changes or improvements to the facility for airport safety or for compliance with airport location restrictions.

Still waiting for a response from FAA

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Permit No: MSW-207C Date: August 7, 2024

XIII. Attachments

- Maps showing the facility boundary and roads within 1 mile of the facility.
- Documentation of coordination of all designs of proposed public roadway improvements associated with site entrances with the agency exercising maintenance responsibility of the public roadway involved; and the response letter received from the agency, as applicable.
- Documentation of coordination with the Texas Department of Transportation (TxDOT) for traffic and location restrictions, including any traffic study report; and the response letter received from TxDOT.
- Documentation of coordination with the Federal Aviation Administration for compliance with airport location restrictions; and the response letter received from FAA.
- Other documents attached: