



BIGGS & MATHEWS ENVIRONMENTAL, INC
TBPE No. F-256 TBPG No. 50222

March 7, 2025

Kelly Keel, Executive Director
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Attn: Ms. Megan Henson
MSW Permits Section - MC-124

Re: Texoma Area Solid Waste Authority
TASWA Disposal and Recycling Facility
TCEQ Permit No. MSW 2290A
Grayson County, Texas
Permit Amendment Application

Dear Ms. Keel:

On behalf of Texoma Area Solid Waste Authority (TASWA), Biggs and Mathews Environmental is submitting a permit amendment application for the referenced Type I municipal solid waste facility. Included are four copies (one signed original and three copies) of the application for your review and approval as well as a USB flash drive with digital copies of the Land Owners list, the MSW Checklist, and a PDF of the permit amendment application. Parts I through IV of the application are included as required by the municipal solid waste regulations of the TCEQ (30 TAC Chapter 330).

TASWA is fully committed to operating this landfill site consistent with applicable TCEQ regulations to protect human health and the environment while providing needed additional landfill capacity for the communities and businesses in and around Grayson County, Texas.

We appreciate your prompt review of this permit amendment application. If you or your staff have any questions, please do not hesitate to call me.

Sincerely,

BIGGS & MATHEWS ENVIRONMENTAL

A handwritten signature in black ink, appearing to read "D. Clark", is written over a horizontal line.

David Clark, P.E.
Principal

cc: Mr. John O'Steen, Executive Director, TASWA



Texas Commission on Environmental Quality

Waste Permits Division Correspondence

Cover Sheet

Date: 3-7-25

Facility Name: TASWA DRF

Permit or Registration No.: 2290A

Nature of Correspondence:

☒ Initial/New

☐ Response/Revision to TCEQ Tracking No.: _____
(from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☒ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☐ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☐ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

**TASWA DISPOSAL AND RECYCLING FACILITY
GRAYSON COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2290A**

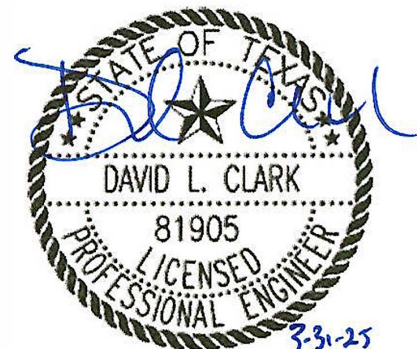
PERMIT AMENDMENT APPLICATION

VOLUME 1 OF 4

Prepared for

TEXOMA AREA SOLID WASTE AUTHORITY, INC.

February 2025
Revised March 2025



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

1700 Robert Road, Suite 100 ♦ Mansfield, Texas 76063 ♦ 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

**TASWA DISPOSAL AND RECYCLING FACILITY
GRAYSON COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2290A**

**PERMIT AMENDMENT APPLICATION
VOLUME 1 OF 4**

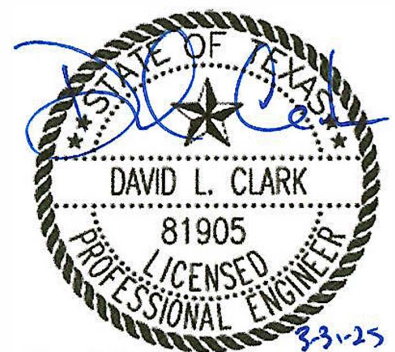
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Part II – Existing Conditions and Character of the Facility and Surrounding Area



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

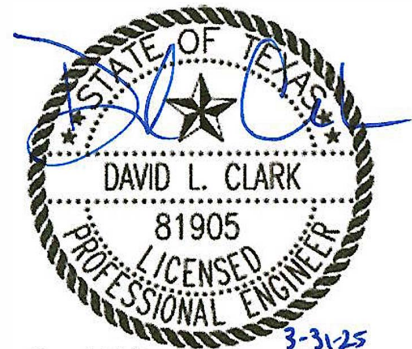
**TASWA DISPOSAL AND RECYCLING FACILITY
GRAYSON COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2290A**

PERMIT AMENDMENT APPLICATION

Prepared for

TEXOMA AREA SOLID WASTE AUTHORITY, INC.

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**TASWA DISPOSAL AND RECYCLING FACILITY
GRAYSON COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2290A**

PERMIT AMENDMENT APPLICATION

VOLUME 1

TCEQ Core Data Form

Part I – Site Applicant Information Supplementary Technical Report

Part II – Existing Conditions and Character of the Facility and Surrounding Area

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Attachment G – Landfill Gas Management Plan

Attachment H – Closure Plan

Attachment I – Postclosure Plan

Attachment J – Cost Estimates for Closure and Postclosure Care

VOLUME 4

Part III – Facility Investigation and Design

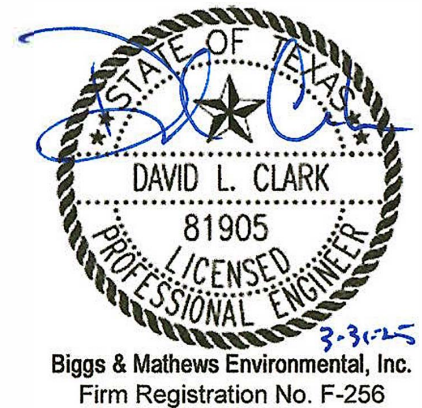
Attachment G – Landfill Gas Management Plan

Attachment H – Closure Plan

Attachment I – Postclosure Plan

Attachment J – Cost Estimates for Closure and Postclosure Care

Part IV – Site Operating Plan





TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of 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 Permit Amendment Application
2. Customer Reference Number (if issued)	3. Regulated Entity Reference Number (if issued)
CN 600339428	RN 100629922

[Follow this link to search for CN or RN numbers in Central Registry**](#)

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 Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)		☐ Change in Regulated Entity Ownership	
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:	
Texoma Area Solid Waste Authority			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0158689701	17528939717	75-2893971	
11. Type of Customer:		Partnership: ☐ General ☐ Limited	
☒ Corporation		☐ Individual	
Government: ☐ City ☐ County ☐ Federal ☐ 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			
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:			
15. Mailing Address:			
25090 State Highway 56			
City	Whitesboro	State	TX
ZIP	76273	ZIP + 4	4993
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
18. Telephone Number		19. Extension or Code	
(903) 564-4749			
		20. Fax Number (if applicable)	
		() -	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
☐ 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 Agency 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.)	
TASWA Disposal and Recycling Facility	

23. Street Address of the Regulated Entity: (No PO Boxes)	25090 State Highway 56							
	City	Whitesboro	State	TX	ZIP	76273	ZIP + 4	4993
24. County	Grayson							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:							
26. Nearest City				State		Nearest ZIP Code	
Whitesboro				TX		76273	
27. Latitude (N) In Decimal:		33.63713861		28. Longitude (W) In Decimal:		-96.83292941	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
33	38	13.69990	96	49	58.54587		
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				562212			
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
Type I Solid Waste Landfill							
34. Mailing Address:		25090 State Highway 56					
		City	Whitesboro	State	TX	ZIP	76273
35. E-Mail Address:							
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)			
(903) 564-4749				() -			

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
			GI0132Q	
☒ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
MSW 2290A	GI0132Q			
☐ Sludge	☒ Storm Water	☒ Title V Air	☐ Tires	☒ Used Oil
	TXR05AG82	2672		C89061
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	David Clark	41. Title:	Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(817) 563-1144		() -	

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:	Texoma Area Solid Waste Authority	Job Title:	Executive Director
Name (In Print):	John O'Steen	Phone:	(903) 564- 4749
Signature:		Date:	3-31-25



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.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V
Waste ☒ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)
☐ Texas Land Application Permit (TLAP)
☐ State Only Concentrated Animal Feeding Operation (CAFO)
☐ Water Treatment Plant Residuals Disposal Permit
☐ Class B Biosolids Land Application Permit
☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water
☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water
☐ Add a New or Existing Reservoir
☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Disposal of household waste, yard waste, commercial waste, Class 2 and Class 3 nonhazardous industrial waste, construction-demolition waste, and some special wastes.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

Whitesboro, Texas

(City)

Grayson County, Texas

(County)

48181001300

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

☐

City

☐

County

☒

Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

96.42%

(b) Per capita income for population near the specified location

\$56,074

(c) Percent of minority population and percent of population by race within the specified location

Hispanic 14.4%, Asian 5.2%, Black 6.3%

(d) Percent of Linguistically Isolated Households by language within the specified location

Given that 98.4% of residents are U.S. citizens and the predominant language is English, it is likely that the percentage of linguistically isolated households is low.

(e) Languages commonly spoken in area by percentage

English 90.8%, Spanish 5.7%

(f) Community and/or Stakeholder Groups

Local government, educational institutions, civic organizations and local businesses, environmental and community advocacy groups

(g) Historic public interest or involvement

TASWA supports the local volunteer fire department by donating revenue received from their metal recycling program.

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☒ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☒ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☒ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

- ☐ Publish in alternative language newspaper
- ☐ Posted on Commissioner's Integrated Database Website
- ☐ Mailed by TCEQ's Office of the Chief Clerk
- ☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☒ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☒ No

(f) Hard copies of the application will be available at the following (check all that apply):

- ☐ TCEQ Regional Office ☐ TCEQ Central Office
- ☒ Public Place (specify) Whitesboro Public Library

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

- ☐ Publish in alternative language newspaper
- ☐ Posted on Commissioner's Integrated Database Website
- ☐ Mailed by TCEQ's Office of the Chief Clerk
- ☐ Other (specify)



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 Texoma Area Solid Waste Authority proposes to expand the existing TASWA Disposal and Recycling Facility to increase municipal solid waste disposal capacity and increase the site life of the facility.

B. Information About the Applicant

Name: Texoma Area Solid Waste Authority (TASWA)

Applicant Type: Type I Municipal Solid Waste Permit Amendment

Facility Name: TASWA Disposal and Recycling Facility

Permit Application Number: 2290A

Customer Number (CN): 600339428

Regulated Entity Reference Number (RN): 100629922

C. Location of the Proposed Facility

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

25090 State Highway 56. The facility is located approximately 3 tenths of a mile west of the intersection of SH 56 and Old Sanborn Road.

Link to Map of Facility Location ([TCEQ Location Mapper](#)²): <https://arcg.is/KvLjT>

D. Information about Facility Operation

What types of waste would be received?

Household waste, yard waste, commercial waste, Class 2 and Class 3 nonhazardous industrial waste, construction-demolition waste, and some special wastes.

What geographical area would the wastes come from?

Cooke and Grayson counties, and the cities of Denton, Gainesville, Sherman, and surrounding areas.

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: Monday through Friday: 24 hours per day Saturday: 12:00 a.m through 5:00 p.m.
Waste Operations: 7 days a week, 24 hours a day.

At what rate would wastes be accepted?

TASWA receives 270,000 tons of waste annually, approximately 865 tons per day.

How would wastes be managed?

Waste enters the facility via the site entrance, through the scalehouse. Acceptable wastes will be directed to the active working face for disposal. Waste will be unloaded within the active working face, spread in layers, and thoroughly compacted. Daily cover of waste will be applied.

E. Pollution Control Methods

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

Wastes are contained with a liner system, leachate collection system, and final cover system meeting all applicable Subtitle D requirements and TCEQ rules and guidelines. Daily cover of waste will be applied. Daily cover will be inspected daily, intermediate cover will be inspected weekly, and final cover will be inspected weekly and following a rainfall event in excess of 0.5 inches. Odors will be controlled through detailed operating procedures included in the Site Operating Plan. Leachate will be managed consistent with the Leachate and Contaminated Water Plan. A comprehensive groundwater monitoring system and landfill gas management system will also monitor the facility.

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

The working face will be maintained and operated to minimize windblown solid waste. Waste transportation vehicles will be required to use adequate covers to secure the loads. Windblown waste and litter along the entrance road, scalehouse area, and within the permit boundary will be collected once per day. Clean up of waste spilled materials along the regular delivery routes within 2 miles of the entrance road will be cleaned up daily during days of facility operation.



Texas Commission on Environmental Quality

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

Instructions for completing this Part I Application Form are provided in [TCEQ 00650-instr¹](#). Include a [Core Data Form \(TCEQ 10400\)²](#) with the application for the facility owner, and Core Data Forms for the operator and property owner if different from the facility owner. If you have questions, contact the Municipal Solid Waste (MSW) Permits Section by email to [\[REDACTED\]](#) or by phone at 512-239-2335. Rules cited on this form are in Title 30 Texas Administrative Code (30 TAC) and may be viewed online at www.tceq.texas.gov/goto/view-30tac.

Application Tracking Information

Facility Regulated Entity Name³:

TASWA Disposal and Recycling Facility

Site Operator (Permittee or Registrant Name)⁴:

Texoma Area Solid Waste Authority

MSW Authorization Number: 2290A

Initial Submission Date: 2/3/2025

Revision Date:

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

³ Facility Regulated Entity Name must match the Regulated Entity Name indicated on the TCEQ Core Data Form.

⁴ Site Operator is defined in 30 TAC 330.3(148) as the holder of, or the applicant for, an authorization (or license) for a municipal solid waste facility.

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, Permit Amendments, Limited Scope Major Amendments, and all Registrations

Payment Method

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

Enter ePay Trace Number: _____

- ☐ Check (send to TCEQ Financial Administration Division)

Payor Name: _____ Check Number: _____

5. Electronic Versions of Application

TCEQ will publish electronic versions of the application online. Applicants must provide a clean copy of the administratively complete application and technically complete application. TCEQ will also publish electronic versions of NOD responses online.

6. Party Responsible for Publishing Notice

Indicate who will be responsible for publishing notice:

- ☐ Applicant ☐ Agent in Service ☒ Consultant

Contact Name: David Clark, PE

Title: Engineer

Email Address: [REDACTED]

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: _____

8. Public Place for Copy of Application

Name of the Public Place: Whitesboro Public Library
Physical Address: 308 W. Main St
City: Whitesboro County: Grayson State: TX Zip Code: 76273
Phone Number: (903) 564-5432

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
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):			
Other (describe):			

12. General Information About the Facility

Facility Regulated Entity Name:

TASWA Disposal and Recycling Facility

Contact Name: John O'Steen

Title: Executive Director

MSW Authorization Number (if existing): 2290A

Regulated Entity Reference Number: **RN** 100629922

Physical or Street Address (if available): 25090 State Highway 56

City: Whitesboro County: Grayson State: TX Zip Code: 76273

Phone Number: (903) 564-4749

Latitude (decimal degrees, six decimal places): 33.637139

Longitude (decimal degrees, six decimal places): -96.832929

Elevation (above mean sea level): 756.78 feet (benchmark elevation for landfills)

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

Entrance located on the south side of State Highway 56 approximately 3 tenth of a mile west of the intersection of State Highway 56 and Old Sanborn Road.

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

Entrance located on the south side of State Highway 56.

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ☒ No**13. Facility Types**

Facility types are described in 30 TAC 330.5(a).

Indicate facility type (select all that apply):

☒ 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.

Horizontal and vertical expansion of the existing TASWA facility.

17. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: Texoma Area Solid Waste Authority
 Customer Reference Number: **CN** 600339428
 Contact Name: John O'Steen Title: Executive Director
 Mailing Address: 25090 State Highway 56
 City: Whitesboro County: Grayson State: TX Zip Code: 76273
 Phone Number: (903) 564-4749
 Email: [REDACTED]

Operator (if different from Site Operator)

Name: _____
 Customer Reference Number: **CN** _____
 Contact Name: _____ Title: _____
 Mailing Address: _____
 City: _____ County: _____ State: _____ Zip Code: _____
 Phone Number: _____
 Email Address: _____

Consultant (if applicable)

Firm Name: Biggs and Mathews Environmental, Inc.
 Consultant Name: David Clark, P.E.
 Texas Board of Professional Engineers Firm Registration Number: F-256
 Contact Name: David Clark Title: Engineer
 Mailing Address: 1700 Robert Road, Ste 100
 City: Mansfield County: Tarrant State: TX Zip Code: 76063
 Phone Number: (817) 563- 1144
 Email Address: [REDACTED]

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

Name: _____
 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. Facility Ownership**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 the other owner, and include a Core Data Form for the other owner. Attach supplemental sheet if more than one other owner.

Other Owner Name: _____

What is Owned: ☐ Facility Units ☐ Property

☐ Other (describe): _____

Mailing Address: _____

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

Phone Number: _____

Email Address: _____

20. Other Government Entities Information**Texas Department of Transportation**

District: Paris

District Engineer's Name: Noel Paramanantham, P.E.

Mailing Address: 1365 North Main Street

City: Paris County: Lamar State: TX Zip Code: 75460

Phone Number: (903) 737-9300

Email Address: _____

Local Government Authority Responsible for Road Maintenance (if applicable)

Government or Agency Name: N/A

Contact Person's Name: _____

Mailing Address: _____

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

Phone Number: _____

Email Address: _____

City Mayor Information

City Mayor's Name: N A
Mailing Address: _____
City: _____ County: _____ State: TX Zip Code: _____
Phone Number: _____
Email Address: _____

City Health Authority

Authority Name: N/A
Contact Person's Name: _____
Contact Person's Title: _____
Mailing Address: _____
City: _____ County: _____ State: TX Zip Code: _____
Phone Number: _____
Email Address: _____

County Judge Information

County Judge's Name: Bruce Dawsey
Mailing Address: 100 W Houston
City: Sherman County: Grayson State: TX Zip Code: 75090
Phone Number: (903) 813-4228
Email Address: [REDACTED]

County Health Authority

Agency Name: Grayson County Health Department
Contact Person's Name: Dr. Jerry Bennett, MD
Contact Person's Title: Local Health Authority
Mailing Address: 915 N. Walnut
City: Sherman County: Grayson State: TX Zip Code: 75090
Phone Number: (903) 893-0131
Email Address: [REDACTED]

State Representative Information

House District Number: 62
State Representative's Name: Shelley Luther
District Office Mailing Address: P. O. Box 2910
City: Austin County: Travis State: TX Zip Code: 78768
Phone Number: (512) 463-0297
Email Address: [REDACTED]

State Senator Information

District Number: 30
State Senator's Name: Brent Hagenbuch
District Office Mailing Address: P. O. Box 12068
City: Austin County: Travis State: TX Zip Code: 78711
Phone Number: (512) 463-0130
Email Address: [REDACTED]

Council of Governments (COG)

COG Name: Texoma Council of Governments
COG Representative's Name: Eric Bridges
COG Representative's Title: Executive Director
Mailing Address: 1117 Gallagher Drive, Ste 470
City: Sherman County: Grayson State: TX Zip Code: 75090
Phone Number: (903) 893-2161
Email Address: [REDACTED]

River Basin Authority

Authority Name: Red River Authority
Contact Person's Name: Jerry Bob Daniel
Watershed Sub-Basin Name: _____
Mailing Address: P.O. Box 240
City: Wichita Falls County: Wichita State: TX Zip Code: 76307
Phone Number: (940) 723-8697
Email Address: [REDACTED]

Local Drainage or Flood Management Authority

Authority Name: N/A
Contact Person's Name: _____
Mailing Address: _____
City: _____ County: _____ State: TX Zip Code: _____
Phone Number: _____
Email Address: _____

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 |
| ☐ Fort Worth, TX | ☒ Tulsa, OK |

PAGE REVISION DATE: _____

Local Government Jurisdiction

Within City Limits of: N/A

Within Extraterritorial Jurisdiction of: N/A

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 as an attachment.

Applicant Signature Page

Site Operator (Permittee or Registrant Name) 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: John O'Steen Title: Executive Director

Email Address: [REDACTED]

Signature: [REDACTED] Date: 3-7-25

Authorization by Facility Owner for Operator to Submit Application

To be completed by the facility owner if the application is submitted by an operator who is not the facility owner.

I am the owner of the facility that is the subject of this application, and authorize the operator, N/A to submit this application pursuant to 30 TAC 305.43(c).

Name: _____ Title: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said JOHN L. O'STEEN

On this 7th day of MARCH, 2025

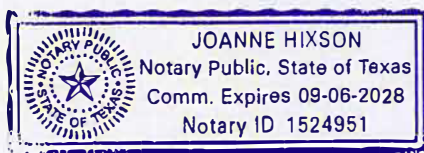
My commission expires on the 6th day of September 2028

Jo Anne Hixson

Notary Public in and for

State of TEXAS Grayson County notary's jurisdiction, including county and state)

Note: Application Must Bear Signature & Seal of Notary Public



Property Owner Affidavit

Property Owner Affidavit for Landfill Facility

I acknowledge in accordance with 30 TAC 330.59(d)(2) that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure and post-closure care of the facility. For a facility where waste will remain after closure, I acknowledge that I have a responsibility to file with the county deed records an affidavit to the public advising that the land 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, and to file a final recording upon completion of disposal operations and closure of the landfill units according to 30 TAC 330.19 (relating to Deed Recordation). I further acknowledge 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 period for the purpose of inspection and maintenance.

Name: Texoma Area Solid Waste Authority

Email Address: [REDACTED]

Signature: [Signature] Date: 3-7-25

Property Owner Affidavit for Processing Facility

I acknowledge in accordance with 30 TAC 330.59(d)(2) that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure of the facility. I further acknowledge 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 period for the purpose of inspection and maintenance.

Name: N/A

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said JOHN L. O'Steen

On this 7th day of MARCH, 2025

My commission expires on the 6th day of September 2028

[Signature]
Notary Public in and for

State of Texas Grayson County (notary's jurisdiction, including county and state)

Note: Application Must Bear Signature & Seal of Notary Public



Part I Attachments

Refer to instruction document [TCEQ 00650-instr⁵](#) for professional engineer seal requirements.

Attachments Table 1. Required attachments.

Required Attachments	Attachment Number
Supplementary Technical Report [30 TAC 305.45(a)(8)]	Attachment 1
Property Legal Description [30 TAC 330.59(d)(1)]	Appendix IC
Property Metes and Bounds Description [30 TAC 330.59(d)(1)]	Appendix IC
Facility Legal Description [30 TAC 330.59(d)(1)]	Appendix IC
Facility Metes and Bounds Description [30 TAC 330.59(d)(1)]	Appendix IC
Metes and Bounds Drawings [30 TAC 330.59(d)(1)]	Appendix IC
On-Site Easements Drawing [30 TAC 330.61(c)(10)]	Appendix IC
Land Ownership Map [30 TAC 330.59(c)(3)]	Appendix IB
Landowners List [30 TAC 330.59(c)(3)]	Appendix IB
Mailing Labels (in electronic file, in Avery 5160 format; see instructions) [30 TAC 281.5(7)]	CD
General Location Maps [30 TAC 330.59(c)(2)]	Appendix IA
Texas Department of Transportation (TxDOT) County Map [30 TAC 330.59(c)(2)]	Appendix IA
General Topographic Maps [30 TAC 330.61(e)]	Appendix IA
Verification of Legal Status / Legal Authority (certificate of incorporation) [30 TAC 281.5 and 330.59(e)]	Appendix IE
Evidence of Competency [30 TAC 330.59(f)]	Appendix IF
Signatory Authority Documentation [30 TAC 305.44 and 330.59(g)]	Appendix IG
TCEQ Core Data Form(s) TCEQ-10400⁶ [30 TAC 281.5(7)]	TCEQ-10400

⁵ www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/00650-instr.pdf

⁶ www.tceq.texas.gov/permitting/central_registry/guidance.html

Attachments Table 2. Additional attachments as applicable.

Additional Attachments (select all that apply and add others as needed)	Attachment Number
☐ Plain Language Summary Form TCEQ-20947 ⁷ [30 TAC 39.405(k)]	
☐ Public Involvement Plan Form TCEQ-20960 ⁸	
☐ Fee Payment Receipt	
☐ Confidential Documents	
☐ Waste Storage, Processing and Disposal Ordinances [Texas Health and Safety Code, Section 363.112 ⁹]	
☐ Final Plat Record of Property Description [30 TAC 330.59(d)(1)(B)]	
Other (describe):	
Other (describe):	
Other (describe):	

⁷ www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20947-instr.pdf⁸ www.tceq.texas.gov/downloads/agency/decisions/hearings/environmental-equity/pip-form-tceq-20960.pdf
www.tceq.texas.gov/downloads/agency/decisions/hearings/environmental-equity/instructions-for-pip-form-tceq-20960.pdf⁹ statutes.capitol.texas.gov/Docs/HS/htm/HS.363.htm#363.112

Administrative and Technical Review Checklist for Municipal Solid Waste (MSW) Permits, Registrations and Amendments

This checklist is designed to provide guidance for the Municipal Solid Waste (MSW) rules found in Title 30 Texas Administrative Code (30 TAC) Chapter 330, for Type I, IV and V registration, permit, and permit amendment applications. Areas of the checklist that are shaded in gray are for information purposes only.

Please fill out application information before selecting and filling out a checklist.

Applicant Information	
Company:	Texoma Area Solid Waste Authority
First name:	John
Last name:	O'Steen
Applicant Title:	Executive Director
Prefix:	
Street Address:	25090 State Highway 56
City:	Whitesboro
State:	TX
Zip code:	76273
Applicant E-Mail:	

Consultant Information	
First name:	David
Last name:	Clark
Consultant Title:	Principal
Prefix:	
Consultant Firm:	Biggs and Mathews Environmental, Inc.
Consultant Address:	1700 Robert Road
City:	Mansfield
State:	TX
Zip code:	76063
Consultant E-Mail:	

Application Information	
Facility Name:	TASWA Recycling and Disposal Facility
Application Date:	2/28/2025
CN:	600339428
MSW ID:	2290A
RN:	100629922
Authorization Type:	Permit
County:	Grayson
Application Type:	Permit Amendment

ID	App. Part	Checklist Item	Item Type	Citation	Complete?	Location	Applicant Comments	Application Area
1	General	Submit all four parts of the permit, permit amendment or registration application	Required	330.57(a) & (b)	Yes	Complete Application		Format-Application
2	General	Submit TCEQ Part I Form (Form No. 0650)	Required	330.57(c)(1)	Yes	Volume I		Forms
3	General	Submit TCEQ Transportation Data and Report (Form No. 20719)	Required	305.45(a)	Yes	Part II Appendix IIC		Forms
4	General	Submit TCEQ Closure Plan (Form No. 20720)	Required	305.45(a)	Yes	Part III, Attachment H		Forms
5	General	Submit TCEQ Closure Cost Estimate (Form No. 20721)	Required	305.45(a)	Yes	Part III, Attachment J		Forms
6	General	Submit TCEQ Post Closure Care Plan (Form No. 20722)	Required	305.45(a)	Yes	Part III, Attachment I		Forms
7	General	Submit TCEQ Post Closure Cost Estimate (Form No. 20723)	Required	305.45(a)	Yes	Part III, Attachment J		Forms
8	General	Part II of the application contains location and coordination information.	Informational	330.57(c)(2)		-		Format-Application
9	General	Part III of the application contains design information	Informational	330.57(c)(3)		-		Format-Application
10	General	Part IV of the application contains the site operating plan	Informational	330.57(c)(4)		-		Format-Application
11	General	The application should address all aspects of application and design requirements, even to show why not applicable (N/A)	Informational	330.57(d)		-		Format-Application
12	General	Submit data of sufficient completeness, accuracy and clarity	Required	330.57(d)	Yes	-		Format-Application
13	General	Failure to provide complete information may be cause for ED to return application.	Informational	330.57(d)		-		Format-Application
14	General	Provide 4 Copies for Initial Submittal (1 original and 3 copies)	Required	330.57(e)	Yes	-		Format-Application
15	General	Provide 4 copies for NOD Responses including 1 copy with marked revisions (redline/strikeout)	Required	330.57(g)(6)	Yes	-		Format-Application
16	General	Application must be prepared in accordance with Texas Occupations Code, Texas Engineering Practice Act, Chapter 1001 and Texas Geoscience Practice Act, Chapter 1002	Informational	330.57(f)		-		Format-Application
17	General	Provide a PE signature, seal and date on the title page of each bound engineering report or individual engineering plan, and on each engineering drawing	Required	330.57(f)(1)	Yes	-		Format-Application
18	General	Provide PG sign, seal, & date for applicable items	Required	330.57(f)(2)	Yes	-		Format-Application
19	General	Applications that are not sealed are incomplete and shall be returned	Informational	330.57(f)(3)		-		Format-Application
20	General	Submit the application in three ring-binders	Required	330.57(g)(1)	Yes	-		Format-Application
21	General	Submit Title Page with Name, Application No., Site Operator Name, Operator Name (if applicable), Location, Date Prepared and Revision Date(s)	Required	330.57(g)(2)	Yes	-		Format-Application
22	General	Provide Table of Contents with PE seal	Required	330.57(g)(3)	Yes	-		Format-Application
23	General	Use 8.5x11 inch or 11x17 paper (folded to 8.5x11 inch)	Required	330.57(g)(4)	Yes	-		Format-Application
24	General	Provide pages with date (original and revised) and sequential page numbers	Required	330.57(g)(5)	Yes	-		Format-Application
25	General	Provide legible drawings/maps	Required	330.57(h)(1)	Yes	Entire Application		Format-Maps/Drawings
26	General	Provide color coding on all figures and drawings that is legible and distinct after copying in black & white	Required	330.57(h)(2)	Yes	-		Format-Maps/Drawings
27	General	Provide a standard engineering scale on each figure or drawing	Required	330.57(h)(3)	Yes	-		Format-Maps/Drawings
28	General	Provide a dated title block on each figure or drawing	Required	330.57(h)(4)(A)	Yes	-		Format-Maps/Drawings
29	General	Provide a bar scale at least 1 inch on all figures and drawings	Required	330.57(h)(4)(B)	Yes	-		Format-Maps/Drawings
30	General	Provide a revision block on all figures and drawings	Required	330.57(h)(4)(C)	Yes	-		Format-Maps/Drawings
31	General	Provide a PE or PG seal ,if required, on all figures and drawings	Required	330.57(h)(4)(D)	Yes	-		Format-Maps/Drawings
32	General	Include drawing number and a page number on each drawing and figure	Required	330.57(h)(4)(E)	Yes	-		Format-Maps/Drawings

33	General	Include a north arrow on each map or plan drawing	Required	330.57(h)(5)(A)	Yes			Format-Maps/Drawings
34	General	Include a reference to base map & date of most current base map used, if the map is based upon another map	Required	330.57(h)(5)(B)	Yes			Format-Maps/Drawings
35	General	Include a legend on each map or plan drawing	Required	330.57(h)(5)(C)	Yes			Format-Maps/Drawings
36	General	Provide match lines and section lines that reference the drawing where the match or section is shown.	Required	330.57(h)(6)	Yes			Format-Maps/Drawings
45	General	Acknowledge that the construction and operation of the waste management facility shall comply with Subchapter U of 30 TAC Chapter 330 (relating to Standard Air Permits for Municipal Solid Waste Landfill Facilities and Transfer Stations) or other approved air authorizations. Owners or operators of these types of facilities should consult with the Air Permits Division on or before the date that the municipal solid waste application is filed with the executive director	Acknowledgement	330.55(a)	Yes	Part I, Supplementary Technical Report		Other Authorizations
46	General	Acknowledge that all liquids resulting from the operation of solid waste facilities shall be disposed of in a manner that will not cause surface water or groundwater pollution. Facilities shall provide for the treatment of wastewaters resulting from waste management activities and from cleaning and washing. Owners or operators shall ensure that storm water and wastewater management is in compliance with the regulations of the commission.	Acknowledgement	330.55(a)	Yes	Part I, Supplementary Technical Report		Other Authorizations
47	General	A person may not cause, suffer, allow, or permit the disposal of municipal solid waste prior to recording, in the county deed records of the county or counties in which the disposal takes place, a metes and bounds description of the portion or portions of the tract of land on which disposal of solid waste will take place	Informational	330.19(a)				General Information
48	General	A certified copy of proof of deed recordation shall be provided to the executive director prior to instituting disposal operations.	Informational	330.19(b)				General Information
49	General	It is the responsibility of an owner or operator to possess or acquire a sufficient interest in or right to the use of the surface estate of the property for which a permit is issued, including the access route. The granting of a permit does neither convey any property rights or interest in either real or personal property; nor does it authorize any injury to private property, invasion of personal rights, or impairment of previous contract rights; nor any infringement of federal, state, or local laws or regulations outside the scope of the authority under which a permit is issued	Informational	330.67(a)				General Information
50	General	The facility owner or operator shall retain the right of entry to the facility until the end of the post-closure care period for inspection and maintenance of the facility	Informational	330.67(b)				General Information
51	General	Executive director approval or a permit will be required if any on-site operations subsequent to closure of a landfill facility involve disturbing the cover or liner of the landfill.	Informational	330.67(c)				General Information
52	General	It is the responsibility of an owner or operator to obtain any permits or approvals that may be required by local agencies such as for building construction, discharge of uncontaminated waters into ditches under control of a drainage district, discharge of effluent into a local sanitary sewer system, etc.	Informational	330.67(d)				General Information

58	General	If at any time during the life of the facility the owner or operator becomes aware of any condition in the permit or registration that necessitates a change to accommodate new technology or improved methods or that makes it impractical to keep the facility in compliance, the owner or operator shall submit to the executive director requested changes to the permit or registration in accordance with 30 TAC §305.62 or §305.70 and must be approved prior to their implementation	Informational	330.73(a)				General Information
59	General	A preconstruction conference shall be held prior to commencement of physical construction for a municipal solid waste (MSW) landfill facility, a vertical landfill expansion, or a lateral landfill expansion. The preconstruction conference shall be held no more than 90 days prior to the date that construction is scheduled to begin. All aspects of the permit, construction activities, and inspections shall be discussed. Additional preconstruction conferences may be held prior to the opening of a new MSW landfill unit. The executive director and owner's representatives, including the engineer, the geotechnical consultant, the contractor, and the facility manager, shall attend the preconstruction conference	Informational	330.73(c)				General Information
60	General	The owner or operator shall obtain and submit certification by a Texas-licensed professional engineer that the facility has been constructed as designed in accordance with the issued registration or permit and in general compliance with the regulations prior to initial operation. The owner or operator shall maintain that certification on site for inspection	Informational	330.73(d)				General Information
61	General	After all initial construction activity has been completed and prior to accepting any solid waste, the owner or operator shall contact the executive director and region office in writing and request a pre-opening inspection. A pre-opening inspection shall be conducted by the executive director within 14 days of notification by the owner or operator that all construction activities have been completed, accompanied by representatives of the owner or operator and the engineer	Informational	330.73(e)				General Information
62	General	The MSW facility shall not accept solid waste until the executive director has confirmed in writing that all applicable submissions required by the permit or registration and this chapter have been received and found to be acceptable, and that construction is in compliance with the permit or registration and the approved site development plan. If the executive director has not provided a written or verbal response within 14 days of completion of the pre-opening inspection, the facility shall be considered approved for acceptance of waste	Informational	330.73(f)				General Information
63	General	Identify if the Regulated Entity or Customer has any delinquent fees	Required	330.59(h), 330.671, 330.675	Yes			Delinquent Fees
64	Part I	Provide a copy of the application, including all revisions and supplements on a publicly accessible Web site	Required in Part I Form	330.57(i)(1)				Part I Form
65	Part I	Provide the commission with the Web address link for the application materials	Required in Part I Form	330.57(i)(1)				Part I Form
66	Part I	Signature Page must have signature and notarization	Required in Part I Form	330.59(a)(1)				Part I Form
67	Part I	Applicant's name, mailing address & phone no.	Required in Part I Form	330.59(a)(1)				Part I Form
68	Part I	Description of the nature of the business	Required in Part I Form	330.59(a)(1)				Part I Form
69	Part I	Activities that require a permit (conducted at the facility)	Required in Part I Form	330.59(a)(1)				Part I Form
70	Part I	Location description, facility name & mailing address	Required in Part I Form	330.59(b)(1); 305.45(a)(1)				Part I Form
71	Part I	Access routes	Required in Part I Form	330.59(b)(2)				Part I Form
72	Part I	Lat. & Long. of the facility	Required in Part I Form	330.59(b)(3)				Part I Form
73	Part I	Lat. & Long. depicted	Required in Part I Form	330.59(c)(1)(A)				Part I Form
74	Part I	All maps should show the facility location	Required in Part I Form	305.45(a)(6)				Part I Form

75	Part I	All maps should display intake and discharge structures	Required in Part I Form	305.45(a)(G)				Part I Form
76	Part I	All maps should show other structures or locations regarding the regulated facility and associated activities	Required in Part I Form	305.45(a)(G)				Part I Form
77	Part I	At least one map with a scale not less than 1 inch = 1 mile	Required in Part I Form	305.45(a)(G)				Part I Form
78	Part I	Permit/Registration boundary and 1 mile beyond to show the following:	Required in Part I Form	330.59(c)(1)(B)				Part I Form
79	Part I	Wells, springs, surface water bodies	Required in Part I Form	305.45(a)(G)(A)				Part I Form
80	Part I	Character of adjacent land including public roads, towns, development as residential, commercial, agricultural, etc.	Required in Part I Form	305.45(a)(G)(B)				Part I Form
81	Part I	Location of any waste disposal activities conducted on the tract but not included in the application	Required in Part I Form	305.45(a)(G)(C)				Part I Form
82	Part I	General location map, TxDOT, scale of ½ inch = 1 mile and most current map used	Required in Part I Form	330.59(c)(2)				Part I Form
83	Part I	Land Ownership Map, within ¼ mile & mineral interest ownership	Required in Part I Form	330.59(c)(3)(A)				Part I Form
84	Part I	Land Ownership List both in hardcopy and electronic form (alternatively pre-printed mailing labels)	Required in Part I Form	330.59(c)(3)(B)				Part I Form
85	Part I	Legal description of property or other documentation of ownership	Required in Part I Form	330.59(d)(1)(A)				Part I Form
86	Part I	If Platted; plat record with county, book, page number and acreage information	Required in Part I Form	330.59(d)(1)(B)				Part I Form
87	Part I	Signed, sealed and dated surveyed metes and bounds description of the facility	Required in Part I Form	330.59(d)(1)(C)				Part I Form
88	Part I	Signed & sealed metes & bounds drawing	Required in Part I Form	330.59(d)(1)(D)				Part I Form
89	Part I	Signed property owner affidavit	Required in Part I Form	330.59(d)(2)				Part I Form
90	Part I	Acknowledge that State may hold owner responsible	Required in Part I Form	330.59(d)(2)(A)				Part I Form
91	Part I	Acknowledge that owner is responsible for deed record before & after operation	Required in Part I Form	330.59(d)(2)(B)				Part I Form
92	Part I	Acknowledge that the owner & State shall have access during life of the facility and during closure	Required in Part I Form	330.59(d)(2)(C)				Part I Form
93	Part I	Acknowledge that the owner & State shall have access during the post-closure care period	Required in Part I Form	330.59(d)(2)(C)				Part I Form
94	Part I	Verified legal status of applicant and list of persons with 20% or more ownership in the facility	Required in Part I Form	330.59(e)				Part I Form
95	Part I	Ownership status as federal, state, private, public, or other	Required in Part I Form	305.45(a)(2)				Part I Form
96	Part I	List of all Texas solid waste sites that the owner or operator has owned or operated within the last ten years. The site name, site type, permit or registration number, county, and dates of operation shall also be submitted.	Required in Part I Form	330.59(f)(1)				Part I Form
97	Part I	List of all solid waste sites in all states, territories, or countries in which the owner or operator has a direct financial interest. The type of site shall be identified by location, operating dates, name, and address of the regulatory agency, and the name under which the site was operated.	Required in Part I Form	330.59(f)(2)				Part I Form
98	Part I	Shall employ a licensed solid waste facility supervisor before operating	Required in Part I Form	330.59(f)(3)				Part I Form
99	Part I	Names of principals & supervisors owner or operators organization together with previous affiliations with other organizations involved with solid waste activities	Required in Part I Form	330.59(f)(4)				Part I Form
100	Part I	Landfilling, earthmoving exp. or license under Chapter 30. Include number and size of equipment	Required in Part I Form	330.59(f)(5)				Part I Form
101	Part I	Signatory meets 305.44, documentation of delegated signatory authority	Required in Part I Form	330.59(g)				Part I Form
102	Part I	Corporations – signed by a corporate officer	Required in Part I Form					Part I Form
103	Part I	Partnership or proprietorship –signed by a general partner or proprietor	Required in Part I Form					Part I Form
104	Part I	Municipality, public agency –signed by an executive officer or elected official	Required in Part I Form					Part I Form
105	Part I	Signatory certification statement	Required in Part I Form					Part I Form
106	Part I	Hazardous Waste Management	Required in Part I Form	305.45(a)(7)(A)				Part I Form
107	Part I	Underground Injection Control	Required in Part I Form	305.45(a)(7)(B)				Part I Form
108	Part I	NPDES	Required in Part I Form	305.45(a)(7)(C)				Part I Form

109	Part I	Prevention of Significant Deterioration	Required in Part I Form	305.45(a)(7)(D)				Part I Form
110	Part I	Nonattainment Program	Required in Part I Form	305.45(a)(7)(E)				Part I Form
111	Part I	NESHAPS	Required in Part I Form	305.45(a)(7)(F)				Part I Form
112	Part I	Ocean dumping permit	Required in Part I Form	305.45(a)(7)(G)				Part I Form
113	Part I	Dredge & fill permit	Required in Part I Form	305.45(a)(7)(H)				Part I Form
114	Part I	Licenses under the TRCA	Required in Part I Form	305.45(a)(7)(I)				Part I Form
115	Part I	Other environmental permits	Required in Part I Form	305.45(a)(7)(K)				Part I Form
116	Part I	Permit Application Fee is \$2050.00	Required in Part I Form	THSC 361.0675				Part I Form
117	Part I	A copy of the payment receipt to the MSW Permits Section, if paid by check.	Required in Part I Form	330.59(h)(1)				Part I Form
118	Part I	Prepared by PE, PG, or qualified person	Required in Part I Form	330.57(f)				Part I Form
119	Part I	Description of facility & systems	Required in Part I Form	305.45(a)(8)(A)				Part I Form
120	Part I	Volume, average & max rate of disposal for each place of disposal	Required in Part I Form	305.45(a)(8)(B)(i)				Part I Form
121	Part I	Physical, chemical, thermal, organic, bacteriological, radiological properties of waste	Required in Part I Form	305.45(a)(8)(B)(ii)				Part I Form
122	Part I	Other reasonable information	Required in Part I Form	305.45(a)(8)(C)				Part I Form
123	Part II	Provide the sources and characteristics of all waste to be accepted.	Required	330.61(b)(1)	Yes	Part II		Waste Acceptance Plan
124	Part II	Specify parametric limitations of each type of waste to be managed by the facility	Required	330.61(b)(1)	Yes	Part II		Waste Acceptance Plan
125	Part II	Provide a brief description of the general sources and generation areas contributing wastes to the facility. This description shall include an estimate of the population or population equivalent served by the facility	Required	330.61(b)(1)(A)	Yes	Part II		Waste Acceptance Plan
126	Part II	Provide a descriptive narrative that describes the percentage of incoming waste that must be recovered and its intended use	Required if Requested	330.61(b)(1)(A)	Yes			Waste Acceptance Plan
128	Part II	Provide an estimate of the maximum annual waste acceptance rate projected for 5 years	Required	330.61(b)(1)(C)	Yes	Part II		Waste Acceptance Plan
130	Part II	Provide any site specific conditions that require special design considerations & possible mitigation of conditions identified under sections (h) - (o)	Required	330.61(a)	Yes	Part II		Facility Impact
131	Part II	Provide information regarding the likely impacts of the facility on cities, communities, groups of property owners, or individuals.	Required	330.61(h)	Yes	Part II		Facility Impact
132	Part II	Provide information on the compatibility of the facility with surrounding land use, zoning in the vicinity, community growth patterns, and other factors associated with the public interest.	Required	330.61(h)	Yes	Part II		Facility Impact
133	Part II	Provide information on the character of surrounding land use within one mile	Required	330.61(h)(2)	Yes	Part II		Existing Conditions
134	Part II	Provide information about the growth trends within five miles & directions of development	Required	330.61(h)(3)	Yes	Part II		Existing Conditions
135	Part II	Indicate the proximity to residences & items listed in 330.61(c)(4) & (12), ~ no. of residences & commercial establishments including direct & distance to nearest, population density, all within one mile.	Required	330.61(h)(4)	Yes	Part II		Existing Conditions
136	Part II	Indicate all wells and the well density within 500 ft.	Required	330.61(h)(5)	Yes	Part II		Existing Conditions
137	Part II	Provide any other information requested by the ED	Required	330.61(h)(6)	Yes	Part II		Existing Conditions
138	Part II	Provide data on availability & adequacy of access roads	Required	330.61(i)(1)	Yes	Part II		Transportation
139	Part II	Provide the existing & expected traffic volumes on access roads within one mile of the facility during the expected life of the facility	Required	330.61(i)(2)	Yes	Part II		Transportation
140	Part II	Provide an estimate of traffic volume generated by the facility on access roads within one mile of the facility	Required	330.61(i)(3)	Yes	Part II		Transportation
141	Part II	Provide documentation of coordination for roadway improvements and documentation of coordination with TXDOT for traffic and location restrictions	Required	330.61(i)(4)	Yes	Part II		Transportation
142	Part II	Provide information about the facility's impact on airports per §330.545, documentation of coordination with FAA	Required	330.61(i)(5)	Yes	Part II		Transportation

143	Part II	Provide documentation of coordination with FAA	Required	330.61(i)(5)	Yes	Part II		Transportation
144	Part II	Provide a demonstration of no bird hazards for landfill units within 10,000 ft. of turbojet runway	Required	330.545(a)	Yes	Part II		Transportation
145	Part II	Provide a demonstration of no bird hazards for landfill units within 5,000 ft. of piston-type runway	Required	330.545(a)	Yes	Part II		Transportation
146	Part II	Provide notice to the airport & the FAA for MSW units within 6 miles of a small airport or within 5 miles of a large commercial airport.	Required	330.545(b)	Yes	Part II		Transportation
147	Part II	Putrescible waste disposal must not cause bird hazard. All units within the distances indicated in 330.545(b) must be evaluated	Informational	330.545 (d)				Transportation
148	Part II	Discuss in general terms the geology and soils of the proposed site	Required	330.61(j)(1)	Yes	Part II		Geology
149	Part II	Identify and provide data on fault area locations. If faults exist, see location restrictions in Part III, and include a fault study in the Geology Report	Required	330.61(j)(2)	Yes	Part II		Geology
150	Part II	Identify and provide data on seismic impact zones. If located in impact zone see location restrictions in Part III	Required	330.61(j)(3)	Yes	Part II		Geology
151	Part II	Identify and provide data on unstable areas. If unstable areas exist see location restrictions in Part III, and describe factors for determining unstable areas in the Geology Report	Required	330.61(j)(4)	Yes	Part II		Geology
152	Part II	Provide data on site specific groundwater conditions	Required	330.61(k)(1)	Yes	Part II		Groundwater and Surface Water
153	Part II	Provide data on surface water at or near the site	Required	330.61(k)(2)	Yes	Part II		Groundwater and Surface Water
154	Part II	Provide information on how facility will comply with applicable Texas Pollutant Discharge Elimination System (TPDES) storm water permitting requirements and the Clean Water Act, §402, as amended. This may include the information requires by 30 TAC 330.61(k)(3)(A) & (B)	Required	330.61(k)(3)	Yes	Part II		Groundwater and Surface Water
155	Part II	As applicable, provide a certification statement indicating the owner/operator will obtain the appropriate TPDES permit coverage when required	Required	330.61(k)(3)(A)	Yes	Part II		Groundwater and Surface Water
156	Part II	As applicable, provide a copy of permit number under an individual wastewater permit	Required	330.61(k)(3)(B)	Yes	Part II		Groundwater and Surface Water
157	Part II	Provide the location of any water wells.	Required	330.61(l)(1)	Yes	Part II		Abandoned Oil and Water Wells
158	Part II	All water supply wells must be outside monitoring system or approved in the permit	Informational	330.61(l)(1)				Abandoned Oil and Water Wells
159	Part II	30 days prior to construction provide certification of plugging and abandonment of all water, oil and gas wells not approved in the permit	Informational	330.61(l)(1)				Abandoned Oil and Water Wells
160	Part II	Provide the location of oil & gas wells production wells may remain if identified & don't disrupt operations	Required	330.61(l)(2)	Yes	Part II		Abandoned Oil and Water Wells
161	Part II	Production wells may remain if identified & they do not disrupt facility operations	Informational	330.61(l)(2)				Abandoned Oil and Water Wells
162	Part II	Indicate if the facility is within the 100yr floodplain. If facility within a floodplain see location restrictions in 30 TAC Chapter 330 Subchapter M	Required	330.61(m)(1)	Yes	Part II		Floodplains and Wetlands
163	Part II	Indicate if wetlands are located within the facility boundary. If wetlands exist, see location restrictions in 30 TAC Chapter 330 Subchapter M	Required	330.61(m)(2)	Yes	Part II		Floodplains and Wetlands
165	Part II	Acknowledge that the construction and operation of the facility shall not result in the destruction or adverse modification of the critical habitat or cause or contribute to the taking of endangered or threatened species.	Acknowledgement	330.61(n)(1)	Yes	Part II		Endangered Species

165	Part II	Acknowledge that the construction and operation of the facility shall not result in the destruction or adverse modification of the critical habitat or cause or contribute to the taking of endangered or threatened species. If the WWTP permit contains a coordination and a review letter from the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department, the owner or operator shall submit these documents as an attachment/appendix to the registration application and by referencing where this information is addressed in the WWTP Permit and/or permit application.	Acknowledgement	330.61(n)(1)	Yes	Part II	Endangered Species
166	Part II	Provide a demonstration of whether facility is located within species range and provide a biological assessment.	Required	330.61(n)(2)	Yes	Part II	Endangered Species
166	Part II	Provide a demonstration of whether facility is located within species range and provide a biological assessment. If the WWTP permit contains a coordination and a review letter from the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department, the owner or operator shall submit these documents as an attachment/appendix to the registration application and by referencing where this information is addressed in the WWTP Permit and/or permit application.	Required	330.61(n)(2)	Yes	Part II	Endangered Species
167	Part II	Provide documentation of compliance with Natural Resource Code, Chapter 191 (Texas Antiquities Code)	Required	330.61(o)	Yes	Part II	Historical Commission
167	Part II	Provide documentation of compliance with Natural Resource Code, Chapter 191 (Texas Antiquities Code). If the WWTP permit contains coordination and a review letter from the Texas Historical Commission, the owner or operator shall submit these documents as an attachment/appendix to the registration application and by referencing where this information is addressed in the WWTP Permit and/or permit application.	Required	330.61(o)	Yes	Part II	Historical Commission
168	Part II	Provide 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.	Required	330.61(p)	Yes	Part II	COG Review
169	Part II	Acknowledgement that the owner or operator requested a review letter from any local government, 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.	Acknowledgement	330.61(p)	Yes	Part II	COG Review
170	Part II	Provide a constructed map showing boundary, zoning, & land use within one mile including info from 330.61(c)(4), (5), & (10) (schools, hospitals, etc.)	Required	330.61(g)	Yes	Part II	Maps/Drawings
171	Part II	Provide the prevailing wind direction with a wind rose.	Required	330.61(c)(1)	Yes	Part II	Maps/Drawings
172	Part II	Provide the location of all known water wells within 500 feet of the proposed permit boundary with the state well numbering system designation for Water Development Board "located wells".	Required	330.61(c)(2)	Yes	Part II	Maps/Drawings
173	Part II	Provide the location of all structures and inhabitable buildings within 500 feet of the facility	Required	330.61(c)(3)	Yes	Part II	Maps/Drawings
174	Part II	Provide the location of all schools, licensed day-cares, churches, hospitals, cemeteries, ponds, lakes, residential, commercial, & recreational areas within one mile of the facility	Required	330.61(c)(4)	Yes	Part II	Maps/Drawings
175	Part II	Provide the location and surface type of roads used for access within one mile of the facility	Required	330.61(c)(5)	Yes	Part II	Maps/Drawings
176	Part II	Provide the latitude & longitude of the facility	Required	330.61(c)(6)	Yes	Part II	Maps/Drawings
177	Part II	Provide the location of all area streams	Required	330.61(c)(7)	Yes	Part II	Maps/Drawings
178	Part II	Provide the location of all airports within six miles	Required	330.61(c)(8)	Yes	Part II	Maps/Drawings
179	Part II	Indicate the property boundary of facility	Required	330.61(c)(9)	Yes	Part II	Maps/Drawings
180	Part II	Indicate all drainage, pipeline, and utility easements within & adjacent to the facility	Required	330.61(c)(10)	Yes	Part II	Maps/Drawings
181	Part II	Provide the location of all access control features	Required	330.61(c)(11)	Yes	Part II	Maps/Drawings

182	Part II	Provide the location of all archaeological sites, historical sites, and sites with an aesthetic quality adjacent to the facility	Required	330.61(c)(12)	Yes	Part II	Maps/Drawings
183	Part II	Provide a facility layout map	Required	330.61(d)	Yes	Part II	Maps/Drawings
184	Part II	A set of maps may be provided	Informational	330.61(d)			Maps/Drawings
185	Part II	Provide an outline of solid waste management units	Required	330.61(d)(1)	Yes	Part II	Maps/Drawings
186	Part II	Provide the location of interior roads	Required	330.61(d)(2)	Yes	Part II	Maps/Drawings
187	Part II	Indicate the location of monitor wells	Required	330.61(d)(3)	Yes	Part II	Maps/Drawings
188	Part II	Provide the location of all facility buildings	Required	330.61(d)(4)	Yes	Part II	Maps/Drawings
189	Part II	Provide notes on sequence of development	Required	330.61(d)(5)	Yes	Part II	Maps/Drawings
190	Part II	Indicate the location of all facility fencing	Required	330.61(d)(6)	Yes	Part II	Maps/Drawings
191	Part II	Provide the location of facility windbreaks, greenbelts, visual screening	Required	330.61(d)(7)	Yes	Part II	Maps/Drawings
192	Part II	Indicate the location of site entrance roads	Required	330.61(d)(8)	Yes	Part II	Maps/Drawings
193	Part II	Indicate the type of waste in each sector	Required	330.61(d)(9)(A)	Yes	Part II	Maps/Drawings
194	Part II	Provide the general sequence of filling operation	Required	330.61(d)(9)(B)	Yes	Part II	Maps/Drawings
195	Part II	Provide the sequence of excavation & filling	Required	330.61(d)(9)(C)	Yes	Part II	Maps/Drawings
196	Part II	Indicate the dimensions of cells	Required	330.61(d)(9)(D)	Yes	Part II	Maps/Drawings
197	Part II	Indicate the maximum waste elevation & final cover	Required	330.61(d)(9)(E)	Yes	Part II	Maps/Drawings
198	Part II	Provide a general topographic maps: USGS 7.5 minute or equivalent one map at scale 1 in. = 2,000 ft.	Required	330.61(e)	Yes	Part II	Maps/Drawings
199	Part II	Provide Aerial Photograph(s) that are at least 9 in. by 9 in. at scale range of one inch = 1,667-3,334 ft. that covers an area at least one mile in radius of the site. Facility boundary and fill areas (as applicable) must be shown.	Required	330.61(f)	Yes	Part II	Maps/Drawings
200	Part II	A series of photos showing growth trends may be used	Informational	330.61(f)(2)			Maps/Drawings
201	Part II	All submitted prints & photocopies must be legible	Informational	330.61(f)(3)			Maps/Drawings
202	Part II	Provide zoning map within two miles and a copy of any nonconforming use or special permit required for the facility	Required	330.61(h)(1)	Yes	Part II	Maps/Drawings
203	Part II	Acknowledge whether the facility is located over the Edwards Aquifer recharge zone. If it is, the facility is subject to Chapter 213.	Acknowledgement	330.549(a)	Yes	Part II	Groundwater and Surface Water
204	Part II	Type I & IAE Landfills are prohibited over the recharge zone	Informational	330.549(a)			Groundwater and Surface Water
205	Part II	Acknowledge if Class 1 cells or expansions are proposed; Class 1 cells are subject to location restrictions §335.584(b)(1)&(2) unless demonstration approved by ED.	Acknowledgement	330.549(b)	Yes	Part II	Groundwater and Surface Water
206	Part II	Class 1 industrial solid waste may not be located in areas where underlying soil unit(s) have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM; or a hydraulic conductivity greater than 1×10^{-5} cm/sec	Informational	335.584(b)(1)(A)&(B)			Groundwater and Surface Water
207	Part II	Class 1 industrial solid waste may not be located in areas overlying a regional aquifer	Informational	335.584(b)(2)			Groundwater and Surface Water
208	Part II	A new landfill cell or an expansion of an existing landfill managing Class 1 waste may not be located in areas described in §335.584(b)(3) and (4)	Informational	330.561			Groundwater and Surface Water
209	Part II	Demonstrate that a facility with a Class 1 cell unit subject to active coastal shoreline erosion will be designed to prevent adverse effects resulting from storm surge and erosion or scouring by water.	Required if Requested	335.584(b)(4)	Yes	Part II	Groundwater and Surface Water
212	Part II	Demonstrate that storage and processing facilities are located outside of the 100 year floodplain.	Required	330.547(c)	Yes	Part II	Floodplains and Wetlands
213	Part II	For storage and processing facilities located within the 100 year floodplain, please provide a demonstration that the facility is designed to prevent washout during a 100 year storm event, or a conditional letter of map amendment from the Federal Emergency Management Administration administrator	Required	330.547(c)	Yes		Floodplains and Wetlands

214	Part II	Acknowledge if the facility will be located in wetlands.	Acknowledgement	330.553(a) & (b)	Yes	Part II		Floodplains and Wetlands
215	Part II	Demonstrate, if located within wetlands, that there is no practicable alternative location	Required	330.553(b)(1)	Yes			Floodplains and Wetlands
216	Part II	Acknowledge that the facility's construction & operations shall not cause or contribute to violations of state water quality standards, 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	Acknowledgement	330.553(b)(2)(A) - (D)	Yes			Floodplains and Wetlands
217	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing erosion, stability, & migration potential of native wetland soils, muds, and deposits used to support the landfill unit	Required	330.553(b)(3)(A)	Yes			Floodplains and Wetlands
218	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing erosion, stability, & migration potential of dredged and fill materials used to support the landfill	Required	330.553(b)(3)(B)	Yes			Floodplains and Wetlands
219	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing the volume and chemical nature of the waste managed in the landfill unit	Required	330.553(b)(3)(C)	Yes			Floodplains and Wetlands
220	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing the impacts on fish, wildlife, and other aquatic resources and their habitat for the release of solid waste	Required	330.553(b)(3)(D)	Yes			Floodplains and Wetlands
221	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing the potential effects of catastrophic release of waste to the wetlands and the resulting impacts on the environment	Required	330.553(b)(3)(E)	Yes			Floodplains and Wetlands
222	Part II	If wetlands are located within the facility, submit a demonstration for the integrity of landfill unit by addressing any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected	Required	330.553(b)(3)(F)	Yes			Floodplains and Wetlands
223	Part II	Sufficient information shall be provided to the ED to allow a reasonable determination to be made with respect to the demonstrations cited in 30 TAC §330.554(b)	Informational	330.553(b)(5)				Floodplains and Wetlands
224	Part II	Provide the steps taken to achieve no net loss of wetlands	Required	330.553(b)(4)	Yes	Part II		Floodplains and Wetlands
225	Part II	Acknowledge that the operation of this facility shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species	Acknowledgement	330.551(a)	Yes	Part II		Endangered Species
226	Part II	The term "Harassing" means: An intentional or negligent act or omission that creates the likelihood of injury to wildlife	Informational	330.551(b)(1)				Endangered Species
227	Part II	The term "Harming" means: An act of omission that actually injures or kills wildlife, including acts that annoy it to such an extent as to significantly disrupt essential behavioral patterns	Informational	330.551(b)(2)				Endangered Species
228	Part II	The term "Taking" means: collecting an endangered or threatened species or attempting to engage in such conduct	Informational	330.551(b)(3)				Endangered Species
230	Part II	Acknowledge that no solid waste disposal will occur within 25 ft. of the center line of any utility or pipeline easements but no closer than the easement, unless otherwise authorized by the executive director	Acknowledgement	330.543(a)	Yes	Part II		Easements and Buffer Zone
231	Part II	Demonstrate that a 50 ft. buffer zone will be provided and maintained between feedstock or final product storage areas; solid waste storage, processing, Type IAE landfill units, Type IV landfill units, and Type IVAE landfill units within and adjacent to the facility boundary on property owned or controlled by the owner or operator	Required	330.543(b)(1)	Yes			Easements and Buffer Zone

232	Part II	Demonstrate that a 125 ft. buffer zone will be provided and maintained around all Type I landfill units, and vertical and lateral expansions	Required	330.543(b)(2)(A)	Yes	Part II	Easements and Buffer Zone
233	Part II	125 ft. buffer is required to be measured from outermost edge of new airspace for vertical expansions	Informational	330.543(b)(2)(B)			Easements and Buffer Zone
234	Part II	125 ft. buffer is required to be measured from edge of a horizontally expanded portion	Informational	330.543(b)(2)(C)			Easements and Buffer Zone
235	Part II	125 ft. buffer is required only for newly permitted airspace for vertical or lateral expansions	Informational	330.543(b)(2)(D)			Easements and Buffer Zone
236	Part II	The Executive Director may consider an alternative buffer zone if certain criteria are demonstrated.	Informational	330.543(b)(3)			Easements and Buffer Zone
237	Part II	Submit a demonstration that prescribed buffer zone standard is not feasible	Required if Requested	330.543(b)(3)(A)	Yes		Easements and Buffer Zone
238	Part II	Provide a design alternative that demonstrates consistency with providing visual screening of solid waste activities	Required if Requested	330.543(b)(3)(B)(i)	Yes		Easements and Buffer Zone
239	Part II	Provide a design alternative that demonstrates ready access for emergency response, maintenance, & monitoring	Required if Requested	330.543(b)(3)(B)(ii)	Yes		Easements and Buffer Zone
243	Part II	the proposed site is located in a county with a population of more than 225,000 that is located adjacent to the Gulf of Mexico; and	Informational	330.563(a)			Type I/Type IV Location Prohibitions
244	Part II	prior to final consideration of the application by the commission, the commissioners of the county in which the facility is located have adopted a resolution recommending denial of the application.	Informational	330.563(a)			Type I/Type IV Location Prohibitions
245	Part II	The commission may not issue a permit for a Type I or Type IV landfill, conversion of a Type I to a Type IV landfill, and conversion of a Type IV to a Type I landfill, if the landfill is located or proposed to be 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.	Informational	330.563(b)			Type I/Type IV Location Prohibitions
246	Part II	The limitations listed under Texas Health & Safety Code 361.123(a) - (c) does not apply to a permit or permit amendment requesting an areal expansion of an existing Type I municipal solid waste landfill.	Informational	330.563(b)			Type I/Type IV Location Prohibitions
247	Part II	Acknowledge if the landfill unit is located within 200 feet of a fault	Acknowledgement	330.555(a)	Yes	Part II	Geology
248	Part II	Submit a demonstration, if the facility is less than 200 feet from a fault, to show that the structural integrity of the facility will not be damaged and be protective of human health and the environment	Required	330.555(a)	Yes		Geology
249	Part II	Submit detailed fault studies for operations located within areas that may be subject to differential subsidence or active geological faulting	Required	330.555(b)	Yes		Geology
250	Part II	Submit information for structural damage to constructed facilities such as roads, buildings, etc.	Required	330.555(b)(1)	Yes		Geology
251	Part II	Submit information about scarps in natural ground surface	Required	330.555(b)(2)	Yes		Geology
252	Part II	Submit information about the presence of surface depressions	Required	330.555(b)(3)	Yes		Geology
253	Part II	Submit information about lineations noted on aerial photographs and topographic maps	Required	330.555(b)(4)	Yes		Geology
254	Part II	Provide structural control of streams	Required	330.555(b)(5)	Yes		Geology
255	Part II	Submit information regarding vegetation changes	Required	330.555(b)(6)	Yes		Geology
256	Part II	Submit information for crude oil and natural gas accumulations	Required	330.555(b)(7)	Yes		Geology
257	Part II	Submit information for electrical spontaneous potential & resistivity logs	Required	330.555(b)(8)	Yes		Geology
258	Part II	Submit information for earth electrical resistivity surveys	Required	330.555(b)(9)	Yes		Geology
259	Part II	Submit information for open cell excavations	Required	330.555(b)(10)	Yes		Geology
260	Part II	Submit information for any change in elevation of established benchmarks	Required	330.555(b)(11)	Yes		Geology
261	Part II	Submit references to published geological literature of area	Required	330.555(b)(12)	Yes		Geology
262	Part II	Provide location information to identify if the facility is located in a seismic impact zones	Required	330.557	Yes	Part II	Geology

263	Part II	Submit a demonstration, if the facility is located in a seismic impact zones, that the facility is designed to resist the maximum horizontal acceleration in lithified earth material	Required	330.557	Yes		Geology
264	Part II	Provide location information to identify if the facility is located in unstable areas susceptible to natural or human-induced events or forces capable of impairing the integrity of the landfill components	Required	330.559	Yes	Part II	Geology
265	Part II	Submit a demonstration, if the facility is in an unstable area, that the design of the facility will not be disrupted	Required	330.559	Yes		Geology
266	Part II	Provide factors for determining unstable areas. Landfill units located in an unstable area shall demonstrate that engineering measures have been incorporated into the landfill unit's design	Required	330.559	Yes		Geology
267	Part II	Submit information for local soil conditions that may result in significant differential settling	Required	330.559(1)	Yes		Geology
268	Part II	Submit information for on-site local geologic or geomorphologic features	Required	330.559(2)	Yes		Geology
269	Part II	Identify local human-made features or events	Required	330.559(3)	Yes		Geology
270	Part III	Describe facility access control features	Required	330.63(b)(1)	Yes	Attachment A	General Facility Design
271	Part III	Submit a process design for the facility that includes items 330.63(b)(2)(A) through 330.63(b)(2)(I)	Required	330.63(b)(2)	Yes	Attachment B	General Facility Design
272	Part III	Submit a flow diagram(s) to describe the storage, processing, and disposal sequences for each type of waste and/or feedstock/recoverable	Required	330.63(b)(2)(A)	Yes	Attachment B	General Facility Design
273	Part III	Submit a schematic view drawing(s) showing phases for collection, separation and processing/disposal of each type of waste and/or feedstock/recoverable material	Required	330.63(b)(2)(B)	Yes	Attachment B	General Facility Design
274	Part III	Provide ventilation & odor control measures for each unit	Required	330.63(b)(2)(C)	Yes	Attachment B	General Facility Design
275	Part III	Provide construction details of storage, processing units & components, dimensions, capacity, materials used, etc.	Required	330.63(b)(2)(D)	Yes	Attachment B	General Facility Design
276	Part III	Provide performance data for all storage and processing units and ancillary equipment	Required	330.63(b)(2)(D)	Yes	Attachment B	General Facility Design
285	Part III	Provide adequate floor drains and/or sumps	Required	330.63(b)(3)(D)	Yes	Attachment B	General Facility Design
286	Part III	Describe proper disposal of liquids resulting from waste processing, cleaning, and washing and provide for the treatment of waste water	Required	330.63(b)(4)	Yes	Attachment B	General Facility Design
287	Part III	Describe how facility will be designed to protect endangered species	Required	330.63(b)(5)	Yes	Attachment B	General Facility Design
288	Part III	Acknowledge that the facility design complies with the requirements of 30 TAC 330.303(a) - (b)	Acknowledgement	330.63(c)	Yes	Attachment C	Surface Water Drainage Report
289	Part III	Submit a surface water and drainage report that is in accordance with 30 TAC, Chapter 330, Subchapter G	Required	330.63(c)	Yes	Attachment C	Surface Water Drainage Report
290	Part III	Demonstrate that existing or permitted drainage patterns will not be adversely altered	Required	330.305(a)	Yes	Attachment C	Surface Water Drainage Report
291	Part III	Provide a design of the run-on control system to prevent 25 yr. storm run-on to active face	Required	330.305(b)	Yes	Attachment C	Surface Water Drainage Report
292	Part III	Provide a design for run-off management system to, at a minimum, collect & control run-off at the active face from a 24 hr. 25 yr. storm event	Required	330.305(c)	Yes	Attachment C	Surface Water Drainage Report
293	Part III	Provide erosion control of top dome & external embankment side slope surfaces during life and post-closure care of facility	Required	330.305(d)	Yes	Attachment C	Surface Water Drainage Report
294	Part III	Demonstrate estimated peak velocities for top surfaces and external embankment slopes to be less than the permissible non-erodible velocities under similar conditions	Required	330.305(d)(1)	Yes	Attachment C	Surface Water Drainage Report
295	Part III	Provide a design for top surfaces and external embankment slopes to minimize erosion and not exceed the permissible soil loss	Required	330.305(d)(2)	Yes	Attachment C	Surface Water Drainage Report
296	Part III	Provide a design for drainage features, sizing and grading to prevent erosion, long term, low maintenance geotechnical stability to the final cover	Required	330.305(e)	Yes	Attachment C	Surface Water Drainage Report
297	Part III	Describe maintenance and repair procedures of the collection, drainage, and/or storage units	Required	330.305(e)(1)	Yes	Attachment C	Surface Water Drainage Report

298	Part III	Provide interim erosion controls for phased development	Required	330.305(e)(2)	Yes	Attachment C		Surface Water Drainage Report
299	Part III	Provide drainage calculations using Rational Method for areas 200 acres or less	Required	330.305(f)(1)	Yes	Attachment C		Surface Water Drainage Report
300	Part III	Provide drainage calculations using w/ HEC Modeling Systems or equivalent for areas > 200 acres	Required	330.305(f)(2)	Yes	Attachment C		Surface Water Drainage Report
301	Part III	Acknowledge that handling, storage, treatment, & disposal of contaminated surface or groundwater should be per 330.207	Acknowledgement	330.305(g)	Yes	Attachment C		Surface Water Drainage Report
302	Part III	Provide designs for contaminated water storage units	Required	330.305(g)	Yes	Attachment C		Surface Water Drainage Report
303	Part III	Provide drainage area drawing(s) & calculations	Required	330.63(c)(I)(A)	Yes	Attachment C		Surface Water Drainage Report
304	Part III	Submit drainage area designs to include cross-sections for drainage facilities within the facility area	Required	330.63(c)(I)(B)	Yes	Attachment C		Surface Water Drainage Report
305	Part III	Submit drainage area designs to include ditch grades	Required	330.63(c)(I)(B)	Yes	Attachment C		Surface Water Drainage Report
306	Part III	Submit drainage area designs to include water flow rates, elevations, velocities, and flow line elevations	Required	330.63(c)(I)(B)	Yes	Attachment C		Surface Water Drainage Report
307	Part III	Submit calculations verifying drainage patterns will not be adversely altered	Required	330.63(c)(I)(C)	Yes	Attachment C		Surface Water Drainage Report
308	Part III	Submit and identify hydrologic method & calculations used to estimate peak flow rates and run-off volumes	Required	330.63(c)(I)(D)	Yes	Attachment C		Surface Water Drainage Report
309	Part III	Submit and identify the 25-year rainfall intensity used for facility design including the source of the data	Required	330.63(c)(I)(D)(i)	Yes	Attachment C		Surface Water Drainage Report
310	Part III	Submit and identify the 25-year rainfall intensity used for facility design including all other data used in conjunction with the selected hydrologic method. Their sources should be documented and described	Required	330.63(c)(I)(D)(i)	Yes	Attachment C		Surface Water Drainage Report
311	Part III	Submit and identify hydraulic calculations and designs for sizing the necessary collection, drainage, and/or detention facilities	Required	330.63(c)(I)(D)(ii)	Yes	Attachment C		Surface Water Drainage Report
312	Part III	Submit a discussion and analyses to demonstrate that existing drainage patterns will not be adversely altered as a result of the proposed landfill development	Required	330.63(c)(I)(D)(iii)	Yes	Attachment C		Surface Water Drainage Report
313	Part III	Submit structural designs of the collection, drainage, and/or storage facilities	Required	330.63(c)(I)(D)(iv)	Yes	Attachment C		Surface Water Drainage Report
314	Part III	Provide the location for the facility to identify whether the site is located within a 100-year floodplain. Indicate the 100-year floodplain on the drawing listed in paragraph 330.63(c)(I)(A) of this subsection	Required	330.63(c)(2)(A)	Yes	Attachment C		Surface Water Drainage Report
315	Part III	Provide the source of all data for flood plain determination. The boundaries of the proposed landfill facility should be shown on the floodplain map	Required	330.63(c)(2)(B)	Yes	Attachment C		Surface Water Drainage Report
316	Part III	Provide (if the site is located within the 100-year floodplain) information detailing the specific flooding levels. If the Preliminary Plan approval is not required under Chapter 301 of this title and Section 16.236 of Texas Water Code you may indicate that the checklist items relevant to Chapter 301 are not applicable.	Required	330.63(c)(2)(C)	Yes			Surface Water Drainage Report
317	Part III	The facility shall be protected from flooding by suitable levees constructed to provide protection from a 100-year frequency flood and in accordance with the rules of the commission relating to levee improvement districts and approval of plans for reclamation projects or the rules of the county or city having jurisdiction under Texas Water Code, §16.236, as implemented by Chapter 301, Subchapter C of this title (relating to Approval of Levees and Other Improvements)	Informational	330.307(a)				Surface Water Drainage Report
318	Part III	Provide maps, plats, drawings, computations and narratives of landfill levees; the applicant should submit a detailed map	Required if Requested	301.33(a)(I)	Yes			Surface Water Drainage Report

319	Part III	Provide the name and course of the river, stream, or other watercourse, which is associated with or would be affected by the proposed project	Required if Requested	301.33(a)(2)	Yes			Surface Water Drainage Report
320	Part III	Provide the location & ownership of existing levees, channels, dams, etc. that may be affected	Required if Requested	301.33(a)(3)	Yes			Surface Water Drainage Report
321	Part III	Provide the location and ownership, including current mailing address of owners, and location, shown by map, of all properties lying within any proposed protected area	Required if Requested	301.33(a)(4)(A)	Yes			Surface Water Drainage Report
322	Part III	Provide a list of potentially affected property owners for notice adjacent to the proposed works or which may be affected by the project's alteration of the flood flows of the stream	Required if Requested	301.33(a)(4)(B)	Yes			Surface Water Drainage Report
323	Part III	Provide a project design based on a statistical 100-year flood as a minimum. Flood level data available from state or federal agencies or other sources shall be provided for consideration in the selection of design flood frequency and elevation	Required if Requested	301.33(b)(1)	Yes			Surface Water Drainage Report
324	Part III	Provide plans to demonstrate the effects the proposed project will impose on existing flood conditions. This shall be illustrated by floodwater surface-elevation profiles and design flood delineations of the floodplain with and without the project in place	Required if Requested	301.33(b)(2)	Yes			Surface Water Drainage Report
325	Part III	Provide additional flood water surface-elevation profiles and design-flood delineations of the floodplain with the project in place and with a comparable levee or landfill on the opposite site of the stream if such do not exist	Required if Requested	301.33(b)(3)	Yes			Surface Water Drainage Report
326	Part III	Submit plans for levees that include structural integrity	Required if Requested	301.34(1)	Yes			Surface Water Drainage Report
327	Part III	Submit plans that show compatibility with existing hydraulic conditions.	Required if Requested	301.34(2)	Yes			Surface Water Drainage Report
328	Part III	Submit a design that any proposed levee or other improvement will not increase flooding or divert waters in such a way that any person's life or property will be endangered or subjected to significantly increased flooding	Required if Requested	301.34(3)	Yes			Surface Water Drainage Report
329	Part III	The rights of third parties affected by a proposed levee or other improvement must be considered	Informational	301.34(4)				Surface Water Drainage Report
330	Part III	The commission and the executive director shall assure that, as far as possible, levees or other improvements shall be designed with primary consideration to the topographic and hydrographic conditions, and in such a manner that each division of a project shall be a complete, united project forming a coordinate part of an ultimately finished series of projects, so constituted that the successful operation of each united project shall coordinate with the successful operation of other projects within the same hydraulic influence	Informational	301.34(5)				Surface Water Drainage Report
331	Part III	Provide a minimum freeboard of three feet above the 100-year design flood hydraulic gradient where levees furnish protection for urbanized or developing areas	Required if Requested	301.34(6)	Yes			Surface Water Drainage Report
332	Part III	Levees must not significantly restrict the flow of a 100-year frequency flood nor significantly reduce the temporary water storage capacity of the 100-year floodplain	Informational	330.307(b)(2)				Surface Water Drainage Report
333	Part III	The executive director may request any additional pertinent information from the applicant	Required if Requested	301.35	Yes			Surface Water Drainage Report
334	Part III	Submit plans with PE design, signed & sealed	Required if Requested	301.36	Yes			Surface Water Drainage Report
335	Part III	Submit, if constructed in a floodplain, the Preliminary Plan approval (along with the submitted application) from the governmental entity with jurisdiction under Texas Water Code, §16.236, as implemented by Chapter 301	Required if Requested	330.63(c)(2)(D)(i)	Yes			Surface Water Drainage Report

341	Part III	Provide a design to control and contain spills and contaminated water from leaving the facility. Unenclosed containment areas shall also account for precipitation from a 25-year, 24-hour rainfall event	Required	330.63(d)(1)(B)	Yes	Attachment D		Waste Management Unit Design
342	Part III	Provide the maximum amount of time processed and unprocessed waste are to remain on site	Required	330.63(d)(1)(C)	Yes	Attachment D		Waste Management Unit Design
343	Part III	Submit an estimate of the amount and planned method for testing and final disposal of incinerator ash, and an estimate of the volume and method of treatment for process water	Required	330.63(d)(2)	Yes			Waste Management Unit Design
344	Part III	Provide design specifications; including a plan view and a cross-section for surface impoundments	Required	330.63(d)(3)(A)	Yes			Waste Management Unit Design
345	Part III	Provide a design that maintains the minimum freeboard and the basis of the design to prevent overtopping from a 25-year, 24-hour rainfall event	Required	330.63(d)(3)(B)	Yes			Waste Management Unit Design
346	Part III	Provide a liner quality control plan for surface impoundments per 30 TAC 330.339	Required	330.63(d)(3)(C)	Yes			Waste Management Unit Design
347	Part III	Provide all-weather operation during wet weather. Include interior access road locations and the type of surfacing on a facility plan. Provide control to minimize the tracking of mud onto the public road	Required	330.63(d)(4)(A)	Yes	Attachment D		Waste Management Unit Design
348	Part III	Provide the landfill method proposed (e.g., moving-face cell trench, area fill, etc.)	Required	330.63(d)(4)(B)	Yes	Attachment D		Waste Management Unit Design
349	Part III	Provide the elevation of deepest excavation, maximum elevation of waste, and maximum elevation of final cover	Required	330.63(d)(4)(C)	Yes	Attachment D		Waste Management Unit Design
350	Part III	Provide a calculation for the estimated rate of solid waste deposition and operating life of the landfill unit	Required	330.63(d)(4)(D)	Yes	Attachment D		Waste Management Unit Design
351	Part III	Provide cross-sections showing the top of the levee, top of the proposed fill, and top of the wastes	Required	330.63(d)(4)(E)	Yes	Attachment D		Waste Management Unit Design
352	Part III	Provide sufficient number of cross-section w/ inset key map showing maximum elevation of proposed fill, existing ground, bottom of the excavations, and side slopes of trenches and fill areas	Required	330.63(d)(4)(E)	Yes	Attachment D		Waste Management Unit Design
353	Part III	Provide sufficient number of cross-section w/ inset key map gas vents or wells, groundwater monitoring wells, initial and static levels of any groundwater encountered	Required	330.63(d)(4)(E)	Yes	Attachment D		Waste Management Unit Design
354	Part III	Provide sufficient number of cross-section w/ inset key map showing the top of the levee, top of the proposed fill, top of the wastes, maximum elevation of proposed fill, existing ground, bottom of the excavations, side slopes of trenches and fill areas, gas vents or wells, groundwater monitoring wells, initial and static levels of any groundwater encountered	Required	330.63(d)(4)(E)	Yes	Attachment D		Waste Management Unit Design
355	Part III	Provide cross-sections so as to accurately depict the existing and proposed depths of all fill areas within the site. The fill cross-sections shall go through or very near the soil borings in order to show boring logs on the profile.	Required	330.63(d)(4)(E)	Yes	Attachment D		Waste Management Unit Design
356	Part III	Provide cross-sections to depict construction and design details of proposed compacted perimeter or toe berms and aerial-fill waste disposal areas	Required	330.63(d)(4)(F)	Yes	Attachment D		Waste Management Unit Design
357	Part III	Submit a Liner Quality Control Plan, prepared by a PE to include construction methods, engineering practices & the installation & testing of geomembrane (if used)	Required	330.63(d)(4)(G)	Yes	Attachment D		Waste Management Unit Design
358	Part III	Submit a liner design for Type I units constructed that ensures that the concentration values listed in Table 1 (Figure: 30 TAC§330.331(a)(1)) will not be exceeded in the uppermost aquifer at the point of compliance	Required	330.331(a)(1)	Yes	Attachment D		Waste Management Unit Design
359	Part III	Submit a liner design constructed with a composite liner, and a leachate collection system that is designed and constructed to maintain less than a 30-centimeter depth of leachate over the liner	Required	330.331(a)(2)	Yes	Attachment D		Waste Management Unit Design
360	Part III	Submit a liner design that considers the hydrogeologic characteristics of the facility and surrounding land	Required	330.331(c)	Yes	Attachment D		Waste Management Unit Design

361	Part III	Submit a liner design that considers the climatic factors of the area	Required	330.331(c)	Yes	Attachment D		Waste Management Unit Design
362	Part III	Submit for a liner design that considers the volume and physical and chemical characteristics of the leachate	Required	330.331(c)	Yes	Attachment D		Waste Management Unit Design
363	Part III	Submit for a liner design that considers the quantity, quality, and direction of flow of groundwater	Required	330.331(c)	Yes	Attachment D		Waste Management Unit Design
367	Part III	Submit for a liner design that considers the public health, safety, and welfare effects; and	Required	330.331(c)	Yes	Attachment D		Waste Management Unit Design
368	Part III	Submit for a liner design that considers the practicable capability of the owner or operator.	Required	330.331(c)	Yes	Attachment D		Waste Management Unit Design
369	Part III	Submit a design for a liner system that includes at least four feet of in-situ soil between the deposited waste and groundwater. This in-situ soil liner must meet all the physical properties for a constructed liner as detailed in §330.339(e)(5) of this title (relating to Liner Quality Control Plan)	Required	330.331(d)(1)	Yes			Waste Management Unit Design
370	Part III	Submit a design for a liner system that includes at least a three-foot thick re-compacted clay liner between the deposited waste and groundwater. The constructed liner must meet all the criteria detailed in §330.339	Required	330.331(d)(2)	Yes			Waste Management Unit Design
371	Part III	Submit a design for a liner system that includes an alternative liner system, in accordance with §330.335 of this title (relating to Alternative Liner Design).	Required if Requested	330.331(d)(3)	Yes			Waste Management Unit Design
372	Part III	Landfill units that accept Class I industrial solid wastes, other than asbestos-containing material, must provide dedicated cells that meet the requirements prescribed under 30 TAC 330.331(e) through (e)(2)(C)	Informational	330.331(e)				Waste Management Unit Design
373	Part III	Demonstrate location compliance for a new landfill cell or an aerial expansion of an existing landfill cell as prescribed under 335.584(b)(1) and (2) relating to Location Restrictions.	Required if Requested	330.331(e)(3)	Yes			Waste Management Unit Design
374	Part III	Provide a design for a leachate-collection and associated leachate-removal systems to be constructed of materials that are chemically resistant to the leachate expected to be generated	Required	330.333	Yes	Attachment D		Waste Management Unit Design
375	Part III	Provide a design for a leachate-collection and associated leachate-removal systems to be constructed of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill	Required	330.333	Yes	Attachment D		Waste Management Unit Design
376	Part III	Provide a design for a leachate-collection and associated leachate-removal systems to be designed and operated to function through the scheduled closure and post-closure care period of the landfill considering the factors prescribed under 30 TAC 330.333(A) through (G)	Required	330.333(A)-(G)	Yes	Attachment D		Waste Management Unit Design
377	Part III	Submit an alternative liner designs that include a leachate management system, a demonstration by computerized design modeling that the maximum contaminant levels detailed in 30 TAC §330.331 of this title (relating to Design Criteria), Table 1 will not be exceeded at the point of compliance	Required if Requested	330.335	Yes			Waste Management Unit Design
378	Part III	Type IV landfills may be required to meet one or more provisions under 330.337 at ED's discretion	Informational	330.337(a)				Waste Management Unit Design
379	Part III	Submit calculations to demonstrate that the weight of liner & any ballast will offset uplift by a factor of 1.2	Required	330.337(b)(1)	Yes	Attachment D		Waste Management Unit Design
380	Part III	Submit calculations to demonstrate that an active or passive dewatering system will reduce hydrostatic forces by a factor of 1.2	Required	330.337(b)(2)	Yes	Attachment D		Waste Management Unit Design

381	Part III	Provide evidence to demonstrate that the soil surrounding the facility is so poorly permeable that GW cannot exert force on liner	Required if Requested	330.337(b)(3)	Yes			Waste Management Unit Design
382	Part III	Submit evidence that the seasonal high GW is below planned excavation	Required if Requested	330.337(b)(4)	Yes			Waste Management Unit Design
383	Part III	Provide for liner stability during filling through dewatering &/or ballasting approved by ED	Required	330.337(c)	Yes	Attachment D		Waste Management Unit Design
384	Part III	Provide a leachate collection system capable of handling leachate and groundwater inflow. Submit the calculations for maximum GW inflow	Required	330.337(d)	Yes	Attachment D		Waste Management Unit Design
385	Part III	Provide a foundation evaluation that considers the stability, settlement, and constructability prior to excavating below the seasonal high water table	Required	330.337(e)	Yes	Attachment D		Waste Management Unit Design
386	Part III	Provide a liner quality control plan to include methods & tests to verify liner will not uplift during construction & ballast placement	Required	330.337(f)(1)	Yes	Attachment D		Waste Management Unit Design
387	Part III	Provide measurements & test results verifying that the ballast meets criteria including inspections, compaction, weight, density, thickness, & top elevation	Required	330.337(f)(2)	Yes	Attachment D		Waste Management Unit Design
388	Part III	Provide designs for any dewatering systems used for liner construction and filling, and indicate that the system will be operated until the ED determines it is no longer required	Required if Requested	330.337(g)	Yes	Attachment D		Waste Management Unit Design
389	Part III	Submit (if waste is to be used as ballast) an operating plan that provides for no brush or large items in first 5 ft. of thickness	Required if Requested	330.337(h)(1)	Yes	Attachment D		Waste Management Unit Design
390	Part III	Provide (if waste is to be used as ballast) for the use of a 40,000 lb. compactor or equivalent to achieve a 1,200 lbs. per cubic yard density	Required if Requested	330.337(h)(2)	Yes	Attachment D		Waste Management Unit Design
391	Part III	Submit (if waste is to be used as ballast) methods for verifying waste as ballast compaction density not less than 1200 lbs. per cubic yard. No method is required if a 40,000 lb. compactor is used	Required if Requested	330.337(h)(3)	Yes	Attachment D		Waste Management Unit Design
392	Part III	Submit a ballast evaluation report that verifies the use of a 40,000 lb. compactor or that 1,200 lbs. per cubic yard density was achieved and must be sufficient to offset hydrostatic forces by a factor of 1.5	Required if Requested	330.337(h)(4)	Yes	Attachment D		Waste Management Unit Design
393	Part III	Provide for the adjustment of seasonal high water table, if necessary, as new data is collected	Required	330.337(i)	Yes	Attachment D		Waste Management Unit Design
394	Part III	Acknowledge that a ballast evaluation report will be submitted upon completion of placement. If ED does not respond within 14 days, discontinue dewatering or ballasting	Acknowledgement	330.337(j)	Yes	Attachment D		Waste Management Unit Design
395	Part III	Acknowledge that a ballast evaluation report will be submitted to verify that the liner did not undergo uplift	Acknowledgement	330.337(j)(1)	Yes	Attachment D		Waste Management Unit Design
396	Part III	Acknowledge that a certification that ballasting met the criteria will be submitted and signed and sealed by a P.E. and signature of permittee	Acknowledgement	330.337(j)(2)-(3)	Yes	Attachment D		Waste Management Unit Design
397	Part III	Provide a liner quality control plan prepared under the direction of a licensed professional engineer	Informational	330.339(a)				Waste Management Unit Design
398	Part III	Provide in the liner quality control plan procedures that address the installation and testing of a geomembrane liner, if used	Required	330.339(a)	Yes	Attachment D		Waste Management Unit Design
399	Part III	Submit constructed liner details, depicted on cross-sections of a typical cell showing the slope, widths, and thicknesses for compaction lifts	Required	330.339(a)(1)	Yes	Attachment D		Waste Management Unit Design
400	Part III	Provide soil and liner quality-control testing procedures, to include sampling frequency, all field sampling and testing, both during construction and after completion	Required	330.339(a)(2)	Yes	Attachment D		Waste Management Unit Design
401	Part III	Acknowledge that the professional of record who signs the soil liner evaluation report or his representative should be on site during all liner construction.	Acknowledgement	330.339(a)(2)	Yes	Attachment D		Waste Management Unit Design
402	Part III	Acknowledge that quality control of construction and quality assurance of sampling and testing procedures shall follow the latest technical guidelines of the executive director.	Acknowledgement	330.339(a)(2)	Yes	Attachment D		Waste Management Unit Design

403	Part III	Provide testing and reporting evaluation procedures to prepare the soil liner evaluation reports for the facility	Required	330.339(b)(1)	Yes	Attachment D	Waste Management Unit Design
404	Part III	Submit information to specify materials, equipment, and construction methods for the compaction of clay soils and depict on a drawing	Required	330.339(b)(2)	Yes	Attachment D	Waste Management Unit Design
405	Part III	Submit details and drawings for the over excavation and recompaction of the in-situ soils, or the compaction of soils from a borrow source, and cross-sections of a typical cell showing the slope, widths, and thicknesses for compaction lifts	Required	330.339(b)(2)(A)	Yes	Attachment D	Waste Management Unit Design
406	Part III	Submit procedures to be followed when excavations, cells, or disposal areas extend into or have the potential to extend into the groundwater; in accordance with 30 TAC 330.337	Required	330.339(b)(2)(B)	Yes	Attachment D	Waste Management Unit Design
407	Part III	Provide a description of installation methods, quality control testing, reporting, following the placement of geomembrane liners	Required	330.339(b)(3)	Yes	Attachment D	Waste Management Unit Design
408	Part III	Provide quality control testing frequencies and procedures that are in accordance with the executive director's most recent guidelines	Required	330.339(c)	Yes	Attachment D	Waste Management Unit Design
409	Part III	Provide a description of field sampling and testing procedures, both during construction and after completion of the lining, to be performed by a qualified professional	Required	330.339(c)(1)	Yes	Attachment D	Waste Management Unit Design
410	Part III	Provide for continuous on-site inspection during construction of the liner by the professional of record or his designated representative	Required	330.339(c)(2)	Yes	Attachment D	Waste Management Unit Design
411	Part III	Provide information to indicate the amount of compaction of clay liners expressed as a percentage of a maximum dry density based on a compaction test. Compaction shall have a coefficient of permeability of 1×10^{-7} centimeters per second (cm/sec) or less	Required	330.339(c)(3)	Yes	Attachment D	Waste Management Unit Design
412	Part III	Submit and define the frequency of testing. These frequencies shall be expressed in numbers of tests per specific area of liner per lift or specific thickness of liner	Required	330.339(c)(4)	Yes	Attachment D	Waste Management Unit Design
413	Part III	Provide for laboratory permeability tests. Tests shall be either constant head with back pressure or falling head tests	Required	330.339(c)(4)(A)	Yes	Attachment D	Waste Management Unit Design
414	Part III	Provide for permeability tests to include; sieve analysis, Atterberg limits, moisture-density relationships, moisture content, and thickness verification	Required	330.339(c)(4)(B) - (F)	Yes	Attachment D	Waste Management Unit Design
415	Part III	Provide for soils used as constructed liners to have a plasticity index--equal to or greater than 15; a liquid limit--equal to or greater than 30; percent passing 200 mesh sieve (-200) equal to or greater than 30%; percent passing one-inch screen--100%; and coefficient of permeability less than or equal to 1×10^{-7} cm/sec.	Required	330.339(c)(5)(A)-(E)	Yes	Attachment D	Waste Management Unit Design
416	Part III	Acknowledge that permeability tests for proving the suitability of soils to be used in constructing clay liners shall be performed in the laboratory	Acknowledgement	330.339(c)(6)	Yes	Attachment D	Waste Management Unit Design
417	Part III	Provide field quality control with field density tests based on moisture-density compaction curves, Atterberg limits, and lab permeabilities of undisturbed field samples	Required	330.339(c)(6)	Yes	Attachment D	Waste Management Unit Design
418	Part III	Provide field permeability testing of in-situ soils or constructed soil liners for the floor of the excavation, in accordance with ASTM D5093	Required	330.339(c)(7)	Yes	Attachment D	Waste Management Unit Design
419	Part III	Provide field permeability testing of in-situ soils or constructed soil liners for sidewalls, in accordance with a variation of the Bouwell STEI field permeability test	Required	330.339(c)(7)	Yes	Attachment D	Waste Management Unit Design
420	Part III	Provide for quality control testing of soil liners to be performed during the construction of the liner	Required	330.339(c)(8)	Yes	Attachment D	Waste Management Unit Design
421	Part III	Provide for all soil testing and evaluation of in-situ soil or constructed soil liners to be completed prior to installing the leachate collection system	Required	330.339(c)(9)	Yes	Attachment D	Waste Management Unit Design

422	Part III	Calculate soil and liner density as a percentage of the maximum dry density and at the corresponding optimum moisture content. Soils tests must demonstrate a coefficient of permeability no greater than 1×10^{-7} cm/sec.	Required	330.339(d)	Yes	Attachment D		Waste Management Unit Design
469	Part III	Provide a description of the liner system used for excavated waste storage, processing, and screening areas to control seepage and runoff	Required	330.63(d)(7)(C)	Yes	Attachment D		Waste Management Unit Design
470	Part III	a description of how waste excavation activities will comply with the minimum design and operation requirements of §330.149, §330.151, §330.165, §330.167	Required	330.63(d)(7)(D)	Yes	Attachment D		Waste Management Unit Design
471	Part III	The facility size shall be limited to a liquid waste processing rate no greater than 10,000 gallons per day	Informational	330.63(d)(9)(A)				Waste Management Unit Design
472	Part III	Provide documentation that the facility design and operation will be coordinated with a consultant connected with an accredited college or university or with a consultant that has demonstrated the ability to carry out scientific experiments for demonstrating new and unproven waste handling methods and submitted to the executive director.	Required	330.63(d)(9)(B)	Yes			Waste Management Unit Design
473	Part III	Indicate that the owner or operator shall submit to the executive director an annual and final status report to document the viability of the method being demonstrated. The report, at a minimum, must document the effluent standards and solid waste standards achieved.	Required	330.63(d)(9)(B)	Yes			Waste Management Unit Design
474	Part III	Submit a Geology Report, prepared and signed by a qualified groundwater scientist and includes a geologic map of the region with text describing the stratigraphy and lithology of the map units.	Required	330.63(e)(1)(A)	Yes	Attachment E		Geology Report
475	Part III	Provide a description of the generalized stratigraphic column in the facility area. Regional stratigraphic cross-sections should be provided and must include elements listed in 330.63(e)(1)(B).	Required	330.63(e)(1)(B)	Yes	Attachment E		Geology Report
476	Part III	Provide a description of geologic active processes, faulting, subsidence	Required	330.63(e)(2)	Yes	Attachment E		Geology Report
477	Part III	Provide a description of the regional aquifers in the vicinity of the facility based upon published and open-file sources	Required	330.63(e)(3)(A)	Yes	Attachment E		Geology Report
478	Part III	Provide a description for the composition of the aquifer(s)	Required	330.63(e)(3)(B)	Yes	Attachment E		Geology Report
479	Part III	Provide the hydraulic properties of the aquifer(s)	Required	330.63(e)(3)(C)	Yes	Attachment E		Geology Report
480	Part III	Submit information on whether the aquifers are under water table or artesian conditions.	Required	330.63(e)(3)(D)	Yes	Attachment E		Geology Report
481	Part III	Submit information for the hydraulic connectivity of aquifers	Required	330.63(e)(3)(E)	Yes	Attachment E		Geology Report
482	Part III	Provide a regional water-table contour map or potentiometric surface map for each aquifer, if available;	Required	330.63(e)(3)(F)	Yes	Attachment E		Geology Report
483	Part III	Provide an estimate of the rate of groundwater flow	Required	330.63(e)(3)(G)	Yes	Attachment E		Geology Report
484	Part III	Provide the typical values or a range of values for total dissolved solids content of groundwater from the aquifers	Required	330.63(e)(3)(H)	Yes	Attachment E		Geology Report
485	Part III	Identify recharge areas to the aquifers within five miles of the site	Required	330.63(e)(3)(I)	Yes	Attachment E		Geology Report
486	Part III	Identify what groundwater, withdrawn from vicinity aquifers is used for and provide the ID, location, & aquifer of each well within one mile of the facility	Required	330.63(e)(3)(J)	Yes	Attachment E		Geology Report
487	Part III	Provide the results of investigations of subsurface conditions. This report must describe all borings drilled on site to test soils and characterize groundwater and must include a site map drawn to scale showing the surveyed locations and elevations of the borings.	Required	330.63(e)(4)	Yes	Attachment E		Geology Report
488	Part III	Provided a sufficient no. of borings to characterize subsurface geology.	Required	330.63(e)(4)(A)	Yes	Attachment E		Geology Report
489	Part III	Provide for borings to be sufficiently deep to identify uppermost aquifer, hydraulically connected aquifers, and underlying aquiclude; See Figure: 30 TAC §330.63(e)(4)(B)	Required	330.63(e)(4)(B)	Yes	Attachment E		Geology Report
490	Part III	Provide all borings to be conducted in accordance with established field exploration methods.	Required	330.63(e)(4)(C)	Yes	Attachment E		Geology Report

491	Part III	Provide GW well installation, abandonment, and plugging	Required	330.63(e)(4)(D)	Yes	Attachment E		Geology Report
492	Part III	Number of borings & depth may be modified with ED approval	Informational	330.63(e)(4)(E)				Geology Report
493	Part III	Electrical resistivity information may be used to reduce the number of borings with ED approval	Informational	330.63(e)(4)(F)				Geology Report
494	Part III	Submit cross-sections prepared from the borings; depicting the generalized strata at the facility. For small waste management units, two perpendicular cross-sections will normally suffice	Required	330.63(e)(4)(G)	Yes	Attachment E		Geology Report
495	Part III	Provide a narrative that describes the investigator's interpretations of the subsurface stratigraphy based upon the field investigation	Required	330.63(e)(4)(H)	Yes	Attachment E		Geology Report
496	Part III	Provide geotechnical data that describes the geotechnical properties of the subsurface soil materials and a discussion with conclusions about the suitability of the soils and strata	Required	330.63(e)(5)	Yes	Attachment E		Geology Report
497	Part III	Provide a laboratory report of soil characteristics determined from at least one sample from each soil layer or stratum that will form the bottom and side of the proposed excavation and from those that are less than 30 feet below the lowest elevation of the proposed excavation.	Required	330.63(e)(5)(A)	Yes	Attachment E		Geology Report
498	Part III	Provide permeability tests to be performed according to one of the standards on undisturbed soil samples. All test results shall indicate the type of tests used and the orientation of each tested sample.	Required	330.63(e)(5)(B)	Yes	Attachment E		Geology Report
499	Part III	Submit test results for constant head w/ back pressure	Required	330.63(e)(5)(B)(i)	Yes	Attachment E		Geology Report
500	Part III	Submit test results for falling head	Required	330.63(e)(5)(B)(ii)	Yes	Attachment E		Geology Report
501	Part III	Submit test results for sieve analysis	Required	330.63(e)(5)(B)(iii)	Yes	Attachment E		Geology Report
502	Part III	Submit test results for Atterberg limits	Required	330.63(e)(5)(B)(iv)	Yes	Attachment E		Geology Report
503	Part III	Submit test results for moisture content	Required	330.63(e)(5)(B)(v)	Yes	Attachment E		Geology Report
504	Part III	Submit information for the depth at which groundwater was encountered and records of after-equilibrium measurements in all borings. The cross-sections prepared in response to 330.63(e)(4)(G) must be annotated to note the level at which groundwater was first encountered	Required	330.63(e)(5)(C)	Yes	Attachment E		Geology Report
505	Part III	Submit water levels in monitoring wells, historical water levels in table format for each monitoring well	Required	330.63(e)(5)(D)	Yes	Attachment E		Geology Report
506	Part III	Submit a tabulation of GW monitoring data on-site or on adjacent units	Required	330.63(e)(5)(E)	Yes	Attachment E		Geology Report
507	Part III	Identify the uppermost aquifer and any lower aquifers that are hydraulically connected to it beneath the facility	Required	330.63(e)(5)(F)	Yes	Attachment E		Geology Report
508	Part III	Provide a Groundwater Sampling and Analysis Plan. Compost Permits submit per Chapter 332	Required	330.63(f)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
509	Part III	Provide a topographic map delineating waste area, property boundary, point of compliance, & GW monitoring wells	Required	330.63(f)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
510	Part III	Provide a description of any contamination plume from the unit	Required	330.63(f)(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
511	Part III	Provide a delineation of contaminate plume on the topographic map	Required	330.63(f)(2)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
512	Part III	Provide the concentration of each assessment constituent in the plume	Required	330.63(f)(2)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
513	Part III	Provide an analysis of most likely pollutant pathway, include any GW modeling data & results per 330.403(e)(2), consideration of GW flow changes from construction	Required	330.63(f)(3)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
514	Part III	Provide detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of §330.403	Required	330.63(f)(4)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
515	Part III	Submit information; supporting data, analyses to establish detection monitoring program per 330.407; if hazardous constituents in 40 CFR 258 & 330.419 have not been detected	Required	330.63(f)(5)	Yes	Attachment F		Groundwater Sampling & Analysis Plan

516	Part III	Submit the proposed GW monitoring system	Required	330.63(f)(5)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
517	Part III	Submit background values for each monitoring parameter or constituent listed in §330.419 of this title, or procedures to calculate such values;	Required	330.63(f)(5)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
518	Part III	Provide for a semiannual monitoring frequency	Required	330.407(a)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
519	Part III	Provide for a minimum of four statistically independent background GW samples collected quarterly unless approved, background may be updated every 2 yrs. with representative of background demonstration	Required	330.407(a)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
520	Part III	ED may approve alternative sampling frequency but not less than annual	Informational	330.407(a)(2)				Groundwater Sampling & Analysis Plan
521	Part III	For establishing background, ED may consider previous data	Informational	330.407(a)(3)				Groundwater Sampling & Analysis Plan
522	Part III	Provide Notification of SSI to ED within 14 days of the 60-day SSI determination	Required	330.407(b)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
523	Part III	Provide (if SSI is determined) a notice to the operating record immediately & establish an assessment monitoring program within 90 days, or provide for resampling within 60 days of SSI determination	Required	330.407(b)(1)-(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
524	Part III	Submit alternative source demonstration including Notification to ED & any local agency, within 14 days of the SSI determination, of the intent to submit ASD	Required	330.407(b)(3)-(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
525	Part III	Submit ASD report to ED & any local agency, within 90 days of the SSI determination, certified by a qualified GW scientist	Required	330.407(b)(3)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
526	Part III	Provide for No filtering of samples for ASD, ED may require leachate analyses to support ASD	Required	330.407(b)(3)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
527	Part III	Owner/Operator may continue detection monitoring program	Informational	330.407(b)(3)(D)				Groundwater Sampling & Analysis Plan
528	Part III	Provide for assessment monitoring if no ASD satisfactory to the ED within 90 days of notice. ED may require additional point of compliance wells	Required	330.407(b)(4)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
529	Part III	Submit annual detection monitoring report within 90 days of last sampling even that includes the following	Required	330.407(c)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
530	Part III	Submit a statement regarding occurrences of SSIs	Required	330.407(c)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
531	Part III	Submit GW monitoring results, background GW quality, statistical calculations, graphs, & drawings	Required	330.407(c)(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
532	Part III	Submit GW flow rate & direction based on detection sampling water elevations, any supporting documentation	Required	330.407(c)(3)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
533	Part III	Provide for piezometric water level contour map and supporting documentation	Required	330.407(c)(4)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
534	Part III	Submit recommendations for any changes	Required	330.407(c)(5)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
535	Part III	Submit any other information required by ED	Required	330.407(c)(6)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
536	Part III	Submit a permit amendment or modification, if detection monitoring program no longer satisfies 330.407	Required	330.407(d)	Yes			Groundwater Sampling & Analysis Plan
537	Part III	Provide a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data	Required	330.63(f)(5)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
538	Part III	Provide a statement that information, supporting data, and analyses to establish assessment monitoring program per 330.409 will be provided if hazardous constituents are present	Required	330.63(f)(6)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
539	Part III	Provide a statement indicating that assessment monitoring information and a description of any special waste previously handled at the facility will be provided	Required	330.63(f)(6)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan

540	Part III	Indicate that a characterization of the contaminated groundwater, including concentration of assessment constituents as defined in §330.409 of this title, will be provided	Required	330.63(f)(6)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
541	Part III	Indicate that a list of assessment constituents as defined in §330.409 of this title for which assessment monitoring will be undertaken, will be provided	Required	330.63(f)(6)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
542	Part III	Provide plans & engineering report describing GW monitoring system	Required	330.63(f)(6)(D)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
543	Part III	Provide a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data	Required	330.63(f)(6)(E)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
544	Part III	Provide, if hazardous constituents have exceeded the concentration limits, supporting data, and analyses to establish a corrective action program that meets the requirements of §330.411 and §330.413	Required	330.63(f)(7)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
545	Part III	Indicate that a characterization of the contaminated groundwater, including concentrations of assessment constituents as defined in §330.409	Required	330.63(f)(7)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
546	Part III	Indicate that concentration limits for each constituent will be submitted	Required	330.63(f)(7)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
547	Part III	Indicate that plans & an engineering report describing corrective action will be submitted	Required	330.63(f)(7)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
548	Part III	Submit a description of how the monitoring program will demonstrate adequacy of corrective action	Required	330.63(f)(7)(D)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
549	Part III	Submit a schedule for submitting information required by 330.63(f)(7)(C) & (D)	Required	330.63(f)(7)(E)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
550	Part III	Criteria to determine if the facility is exempt from groundwater monitoring	Informational	330.401(a)-(c)				Groundwater Sampling & Analysis Plan
551	Part III	Submit criteria for suspension of groundwater monitoring; the demonstration for suspension shall be certified by a qualified groundwater scientist and approved by the executive director	Required if Requested	330.401(d)	Yes			Groundwater Sampling & Analysis Plan
552	Part III	Submit for suspension demonstration site specific data affecting contaminant fate & transport	Required	330.401(d)(1)	Yes			Groundwater Sampling & Analysis Plan
553	Part III	Submit for suspension demonstration, contaminant fate & transport predictions	Required	330.401(d)(2)	Yes			Groundwater Sampling & Analysis Plan
554	Part III	Provide for new solid waste management units a documented certification signed by a qualified groundwater scientist that the facility is in compliance with the groundwater monitoring requirements	Required	330.401(e)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
555	Part III	Acknowledge that groundwater monitoring must be conducted throughout the active life and any required post-closure care period	Acknowledgement	330.401(f)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
556	Part III	Submit a GW monitoring system with sufficient no. of wells, location, depth to yield representative GW samples	Required	330.403(a)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
557	Part III	Provide information on background wells used to determine background GW quality	Required	330.403(a)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
558	Part III	Provide/identify the point of compliance wells not >600 ft. unless modeling demonstration approved	Required	330.403(a)(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
559	Part III	Provide, if a multi-unit GW monitoring system is proposed; the number, spacing, and orientation of the solid waste management units within an overall waste management area; hydrogeologic setting; site history; engineering design of the units; and type of waste accepted at the units.	Required	330.403(b)(1)-(5)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
560	Part III	The executive director may approve an alternative design for a groundwater monitoring system that uses other means in conjunction with monitoring wells	Informational	330.403(c)				Groundwater Sampling & Analysis Plan
561	Part III	Acknowledge that all parts of a groundwater monitoring system shall be operated and maintained so that they perform at least to design specifications	Acknowledgement	330.403(d)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
562	Part III	Provide a design certified by a qualified groundwater scientist.	Required	330.403(e)	Yes	Attachment F		Groundwater Sampling & Analysis Plan

563	Part III	Provide the design of the monitoring system to be based on site-specific technical information	Required	330.403(e)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
564	Part III	Multi-dimensional fate & transport model may be used to support sampling point locations	Informational	330.403(e)(2)				Groundwater Sampling & Analysis Plan
565	Part III	Provide if a multi-dimensional model is proposed, documentation of the model's ability to represent GW flow & contaminant transport	Required	330.403(e)(2)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
566	Part III	Provide if a multi-dimensional model is proposed, a sound set of equations based on <u>accepted theory</u>	Required	330.403(e)(2)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
567	Part III	Provide if a multi-dimensional model is proposed, a numerical solution methods based on mathematical principals with verification & <u>checking techniques</u>	Required	330.403(e)(2)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
568	Part III	Provide if a multi-dimensional model is proposed, a model calibrated against site-specific field data	Required	330.403(e)(2)(D)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
569	Part III	Provide if a multi-dimensional model is proposed, a sensitivity analysis for major parameters	Required	330.403(e)(2)(E)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
570	Part III	Provide if a multi-dimensional model is proposed, mass-balance calculations	Required	330.403(e)(2)(F)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
571	Part III	Provide if a multi-dimensional model is proposed, a model based on field or lab measurements that document validity of parameter values	Required	330.403(e)(2)(G)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
572	Part III	Acknowledge that the owner or operator shall promptly notify the executive director, and any local pollution agency with jurisdiction that has requested to be notified, in writing of changes in facility construction or operation or changes in adjacent property that affect or are likely to affect the direction and rate of groundwater flow and the potential for detecting groundwater contamination from a solid waste management unit and that may require the installation of additional monitoring wells or sampling points and that such additional wells or sampling points require a modification of the site development plan.	Acknowledgement	330.403(e)(3)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
573	Part III	Provide sampling & analysis procedures that ensure accurate results of GW quality	Required	330.405(a)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
574	Part III	Submit GW sampling & analysis plan prior to sampling, place a copy of the approved plan in the <u>operating record</u>	Required	330.405(b)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
575	Part III	Provide procedures for sample collection, preservation & shipping, analytical procedures, COC control, & QA/QC	Required	330.405(b)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
576	Part III	Provide for GW elevations measured at each point, sample from high to low elevations unless contaminated, sample un-contaminated points prior to contaminated points	Required	330.405(b)(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
577	Part III	Provide sampling & analysis methods appropriate for groundwater sampling	Required	330.405(b)(3)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
578	Part III	Provide for Type I landfills – collection of samples necessary to establish GW quality data consistent with statistical procedures for <u>detection, assessment, corrective measures</u>	Required	330.405(b)(3)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
579	Part III	Provide for no field filtered GW samples prior to analysis	Required	330.405(c)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
580	Part III	Provide and establish background GW quality for detection parameters	Required	330.405(d)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
581	Part III	Provide 1 or more statistical methods to evaluate detection/assessment parameters	Required	330.405(e)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
582	Part III	Provide parametric analysis of variance followed by multiple comparison procedures, contrast between well's mean & background mean	Required	330.405(e)(1)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
583	Part III	Provide analysis of variance based on ranks followed by multiple comparison procedures, contrast between well's median & background <u>median</u>	Required	330.405(e)(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
584	Part III	Provide tolerance or prediction interval procedures	Required	330.405(e)(3)	Yes	Attachment F		Groundwater Sampling & Analysis Plan

585	Part III	Provide a control chart approach	Required	330.405(e)(4)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
586	Part III	Provide for any statistical method to meet the standards listed under 330.405(f)	Required	330.405(e)(5)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
587	Part III	Provide the statistical method chosen under 330.405(e) appropriate for the distribution	Required	330.405(f)(1)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
588	Part III	Provide, if individual sampling point comparison to background or GW protection standard is used, for the test to be done at Type I error level not ≤ 0.01 .	Required	330.405(f)(2)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
589	Part III	Provide, if control chart is used, the specific type of chart & its parameters must be protective, consider no. of samples, distribution, & concentration range	Required	330.405(f)(3)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
590	Part III	Provide the tolerance or prediction intervals used	Required	330.405(f)(4)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
591	Part III	Provide that the statistical method used accounts for data below detection	Required	330.405(f)(5)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
592	Part III	Provide for the statistical method to control or correct for seasonal, spatial variability & temporal correlation in data	Required	330.405(f)(6)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
593	Part III	Indicate that assessment monitoring is required whenever the owner or operator determines there has been a statistically significant increase over background for one or more of the constituents listed in §330.419 of this title	Required	330.409(a)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
594	Part III	Indicate that within 90 days of determining that a statistically significant increase has occurred in accordance with §330.407(b) and not less than annually thereafter, the owner or operator shall sample and analyze the groundwater monitoring system for the full set of constituents listed in Appendix II to 40 Code of Federal Regulations (CFR) Part 258	Required	330.409(b)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
595	Part III	Indicate that a minimum of one sample shall be collected from each point of compliance well and analyzed for the 40 CFR Part 258, Appendix II constituents during each sampling event.	Required	330.409(b)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
596	Part III	Indicate that for any new constituent(s) detected in the point of compliance wells as a result of the complete Appendix II analysis, a minimum of four statistically independent samples from each background well shall be collected and analyzed to establish background levels for the additional constituent(s).	Required	330.409(b)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
597	Part III	Indicate that after sampling all point of compliance wells for Appendix II constituents, the executive director may specify an appropriate subset of wells to be sampled and analyzed for the Appendix II constituents during assessment monitoring and may delete any of the Appendix II constituents for a municipal solid waste management unit if the owner or operator can document that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit	Required	330.409(b)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
598	Part III	Provide, if the ED specifies, an alternative frequency for sampling Appendix II constituents	Required	330.409(c)(1)-(5)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
599	Part III	Indicate that Appendix II constituents results will be submitted within 60 days after each sampling event	Required	330.409(d)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
600	Part III	Indicate that within 90 days of reporting Appendix II results & semiannually thereafter, all wells will be resampled for Appendix I & any new constituent detected from Appendix II, and that the results of resampling will be submitted within 60 days after each sampling event	Required	330.409(d)(1)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
601	Part III	Provide background concentrations for additional Appendix II constituents detected	Required	330.409(d)(2)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
602	Part III	Provide groundwater protection standards for all constituents detected in point of compliance wells	Required	330.409(d)(3)	Yes	Attachment F	Groundwater Sampling & Analysis Plan

603	Part III	Provide notification to ED, if concentrations are at or below background for 2 consecutive sampling events, and return to detection monitoring	Required	330.409(e)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
604	Part III	Continue assessment monitoring If concentrations are above background but below GW protection standards	Required	330.409(f)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
605	Part III	Indicate that no later than 60 days after each sampling event a determination whether any 40 CFR Part 258, Appendix II constituents were detected at statistically significant levels above the groundwater protection standards. If exceeded the ED & local government will be notified within 7 days of determination	Required	330.409(g)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
606	Part III	Provide the characterization and extent of release by installing additional wells as necessary	Required	330.409(g)(1)-(A)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
607	Part III	Provide for the installation of wells adjacent to the well with exceedance before next sampling event & sample new well for Appendix I & additional constituents from Appendix II	Required	330.409(g)(1)(B)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
608	Part III	Provide Notification to all persons that own or occupy the land that overlies any part of the contamination plume	Required	330.409(g)(1)(C)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
609	Part III	Provide an assessment of corrective measures within 90 days of notice to ED	Required	330.409(g)(1)(D)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
610	Part III	Notify ED within 1-4 days of exceedance determination and intent to submit an Alternate Source Demonstration (ASD)	Required	330.409(g)(2)-(A)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
611	Part III	Submit certified ASD report within 90 days of exceedance determination	Required	330.409(g)(2)(B)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
612	Part III	Provide for no filtering of samples for ASD, ED may require leachate analyses to support ASD and continue assessment monitoring program	Required	330.409(g)(2)(C)-(D)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
613	Part III	Provide for assessment monitoring If ASD is accepted by ED, otherwise implement assessment of corrective measures	Required	330.409(g)(3)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
614	Part III	Provide for a permit amendment or modification if assessment monitoring program is no longer compliant with 330.409.	Required	330.409(g)(4)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
615	Part III	Provide for/establish GW protection standards for Appendix II constituents in the point of compliance monitoring wells	Required	330.409(h)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
616	Part III	Provide for GW protection standard for constituents for which a maximum (MCL) has been promulgated under 40 CFR Part 141, Safe Drinking Water Act Maximum contaminant level (MCL)	Required	330.409(h)(1)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
617	Part III	Provide GW protection standard for constituents for which no MCL promulgated	Required	330.409(h)(2)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
618	Part III	Provide GW protection standard for background constituents higher than MCL or health-based level	Required	330.409(h)(3)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
619	Part III	Acknowledge that the ED may establish alternative GW protection standards in accordance with 30 TAC §330.409(i)	Acknowledgement	330.409(i)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
620	Part III	Submit annual assessment monitoring report within 60 days of 2nd semiannual sampling event	Required	330.409(k)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
621	Part III	Submit a statement of any statistically significant exceedances of GW protection standards & the status of the exceedance	Required	330.409(k)(1)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
622	Part III	Submit GW monitoring results, summary of background, statistical calculations, graphs & drawings	Required	330.409(k)(2)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
623	Part III	Submit GW flow rate & direction based on data from sampling events, supporting documentation	Required	330.409(k)(3)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
624	Part III	Submit a Piezometric water level contour map and supporting documentation	Required	330.409(k)(4)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
625	Part III	Provide recommendations for any changes	Required	330.409(k)(5)	Yes	Attachment F	Groundwater Sampling & Analysis Plan
626	Part III	Submit Any other information required by ED	Required if Requested	330.409(k)(6)	Yes		Groundwater Sampling & Analysis Plan
627	Part III	Provide detection monitoring for constituents listed in Appendix I, 40 CFR Part 258	Required	330.419(a)	Yes	Attachment F	Groundwater Sampling & Analysis Plan

628	Part III	ED may delete constituents from Appendix I if constituent not likely to be derived from waste disposed of in the landfill	Informational	330.419(b)				Groundwater Sampling & Analysis Plan
629	Part III	ED may establish alternative inorganic list, add organic or inorganic constituents based on consideration of the following	Informational	330.419(c)				Groundwater Sampling & Analysis Plan
630	Part III	Types, concentrations, quantities, persistence of waste constituents	Informational	330.419(c)(1)				Groundwater Sampling & Analysis Plan
631	Part III	Mobility, stability, persistence of constituents & their reaction products	Informational	330.419(c)(2)				Groundwater Sampling & Analysis Plan
632	Part III	Detectability of indicator & waste constituents & reaction products in groundwater	Informational	330.419(c)(3)				Groundwater Sampling & Analysis Plan
633	Part III	Concentrations & coefficients of variability of parameters or constituents in the groundwater background	Informational	330.419(c)(4)				Groundwater Sampling & Analysis Plan
634	Part III	Provide for the construction of monitoring wells to provide integrity, representative samples, prevent migration of water in bore hole, well construction must follow prescribed specifications	Required	330.421(a)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
635	Part III	Provide that wells to be drilled by a qualified TX licensed drill & supervised by PG or PE	Required	330.421(a)(1)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
636	Part III	Provide a drilling method that shall not introduce contaminants. If fluid used in drilling, then use clean city water unless approved by ED. If water used provide analysis	Required	330.421(a)(1)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
637	Part III	Provide borings to be at least 4 in. larger than casing. If boring in rock, a smaller annulus may be approved by the executive director	Required	330.421(a)(1)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
638	Part III	Provide a log of boring, signed, sealed & dated by PG or PE	Required	330.421(a)(1)(D)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
639	Part III	Provide designs for casing, screen, filter pack, & seal	Required	330.421(a)(2)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
640	Part III	Provide casing specifications; the casing should be 2 to 4 inch schedule 40 or 80 PVC, and must meet other requirements of 30 TAC §330.421(a)(2)(A)	Required	330.421(a)(2)(A)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
641	Part III	Provide screen specifications that are compatible with the casing and does not include glue, solvents, field-cut slots or filter cloths	Required	330.421(a)(2)(B)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
642	Part III	Provide filter pack specifications - clean silica sand or glass, 1 to 4 ft. above screen, etc.	Required	330.421(a)(2)(C)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
643	Part III	Provide annular seal specifications - 2 ft. thick, placed in zone of saturation, etc.	Required	330.421(a)(2)(D)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
644	Part III	Provide casing seal specifications - placed on top of annular seal, bentonite grout or cement-bentonite mix, etc.	Required	330.421(a)(2)(E)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
645	Part III	Provide specifications for the concrete pad to be placed on top of the casing seal, including the type of structural concrete used from casing seal to surface	Required	330.421(a)(3)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
646	Part III	Provide protective collar specifications - steel collar around casing, set 1 ft. into surface pad, etc.	Required	330.421(a)(4)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
647	Part III	Provide protective barrier specifications - 3 to 4 6-12 in. diameter pipes set in concrete, other types of barriers may be approved by ED	Required	330.421(a)(5)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
648	Part III	Acknowledge that when wells are installed in unusual conditions, all aspects must be approved in writing by the ED	Acknowledgement	330.421(b)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
649	Part III	Provide the removal of artifacts once monitoring well is installed and open water-bearing zones for max flow into well	Required	330.421(c)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
650	Part III	Identify well location & elevation surveyed, permanently marked	Required	330.421(d)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
651	Part III	Provide a well installation report to be submitted within 60 days of completion including boring log, description of development procedures, any sample data & sit map showing location	Required	330.421(e)	Yes	Attachment F		Groundwater Sampling & Analysis Plan
652	Part III	Provide a Landfill Gas Management Plan to comply with Subchapter I	Required	330.63(g)	Yes	Attachment G		Landfill Gas Management Plan

653	Part III	Submit information to specify that methane concentration cannot exceed 1.25% by volume in facility structures	Required	330.371(a)(1)	Yes	Attachment G		Landfill Gas Management Plan
654	Part III	Submit information to specify that methane concentrations cannot exceed 5% by volume at permitted boundary wells, probes, subsurface soils, or other matrices	Required	330.371(a)(2)	Yes	Attachment G		Landfill Gas Management Plan
655	Part III	Provide a plan to implement routine methane monitoring where the type and frequency of monitoring is based on soil, hydrogeologic, and hydraulic conditions	Required	330.371(b)(1)(A)-(C)	Yes	Attachment G		Landfill Gas Management Plan
656	Part III	Provide a plan to implement routine methane monitoring where the type and frequency of monitoring is based on locations of facility structures, property boundaries and utility or pipelines that cross the facility boundary	Required	330.371(b)(1)(D)&(E)	Yes	Attachment G		Landfill Gas Management Plan
657	Part III	Indicate that methane monitoring will be conducted, at a minimum, quarterly.	Required	330.371(b)(2)	Yes	Attachment G		Landfill Gas Management Plan
658	Part III	Provide in the plan the necessary steps to take if methane concentrations exceed 1.25% in structures and/or 5% in boundary matrices; including notification to the ED, local officials, emergency officials, & the public	Required	330.371(c)-(1)	Yes	Attachment G		Landfill Gas Management Plan
660	Part III	Indicate that a remediation plan will be implemented within 60 days of detection that describes the nature, extent of the problem, and the proposed remedy. The ED may require additional remedial measures	Required	330.371(c)(3)	Yes	Attachment G		Landfill Gas Management Plan
661	Part III	Indicate that the ED may establish alternative schedule for monitoring & exceedance actions	Required	330.371(d)	Yes	Attachment G		Landfill Gas Management Plan
662	Part III	Provide for continuing methane monitoring and control for 30 yrs. after certification of final closure for Type I & IAE facilities. & 5 yrs. for Type IV & IVAE. Gas monitoring may be reduced with an approved no gas migration demonstration	Required	330.371(e)	Yes	Attachment G		Landfill Gas Management Plan
663	Part III	Provide for continuing methane monitoring and control for 30 yrs. after certification of final closure for Type I & IAE facilities.	Required	330.371(e)	Yes	Attachment G		Landfill Gas Management Plan
664	Part III	Provide for continuing methane monitoring and control for 5 yrs. after certification of final closure for Type IV & IVAE facilities.	Required	330.371(e)	Yes	Attachment G		Landfill Gas Management Plan
665	Part III	Indicate that information may be submitted to the ED, to reduce gas monitoring and control. The information must demonstrate no potential for gas migration beyond the property boundary or into on-site structures.	Required	330.371(e)	Yes	Attachment G		Landfill Gas Management Plan
666	Part III	Provide for gas monitoring & control to be revised & maintained as needed; post-closure land use shall not interfere with the gas monitoring system and all utility trenches crossing the facility shall be vented & monitored	Required	330.371(f)	Yes	Attachment G		Landfill Gas Management Plan
667	Part III	Provide a description of how gases be managed & controlled	Required	330.371(g)(1)	Yes	Attachment G		Landfill Gas Management Plan
668	Part III	Provide a description of the proposed system, installation procedures, installation timeline, monitoring & maintenance procedures	Required	330.371(g)(2)	Yes	Attachment G		Landfill Gas Management Plan
669	Part III	Provide a backup plan for breakdowns	Required	330.371(g)(3)	Yes	Attachment G		Landfill Gas Management Plan
670	Part III	Installation of an initial perimeter monitoring network at Type IAE and Type IVAE and larger landfills may consist of portable equipment and probes provided there are no habitable structures within 3000 feet of the waste placement boundary.	Informational	330.371(h)(1)				Landfill Gas Management Plan
671	Part III	Indicate that a permanent gas monitoring system will be installed if test results show the presence of methane gas above a concentration of .5% by volume	Required	330.371(h)(1)	Yes	Attachment G		Landfill Gas Management Plan
672	Part III	Provide a permanent gas monitoring system at Type I and Type IV facilities	Required	330.371(h)(2)	Yes	Attachment G		Landfill Gas Management Plan
673	Part III	Provide a monitoring network design to monitor on-site structures, and any other areas that have potential gas buildup	Required	330.371(i)	Yes	Attachment G		Landfill Gas Management Plan
674	Part III	Provide for all monitoring probes and on-site structures to be sampled for methane during the monitoring period	Required	330.371(j)	Yes	Attachment G		Landfill Gas Management Plan

680	Part III	Provide a demonstration that above ground disposal area final cover slopes shall not exceed 25%. Topmost portion of final cover shall be between 2% & 6%.	Required	330.453(c)	Yes	Attachment H	Closure Plan
681	Part III	Provide a demonstration that a design with an excess of 25% final cover slopes may be submitted. The design must demonstrate the management of drainage, such as control flumes, diversion terraces, spillways or other acceptable methods	Required if Requested	330.453(c)	Yes		Closure Plan
682	Part III	An alternative final cover design may be submitted to demonstrate an equivalent reduction in infiltration as the clayey soil cover infiltration layer specified under 330.453(a).	Required if Requested	330.453(d)(1)	Yes		Closure Plan
683	Part III	An alternative final cover design may be submitted to demonstrate approved alternative final cover that achieves equivalent protection from wind & water erosion	Required if Requested	330.453(d)(2)	Yes		Closure Plan
684	Part III	Submit information to comply with post-closure care once closure of a Type IV facility is complete	Required	330.453(f)	Yes		Closure Plan
685	Part III	Provide designs for a final cover system consisting of not less than two feet of soil cover.	Required	330.457(a)	Yes	Attachment H	Closure Plan
686	Part III	For landfills with a synthetic bottom liner, provide a final cover system design that includes a synthetic membrane with a permeability less than or equal to the bottom	Required	330.457(a)(1)	Yes	Attachment H	Closure Plan
687	Part III	Provide designs for a synthetic liner with minimum thickness of 20 mils, or 60 mils in the case of high-density polyethylene, to ensure proper seaming	Required	330.457(a)(1)	Yes	Attachment H	Closure Plan
688	Part III	For landfills with no synthetic bottom liner, provide a final cover system design that includes a minimum 18-inch thick clay-rich soil cover layer with a coefficient of permeability less than or equal to any constructed bottom liner or natural subsoil present. The coefficient of permeability shall not exceed 1×10^{-5} cm/sec	Required	330.457(a)(2)	Yes		Closure Plan
689	Part III	Provide designs for an erosion layer that consist of at least six inches of soil capable of sustaining native plant growth and that will be seeded or sodded immediately following the application of the final cover	Required	330.457(a)(3)	Yes	Attachment H	Closure Plan
690	Part III	Provide designs for cover of a Class 1 cell that consist of 4ft. clay with permeability not $> 1 \times 10^{-7}$ overlain by 18in. Topsoil. If waste is to be placed above Class 1 cell, it must first be covered with a four-foot layer of compacted clay rich soil and must meet the requirements of 330.457 and include a flexible membrane component	Required if Requested	330.457(b)	Yes		Closure Plan
691	Part III	Provide for permeability quality control testing of the 18-inch cover at no less than 1 test/acre and submit data to ED	Required	330.457(c)	Yes	Attachment H	Closure Plan
692	Part III	Demonstrate that the alternative final cover will achieve equivalent reduction in infiltration as the clay-rich soil cover layer specified under 330.457(a)(1) or (2)	Required if Requested	330.457(d)(1)	Yes		Closure Plan
693	Part III	Demonstrate that the alternative final cover will provide equivalent wind & water erosion protection as the erosion layer specified in 330.457(a)(3)	Required if Requested	330.457(d)(2)	Yes		Closure Plan
694	Part III	Submit a written closure plan describing the steps necessary to close units at any time and a description of the final cover design, methods, and procedures to install the final cover	Required	330.457(e)(1)	Yes	Attachment H	Closure Plan
695	Part III	Provide an estimate of the largest area needing final cover	Required	330.457(e)(2)	Yes	Attachment H	Closure Plan
696	Part III	Provide an estimate of max volume of waste ever on-site	Required	330.457(e)(3)	Yes	Attachment H	Closure Plan
697	Part III	Provide a schedule for completing closure activities	Required	330.457(e)(4)	Yes	Attachment H	Closure Plan
698	Part III	Provide a final contour map - depicting proposed final contours, top & side slopes, surface drainage features, and 100yr flood protection	Required	330.457(e)(5)	Yes	Attachment H	Closure Plan
699	Part III	Provide the specifics for the implementation of closure plan and place a copy of the plan in the operating record by the initial receipt of waste	Required	330.457(f)(1)	Yes	Attachment H	Closure Plan

700	Part III	Notify the ED in writing of the intent to close the facility, 45 days prior to initiation of closure activities	Required	330.457(f)(2)	Yes	Attachment H		Closure Plan
701	Part III	Specify in the closure plan that the operator will begin closure no later than 30 days after final receipt of waste or no later than one year if the unit has remaining capacity and additional waste may be received	Required	330.457(f)(3)	Yes	Attachment H		Closure Plan
702	Part III	Provide for closure activities to be completed within 180 days of initiation	Required	330.457(f)(4)	Yes	Attachment H		Closure Plan
703	Part III	Provide for post-closure care requirements following completion of closure. Submit PE certification of closure by registered mail with supporting documentation	Required	330.457(f)(5)	Yes	Attachment H		Closure Plan
704	Part III	Acknowledge that following receipt of closure documents and the inspection report by the TCEQ region, the ED may acknowledge termination of operation & closure & deem the facility properly closed	Acknowledgement	330.457(f)(6)	Yes	Attachment H		Closure Plan
705	Part III	Submit a certified copy within 10 days after landfill unit closure, of the "Affidavit to the Public". The Owner and Operator shall record a certified notation to the deed that the land has been used as a landfill facility	Required	330.457(g)	Yes	Attachment H		Closure Plan
706	Part III	Indicate that notice of closure will be published in the newspaper of largest circulation 90 days prior to the initiation of a final facility closure. The notice shall provide the name, address, and physical location of the facility; the TCEQ authorization number; and the last date of intended receipt of waste.	Required	330.461(a)	Yes	Attachment H		Closure Plan
708	Part III	Acknowledge that least one closure sign will be posted at every point of access and notify all persons who utilize the facility of the date of closure and the prohibition against further receipt of waste materials	Acknowledgement	330.461(b)	Yes	Attachment H		Closure Plan
714	Part III	Submit a closure plan for Storage and Processing units to remove all waste, waste residues, and any recovered materials. Units shall be dismantled and removed offsite or decontaminated.	Required	330.459(a)	Yes			Closure Plan For Processing Facilities
715	Part III	Provide plans for the evacuation of all material on-site to an authorized facility and the disinfecting of all contaminated water handling units, tipping areas, processing and post-processing areas (as applicable)	Required	330.459(b)	Yes			Closure Plan For Processing Facilities
716	Part III	Acknowledge that if there is evidence of a release, the ED may require an investigation, assessment, and/or corrective action.	Acknowledgement	330.459(c)	Yes			Closure Plan For Processing Facilities
717	Part III	Submit a plan (if combustible material is stored outdoors) for closure of a recycling facility that includes collecting processed and unprocessed materials, and transporting the materials to an authorized facility for disposition	Required	330.459(d)(1)	Yes			Closure Plan For Processing Facilities
718	Part III	Provide for the closure plan to be implemented (if combustible material is stored outdoors) and completed within 180 days following the most recent acceptance of processed or unprocessed materials	Required	330.459(d)(2)	Yes			Closure Plan For Processing Facilities
719	Part III	Submit a Post-Closure Plan that includes a PE certification of closure, and specify that the owner or operator shall retain the right of entry to and maintain all rights-of-way in order to conduct periodic inspections for a minimum 5 yrs. after certification of closure.	Required	330.63(i)	Yes	Attachment I		Post-Closure Plan
720	Part III	Provide for maintenance and control of cover material, erosion control, vegetative growth, leachate or methane migration, and subsidence or ponding of water on the unit. If any of these problems persist for longer than the first five years of post-closure care, the owner or operator shall be responsible for their correction	Required	330.463(a)(I)	Yes	Attachment I		Post-Closure Plan
721	Part III	Acknowledge that the ED may reduce the post-closure period for the unit if all wastes and waste residues have been removed during closure	Acknowledgement	330.463(a)(1)	Yes	Attachment I		Post-Closure Plan
722	Part III	Provide for continued monitoring programs, i.e., groundwater monitoring, resistivity surveys, methane monitoring, etc.; during the post-closure care period.	Required	330.463(a)(2)	Yes	Attachment I		Post-Closure Plan

723	Part III	Acknowledge that the ED may require an investigation into the nature and extent of any release from the facility and an assessment to correct an impact to groundwater	Acknowledgement	330.463(a)(3)	Yes	Attachment I		Post-Closure Plan
724	Part III	Provide for 30-year post-closure care after PE certification of closure	Required	330.463(b)(1)	Yes	Attachment I		Post-Closure Plan
725	Part III	Provide for right of entry and the maintenance of all rights-of-way, conduct site maintenance and/or remediation, maintain final cover, vegetation, drainage & correct as needed	Required	330.463(b)(1)(A)	Yes	Attachment I		Post-Closure Plan
726	Part III	Provide maintenance and operation of the leachate collection system	Required	330.463(b)(1)(B)	Yes	Attachment I		Post-Closure Plan
727	Part III	Provide for maintenance and monitoring of the groundwater monitoring system per requirements of Subchapter J	Required	330.463(b)(1)(C)	Yes	Attachment I		Post-Closure Plan
728	Part III	Provide for maintenance and monitoring of gas system per requirements of Subchapter I	Required	330.463(b)(1)(D)	Yes	Attachment I		Post-Closure Plan
729	Part III	Provide for continued earth electrical resistivity surveys per site development plan	Required	330.463(b)(1)(E)	Yes	Attachment I		Post-Closure Plan
730	Part III	Place a copy of the post-closure plan in the operating record by initial receipt of waste.	Required	330.463(b)(3)	Yes	Attachment I		Post-Closure Plan
731	Part III	Submit a description of the monitoring and maintenance activities required and the frequency at which these activities will be performed	Required	330.463(b)(3)(A)	Yes	Attachment I		Post-Closure Plan
732	Part III	Provide the name, address, & phone number of responsible person	Required	330.463(b)(3)(B)	Yes	Attachment I		Post-Closure Plan
733	Part III	Provide a description of the planned use of closed unit during the post closure period	Required	330.463(b)(3)(C)	Yes	Attachment I		Post-Closure Plan
734	Part III	Provide a detailed written estimate of the cost of post-closure care maintenance and any corrective action as described in the post-closure care plan or required by the ED per Subchapter L	Required	330.463(b)(3)(D)	Yes	Attachment I		Post-Closure Plan
735	Part III	Indicate that a certification of completion of post-closure care signed by a PE will be submitted at the end of the post-closure care period	Required	330.465(a)	Yes	Attachment I		Post-Closure Plan
738	Part III	Submit a dollar estimate of hiring a 3rd party to close the largest waste fill area that could potentially be open in the year to follow and those areas that have not received final cover. For landfills this means the completion of the final closure requirements for active and inactive fill areas.	Required	330.503(a)	Yes	Attachment J		Closure Cost Estimates
739	Part III	Provide for annual review of cost estimates	Required	330.503(a)(1)	Yes	Attachment J		Closure Cost Estimates
740	Part III	Submit an increase to the cost estimate if changes to final closure plan or landfill conditions increase the maximum cost of closure at any time during the remaining active life of the unit.	Required	330.503(a)(2)	Yes	Attachment J		Closure Cost Estimates
741	Part III	Reduction in cost estimate may be approved	Required if Requested	330.503(a)(3)	Yes	Attachment J		Closure Cost Estimates
749	Part III	Submit a Post-Closure Care Cost Estimates for the cost of hiring a third party to conduct post-closure care activities. The cost estimate shall account for the total costs of conducting post closure care for the largest area that could possibly require post-closure care in the year to follow over the entire post closure care period.	Required	330.507(a)	Yes	Attachment J		Post-Closure Care Cost Estimates for Landfills
750	Part III	Submit an increase in the post-closure care cost estimate and the amount of financial assurance if changes in the post-closure care plan or the unit conditions increase the maximum costs of post-closure care	Required if Requested	330.507(a)(1)	Yes			Post-Closure Care Cost Estimates for Landfills
751	Part III	Submit a reduction in the post-closure care cost estimate and the amount of financial assurance if the cost estimate exceeds the maximum costs of post-closure care remaining and a notice is provided to the ED of the detailed justification for the reduction of the cost estimate and the amount of financial assurance as a permit modification.	Required	330.507(a)(2)	Yes	Attachment J		Post-Closure Care Cost Estimates for Landfills
752	Part III	Implement a corrective action program and a detailed written cost estimate of the cost of hiring a third party to perform the corrective action program. The corrective action cost estimate shall account for the total costs of corrective action activities	Required if Requested	330.509(a)	Yes			Corrective Action Cost Estimate

753	Part III	The corrective action cost estimate and the amount of financial assurance shall be increased if changes in the corrective action program or unit conditions increase the maximum costs of corrective action	Required if Requested	330.509(a)(1)	Yes			Corrective Action Cost Estimate
754	Part III	A reduction in the cost estimate and the amount of financial assurance for corrective action may be approved if the cost estimate exceeds the maximum remaining costs of corrective action at any time during the remaining corrective action period	Required if Requested	330.509(a)(2)	Yes			Corrective Action Cost Estimate
755	Part III	Provide financial assurance for the costs of the most recent corrective action program. Continuous financial assurance coverage for each corrective action program shall be provided until the facility is officially released in writing by the ED	Required if Requested	330.509(b)	Yes			Corrective Action Cost Estimate
756	Part III	Provide financial assurance per Chapter 37, Subchapter R	Required	330.503(b)	Yes	Attachment J		Financial Assurance
757	Part III	Provide for financial assurance for post-closure cost. Continuous financial assurance coverage for post-closure care shall be provided	Required	330.507(b)	Yes	Attachment J		Financial Assurance
758	Part IV	A site operating plan shall cover all on-site units in accordance with Subchapters D & E of Chapter 330.	Informational	330.65(a)				Site Operating Plan
759	Part IV	A facility that has an environmental management system that meets both the minimum standards described in 30 TAC §90.32 of this title and the United States Environmental Protection Agency's National Environmental Performance Track is not subject to site operating plan requirements	Informational	330.65(b)				Site Operating Plan
760	Part IV	In the event the executive director terminates authorization to operate under an environmental management system, the facility will comply with the site operating plan requirements within 90 days.	Informational	330.65(b)				Site Operating Plan
761	Part IV	Provide procedures for recirculating leachate or gas condensate	Required if Requested	330.65(c)	Yes			Site Operating Plan
762	Part IV	Acknowledge that the site development plan, site operating plan, final closure plan, post-closure maintenance plan, landfill gas management plan, & all other documents are operating requirements & part of the operating record.	Acknowledgement	330.121(a)	Yes	Part IV		Site Operating Plan
763	Part IV	Acknowledge that any deviation from the permit and incorporated plans or other related documents associated with the permit is a violation of this chapter	Acknowledgement	330.121(a)	Yes	Part IV		Site Operating Plan
764	Part IV	Acknowledgment that the SLER will be submitted to the ED 14 days prior to waste disposal operations for each new disposal area	Acknowledgement	330.123	Yes	Part IV		Site Operating Plan
765	Part IV	Acknowledge that all information required to be in the site operating record to be placed in the operating record within seven (7) days of completion or receipt	Acknowledgement	330.125(b)	Yes	Part IV		Site Operating Plan
766	Part IV	Acknowledge that all location restriction demonstrations will be maintained in the site operating record	Acknowledgement	330.125(b)(1)	Yes	Part IV		Site Operating Plan
768	Part IV	Acknowledge that all results of gas monitoring & any remediation plans relating to explosive and other gases will be maintained in the site operating record	Acknowledgement	330.125(b)(3)	Yes	Part IV		Site Operating Plan
769	Part IV	Acknowledge that all unit design documentation regarding placement of leachate or gas condensate will be maintained in the site operating record	Acknowledgement	330.125(b)(4)	Yes	Part IV		Site Operating Plan
770	Part IV	Acknowledge that all demonstration, certification, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action will be maintained in the site operating record	Acknowledgement	330.125(b)(5)	Yes	Part IV		Site Operating Plan
771	Part IV	Acknowledge that all closure and post-closure care plans and any monitoring, testing, or analytical data relating to post-closure requirements will be maintained in the site operating record	Acknowledgement	330.125(b)(6)	Yes	Part IV		Site Operating Plan
772	Part IV	Acknowledge that all cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure will be maintained in the site operating record	Acknowledgement	330.125(b)(7)	Yes	Part IV		Site Operating Plan

773	Part IV	Acknowledge that all documentation of compliance with small community exemption criteria will be maintained in the site operating record	Acknowledgement	330.125(b)(8)	Yes	Part IV		Site Operating Plan
774	Part IV	Acknowledge that copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals, and other matters pertaining to technical assistance will be maintained in the site operating record	Acknowledgement	330.125(b)(9)	Yes	Part IV		Site Operating Plan
775	Part IV	Acknowledge that all documents, manifests, shipping documents, trip tickets, etc., involving special waste will be maintained in the site operating record	Acknowledgement	330.125(b)(10)	Yes	Part IV		Site Operating Plan
776	Part IV	Acknowledge that records of the application rate and total amount of any spray-applied alternative daily cover applied to the working face will be maintained in the site operating record.	Acknowledgement	330.125(b)(11)	Yes	Part IV		Site Operating Plan
777	Part IV	Acknowledge that any other documents specified by the permit or Executive Director will be maintained in the site operating record	Acknowledgement	330.125(b)(12)	Yes	Part IV		Site Operating Plan
778	Part IV	Acknowledge that the site operating record will maintain all required documents in an organized format and in accordance with the time frames specified in 330.125(b), and will be furnished upon request to the executive director and must be made available for inspection by the executive director	Acknowledgement	330.125(c)	Yes	Part IV		Site Operating Plan
779	Part IV	Indicate that the operating record will be maintained for life & post-closure period of the facility	Required	330.125(d)	Yes	Part IV		Site Operating Plan
780	Part IV	Indicate that all training records will be maintained in accordance with 30 TAC §335.586(d) & (e)	Required	330.125(e)	Yes	Part IV		Site Operating Plan
781	Part IV	Indicate that personnel operating licenses issued under 30 TAC Chapter 30, Subchapter F will be maintained in the site operating record	Required	330.125(f)	Yes	Part IV		Site Operating Plan
782	Part IV	Indicate that the executive director may set alternative schedule for recordkeeping & notification	Required	330.125(g)	Yes	Part IV		Site Operating Plan
783	Part IV	Indicate that records documenting the annual waste acceptance rate will be maintained in the site operating record	Required	330.125(h)	Yes	Part IV		Site Operating Plan
784	Part IV	Indicate that documentation of waste acceptance rate will include maintaining annual & quarterly waste summary reports required by 30 TAC §330.675	Required	330.125(h)	Yes	Part IV		Site Operating Plan
785	Part IV	Indicate that the facility will provide the reports required by 30 TAC §330.675 to the Executive Director	Required	330.675	Yes	Part IV		Site Operating Plan
786	Part IV	Indicate that if the annual waste acceptance rate exceeds the rate estimated in the landfill permit application and the waste increase is not due to a temporary occurrence, the owner or operator shall file an application to modify the permit application, including the revised estimated waste acceptance rate, in accordance with 30 TAC §305.70(k) of this title (relating to Municipal Solid Waste Permit and Registration Modifications), within 90 days of the exceedance as established by the sum of the previous four quarterly summary reports.	Required	330.125(h)	Yes	Part IV		Site Operating Plan
787	Part IV	Provide a description of the function & minimum qualifications of key personnel	Required	330.127(1)	Yes	Part IV		Site Operating Plan
788	Part IV	Provide a description of the minimum number, size, type and function of the equipment to be utilized at the facility	Required	330.127(2)	Yes	Part IV		Site Operating Plan
789	Part IV	Provide a description of the provisions for back-up equipment during periods of breakdown or maintenance of this listed equipment	Required	330.127(2)	Yes	Part IV		Site Operating Plan
790	Part IV	Provide general instructions for personnel concerning operational requirements	Required	330.127(3)	Yes	Part IV		Site Operating Plan
791	Part IV	Identify all applicable training requirements under 30 TAC §335.586(a) & (c) that must be followed	Required	330.127(4)	Yes	Part IV		Site Operating Plan
792	Part IV	Provide procedures for the detection and prevention of the disposal of prohibited wastes, including hazardous waste & PCB wastes	Required	330.127(5)	Yes	Part IV		Site Operating Plan

793	Part IV	Provide procedures for random inspections of incoming loads including the inspection of compactor vehicles.	Required	330.127(5)(A)	Yes	Part IV		Site Operating Plan
794	Part IV	Indicate that trained staff shall observe each load that is disposed at the landfill.	Required	330.127(5)(A)	Yes	Part IV		Site Operating Plan
795	Part IV	Indicate that records will be kept of all waste load inspections.	Required	330.127(5)(B)	Yes	Part IV		Site Operating Plan
796	Part IV	Indicate that facility personnel inspecting or observing loads must have training to recognize prohibited waste.	Required	330.127(5)(C)	Yes	Part IV		Site Operating Plan
797	Part IV	Indicate that notification will be provided to executive director and to any local pollution agency with jurisdiction that has requested to be notified, of the receipt or disposal of hazardous or PCB waste.	Required	330.127(5)(D)	Yes	Part IV		Site Operating Plan
798	Part IV	Provide provisions for remediation of hazardous or PCB waste that has been received for disposal at the facility.	Required	330.127(5)(E)	Yes	Part IV		Site Operating Plan
799	Part IV	Indicate that the facility will maintain a source of earthen material available to extinguish fires, sized to cover waste not covered with six inches of earthen material within one hour of detecting a fire.	Required	330.129	Yes	Part IV		Site Operating Plan
800	Part IV	Provide a demonstration, including calculations, showing that sufficient on-site equipment and earthen material stockpile is available to cover any waste not already covered with six inches of earthen material within one hour of detecting a fire.	Required	330.129	Yes	Part IV		Site Operating Plan
801	Part IV	Indicate that sufficient on-site equipment must be provided to place a six-inch layer of earthen material to cover any waste not already covered with six inches of earthen material within one hour of detecting a fire.	Required	330.129	Yes	Part IV		Site Operating Plan
802	Part IV	Provide fire protection standards & training procedures.	Required	330.129	Yes	Part IV		Site Operating Plan
803	Part IV	Identify other activities requiring fire protection and provide protection measures specific to each individual activity.	Required	330.129	Yes	Part IV		Site Operating Plan
804	Part IV	Indicate that if a fire occurs that is not extinguished within ten minutes of detection, the commission's regional office must be contacted immediately after detection, but no later than four hours by telephone, and in writing within 14 days with a description of the fire and the resulting response.	Required	330.129	Yes	Part IV		Site Operating Plan
805	Part IV	Provide provisions for access control to the facility.	Required	330.131	Yes	Part IV		Site Operating Plan
806	Part IV	Provide an inspection and maintenance schedule for access control features.	Required	330.131	Yes	Part IV		Site Operating Plan
807	Part IV	Indicate that the commission's regional office, and any local pollution agency with jurisdiction that has requested to be notified, must be notified of the breach within 24 hours of detection. Indicate that the breach must be temporarily repaired within 24 hours of detection and must be permanently repaired by the time specified to the commission's regional office when it was reported in the initial breach report. Indicate that if a permanent repair can be made within eight hours of detection, no notice to the commission's regional office is required.	Required	330.131	Yes	Part IV		Site Operating Plan
808	Part IV	Identify all unloading areas and specify maximum size of each unloading area.	Required	330.133(a)	Yes	Part IV		Site Operating Plan
809	Part IV	Indicate that trained staff will monitor incoming loads at each unloading area.	Required	330.133(a)	Yes	Part IV		Site Operating Plan
810	Part IV	Indicate that the unloading of waste in unauthorized areas is prohibited.	Required	330.133(b)	Yes	Part IV		Site Operating Plan
817	Part IV	At Type IV landfills, only brush, C&D, & rubbish free of putrescible and household waste are allowed.	Informational	330.133(e)				Site Operating Plan
818	Part IV	Submit a written procedure that will ensure that containers with any putrescible wastes are not accepted at the landfill.	Required	330.133(f)(1)	Yes			Site Operating Plan
819	Part IV	Submit a written procedure for the immediate removal of any putrescible wastes and other prohibited waste disposed of at the landfill.	Required	330.133(f)(2)	Yes			Site Operating Plan
820	Part IV	Provide a procedure for transporter certifications that will be retained at the landfill and available for inspection by the executive director.	Required	330.133(f)(3)	Yes			Site Operating Plan
821	Part IV	Acknowledge that Type IV landfills may only accept waste in enclosed containers or enclosed vehicles in accordance with 30 TAC §330.169	Acknowledgement	330.133(g)	Yes			Site Operating Plan

822	Part IV	Provide a description of wastes that are not allowed and state the landfill's requirements for transporters	Required	330.133(h)	Yes	Part IV		Site Operating Plan
823	Part IV	Specify waste acceptance and operating hours	Required	330.135(a)	Yes	Part IV		Site Operating Plan
824	Part IV	The waste acceptance hours of a municipal solid waste facility may be any time between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, unless otherwise approved in the authorization for the facility. Waste acceptance hours within the 7:00 a.m. to 7:00 p.m. weekday span do not require other specific approval. Transportation of materials and heavy equipment operation must not be conducted between the hours of 9:00 p.m. to 5:00 a.m., unless otherwise approved in the authorization for the facility. Operating hours for other activities do not require specific approval.	Informational	330.135(a)				Site Operating Plan
825	Part IV	Specify alternative operating hours of up to five days in a calendar year to accommodate special occasions, special purpose events, holidays, or other special occurrences	Required If Requested	330.135(b)	Yes			Site Operating Plan
826	Part IV	Indicate that the facility will record in the site operating record the dates, times, and duration when any alternative operating hours are utilized	Required	330.135(d)	Yes	Part IV		Site Operating Plan
827	Part IV	Indicate that a sign measuring at least 4' X 4' with letters at least three inches in height must be displayed at all entrances.	Required	330.137	Yes	Part IV		Site Operating Plan
828	Part IV	Indicate that information on the sign must include the facility type, hours and days of operation, an emergency 2-hr. Contact number, local fire department number & permit number	Required	330.137	Yes	Part IV		Site Operating Plan
829	Part IV	Indicate that windblown waste and litter at the working face must be controlled by using engineering methods or measures, including portable panels, temporary fencing, and perimeter fencing or comparable engineering controls.	Required	330.139(1)	Yes	Part IV		Site Operating Plan
830	Part IV	Provide a plan for daily management of litter scattered throughout the site, along fences and access roads, and at the gate	Required	330.139(2)	Yes	Part IV		Site Operating Plan
831	Part IV	Indicate that no unloading, storage, disposal, or processing operations will occur within easements, buffer zones, or rights-of-way that crosses the site, and that no disposal shall occur within 25 feet of the center line of any utility line or pipeline easement, unless otherwise authorized by the executive director	Required	330.141(a)	Yes	Part IV		Site Operating Plan
832	Part IV	Indicate that all pipeline and utility easements must be clearly marked with posts that extend at least six feet above ground level, spaced at intervals no greater than 300 feet	Required	330.141(a)	Yes	Part IV		Site Operating Plan
833	Part IV	Indicate that a minimum separating distance shall be maintained between solid waste processing and disposal activities within and adjacent to the facility boundary on property owned or controlled by the owner or operator as determined by the requirements of 30 TAC §330.5-13. The buffer zone must provide for safe passage for fire-fighting and other emergency vehicles.	Required	330.141(b)	Yes	Part IV		Site Operating Plan
834	Part IV	Indicate that the visibility of all required landfill markers and the benchmark must be maintained	Required	330.143(a)	Yes	Part IV		Site Operating Plan
835	Part IV	Indicate that landfill markers must be inspected on a monthly basis and records of all inspections placed in the site operating record	Required	330.143(a)	Yes	Part IV		Site Operating Plan
836	Part IV	Indicate that all markers must be replaced within 15 days of removal, destruction, or a determination that the markers do not meet regulatory requirements.	Required	330.143(a)	Yes	Part IV		Site Operating Plan
837	Part IV	Landfill markers must be installed to clearly mark significant features and that the executive director may modify specific marker requirements to accommodate unique site-specific conditions.	Required	330.143(b)	Yes	Part IV		Site Operating Plan
838	Part IV	Indicate that markers must be posts extending 6ft. above ground and not obscured	Required	330.143(b)(1)	Yes	Part IV		Site Operating Plan

839	Part IV	Provide the color coding for on-site markers that is in compliance with 330.143(b)(1)(A) - (F)	Required	330.143(b)(1)(A) - (F)	Yes	Part IV		Site Operating Plan
840	Part IV	Indicate that boundary markers must be placed at each corner of the facility and along boundary line at intervals not greater than 300 ft.	Required	330.143(b)(2)	Yes	Part IV		Site Operating Plan
841	Part IV	Indicate that markers identifying the buffer zone will placed along each buffer zone boundary at intervals of no greater than 300 ft.	Required	330.143(b)(3)	Yes	Part IV		Site Operating Plan
842	Part IV	Indicate that easement and right-of-way markers must be placed along the centerline of an easement and along the boundary of a right-of-way at each corner within the facility and at the intersection of the facility boundary	Required	330.143(b)(4)	Yes	Part IV		Site Operating Plan
843	Part IV	Indicate that a landfill grid system must be installed unless written approval from the executive director has been received.	Required	330.143(b)(5)	Yes	Part IV		Site Operating Plan
844	Part IV	Indicate that grid system will encompass at least the area expected to be filled within the next three-year period and that marks must be spaced no greater than 100 feet apart measured along perpendicular lines and that where markers cannot be seen from opposite boundaries, intermediate markers must be installed, where feasible.	Required	330.143(b)(5)	Yes	Part IV		Site Operating Plan
845	Part IV	Indicate that soil liner or geomembrane markers will be placed so that areas under evaluation can be determined & maintained through construction & operation period.	Required	330.143(b)(6)	Yes	Part IV		Site Operating Plan
846	Part IV	Indicate that the location of the liner markers must be tied into the landfill grid system and must be reported on each soil liner evaluation report or geomembrane liner evaluation report submitted	Required	330.143(b)(6)	Yes	Part IV		Site Operating Plan
847	Part IV	Indicate that liner area markers must not be placed inside constructed areas.	Required	330.143(b)(6)	Yes	Part IV		Site Operating Plan
848	Part IV	Indicate that flood protection markers must be installed for any area within a solid waste disposal facility that is within the 100-year floodplain and that areas subject to flooding must be clearly marked by means of permanent posts not more than 300 feet apart or closer if necessary to retain visual continuity.	Required	330.143(b)(7)	Yes	Part IV		Site Operating Plan
849	Part IV	Indicate that a permanent benchmark must be established and accessible and must be a bronze survey marker in concrete stamped with elevation and date stamped on it and that the benchmark must be surveyed from a known United States Coast and Geodetic Survey benchmark or other reliable benchmark	Required	330.143(b)(8)	Yes	Part IV		Site Operating Plan
850	Part IV	Indicate that the facility owner or operator shall take steps to encourage that 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 the escape of any part of the load by blowing or spilling	Required	330.145	Yes	Part IV		Site Operating Plan
851	Part IV	Indicate that the owner or operator shall take actions such as posting signs, reporting offenders to proper law enforcement officers, adding surcharges, or similar measures.	Required	330.145	Yes	Part IV		Site Operating Plan
852	Part IV	Indicate that on days when the facility is in operation, the owner or operator shall be responsible for at least once per day cleanup of waste materials spilled along and within the right-of-way of public access roads serving the facility for a distance of two miles in either direction from any entrances used for the delivery of waste to the facility.	Required	330.145	Yes	Part IV		Site Operating Plan
853	Part IV	Indicate that the facility operator will consult with the Texas Department of Transportation, county, and/or local governments with maintenance authority over the roads concerning cleanup of public access roads and rights-of-way	Required	330.145	Yes	Part IV		Site Operating Plan

854	Part IV	Indicate that large, heavy, bulky items that cannot be incorporated in the regular spreading, compaction, and covering operations at landfill should be recycled and that a large item salvage area should be established & items removed often enough to prevent nuisance or discharge	Required	330.147(a)	Yes	Part IV		Site Operating Plan
855	Part IV	Indicate the items that can be classified as large, heavy, or bulky. This can include, but is not limited to, white goods (household appliances), air conditioner units, metal tanks, large metal pieces, and automobiles.	Required	330.147(b)	Yes	Part IV		Site Operating Plan
856	Part IV	Indicate that refrigerators, freezer, air conditioners, and any other items containing CFCs must be handled in accordance with 40 CFR 82.156(f)	Required	330.147(c)	Yes	Part IV		Site Operating Plan
857	Part IV	Provide an odor management plan that addresses the sources of odors and includes general instructions to control odors or the sources of odors. The plans for odor management must include the identification of wastes that require special attention such as septage, grease trap waste, dead animals, and leachate	Required	330.149	Yes	Part IV		Site Operating Plan
858	Part IV	Provide procedures for the control of on-site populations of disease vectors including the use of proper compaction and daily cover procedures, and the use of other approved methods when needed. The general methods and performance-based frequencies for disease vector control must be specified	Required	330.151	Yes	Part IV		Site Operating Plan
859	Part IV	Provide a description for all weather access roads from the facility to public roads and within the facility. Indicate that tracked mud & debris on public roadway removed once a day on days when mud and associated debris are being tracked onto the public roadway. Provide a description of the specific method for controlling mud & debris	Required	330.153(a)	Yes	Part IV		Site Operating Plan
860	Part IV	Indicate that tracked mud & associated debris on public roadway removed once a day on days when mud and associated debris are being tracked onto the public roadway.	Required	330.153(a)	Yes	Part IV		Site Operating Plan
861	Part IV	Provide a description of the specific method for controlling mud & debris	Required	330.153(a)	Yes	Part IV		Site Operating Plan
862	Part IV	Specify method of dust control or suppression	Required	330.153(b)	Yes	Part IV		Site Operating Plan
863	Part IV	Provide a description, including frequency, of how all on site roadways will be maintained to minimize depressions, ruts, and potholes	Required	330.153(c)	Yes	Part IV		Site Operating Plan
864	Part IV	Indicate that litter and any other debris must be picked up at least daily and taken to the working face for disposal	Required	330.153(c)	Yes	Part IV		Site Operating Plan
865	Part IV	Indicate that salvaging operations must not interfere with prompt sanitary disposal of solid waste or to create public health nuisances.	Required	330.155	Yes	Part IV		Site Operating Plan
866	Part IV	Indicate that salvaged items will be removed often enough to prevent becoming a nuisance, preclude the discharge of any pollutants, or to prevent an excessive accumulation of material.	Required	330.155	Yes	Part IV		Site Operating Plan
867	Part IV	Indicate that Class 1 industrial and other special wastes received at the disposal facility must not be salvaged.	Required	330.155	Yes	Part IV		Site Operating Plan
868	Part IV	Indicate that pesticide, fungicide, rodenticide, and herbicide containers must not be salvaged unless being salvaged through a state-supported recycling program.	Required	330.155	Yes	Part IV		Site Operating Plan
869	Part IV	Indicate that scavenging is prohibited.	Required	330.155	Yes	Part IV		Site Operating Plan
870	Part IV	Specify criteria for the protection of identified endangered species	Required	330.157	Yes	Part IV		Site Operating Plan
871	Part IV	Indicate that landfill gas report and submittals must be maintained in operating record	Required	330.159	Yes	Part IV		Site Operating Plan
872	Part IV	Indicate that within 30 days of discovery, notice will be provide to the executive director of the location of any and all existing or abandoned water wells, oil wells, natural gas wells or other wells situated within the facility.	Required	330.161(a)-(b)	Yes	Part IV		Site Operating Plan

873	Part IV	Indicate that within 30 days of discovery, the facility will provide the executive director with notification and written certification that the water well has been capped, plugged, and closed in accordance with all applicable rules and regulations of the commission or other state agency	Required	330.161(a)	Yes	Part IV		Site Operating Plan
875	Part IV	Indicate that the executive director may approve any well used to supply water at the facility that is located within the permit boundary if it is determined that the well is outside the waste footprint, it is not impacted by landfill operations, it can be demonstrated that well design and installation will prevent any cross-contamination from the waste management unit to the water well production zone and between any water bearing zones, and an approved sampling plan to include frequency and parameters is in place.	Required	330.161(a)	Yes	Part IV		Site Operating Plan
876	Part IV	Indicate that any water or other type of wells under the jurisdiction of the commission must be plugged in accordance with all applicable state requirements or additional requirements imposed by the executive director and that a copy of the well plugging report required to be submitted to the appropriate state agency and must also be submitted to the executive director within 30 days after the well has been plugged.	Required	330.161(c)	Yes	Part IV		Site Operating Plan
877	Part IV	Indicate that any proposed changes to the liner installation plan as a result of any well abandonment will be submit for executive director approval as permit modification	Required	330.161(d)	Yes	Part IV		Site Operating Plan
878	Part IV	Specify the methods of compaction of waste	Required	330.163	Yes	Part IV		Site Operating Plan
879	Part IV	Indicate that the landfill must apply six inches of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste at the end of each operating day to control disease vectors, fires, odors, windblown litter or waste, and scavenging, unless the executive director requires a more frequent interval.	Required	330.165(a)	Yes	Part IV		Site Operating Plan
880	Part IV	Indicate that the landfill must apply six inches of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste at least weekly to control disease vectors, fires, odors, windblown litter or waste, and scavenging, unless the executive director requires a more frequent interval.	Required	330.165(b)	Yes	Part IV		Site Operating Plan
881	Part IV	Landfills that operate on a 24-hour basis must cover the working face or active disposal area at least once every 24 hours. The executive director may require a chemical analysis of any landfill cover material. Runoff from areas that have intact daily cover is not considered as having come into contact with the working face or leachate.	Informational	330.165(a)				Site Operating Plan
882	Part IV	Indicate that all areas that have received waste but will be inactive for longer than 180 days must provide intermediate or final cover.	Required	330.165(c)	Yes	Part IV		Site Operating Plan

883	Part IV	Indicate that all intermediate cover will be six inches of suitable earthen material that is capable of sustaining native plant growth and must be seeded or sodded following its application in order to control erosion, or must be a material approved by the executive director that will otherwise control erosion. This intermediate cover must not be less than 12 inches of suitable earthen material. The intermediate cover must be graded to prevent ponding of water. Plant growth or other erosion control features must be maintained. Runoff from areas that have intact intermediate cover is not considered as having come into contact with the working face or leachate.	Required	330.165(c)	Yes	Part IV		Site Operating Plan
884	Part IV	Indicate that alternative daily cover may only be allowed by a temporary authorization under §305.62(k)(1)(A) of this title (relating to Municipal Solid Waste Permit and Registration Modifications) followed by a major amendment or a modification in accordance with §305.70(k)(1) of this title. Use of alternative daily cover is limited to a 24-hour period after which either waste or daily cover as defined in subsection (a) of this section must be placed.	Required If Requested	330.165(d)	Yes	Part IV		Site Operating Plan
885	Part IV	Provide a alternative daily cover operating plan that includes the information required by 30 TAC §330.165(d)(1)(A) - (E)	Required If Requested	330.165(d)(1)(A)-(E)	Yes			Site Operating Plan
886	Part IV	Indicate that status reports on the alternative daily cover must be submitted on a two-month basis to the executive director during the temporary authorization period describing the effectiveness of the alternative material, any problems that may have occurred, and corrective actions required as a result of such problems.	Required If Requested	330.165(d)(2)	Yes			Site Operating Plan
887	Part IV	Indicate that alternative daily cover must not be allowed when the landfill is closed for a period greater than 24 hours, unless the executive director approves an alternative length of time	Required If Requested	330.165(d)(3)	Yes			Site Operating Plan
888	Part IV	Indicate that the constituents of concern in contaminated soils used as shall not exceed the concentrations listed in Table 1, Constituents of Concern and Their Maximum Leachable Concentrations, located in 30 TAC §335.521(a)(1)	Required If Requested	330.165(d)(4)	Yes			Site Operating Plan
889	Part IV	Indicate that contaminated soils used as ADC will not contain PCB waste subject to 40 CFR Part 761	Required If Requested	330.165(d)(4)(A)	Yes			Site Operating Plan
890	Part IV	Indicate that contaminated soils used as ADC will not contain TPH concentrations greater than 1,500 ppm unless ED approves a suitability demonstration	Required If Requested	330.165(d)(4)(B)	Yes			Site Operating Plan
891	Part IV	ADC must not exceed constituent limits imposed on waste disposed at the facility	Required If Requested	330.165(d)(5)	Yes			Site Operating Plan
892	Part IV	Indicate that the executive director may require the facility to test runoff from areas that have alternative daily cover for compliance with Texas Pollutant Discharge Elimination System storm water discharge limits or manage the runoff as contaminated water.	Required If Requested	330.165(d)(6)	Yes			Site Operating Plan
893	Part IV	Provide a demonstration if there are any extreme seasonal climatic conditions that make meeting requirements of 30 TAC §330.165(a) - (d) impractical. Based on this demonstration the executive director may grant a temporary waiver from the requirements of subsections 30 TAC §330.165(a) - (d)	Required If Requested	330.165(e)	Yes			Site Operating Plan
894	Part IV	Indicate that final cover for the landfill must be in accordance with the site closure plan and Subchapter K of Chapter 330.	Required	330.165(f)	Yes	Part IV		Site Operating Plan
904	Part IV	Indicate that enclosed containers or enclosed vehicles must only be accepted at their designated time and on the specified day in accordance with this section, commission permits, or other orders of the commission.	Required If Requested	330.169(I)(C)	Yes			Site Operating Plan

905	Part IV	Indicate that a commission inspector shall be on site and shall witness the unloading process to ensure that no putrescible waste or household waste is present and that any waste considered non-allowable by the inspector must be removed from the working face and subsequently from the facility in accordance with 30 TAC §330.133	Required If Requested	330.169(I)(D)	Yes			Site Operating Plan
906	Part IV	Indicate that each transporter delivering waste in enclosed containers or enclosed vehicles must, prior to discharging the load, provide to the landfill operator a transporter trip ticket for the route being delivered. Trip tickets must be maintained as part of the operating record.	Required If Requested	330.169(I)(E)	Yes			Site Operating Plan
907	Part IV	Stationary compactors permitted in accordance with 30 TAC §330.7 of this title (relating to Permit Required) and municipalities having transporter routes permitted in accordance with 30 TAC §330.7 of this title are exempt from the requirements of 30 TAC §330.169(1)-(3)	Informational	330.169(4)				Site Operating Plan
908	Part IV	Indicate that the landfill operator must obtain from the transporter a hauler trip ticket for a municipal transporter route or stationary compactors, as appropriate, prior to allowing discharge of the material at the landfill. These trip tickets must be maintained as a part of the operating record.	Required	330.169(4)	Yes			Site Operating Plan
909	Part IV	Indicate that the landfill may accept special wastes consistent with the limitations established in 30 TAC §330.5(a)(2) of this title (relating to Classification of Municipal Solid Waste Facilities) and the waste acceptance plan required by 30 TAC §330.61(b) of this title (relating to Contents of Part II of the Application).	Required	330.171(a)	Yes	Part IV		Site Operating Plan
910	Part IV	Indicate that special waste not identified in 30 TAC §330.171(c)-(d) require prior written approval from the executive director.	Required	330.171(b)	Yes	Part IV		Site Operating Plan
911	Part IV	Approvals will be waste-specific and/or site-specific and will be granted only to appropriate facilities operating in compliance with this chapter.	Required	330.171(b)(1)	Yes	Part IV		Site Operating Plan
912	Part IV	Indicate that requests for approval to accept special wastes must be submitted by the generator to the executive director or to a facility with an approved plan	Required	330.171(b)(2)	Yes	Part IV		Site Operating Plan
913	Part IV	Indicate that requests for approval to accept special wastes must include a description of chemical & physical characteristics of waste and a statement as to whether or not each waste is a Class 1 industrial waste as defined in §330.3 of this title, and the quantity and rate at which each waste is produced and/or the expected frequency of disposal	Required	330.171(b)(2)(A)	Yes	Part IV		Site Operating Plan
914	Part IV	Indicate that a hazardous waste determination as required by 30 TAC §335.6 will be included for all Class 1 industrial waste	Required	330.171(b)(2)(B)	Yes	Part IV		Site Operating Plan
915	Part IV	Indicate that all requests for approval to accept special wastes must that include an operational plan containing the proposed procedures for handling each waste and listing required protective equipment for operating personnel and on-site emergency equipment	Required	330.171(b)(2)(C)	Yes	Part IV		Site Operating Plan
916	Part IV	Indicate that all requests for approval to accept special wastes must that include a contingency plan outlining responsibility for containment and cleanup of any accidental spills occurring during the delivery and/or disposal operation	Required	330.171(b)(2)(D)	Yes	Part IV		Site Operating Plan
918	Part IV	Indicate that soils contaminated by petroleum products, crude oils, or chemicals in concentrations of greater than 1,500 milligram per kilogram (mg/kg) total petroleum hydrocarbons; or contaminated by constituents of concern that exceed the concentrations listed in Table 1, Constituents of Concern and Their Maximum Leachable Concentrations in 30 TAC §335.521(a)(1) of this title (relating to Appendices) must be disposed in dedicated cells that meet the requirements of 30 TAC §330.331(e) of this title (relating to Design Criteria).	Required	330.171(b)(4)	Yes	Part IV		Site Operating Plan

919	Part IV	Indicate that the executive director may authorize the receipt of special waste with a written concurrence from the facility, however, the facility operator is not required to accept the waste.	Required	330.171(b)(5)	Yes	Part IV		Site Operating Plan
920	Part IV	Indicate that the executive director may revoke an authorization to accept special waste if the owner or operator does not maintain compliance with these rules or conditions imposed in the authorization to accept special waste.	Required	330.171(b)(6)	Yes	Part IV		Site Operating Plan
921	Part IV	Indicate that special waste listed under 330.171(c) may be accepted if managed per the handling procedures for each waste identified in 330.171(c)(1) - (7)	Required	330.171(c)	Yes	Part IV		Site Operating Plan
922	Part IV	Indicate that used oil filters from internal combustion engines must not be intentionally and knowingly accepted for disposal at landfills permitted under this chapter except as provided in 330.171(d)(1) & (2)	Required	330.171(d)	Yes	Part IV		Site Operating Plan
923	Part IV	Indicate that Class 1 industrial solid waste shall not be disposed in the landfill	Required	330.173(a)	Yes	Part IV		Site Operating Plan
924	Part IV	Indicate that wastes that are Class 1 only because of asbestos content may be accepted at any Type I or Type IAE landfill that is authorized to accept regulated asbestos-containing material (RACM). Authorization to accept this waste is implied in the authorization to accept RACM unless the acceptance of industrial wastes is prohibited by the permit. All Class 1 industrial asbestos wastes will be manifested and the owner or operator of the landfill facility shall comply with the requirements of 30 TAC §330.173(g) & (h)	Required	330.173(c)	Yes	Part IV		Site Operating Plan
925	Part IV	Indicate that the operator may not accept Class 1 without written approval and a manifest per 30 TAC §335.10	Required	330.173(b)	Yes	Part IV		Site Operating Plan
926	Part IV	Indicate that requests for authorization to accept Class 1 solid wastes must be submitted in writing to the executive director	Required	330.173(d)	Yes	Part IV		Site Operating Plan
927	Part IV	Indicate that a request to accept Class 1 waste must include a description of chemical & physical characteristics of the waste per 30 TAC §335.587, a hazardous waste statement, and the quantity, rate, and frequency of disposal	Required	330.173(d)(1)	Yes	Part IV		Site Operating Plan
928	Part IV	Indicate that a request to accept Class 1 waste must include operating plan containing handling procedures, personnel protective & on-site emergency equipment	Required	330.173(d)(2)	Yes	Part IV		Site Operating Plan
929	Part IV	Indicate that a request to accept Class 1 waste must include a written contingency plan meeting the requirements of 30 TAC §335.589	Required	330.173(d)(3)	Yes	Part IV		Site Operating Plan
930	Part IV	Unless specifically authorized by the facility permit, a Type I or Type IAE landfill facility permitted after October 9, 1993, may not accept Class 1 industrial solid wastes in excess of 20% of the total amount of waste (not including Class 1 wastes) accepted during the current or previous year. The amount of waste may be determined by volume or by weight, but the same unit of measure must be used for each year, unless a variance is authorized by the executive director.	Informational	330.173(e)				Site Operating Plan
931	Part IV	Indicate that any authorization to accept Class 1 waste is subject to the site operating in compliance with 30 TAC §330.173 and any specific conditions required under any letter(s) of authorization. Failure to operate the site in compliance with 30 TAC §330.173 or any special conditions imposed by the executive director may result in revocation of the authorization to accept a Class 1 waste.	Required If Requested	330.173(f)	Yes			Site Operating Plan
932	Part IV	Indicate that Class 1 waste must be accompanied by a manifest that must be signed by the operator and copies retained for 3 yrs.	Required If Requested	330.173(g)	Yes			Site Operating Plan
933	Part IV	Indicate that a Class 1 waste acceptance report must be submitted by 25th of the month	Required If Requested	330.173(h)	Yes			Site Operating Plan

934	Part IV	Indicate that the facility will accepted Class 2 waste provided the acceptance of this waste does not interfere with facility operation and its acceptance is in accordance with any applicable limitations in §330.5(a)(2) and the waste acceptance plan required by §330.6(b)	Required	330.173(i)	Yes	Part IV	Site Operating Plan
935	Part IV	Indicate that the facility will accepted Class 3 waste provided the acceptance of this waste does not interfere with facility operation	Required	330.173(j)	Yes	Part IV	Site Operating Plan
936	Part IV	Indicate that the executive director may require visual screening	Required	330.175	Yes	Part IV	Site Operating Plan
937	Part IV	Provide procedures for leachate or gas condensate recirculation	Required If Requested	330.177	Yes	Part IV	Site Operating Plan
938	Part IV	If facility manages Class 1, then it shall comply with 30 TAC §330.179(a)(1)-(6)	Informational	330.179(a)			Site Operating Plan
939	Part IV	Provide a schedule for inspecting monitoring equipment, safety and emergency equipment, and operating and structural equipment that are important to preventing, detecting, or responding to environmental or human health hazards	Required If Requested	335.585(b)	Yes		Site Operating Plan
940	Part IV	Indicate that the inspection schedule will be maintained at facility	Required If Requested	335.585(b)(1)	Yes		Site Operating Plan
941	Part IV	Specify the type of problems to be looked for during Class 1 waste inspection	Required If Requested	335.585(b)(2)	Yes		Site Operating Plan
942	Part IV	Specify the frequency of inspections that is consistent with 40 CFR 264.303, and indicate that unloading areas will be inspected daily	Required If Requested	335.585(b)(3)	Yes		Site Operating Plan
943	Part IV	Indicate that the facility must remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule that ensures that the problem does not lead to an environmental or human health hazard. Indicate that where a hazard is imminent or has already occurred, remedial action must be taken immediately.	Required If Requested	335.585(c)	Yes		Site Operating Plan
944	Part IV	Indicate that the facility will maintain inspection logs that include date/time of inspection, inspectors name, observations made, date & nature of repairs	Required If Requested	335.585(d)	Yes		Site Operating Plan
945	Part IV	Indicate that facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this 30 TAC §330.586	Required If Requested	335.586(a)	Yes		Site Operating Plan
946	Part IV	Indicate that training will provided by a person trained in waste management procedures, and must include instruction that teaches facility personnel waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed	Required If Requested	335.586(a)(1)	Yes		Site Operating Plan
947	Part IV	Indicate that the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems	Required If Requested	335.586(a)(2)	Yes		Site Operating Plan
948	Part IV	Provide procedures for using, inspecting, repairing, & replacing emergency & monitoring equipment; communications or alarm systems; response to fires or explosions; response to GW contamination; & shutdown of operations	Required If Requested	335.586(a)(2)(A)-(E)	Yes		Site Operating Plan
949	Part IV	Indicate that personnel training must be completed within 6 months	Required If Requested	335.586(b)	Yes		Site Operating Plan
950	Part IV	Indicate that facility personnel must take part in an annual review of initial training	Required If Requested	335.586(c)	Yes		Site Operating Plan
951	Part IV	Indicate that facility will maintain personnel records required in 335.586 in the site operating record	Required If Requested	335.586(d)	Yes		Site Operating Plan
952	Part IV	Indicate that facility will record title of each position & employee name in that position, job description, description of type & amount of training for each position, records of training & job experience	Required If Requested	335.586(d)(1) - (4)	Yes		Site Operating Plan
953	Part IV	Indicate that training records on current personnel must be kept until closure of the facility and training records on former employees must be kept for at least three years from the date the employee last worked at the facility	Required If Requested	335.586(e)	Yes		Site Operating Plan
954	Part IV	Indicate that the facility will follow the waste analysis requirements of 335.587	Required If Requested	335.587(a)	Yes		Site Operating Plan

955	Part IV	Provide procedures in compliance with 335.587 to obtain chemical & physical analysis of representative samples	Required If Requested	335.587(a)(1)	Yes			Site Operating Plan
956	Part IV	Indicate that a waste generator's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with this paragraph. Indicate that the facility may arrange for the generator of the waste to supply the information required by this paragraph. Indicate that if the generator does not supply the information, and the owner or operator chooses to accept a waste, the owner or operator is responsible for obtaining the information required to comply with this section.	Required If Requested	335.587(a)(1)(A)-(B)	Yes			Site Operating Plan
957	Part IV	Indicate that the waste analysis may include data developed under Subchapter R of Chapter 335 (relating to Waste Classification), and existing published or documented data on a waste or on such waste generated from similar processes.	Required If Requested	335.587(a)(2)	Yes			Site Operating Plan
958	Part IV	Indicate that waste analysis must be repeated as necessary to ensure that it is accurate and up to-date, when the owner or operator is notified, or has reason to believe, that the process or operation generating the waste has changed and when the results of the inspection required in 335.587 indicate that the waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.	Required If Requested	335.587(a)(3)	Yes			Site Operating Plan
959	Part IV	Indicate that the owner or operator shall inspect and, if necessary, analyze each waste received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper	Required If Requested	335.587(a)(4)	Yes			Site Operating Plan
960	Part IV	Provide a waste analysis plan that describes the procedures which the owner or operator will carry out to comply with 335.587(b)	Required If Requested	335.587(b)	Yes			Site Operating Plan
961	Part IV	Provide procedures to prevent the ignition or reaction of wastes	Required If Requested	335.588(a)	Yes			Site Operating Plan
962	Part IV	Indicate that the facility will take precautions to prevent, extreme heat or pressure, fire or explosions, violent reactions, toxic mist, dust, fumes, gases, flammable fumes & gases, damage to devices or facility, or threaten human health or the environment	Required If Requested	335.588(b)(1)-(5)	Yes			Site Operating Plan
963	Part IV	Indicate that the facility will maintain documentation of compliance with 335.588(a)-(b)	Required If Requested	335.588(c)	Yes			Site Operating Plan
964	Part IV	Provide a contingency plan that is designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of waste or constituents of such waste to air, soil, or surface water	Required If Requested	335.589(a)(1) & (2)	Yes			Site Operating Plan
965	Part IV	The contingency plan must describe personnel action in response to fires, explosions, or any unplanned sudden or non-sudden release of waste or constituents of such waste to air, soil, or surface water at the facility.	Informational	335.589(b)(1)				Site Operating Plan
966	Part IV	Provide revisions sufficient to comply with requirements of Chapter 335 to any current Spill Prevention, Control, and Countermeasures (SPCC) Plan that is in accordance with Title 40 Code of Federal Regulations (CFR) Part 112, 40 CFR Part 1510, or some other approved emergency or contingency plan, if the facility manages waste in tanks	Required If Requested	335.589(b)(2)	Yes			Site Operating Plan
967	Part IV	Describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.	Required If Requested	335.589(b)(3)	Yes			Site Operating Plan

968	Part IV	Indicate that the owner or operator will maintain a list of names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see subsection (e) of this section), and this list must be kept up-to-date and at the facility. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.	Required If Requested	335.589(b)(4)	Yes			Site Operating Plan
969	Part IV	Provide in the contingency plan a list of emergency equipment including location, physical description, & capabilities of equipment	Required If Requested	335.589(b)(5)	Yes			Site Operating Plan
970	Part IV	Include in the contingency plan an evacuation plan for personnel including signals for evacuation, route and alternate routes	Required If Requested	335.589(b)(6)	Yes			Site Operating Plan
971	Part IV	Indicate that copies of the contingency plan will be maintained on-site, submitted to police, fire, hospitals, State & local emergency response services	Required If Requested	335.589(c)(1) & (2)	Yes			Site Operating Plan
972	Part IV	Indicate that the contingency plan must be reviewed, and immediately updated, if necessary, whenever the facility permit is revised, the plan fails in an emergency, the facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of waste or constituents of such waste, or changes the response necessary in an emergency or the list of emergency equipment changes	Required If Requested	335.589(d)(1)-(4)	Yes			Site Operating Plan
973	Part IV	Indicate that at all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.	Required If Requested	335.589(e)	Yes			Site Operating Plan
974	Part IV	Indicate that whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) shall immediately activate facility alarms or communication systems, where applicable, to notify all facility personnel and notify appropriate state or local agencies with designated response roles if their help is needed	Required If Requested	335.589(f)(1)(A)-(B)	Yes			Site Operating Plan
975	Part IV	Indicate that whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials.	Required If Requested	335.589(f)(2)	Yes			Site Operating Plan
976	Part IV	Indicate that the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion.	Required If Requested	335.589(f)(3)	Yes			Site Operating Plan
977	Part IV	Indicate that if the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility and if the emergency coordinator's assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities, and must be available to help appropriate officials decide whether local areas should be evacuated.	Required If Requested	335.589(f)(4)	Yes			Site Operating Plan

978	Part IV	Indicate that the emergency coordinator must notify either government official or National Response Center and provide a report that includes the name & phone number of reporter, name and address of facility, time and type of incident, name and quantity of material involved, extent of injuries, and possible hazards	Required If Requested	335.589(f)(5)(A) - (F)	Yes			Site Operating Plan
979	Part IV	Indicate that the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other waste at the facility	Required If Requested	335.589(f)(6)	Yes			Site Operating Plan
980	Part IV	Indicate that the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate if the facility stops operations in response to a fire, explosion, or release	Required If Requested	335.589(f)(7)	Yes			Site Operating Plan
981	Part IV	Indicate that the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility and shall classify all recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility	Required If Requested	335.589(f)(8)	Yes			Site Operating Plan
982	Part IV	Indicate that the emergency coordinator shall ensure that, in the affected area(s) of the facility, no waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed and all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed	Required If Requested	335.589(f)(9)(A) & (B)	Yes			Site Operating Plan
986	Part IV	Indicate that nonhazardous industrial waste may be placed above natural grade provided that the conditions in §335.590(24)(F)(i) - (vi) of this title are met, except as provided in §335.590(24)(F)(vii)	Required If Requested	330.179(b)	Yes			Site Operating Plan
987	Part IV	Provide plans and designs for the placement of nonhazardous waste above natural grade in commercial industrial nonhazardous waste landfill units that is in compliance with the requirements of 335.590(24)(F)	Required If Requested	335.590(24)(F)	Yes			Site Operating Plan
1007	Part IV	Indicate that all wastes generated by a facility must be processed or disposed at an authorized solid waste management facility	Required	330.205(b)	Yes			Site Operating Plan
1008	Part IV	Indicate that all wastewaters generated by a facility shall be managed as contaminated water in accordance with 330.207	Required	330.205(c)	Yes			Site Operating Plan
1009	Part IV	Indicate that the facility shall be designed and operated in a manner that sludges produced pass the Paint Filter Liquids Test.	Required If Requested	330.205(d)	Yes			Site Operating Plan
1012	Part IV	The owner or operator shall not discharge contaminated water without specific written authorization.	Informational	330.207(a)				Site Operating Plan
1026	Part IV	Provide plans for process area of transfer stations that recover material from putrescible or liquid waste. Such plans shall provide for the storage of processed and unprocessed waste & recycled materials in enclosed buildings, vessels, or containers.	Required If Requested	330.209(c)	Yes			Site Operating Plan
1027	Part IV	Provide a plan that describes how all waste containing food wastes shall be stored in covered or closed containers that are leak-proof, durable, and designed for safe handling and easy cleaning	Required	330.211	Yes			Site Operating Plan
1028	Part IV	Indicate that nonreusable containers shall be of suitable strength to minimize vector scavenging or rupturing.	Required	330.211(1)	Yes			Site Operating Plan
1029	Part IV	Indicate that reusable containers must be maintained in a clean condition as not to constitute a nuisance, harbor, feed, and propagate vectors.	Required	330.211(2)	Yes			Site Operating Plan
1032	Part IV	Provide a plan that describes how a citizen's collection stations shall be operated in accordance with 30 TAC §330.213	Required If Requested	330.213(a)	Yes			Site Operating Plan

1034	Part IV	A citizen's collection station may accept sharps from single-family or multi-family dwellings, hotels, motels, or other establishments that provide lodging and related services for the public. The sharps will not be considered medical waste, as defined in 30 TAC §330.3	Required If Requested	330.213(b)	Yes			Site Operating Plan
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**TASWA DISPOSAL AND RECYCLING FACILITY
GRAYSON COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2290A**

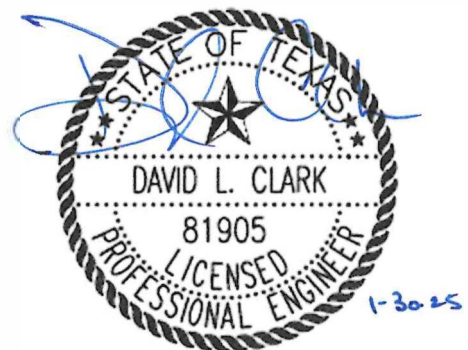
PERMIT AMENDMENT APPLICATION

**PART I
SITE AND APPLICANT INFORMATION
SUPPLEMENTARY TECHNICAL REPORT**

Prepared for

TEXOMA AREA SOLID WASTE AUTHORITY

February 2025



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

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TEXAS BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
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TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

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APPENDIX IA – GENERAL LOCATION MAPS

APPENDIX IB – LAND OWNERSHIP MAPS AND LAND OWNERS LIST

APPENDIX IC – LEGAL DESCRIPTION AND BOUNDARY MAPS

APPENDIX ID – LEGAL AUTHORITY

APPENDIX IE – APPOINTMENTS

1 GENERAL

30 TAC §330.59(a)(1)

The TASWA Disposal and Recycling Facility (TASWA DRF) is an existing Type I Municipal Solid Waste Disposal Facility (Permit No. MSW 2290) owned and operated by Texoma Area Solid Waste Authority (TASWA). The TASWA DRF is located in Grayson County, Texas, as shown in Appendix IA, Drawing IA.1 and Drawing IA.2, and provides waste disposal capacity for residences and businesses in Cooke and Grayson counties, and, at a minimum, the cities of Denison, Gainesville, and Sherman. TASWA proposes to increase the permitted disposal capacity of this facility via horizontal and vertical expansion.

This application has been prepared consistent with 30 TAC Chapter 330 Municipal Solid Waste Management Regulations (MSWMR) adopted by the Texas Commission on Environmental Quality (TCEQ), effective the date of this application.

Part I of this permit amendment application contains information about the site and the applicant as required in 30 TAC §§281.5, 305.45, and 330.59. Part II of the permit amendment application describes the existing conditions and character of the facility and surrounding area as required in §330.61.

Part III of the permit amendment application presents engineering information, detailed investigative reports, the schematic designs of the facility, and the plans as required in §330.63. Part IV of the permit amendment application contains the Site Operating Plan, which includes specific information regarding the daily operations of the site, as required in §330.65.

1.1 Permit History

The TASWA DRF was permitted by the Texas Commission on Environmental Quality (TCEQ) under Permit No. MSW 2290 on October 31, 2003.

Landfill operations began in April 2005 under Permit No. 2290. The TASWA DRF is operating under Permit No. MSW 2290 and subsequent modifications or authorizations.

Consistent with §305.45(a)(7), the permits and approvals received for the facility are listed as follows:

Approved	Texas Commission on Environmental Quality Texas Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit, Permit No. TXR05AH82
Approved	Texas Commission on Environmental Quality Texas Used Oil Registration, Registration No. C89061
Approved	Texas Commission on Environmental Quality Texas Air Operating Permit, Account No. GI0132Q
Approved	Texas Commission on Environmental Quality Texas Air Operating Permit, Permit No. 2672
Approved	USACE Individual Permit Permit No. TXR2010175
Pending	Updated Compensatory Mitigation Plan Project No. SWT-0-10175

1.2 Facility Information

This permit amendment application provides a permit boundary of 689.7 acres, a maximum final contour elevation of 1106.7 feet mean sea level (msl), an elevation of deepest excavation of 663.9 feet msl, and a landfill footprint of 475.3 acres.

Located between waste disposal areas and the permit boundary are entrance facilities, access roads, surface water drainage facilities, and a citizen's convenience center. On-site material staging areas which may be located within the landfill footprint include a large item staging area, reusable materials staging area, and woodwaste/brush mulching area. There are no drainage, pipeline, or utility easements that will affect solid waste unloading, storage, disposal, or processing operations.

In accordance with §330.141(a) and §330.543, solid waste unloading, storage, disposal, and processing operations will not occur within any easement, buffer zone, or right-of-way that crosses the site. The distance from the permit boundary to all solid waste unloading, storage, disposal, and processing operations meet the minimum buffer zone distance of 50 feet.

The landfill expansion will result in a total waste disposal capacity of approximately 183,500,000 cubic yards of waste and daily cover. Based on the FY 2024 Annual Report, there was approximately 7,000,000 cy of waste and daily cover in place as of September 2024.

TASWA DRF receives approximately 270,000 tons annually (approximately 865 tons per day). The waste acceptance rate will vary over the life of the facility depending on the market conditions. TASWA anticipates the maximum rate of waste disposal to be approximately 1,350,000 tons per year (approximately 4,330 tons per day). Based on

the anticipated waste acceptance rate, the facility will have an approximate site life of 92 years, as presented in Part III, Attachment D4.

The major classifications of solid waste to be accepted for disposal at TASWA DRF include household waste, yard waste, commercial waste, Class 2 and Class 3 nonhazardous industrial waste, construction-demolition waste, and some special wastes.

TASWA DRF will not accept Class 1 industrial wastes. The waste classifications are defined in §330.3.

Consistent with §330.15, the facility will not accept for disposal lead acid storage batteries; used motor vehicle oil; used oil filters; whole used or scrap tires; refrigerators, freezers, air conditioners, or other items containing chlorinated fluorocarbon (CFC); bulk or noncontainerized liquid waste from non-household sources; regulated hazardous waste; polychlorinated biphenyls (PCB) waste; radioactive materials or other wastes prohibited by TCEQ regulations.

2 FACILITY LOCATION

30 TAC §330.59(b)(1)-(3)

2.1 Location Description

TASWA DRF is an existing Type I municipal solid waste disposal facility located in Grayson County, Texas. TASWA DRF is located at 25090 State Highway 56. The site entrance is about 3.75 miles east of the intersection of U.S. Rte. 377 and State Highway 56.

2.2 Access Routes

Access to the facility will continue to be provided by State Highway 56 (SH56). The facility is located approximately 3.75 miles east of the intersection of SH56 and U.S. Rte. 377 (US377), at the existing facility entrance. From the intersection of SH56 and US377 proceed east on SH56 approximately 3.75 miles to the facility entrance, on the south side of SH56.

Refer to Appendix IA, Drawing IA.1 for the location of the facility in relation to the surrounding roads.

2.3 Geographic Coordinates

The latitudinal and longitudinal geographic coordinates of the site benchmark shown on Appendix IA, Drawing IA.6 are:

Latitude: N 33° 38' 13.69990"
Longitude: W 96° 49' 58.54587"

The Texas State Plane North Central Zone (NAD 83) coordinates of the site benchmark are:

N 7,282,587.42
E 2,475,866.89

The site benchmark elevation is referenced to NAVD 88, GEOID12B.

Elevation (above msl): 756.78 ft. msl.

3 MAPS

30 TAC §330.59(c)(1)-(3)

3.1 General Location Maps

The following maps, collectively as a group, comply with the rule requirements of §330.59(c)(1)-(2) and §305.45. Drawing IA.4 depicts the information required by 30 TAC §305.45(a)(6)(A). The base map used for each of the general location maps is the most current version available from each respective source as noted on each general location map. These general location maps are included in Appendix IA:

- IA.1 General Highway Map
- IA.2 Detailed Highway Map
- IA.3 General Topographic Map
- IA.4 Wells, Springs, and Water Bodies Location Map
- IA.5 Aerial Photograph
- IA.6 Permit Boundary and Landfill Footprint

3.2 Land Ownership Map and Land Owners List

The Land Ownership Maps and Land Owners List are included in Appendix IB and reflect property ownership as of February 2025 within 1/4-mile of the facility boundary as shown in the records of the Grayson County Appraisal District. No mineral interest ownership information was available within the Grayson County Appraisal District records for the facility property. The map and list meet the requirements of 30 TAC §305.45(a), §330.59(c)(3), and §281.5. The list is also provided in electronic format on the enclosed CD per the requirements of 30 TAC §330.59(c)(3)(B).

4 PROPERTY OWNER INFORMATION

30 TAC §330.59(d)(1)-(2)

4.1 Legal Description

Refer to Appendix IC, for drawings and metes and bounds descriptions of the property and permit boundaries.

4.2 Drainage, Pipeline, and Utility Easements

Existing drainage, pipeline, and utility easement locations were identified and are provided in Appendix IC on the permit boundary drawing as required by §330.61(c)(10).

4.3 Property Owner Affidavit

The property owner affidavit for this permit amendment application, located in the Part I Application Form for New Permit, Permit Amendment, or Registration for a Municipal Solid Waste Facility (TCEQ-00650), meets the requirements of §330.59(d)(2) and §305.43(c).

5 LEGAL AUTHORITY

30 TAC §330.59(e)

Texoma Area Solid Waste Authority (TASWA), the applicant, owns and operates TASWA Disposal and Recycling Facility.

Verification of the legal authority and status of TASWA as required by §330.59(e) and §281.5, is included in Appendix ID. No other person or entity has over a 20 percent ownership of the facility.

6 EVIDENCE OF COMPETENCY

30 TAC §330.59(f)(1)-(6)

The evidence of competency for this permit amendment applicant follows and meets the requirements of §330.59(f).

6.1 Solid Waste Sites

Texoma Area Solid Waste Authority (TASWA), a local government corporation, is authorized to do business in Texas and owns and operates the permitted TASWA Disposal and Recycling Facility (TASWA DRF) municipal solid waste landfill facility. TASWA has operated municipal solid waste facilities in Texas since 2003. TASWA does not own or operate other facilities in Texas and does not have any financial interests in a solid waste site outside of Texas.

6.1.1 Texas Facilities

Below is a list of Texas solid waste sites that TASWA has owned/operated within the past ten years.

Site Name	Type	Registration/ Permit Number	County	Dates of Operation
TASWA Disposal and Recycling Facility	Type I	2290	Grayson	2003 to present

6.2 Management and Personnel

John O'Steen: Executive Director. Mr. O'Steen has been executive director of TASWA since 2019 and has over 20 years of experience in the solid waste industry. Mr. Osteen is responsible for all TASWA DRF operations.

Landfill Operations Manager: The Landfill Operations Manager will maintain a MSW Facility Class A license as a municipal solid waste facility supervisor and will have experience in landfill operations and earthmoving operations.

As of September 2022, 6 employees of TASWA hold Class A Municipal Solid Waste Facility Supervisor certificates. Certificate holders include both scale house attendants who provide the first level of waste screening and acceptance as well as operations employees who perform additional waste screening and inspection as the waste is unloaded at the active area.

6.3 Equipment Dedicated to the TASWA DRF

Sufficient equipment will be provided to conduct site operations in accordance with the landfill design and permit conditions. The equipment requirements for this facility are

based on anticipated solid waste volume and field conditions consistent with §330.127(2). A list of equipment dedicated to the TASWA DRF is included in Part IV.

7 APPOINTMENTS

30 TAC §330.59(g)

The appointments prepared for this permit amendment application meet the requirements of §330.59(g) and §305.44.

The certification of authorization to execute documents on behalf of TASWA DRF and the engineer's appointment are provided in Appendix IE.

8 APPLICATION FEES

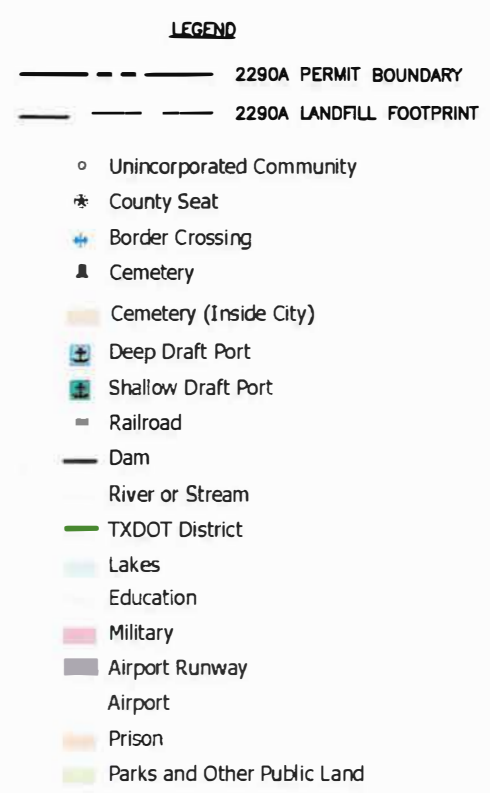
30 TAC §330.59(h)(1)-(2)

On behalf of TASWA, Biggs and Mathews Environmental, Inc. has made payment of the \$2,050 permit amendment application fee in accordance with §330.59(h). This fee was paid online using TCEQ e-pay at <https://www3.tceq.texas.gov/epay/>.

The e-pay confirmation number is noted on page 1 of the Part I Form.

TASWA DISPOSAL AND RECYCLING FACILITY

**APPENDIX IA
GENERAL LOCATION MAPS**



NOTE:

1. GRAYSON AND COOKE COUNTY HIGHWAY MAPS DOWNLOADED FROM TxDOT WEBSITE ON FEBRUARY 10, 2022.



TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT



**BIGGS & MATHEWS
ENVIRONMENTAL**
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

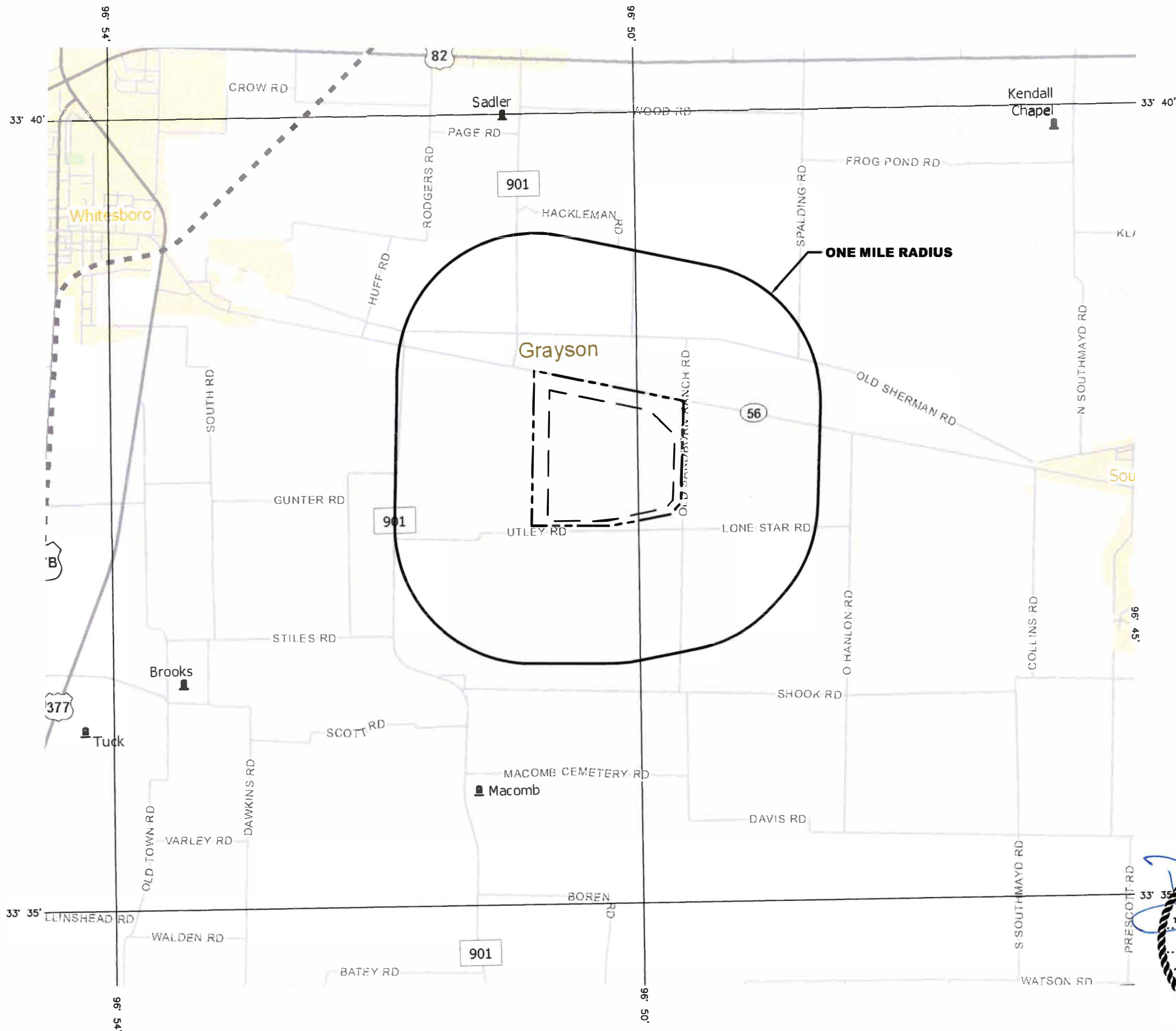
TBPE FIRM NO. F-256

TBPG FIRM NO. 50222

DRAWING
IA.1

ISSUED FOR PERMITTING PURPOSES ONLY

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- LEGEND**
- 2290A PERMIT BOUNDARY
 - 2290A LANDFILL FOOTPRINT

- 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

NOTE:

1. GRAYSON AND COOKE COUNTY HIGHWAY MAPS DOWNLOADED FROM TXDOT WEBSITE ON FEBRUARY 10, 2022.



ISSUED FOR PERMITTING PURPOSES ONLY

DETAILED HIGHWAY MAP

**TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT**

BME

**BIGGS & MATHEWS
ENVIRONMENTAL**
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

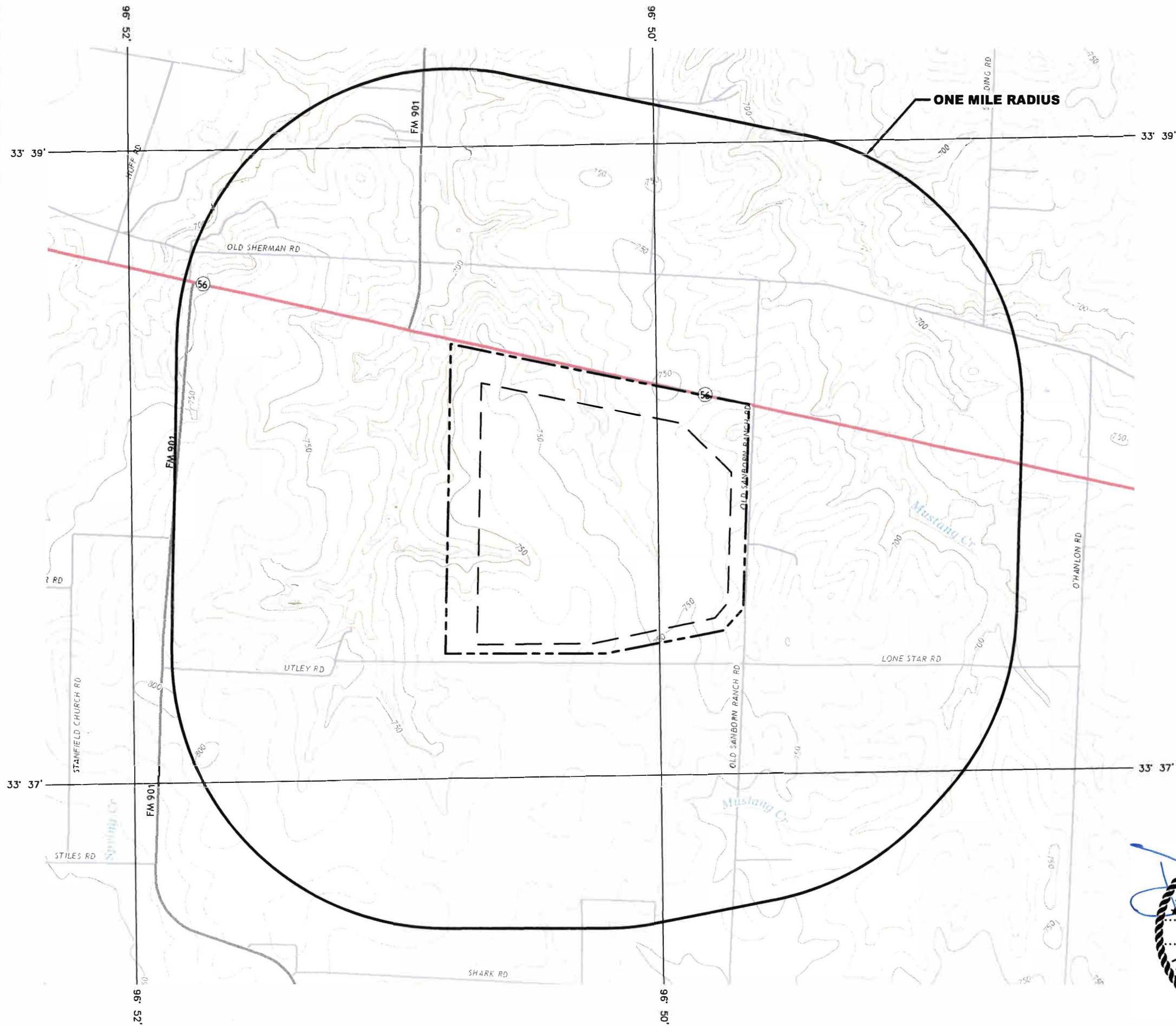
TBPE FIRM NO. F-256

TBPG FIRM NO. 50222

DRAWING

IA.2

O:\TASWA\Drawings\PART 1\IA.3-GenTopoMap.dwg User: bboles Layout: Layout1



0 1000 2000
SCALE IN FEET

LEGEND

- 2290A PERMIT BOUNDARY
- 2290A LANDFILL FOOTPRINT
- EXISTING 10' GROUND CONTOUR
- SURFACE WATER BODY OR OTHER WATER

SADLER, TEX 2019 ETHEL, TEX 2019

ROAD CLASSIFICATION

Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

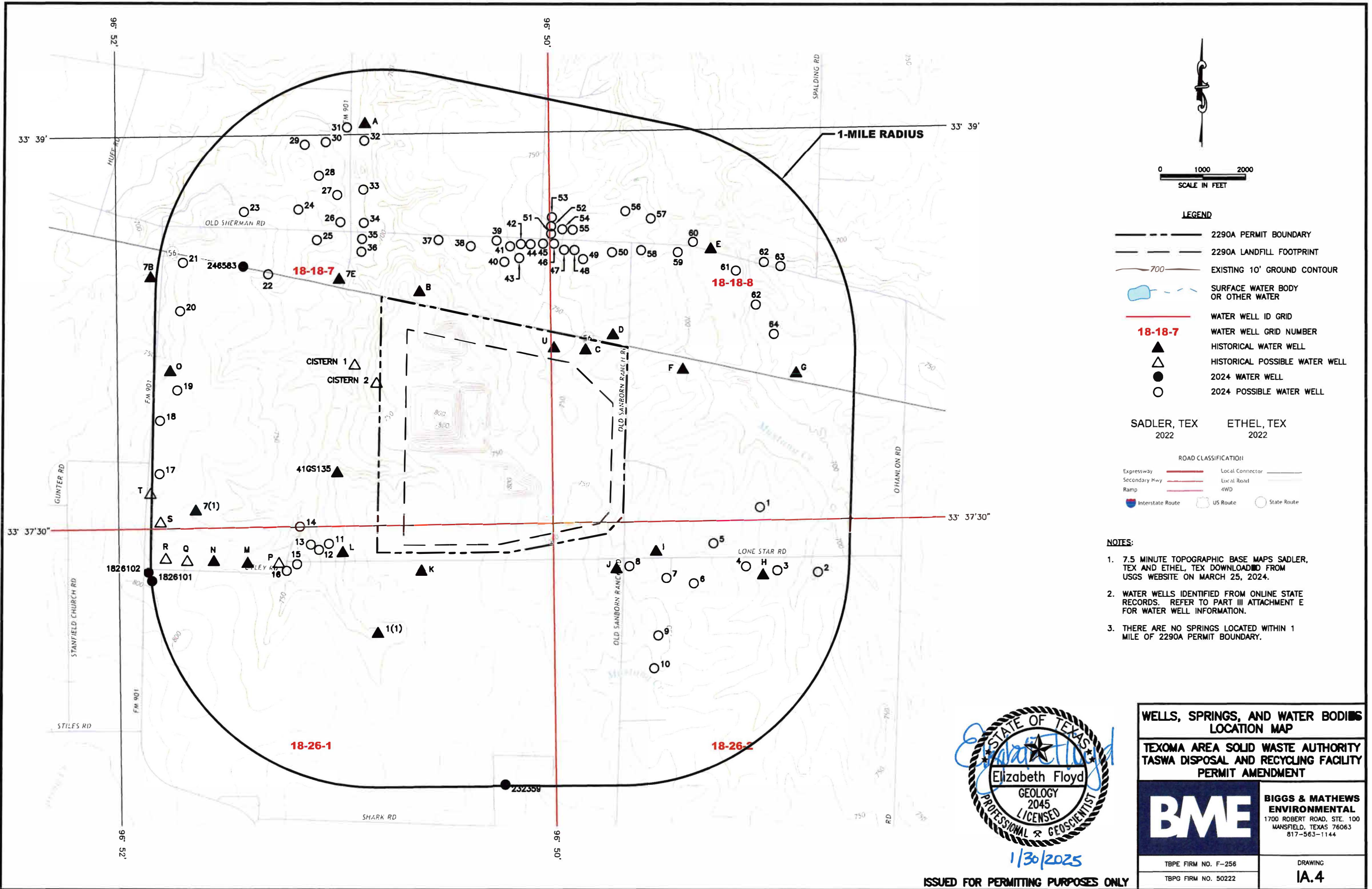
NOTES:

- 7.5 MINUTE TOPOGRAPHIC BASE MAPS SADLER, TEX AND ETHEL, TEX DOWNLOADED FROM USGS WEBSITE ON FEBRUARY 10, 2022.
- REFER TO PART II, APPENDIX B-LAND USE ANALYSIS FOR DETAILED LAND USE INFORMATION AND LAND USE MAP.
- THERE ARE 130 RESIDENCES AND 5 INDUSTRIAL/COMMERCIAL ESTABLISHMENTS WITHIN ONE MILE OF THE PERMIT BOUNDARY.
- THERE ARE NO CHURCHES, DAY CARE CENTERS, CEMETERIES, OR SCHOOLS WITHIN ONE MILE OF THE PERMIT BOUNDARY.
- THERE IS 1 TEXAS STATE HISTORICAL COMMISSION HISTORIC MARKER WITHIN ONE MILE OF THE PERMIT BOUNDARY.
- THERE ARE NO ARCHAEOLOGICAL SITES AND NO SITES HAVING EXCEPTIONAL AESTHETIC QUALITY WITHIN ONE MILE OF THE PERMIT BOUNDARY.
- THERE ARE NO INTAKE/DISCHARGE STRUCTURES LOCATED WITHIN OR ASSOCIATED WITH THE FACILITY.
- THERE ARE NO WASTE DISPOSAL ACTIVITIES WITHIN THE PERMIT BOUNDARY THAT ARE NOT INCLUDED IN THIS PERMIT AMENDMENT APPLICATION.
- REFER TO DRAWING IA.5-AERIAL PHOTOGRAPH FOR GENERAL CHARACTER OF AREAS ADJACENT TO THE FACILITY.

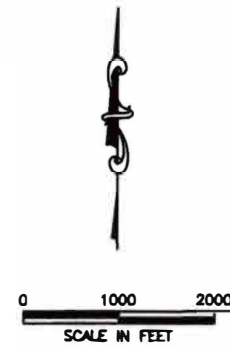
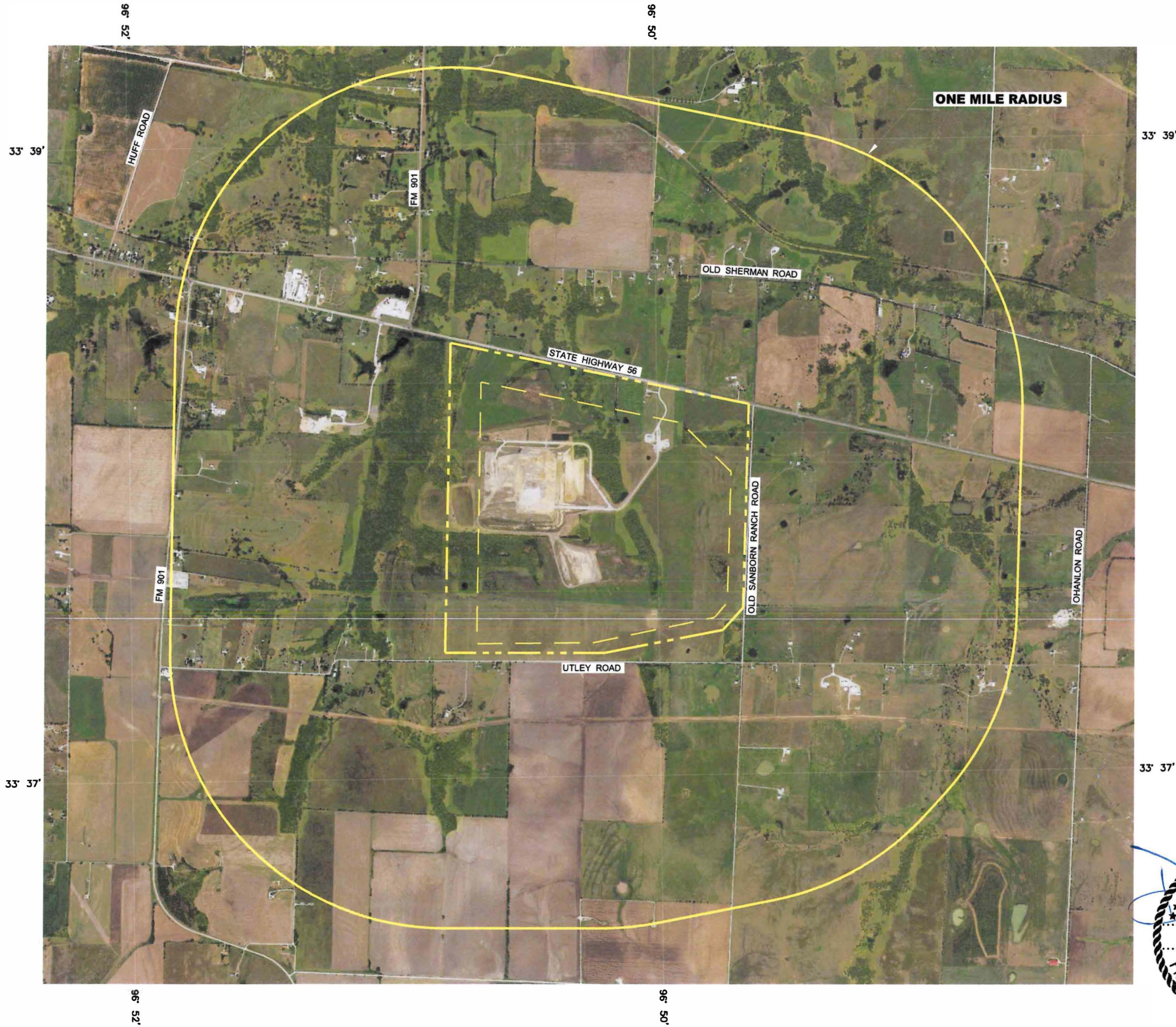


ISSUED FOR PERMITTING PURPOSES ONLY

GENERAL TOPOGRAPHIC MAP	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING
TBPG FIRM NO. 50222	IA.3



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LEGEND

	2290A PERMIT BOUNDARY
	2290A LANDFILL FOOTPRINT

- NOTES:
1. AERIAL PHOTOGRAPH TAKEN FROM 7.5 MINUTE QUADRANGLE SADLER, TEX AND ETHEL, TEX. DOWNLOADED ON FEBRUARY 10, 2022.
 2. REFER TO PART II, APPENDIX IIB--LAND USE ANALYSIS FOR DETAILED LAND USE INFORMATION, LAND USE MAP, AND GENERAL CHARACTER OF AREAS ADJACENT TO THE FACILITY AS PREPARED BY INTEGRATED ENVIRONMENTAL SOLUTIONS.
 3. GENERAL CHARACTER OF AREAS WITHIN ONE MILE OF THE PERMIT BOUNDARY PROVIDED BY INTEGRATED ENVIRONMENTAL SOLUTIONS.

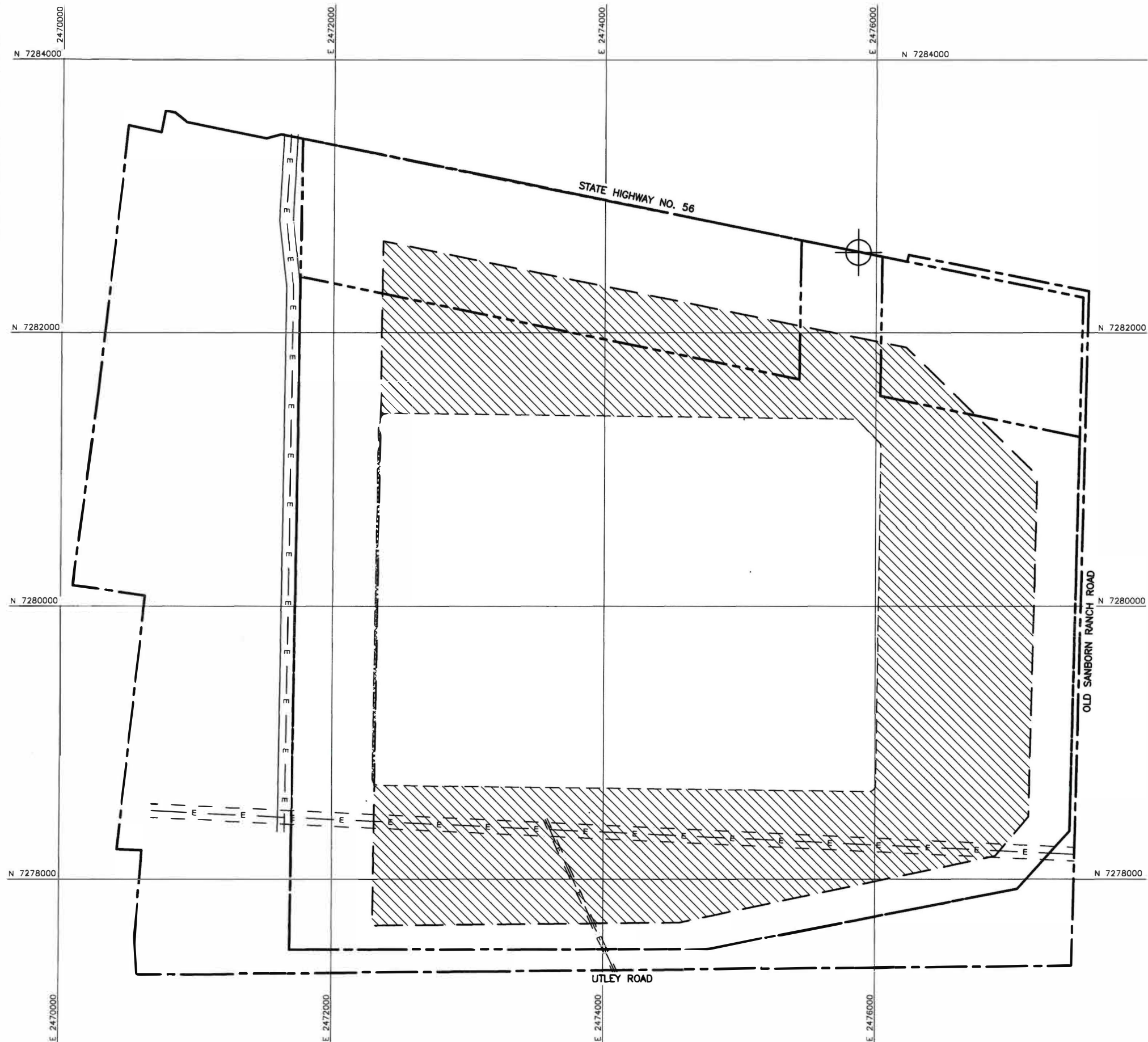
GENERAL CHARACTER		
LAND USE	ACRES	PERCENTAGE
OPEN, AGRICULTURAL, VACANT, FLOODPLAIN	4,827	95.5
WATER BODIES	75	1.5
RESIDENTIAL	130	2.5
COMMERCIAL	27	0.5
TOTAL	5,059	100



ISSUED FOR PERMITTING PURPOSES ONLY

AERIAL PHOTOGRAPH	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING IA.5
TBPG FIRM NO. 50222	

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- LEGEND**
- PROPERTY BOUNDARY
 - 2290A PERMIT BOUNDARY
 - 2290 PERMIT BOUNDARY
 - 2290A LANDFILL FOOTPRINT
 - 2290 LANDFILL FOOTPRINT
 - ELECTRIC LINE AND EASEMENT
 - STATE PLANE COORDINATES
 - WASTE FOOTPRINT ADDED (244.85 ACRES)
 - WASTE FOOTPRINT REMOVED (1.02 ACRES)
 - SITE BENCHMARK N 7,282,587.42
E 2,475,866.89
EL 756.78

LANDFILL FOOTPRINT	
2290 FOOTPRINT	231.51 Ac.
FOOTPRINT REMOVED	-1.70 Ac.
FOOTPRINT ADDED	+155.53 Ac.
2290A FOOTPRINT	385.34 Ac.

PERMIT BOUNDARY	
2290 BOUNDARY	392.71 Ac.
BOUNDARY ADDED	216.22 Ac.
2290A BOUNDARY	608.93 Ac.

- NOTES:**
- FENCING IS PROVIDED AT PROPERTY BOUNDARY.
 - ELECTRICAL EASEMENTS WITHIN THE WASTE FOOTPRINT TO BE RELOCATED PRIOR TO DEVELOPMENT.

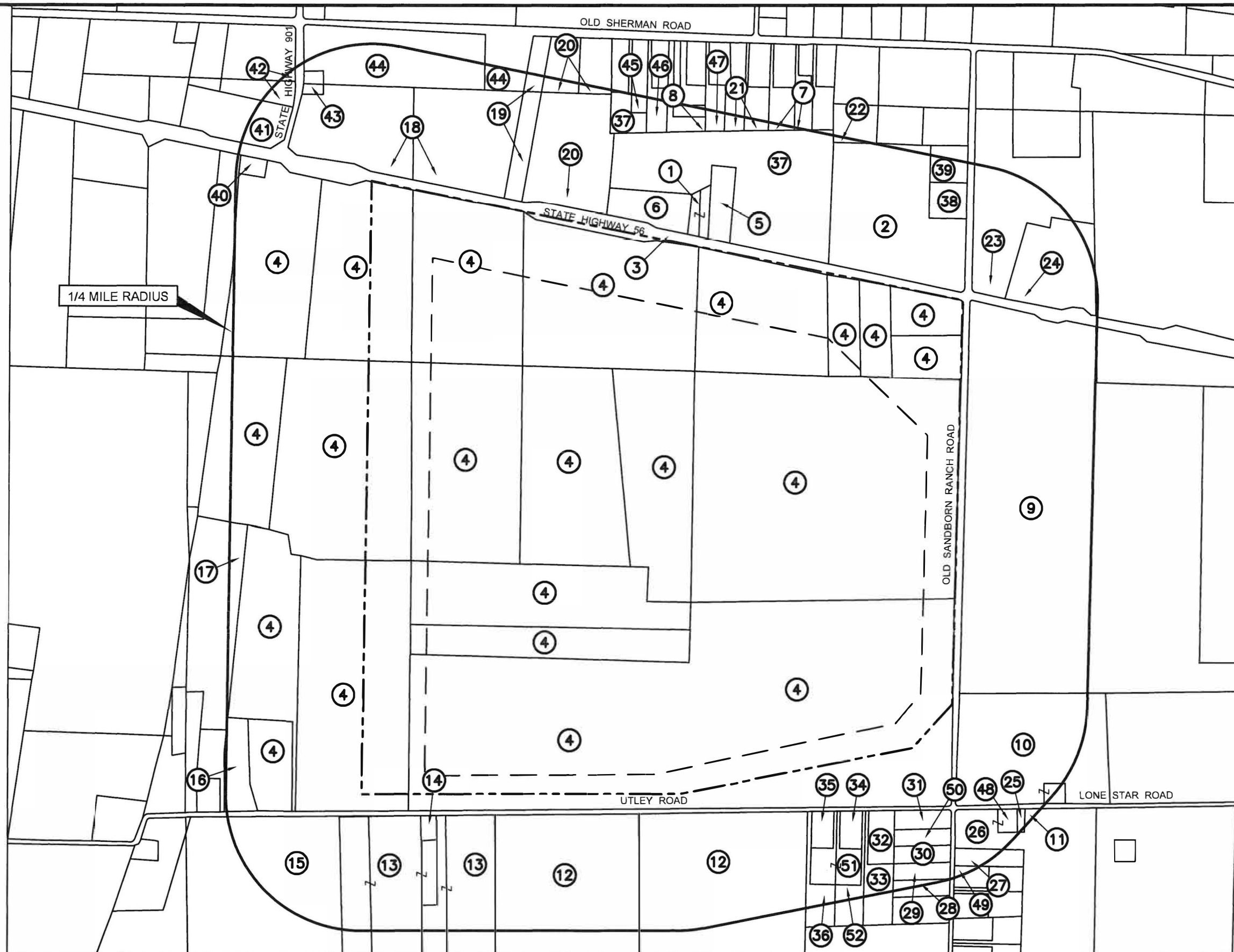


ISSUED FOR PERMITTING PURPOSES ONLY

GENERAL SITE PLAN	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING
TBPG FIRM NO. 50222	IA.6

TASWA DISPOSAL AND RECYCLING FACILITY
APPENDIX IB
LAND OWNERSHIP MAP AND LAND OWNERS LIST

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LEGEND

- PERMIT BOUNDARY
- QUARTER MILE RADIUS
- ADJACENT PROPERTY OWNER PARCEL LINE
- ④ ADJACENT PROPERTY OWNER DESIGNATION

NOTE:

ADJACENT PROPERTY OWNER INFORMATION
COMPILED FROM GRAYSON COUNTY
APPRAISAL DISTRICT GIS DATABASE ON
JANUARY 29, 2025.



LAND OWNERSHIP MAP

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT

BME

**BIGGS & MATHEWS
ENVIRONMENTAL**
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256

TBPG FIRM NO. 50222

DRAWING

IB.1

ISSUED FOR PERMITTING PURPOSES ONLY

Land Ownership List
(Based on Grayson County Appraisal District Records – January 29, 2025)

- | | | | |
|----|--|----|--|
| 1 | DOLEZALEK KENNETH
DANNY BOWLING
25205 HWY 56
WHITESBORO, TX 76273-8000 | 14 | BLOUNT JOSHUA
1274 UTLEY RD
WHITESBORO, TX 76273-5547 |
| 2 | WHITESBORO COMMONS LLC
11876 GONZALES DR
FRISCO, TX 75035-8839 | 15 | ROBERT P. CUMMINS
P. O. BOX 450
SADLER, TX 76264-0450 |
| 3 | TEXAS DEPARTMENT OF TRANSPORTATION
ATTN: AREA ENGINEER
SHERMAN, TX 75090 | 16 | NORSEWORTHY HAROLD D AND MARY E
789 UTLEY RD
WHITESBORO, TX 76273-5551 |
| 4 | TEXOMA AREA SOLID WASTE AUTHORITY
ATTN: EXECUTIVE DIRECTOR
25090 STATE HWY 56
WHITESBORO, TX 76273-4993 | 17 | GREISEN SCOTT ETUX TAMMY
729 UTLEY ROAD
WHITESBORO, TX 76273 |
| 5 | WOLFE SAMUEL D III ETUX FELISA C
1414 LOTUS CIR
SHERMAN, TX 75092-5220 | 18 | GRAVETTE MARY FRANCES ESTATE
110 BOSTON ST
WHITESBORO, TX 76273-2402 |
| 6 | BOWLING DANNY ETUX GWENDOLYN
25221 STATE HIGHWAY 56
WHITESBORO, TX 76273-8000 | 19 | BARRY LOVETT
1105 W. WETTACK
NOWATA, OK 74048 |
| 7 | TURNER WESLEY D ETUX PATRICIA A
3090 OLD SHERMAN RD
WHITESBORO, TX 76273-8002 | 20 | MIKE GRAVETTE
3470 OLD SHERMAN ROAD
WHITESBORO, TX 76273 |
| 8 | WEISS DEBRA
1677 SPEEDWAY AVE
WICHITA FALLS, TX 76301-6134 | 21 | THE RAZIEL INVESTORS GROUP LLC
3000 CUSTER BLDG 270-351
PLANO, TX 75075 |
| 9 | APPROACH PARTNERS LLC
431 SOUTHRIDGE WAY
IRVING, TX 75063-4298 | 22 | CLARK ELIZABETH DANNETTE AND EUGENE
P CLARK JR
PO BOX 784
WHITESBORO, TX 76273-0784 |
| 10 | COLLINS FAMILY LIVING TRUST
4251 ARBOR CREEK DR
CARROLLTON, TX 75010-4146 | 23 | STEVENS ALENE MARIE REVO TR
STEVENS ALENE MARIE TRUSTEE
12 OLD SANBORN RANCH RD
WHITESBORO, TX 76273-7949 |
| 11 | WHITNEY WILLIAM SCOTT ETUX DEBORAH JO
214 LONESTAR RD
WHITESBORO, TX 76273-5576 | 24 | DAVID STEVENS
24533 STATE HIGHWAY 56
WHITESBORO, TX 76273 |
| 12 | DAVIS JERRY
P O BOX 650
COLLINSVILLE, TX 76233-0650 | 25 | WALSTON STEVEY J
130 LONE STAR RD
WHITESBORO, TX 76273-5582 |
| 13 | LONGTIN ANNETTE & LAGRAY ANNETTE
1160 UTLEY RD
WHITESBORO, TX 76273-5599 | 26 | WALSTON MICHELLE HOOD
3416 MOSER ST APT 2322
FT WORTH, TX 76177 |

Land Ownership List
(Based on Grayson County Appraisal District Records – January 29, 2025)

- | | | | |
|----|---|----|---|
| 27 | ZURITA JORGE LUIS ARENAS
11674 MUSTANG RD LOT 29
PILOT POINT, TX 76258-7718 | 39 | MEDINA RODOLFO
118 HILLSIDE DR
LEWISVILLE, TX 75057-3175 |
| 28 | JOSE ANTONIO & LORENZA MARTINEZ
2426 S TYLER ST
DALLAS, TX 75224 | 40 | ONCOR ELECTRIC DELIVERY COMPANY
STATE & LOCAL TAX DEPT
PO BOX 139100
DALLAS, TX 75313-9100 |
| 29 | MARTINEZ ANGELA ISABEL AND MARCOS
EMMANUEL MARTINEZ
4713 LAWLER RD
GARLAND, TX 75042-4506 | 41 | KW UTILITY CONSTRUCTION INC
PO BOX 32
WHITESBORO, TX 76273 |
| 30 | MANCERA JOSE SALVADOR LUNA
929 MIDDLE COVE DR
PLANO, TX 75023 | 42 | WILLIAMS KEARY S & JULIE
PO BOX 32
WHITESBORO, TX 76273-0032 |
| 31 | DE LA CRUZ JACQUELINE
404 MEADOW CREEK DR
MANSFIELD, TX 76063-5921 | 43 | KELLER PENELOPE G
6960 N FM 901
WHITESBORO, TX 76273-7930 |
| 32 | CARDENAS ANNABELLE TREVINO
511 N BRANCH
SHERMAN, TX 75090 | 44 | GRAVETTE MARY FRANCES ESTATE
110 BOSTON ST
WHITESBORO, TX 76273-2402 |
| 33 | MELCHOR AGUSTIN AQUINO AND PEREZ
SILVIA VERTIZ AND GONZALEZ MARGARITO
820 FOXWOOD PL
LEWISVILLE, TX 75067 | 45 | RAZIEL INVESTORS GROUP LLC
300 CUSTER RD BLDG 270 351
PLANO, TX 75075 |
| 34 | BARRIGA ALAN RAFAEL PEDRAZA DIAZ AND
NAYELI PEREZ PEREZ
1800 PRESTON ON THE LAKE 379
LITTLE ELM, TX 75068-5732 | 46 | HARRIS STEPHANIE
3344 OLD SHERMAN RD
WHITESBORO, TX 76273-8029 |
| 35 | AGUILAR RURI
1946 UTLEY RD
WHITESBORO, TX 76273 | 47 | TAMAYO MARTIN ELIZONDO ETUX MARIA
ELENA RIOS AGUILAR
514 E LINDA DR
GARLAND, TX 75041-2021 |
| 36 | JOSE JAIRO LOPEZ RODRIGUEZ
417 HETTIE ST
DENTON, TX 76209 | 48 | TYLER LINDA J
720 COUNTY ROAD 175
WHITESBORO, TX 76273 |
| 37 | SHEN XIAOQIN & GU STACY & CHEN
XIAOHONG & CHEN WEN & QIAN HONG
SHANGGUAN XIN & WANG TIMOTHY
4420 CASA GRANDE LANE
MCKINNEY, TX 75070-7368 | 49 | MENDEZ DAVID GEOVIANI CHIN AND CHIN
DAFNI GABRIELA
540 ROCKINGHAM DR APT 133-1
RICHARDSON, TX 75080-4350 |
| 38 | COLIN-FLORES CECILIO AND MUNIZ
VERONICA
277 OLD SANDBORN RANCH RD
WHITESBORO, TX 76273-7907 | 50 | MMXXI TEXAS INCOME TRUST
99 WALL STREET STE 1917
NEW YORK, NY 10005 |

Land Ownership List
(Based on Grayson County Appraisal District Records – January 29, 2025)

- 51 MELCHOR GERARDO MELCHOR AND ROMERO
GABRIELA INIESTRA
1958 UTLEY RD
WHITESBORO, TX 76273-5649

- 52 MMXXI TEXAS INCOME TRUST
ROBERT MARTIN TRUSTEE FOR GRAYSON CO
LAND TRUST
PO BOX 2750
ROWLETT, TX 75030-2750

TASWA DISPOSAL AND RECYCLING FACILITY

**APPENDIX IC
LEGAL DESCRIPTION AND BOUNDARY MAPS**

LEGEND

S 3/4" Rod
 Found Rebar
 Set 1/2" Sq. Tubing
 Set 1/2" Sq. Tubing
 Fd. Sq. Rod
 Right-of-Way
 Fence Line
 Dead Cuts
 Electric Line
 Telephone Line
 TV Cable
 Gas Meter
 Power Pole
 Water Meter
 Air Cond.
 Building Line
 Underground phone
 Fence Corner Post
 Utility Easement
 Back of Curb

C. C. Quillen Survey Abst.No.991

B and B Sand and Gravel INC
02 December 2020
2020-13569 D.R.

Craig W. Feko et ux
Dobbie B. Feko
10 January 2003
Vol.3384 Pg.197 D.R.

Robert A. Miller
07 January 2002
Vol.3199 Pg.78 D.R.

Scott Greisen et ux,
Tammy Greisen
18 August 2002
Vol.3315 Pg.765 D.R.

Harold D. Norzeworthy and
Mary E. Norzeworthy
03 December 2007
Vol.4372 Pg.522 D.R.

Ashley K. Shih
11 December 1992
Vol.2245 Pg.824 D.R.

H. Stewart Survey Abst.No.1076

Robert P. Cummins et ux
Julia R. Cummins
02 June 2004
Vol.3749 Pg.409 D.R.

Annette Longlin
28 June 2001
Vol.3092 Pg.382 D.R.

Jerry Davis
07 June 2021
2021-25347 D.R.

Grayson County Land Trust
27 January 2014
2021-14334 D.R.

Linda J. Tyler
22 January 2014
Vol.5413 Pg.929 D.R.

Collins Family Living Trust
08 September 2014
Vol.5514 Pg.820 D.R.

C. C. Quillen Survey Abst.No.991

George A. Ohanian
13 July 2000
Vol.2957 Pg.311 D.R.

** PROPERTY DESCRIPTION **

All that certain tract or parcel of land situated in the Manuel Manchaca Survey, Abstract Number 783, the J. Franklin Survey Abstract Number 546, the E. Underwood Survey Abstract Number 1284, the W. G. Gardenhire Survey Abstract Number 451, the J. P. Morrison Survey Abstract Number 794, the J. P. Morrison Survey Abstract Number 795, County of Grayson, State of Texas, said tract being all of a tract as described in Deed to Texasoma Area Solid Waste Authority, filed 21 November 2000, and Recorded in Volume 3008 Page 595 of the Deed Records of the County of Grayson, State of Texas, and being more fully described as follows:

Beginning for the southeast corner of the tract being described herein at a found PK Nail, said nail being the southeast corner of said Waste Authority tract, said nail also being at the intersection of Old Sanborn Ranch Road (asphalt surfaced) and Utley Road;

Thence: South 89 degrees 29 minutes 34 seconds West, with the south line of said Waste Authority tract, and in said Utley Road, a distance of 1401.75 feet to a found PK Nail for a corner of said Waste Authority tract;

Thence: South 89 degrees 29 minutes 48 seconds West, with the south line of said Waste Authority tract, and in said Utley Road, a distance of 3060.21 feet to a found PK Nail for a corner of said Waste Authority tract;

Thence: South 89 degrees 24 minutes 09 seconds West, with the south line of said Waste Authority tract, and in said Utley Road, a distance of 1904.58 feet to a set PK Nail for a corner of said Waste Authority tract;

Thence: South 89 degrees 37 minutes 30 seconds West, with the south line of said Waste Authority tract, and in said Utley Road, a distance of 508.29 feet to a set PK Nail for the southwest corner of said Waste Authority tract, and the southeast corner of a tract as described in deed to Robert A. Miller et ux, Mary Miller, filed 16 December 1994, and Recorded in Volume 2372 Page 407 of said Deed Records;

Thence: North 03 degrees 47 minutes 46 seconds West, passing a pipe fence corner post on the north side of said Utley Road and continuing with the west line of said Waste Authority tract, and the east line of said Miller tract 2372/407 for a total distance of 272.75 feet to a found 1/2 inch Steel Rebar for a corner of said Waste Authority tract;

Thence: North 04 degrees 18 minutes 12 seconds East, with the west line of said Waste Authority tract, and the east line of said Miller tract 2372/407, a distance of 639.48 feet to a set 1/2 inch Steel Square Tubing for a corner of said Waste Authority tract, and the northeast corner of said Miller tract 2372/407;

Thence: North 89 degrees 06 minutes 35 seconds West, with the north line of said Miller tract 2372/407, a distance of 181.09 feet to a found 1/2 inch Steel Rebar for a corner of said Waste Authority tract, and on the west line of a tract as described in deed to Scott Greisen et ux, Tammy Greisen, filed 18 August 2002, and Recorded in Volume 3315 Page 765 of said Deed Records;

Thence: North 06 degrees 03 minutes 31 seconds East, with the west line of said Waste Authority tract, and the east line of said Greisen tract, a distance of 1872.57 feet to a set 1/2 inch Steel Square Tubing for a corner of said Waste Authority tract, and the northeast corner of said Greisen tract;

Thence: North 82 degrees 04 minutes 17 seconds West, with the north line of said Waste Authority tract, a distance of 539.36 feet to a set 1/2 inch Steel Square Tubing for a corner of said Waste Authority tract, and the northwest corner of said Greisen tract, and on the east line of a tract as described in deed to Robert A. Miller, filed 07 January 2002, and Recorded in Volume 3199 Page 78 of said Deed Records;

Thence: North 07 degrees 23 minutes 16 seconds East, with the west line of said Waste Authority tract, a distance of 1405.30 feet to a set 1/2 inch Steel Square Tubing for a corner of said Waste Authority tract, and the northeast of a tract as described in deed to Craig W. Feko et ux, Dobbie B. Feko, filed 10 January 2003, and Recorded in Volume 3384 Page 197 of said Deed Records, and the southeast of a tract as described in deed to B and B Sand and Gravel INC., filed 02 December 2020, Instrument Number 2020-13569 of said Deed Records;

Thence: North 06 degrees 15 minutes 33 seconds East, with the west line of said Waste Authority tract, a distance of 1978.77 feet to a set 1/2 inch Steel Square Tubing for a corner of said Waste Authority tract;

Thence: South 78 degrees 45 minutes 21 seconds East, with the north line of said Waste Authority tract, a distance of 248.45 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract;

Thence: North 11 degrees 22 minutes 50 seconds East, with the north line of said Waste Authority tract, a distance of 159.45 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract, said tubing also being on the south Right of Way line of State Highway Number 56;

Thence: South 78 degrees 12 minutes 00 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 69.95 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract;

Thence: South 51 degrees 55 minutes 48 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 111.09 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract;

Thence: South 78 degrees 36 minutes 31 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 315.69 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract;

Thence: South 78 degrees 34 minutes 34 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 252.60 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract;

Thence: North 74 degrees 51 minutes 33 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 112.12 feet to a set 1/2 inch Steel Square Tubing for a corner of this tract;

Thence: South 78 degrees 46 minutes 33 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 1680.88 feet to a wood fence corner post for a corner of this tract;

Thence: South 78 degrees 28 minutes 54 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 1497.84 feet to a wood fence corner post for a corner of this tract;

Thence: South 78 degrees 34 minutes 37 seconds East, with the north line of said Waste Authority tract, and the south ROW line of said Highway 56, a distance of 1329.69 feet to a pipe fence corner post for a corner of this tract;

Thence: North 13 degrees 03 minutes 34 seconds East, with the north line of said Waste Authority tract, a distance of 50.58 feet to a set PK Nail for a corner of this tract, said nail also being in said Highway 56;

Thence: South 78 degrees 12 minutes 55 seconds East, with the north line of said Waste Authority tract, and in said Highway 56, a distance of 1360.16 feet to a set PK Nail for the northeast corner of this tract;

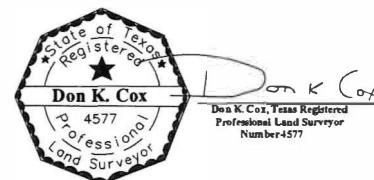
Thence: South 01 degrees 24 minutes 36 seconds West, with the east line of said Waste Authority tract, and in said Old Sanborn Ranch Road, a distance of 809.20 feet to a found 1/2 inch Steel Rebar for a corner of this tract;

Thence: South 01 degrees 24 minutes 09 seconds West, with the east line of said Waste Authority tract, and in said Old Sanborn Ranch Road, a distance of 4132.24 feet to the POINT OF BEGINNING and containing 920.487 acres of land.

The undersigned does hereby state to Texasoma Area Solid Waste Authority, that a survey was made on the ground, dated 14 August 2021, on the property legally described herein or in attached field notes and is correct; except as shown on the plat herein, there are no visible discrepancies, conflicts, shortages in area, boundary line conflicts, overlapping of improvements, easements or right-of-way, or of which I have been informed; that the quantity of land therein has been accurately calculated, that said property has access to and from a public roadway; and, that the plat herein is a true, correct and accurate representation of the property described herein above.

This Plat and Description was prepared for the exclusive use of the person or persons named in the above statements. Said statement does not extend to any unnamed person without an express resurvey by the surveyor naming said person. This survey was prepared for the transaction as dated herein, this Plat or Map is the Property of Cox Land Surveying Corp., and IS NOT to be used in any other transactions and the COPY RIGHTS ARE RESERVED.

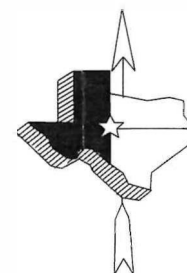
28 June 2022



FLOOD STATEMENT:

I have examined the Federal Emergency Management Agency, National Flood Insurance Program, Flood Insurance Rate Map for the County of Grayson, State of Texas, community: Panel Number 4811C effective date of 19 September 2010, and that map indicates that this property is not within Zone "A" (special flood hazard area) as shown on Panel Number 0250R and 0375F of said map.

This flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage on rare occasions. Greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor.



SCALE: 1" = 400'



COX LAND SURVEYING CO.

P.O. BOX 597 108 N. MAIN ST. COLLINSVILLE, TEXAS 76233
COLLINSVILLE 903-429-6125 E-mail: CLS@coxland.com
Gainesville 940-612-LAND Denton 940-381-5070 McKinney 469-952-5070

Property Boundary
TASWA Recycling and Disposal Facility
920.642 Acres in the
County of Grayson
State of Texas

DRAWING
1C.1

Drawn by: JCA
Check by: DKC

Job No.
21-13771
Firm # 10005500

Date: 12 October 2021



LEGAL DESCRIPTION:
BEING A 689.69 ACRE TRACT OF LAND LOCATED IN THE M. MARCHACA SURVEY, ABSTRACT NO. 783, W.J. GARDENHIRE SURVEY, ABSTRACT NO. 451, J. MORRISON SURVEY, ABSTRACT NO. 794, J. MORRISON SURVEY, ABSTRACT NO. 795, E. UNDERWOOD SURVEY, ABSTRACT NO. 1284 AND THE J.S. FRANKLIN SURVEY, ABSTRACT NO. 435, GRAYSON COUNTY, TEXAS, AND BEING A PORTION OF A CALLED 920.487 ACRE TRACT OF LAND AS DESCRIBED IN A DEED TO TEXOMA SOLID WASTE AUTHORITY, RECORDED IN VOLUME 3008, PAGE 595, DEED RECORDS, GRAYSON COUNTY, TEXAS (D.R.G.C.T.), SAID 689.69 ACRE TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE SOUTH RIGHT-OF-WAY LINE OF STATE HIGHWAY 56 (VARIABLE WIDTH RIGHT-OF-WAY), FROM WHICH A 1/2-INCH IRON ROD FOUND IN SAID SOUTH RIGHT-OF-WAY LINE BEARS NORTH 78 DEGREES 46 MINUTES 26 SECONDS WEST, A DISTANCE OF 160.94 FEET, SAID POINT OF BEGINNING HAVING GRID COORDINATES OF N: 7283418.76, E: 2471767.18;

THENCE WITH SAID SOUTH RIGHT-OF-WAY LINE THE FOLLOWING THREE (3) COURSES AND DISTANCES:

1. SOUTH 78 DEGREES 46 MINUTES 26 SECONDS EAST, A DISTANCE OF 1,519.94 FEET TO A POINT FOR CORNER;
2. SOUTH 78 DEGREES 28 MINUTES 47 SECONDS EAST, A DISTANCE OF 1,697.84 FEET TO A 10-INCH WOOD FENCE POST FOUND;
3. SOUTH 78 DEGREES 34 MINUTES 30 SECONDS EAST, PASSING A 2-INCH STEEL FENCE POST FOUND AT 1,329.42 FEET, AND CONTINUING FOR A TOTAL DISTANCE OF 2,659.79 FEET TO A POINT FOR CORNER WITHIN SAID 920.487 ACRE TRACT;

THENCE ACROSS SAID 920.487 ACRE TRACT THE FOLLOWING FIVE (5) COURSES AND DISTANCES:

1. SOUTH 01 DEGREES 23 MINUTES 47 SECONDS WEST, A DISTANCE OF 3,906.39 FEET TO A POINT FOR CORNER;
2. SOUTH 42 DEGREES 29 MINUTES 21 SECONDS WEST, A DISTANCE OF 572.63 FEET TO A POINT FOR CORNER, FROM WHICH A MAG NAIL FOUND AT THE SOUTHEAST CORNER OF SAID 920.487 ACRE TRACT BEARS SOUTH 35 DEGREES 24 MINUTES 45 SECONDS EAST, A DISTANCE OF 694.78 FEET;
3. SOUTH 78 DEGREES 58 MINUTES 13 SECONDS WEST, A DISTANCE OF 2,323.43 FEET TO A POINT FOR CORNER;
4. NORTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, A DISTANCE OF 3,073.47 FEET TO A POINT FOR CORNER, FROM WHICH A 2-INCH STEEL FENCE POST FOUND IN THE WEST LINE OF SAID 920.487 ACRE TRACT BEARS SOUTH 82 DEGREES 36 MINUTES 34 SECONDS WEST, A DISTANCE OF 1,129.89 FEET;
5. NORTH 00 DEGREES 43 MINUTES 05 SECONDS EAST, A DISTANCE OF 5,934.33 FEET TO THE POINT OF BEGINNING AND CONTAINING 689.69 ACRES OF LAND, MORE OR LESS.

LINE	BEARING	DISTANCE
L1	N 78°46'26" W	160.94'
L2	S 35°24'45" E	694.78'
L3	S 82°36'34" W	1129.89'

LEGEND:

- D.R.G.C.T. DEED RECORDS
GRAYSON COUNTY, TEXAS
P.O.B. POINT OF BEGINNING
P.O.R. POINT OF REFERENCE
● 1/2" IRON ROD FOUND
▲ MAG NAIL FOUND
⊕ FENCE POST FOUND (AS NOTED)
△ CALCULATED POINT
— SUBJECT TRACT BOUNDARY LINE
— ADJOINER TRACT BOUNDARY LINE
- - - INTERIOR TRACT/LOT LINE
- - - ABSTRACT LINE

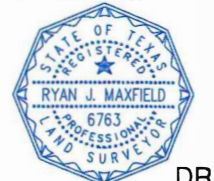
SURVEY NOTES:

1. ALL BEARINGS, DISTANCES, COORDINATES AND ELEVATIONS SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NORTH CENTRAL ZONE, NAD 83 (2011), GEOID 18. DISTANCES SHOWN HEREON ARE GRID.
2. NO ATTEMPT WAS MADE BY BIGGS AND MATHEWS ENVIRONMENTAL (BME) TO LOCATE UNDERGROUND PIPELINES OR UTILITIES. ALL UTILITIES SHOWN HEREON ARE BASED UPON AN ON THE GROUND SURVEY OF MARKED AND/OR VISIBLE UTILITIES.
3. THE PURPOSES OF THIS SURVEY IS FOR PERMITTING PURPOSES ONLY
4. SHEET SIZE: 22" X 34" AT 1 INCH = 400 FEET SCALE

I, RYAN J. MAXFIELD, REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, NUMBER 6763, DO HEREBY CERTIFY THAT THIS SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH THE STANDARDS OF PRACTICE AS SET FORTH BY THE TEXAS BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

GIVEN UNDER MY HAND & SEAL, THIS THE 17th DAY OF SEPTEMBER, 2024.

 09/17/2024
RYAN J. MAXFIELD DATE
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 6763, STATE OF TEXAS
TEXAS FIRM REGISTRATION NO. 10194895



DRAWING IC.2

PROJECT NAME:	TASWA PERMIT BOUNDARY
DATE:	SEPTEMBER 17, 2024
DRAWN BY:	B. BERRYMAN
DRAWING SCALE:	1"=400'
SHEET:	01 OF 01

PERMIT BOUNDARY
M. MARCHACA SURVEY, A-783, W.J. GARDENHIRE SURVEY, A- 451, J. MORRISON SURVEY, A-794,
J. MORRISON SURVEY, A-795, E. UNDERWOOD SURVEY, A-1284 AND THE J.S. FRANKLIN SURVEY, A-435
GRAYSON COUNTY, TEXAS

**BME**

BIGGS & MATHEWS ENVIRONMENTAL
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144
TBPELS FIRM NO. 10194895

APPENDIX ID
LEGAL AUTHORITY



Office of the Secretary of State

Certificate of Fact

The undersigned, as Secretary of State of Texas, does hereby certify that the document, Articles Of Incorporation for TEXOMA AREA SOLID WASTE AUTHORITY (file number 158689701), a Domestic Nonprofit Corporation, was filed in this office on June 19, 2000.

It is further certified that the entity status in Texas is in existence.

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 23, 2024.



A handwritten signature in cursive script that reads "Jane Nelson".

Jane Nelson
Secretary of State



The State of Texas

SECRETARY OF STATE

CERTIFICATE OF INCORPORATION OF

TEXOMA AREA SOLID WASTE AUTHORITY
FILE NUMBER 1586897-01

The undersigned, as Secretary of State of Texas, hereby certifies that Articles of Incorporation for the above corporation, pursuant to the provisions of the Texas Transportation Corporation Act, have been received in this office and are found to conform to law.

ACCORDINGLY the undersigned, as Secretary of State, and by virtue of the authority vested in the Secretary by law, hereby issues this Certificate of Incorporation and attaches hereto a copy of the Articles of Incorporation.

Dated:

June 19, 2000



Elton Bomer
Secretary of State

LSG

APPENDIX IE APPOINTMENTS

CERTIFICATE OF AUTHORIZATION
Authorization to Execute Documents

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

Re: Texoma Area Solid Waste Authority
Permit Amendment Application

I am the Executive Director of the Texoma Area Solid Waste Authority. I am authorized to act as an officer of Texoma Area Solid Waste Authority in the execution of the TASWA Disposal and Recycling Facility permit amendment application and to conduct other business in connection with such application, submitted as TCEQ Permit Application No. MSW 2290A.

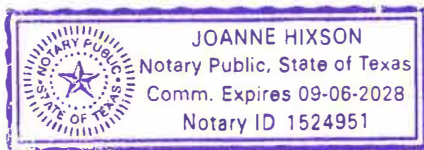
TEXOMA AREA SOLID WASTE AUTHORITY


John O'Steen, Executive Director

STATE OF TEXAS §

COUNTY OF GRAYSON §

SWORN TO AND SUBSCRIBED BEFORE ME by John O'Steen on this 31st day
JANUARY of 2025, which witness my hand and seal of office.




Notary Public in and for the State of Texas
Joanne Hixson
Printed Name

My Commission Expires: Sept 6, 2028

**NOTICE OF APPOINTMENT
Engineer's Appointment**

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

This is to advise you that officials at Texoma Area Solid Waste Authority have duly appointed Biggs & Mathews Environmental, Inc., as consulting and designing engineers for the purpose of submitting engineering reports and planning material for a permit application for the TASWA DISPOSAL and Recycling Facility. Biggs & Mathews Environmental, Inc. is an engineering firm employing professional engineers in good standing in accordance with State statutes and the firm has experience in the design and construction of similar facilities. Mr. David L. Clark, P.E., Principal Engineer with Biggs & Mathews Environmental, Inc., is the Engineer of Record for this permit application. Mr. Clark is registered in the State of Texas and has more than 30 years' experience in engineering.

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.

We herewith authorize you to review and comment on such reports, planning material, and data on this proposed project as Biggs & Mathews Environmental, Inc., may submit to you.

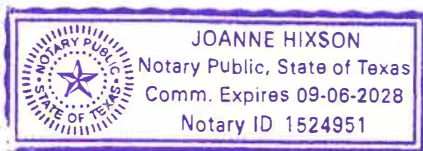
ATTEST:

TEXOMA AREA SOLID WASTE AUTHORITY



John O'Steen, Executive Director

SWORN TO AND SUBSCRIBED BEFORE ME by John O'Steen on this 31st day of JANUARY, 2025, which witness my hand and seal of office.





Notary Public in and for the State of Texas
Joanne Hixson

Printed Name

My Commission Expires: Sept 6, 2028

**TASWA DISPOSAL AND RECYCLING FACILITY
GRAYSON COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2290A**

PERMIT AMENDMENT APPLICATION

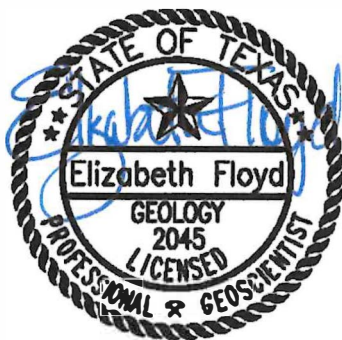
**PART II
EXISTING CONDITIONS AND
CHARACTER OF THE FACILITY AND SURROUNDING AREA**

PART II NARRATIVE

Prepared for

TEXOMA AREA SOLID WASTE AUTHORITY

February 2025



Biggs & Mathews Environmental, Inc.
Firm Registration No. 50222



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

For Sections 8.1, 10.1, 10.2, 10.3, 10.4, 11.1, 12.1 and 12.2

1/30/2025

Prepared by

BIGGS & MATHEWS ENVIRONMENTAL

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
FIRM REGISTRATION NO. F-256 AND NO. 10194895

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

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Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

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APPENDIX IIB – LAND USE ANALYSIS
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APPENDIX IID – WETLANDS DOCUMENTATION
APPENDIX IIE – ENDANGERED OR THREATENED SPECIES DOCUMENTATION
APPENDIX IIF – TEXAS HISTORICAL COMMISSION DOCUMENTATION
APPENDIX IIG – TPDES PERMIT
APPENDIX IIH – FEDERAL AVIATION ADMINISTRATION DOCUMENTATION
APPENDIX III – TEXOMA COUNCIL OF GOVERNMENTS DOCUMENTATION
APPENDIX IIJ – WASTE ACCEPTANCE PLAN FORM TYPE I AND TYPE I AE LANDFILL FACILITY

1 EXISTING CONDITIONS SUMMARY

30 TAC §330.61(a)

The TASWA Disposal and Recycling Facility (TASWA DRF) is an existing Type I Municipal Solid Waste Disposal Facility operating under TCEQ Permit MSW 2290. The TASWA DRF is located approximately 3 miles east of Whitesboro, 2 miles southeast of Sadler, and 3 miles west of the City of Southmayd on State Highway 56 in Grayson County, Texas. An aerial photo of the site is included in Part I.

TASWA owns approximately 920 acres south of SH 56, west of Old Sanborn Ranch Road, and north of Utley Road. The existing permit area is approximately 393 acres. The existing waste disposal footprint is approximately 228 acres.

The surface topography generally slopes from southwest to northeast with natural surface elevations ranging from about 765 feet mean sea level (msl) to about 725 feet msl. The site lies south of Mustang Creek and is located outside of the FEMA 100-year floodplain.

The existing landfill footprint consists of Sectors 1-16, of which Sectors 1-6 have been constructed and in which waste has been placed. Excavation of Sector 7 is in progress and development of the Sector 7 liner system is scheduled for 2025. Sector 6 is currently the active waste disposal area. Sectors 7-16 have not been developed.

Areas outside the waste disposal footprint are used for buffer and for landfill facilities, including the scale house, entrance road, landfill access road, Citizen's Convenience Center, maintenance shop, office, and surface water drainage structures. As part of the overall development, perimeter drainage facilities, including two perimeter ponds, have been constructed. All surface water from Sectors 1-6 is routed through these two detention ponds prior to exiting the site.

Refer to Appendix IIA for drawings illustrating existing conditions within the existing permit area and expansion area.

Sections 8 through 15 include detailed discussion of site-specific conditions that potentially require special design considerations as set forth in §330.61(a), including impact on the surrounding area, transportation, geology, soils, groundwater, surface water, abandoned oil and water wells, floodplains, wetlands, endangered or threatened species, and the Texas Historical Commission review.

2 WASTE ACCEPTANCE PLAN

30 TAC §330.61(b)

2.1 Properties and Characteristics of Waste

The major classifications of solid waste to be accepted for disposal at TASWA DRF include residential, commercial, grease and grit trap, soluble sludge and septage, Class 2 and Class 3 nonhazardous industrial, construction-demolition, and some special wastes.

The TASWA DRF will not accept Class 1 industrial wastes. The waste classifications are defined in §330.3.

Consistent with §330.15, the facility will not accept for disposal untreated medical waste, lead acid storage batteries; used motor vehicle oil; used oil filters; whole used or scrap tires; refrigerators, freezers, air conditioners, or other items containing chlorinated fluorocarbon (CFC); bulk or noncontainerized liquid waste from nonhousehold sources; regulated hazardous waste; polychlorinated biphenyls (PCB) waste; radioactive materials or other wastes prohibited by TCEQ regulations. The facility has not in the past accepted, and will not accept, Class 1 industrial solid waste.

2.2 Volume and Rate of Disposal

The TASWA DRF serves individuals, businesses, and communities in Grayson County, and surrounding Texas counties. TASWA anticipates that in first year of operation under the MSW 2290A permit (Year 1), the landfill will receive approximately 270,000 cubic yards of incoming waste. The waste acceptance rate will vary over the life of the facility depending on market conditions.

The estimated maximum annual waste acceptance rate for the TASWA DRF projected for the first five years of operation under the MSW 2290A permit is as follows:

Year	Estimated Annual Waste Acceptance Rate
1	270,000 cubic yards
2	275,400 cubic yards
3	280,900 cubic yards
4	286,500 cubic yards
5	292,300 cubic yards

As population and economic conditions and available landfill disposal capacity change within the region, the volume of incoming waste could vary. TASWA will maintain records to document the annual waste acceptance rate for the facility. If the rate exceeds the estimated rate and is not due to a temporary occurrence, TASWA will file a permit modification application consistent with §330.125(h). The modification would propose any needed changes in the site operating plan to properly manage the

increased waste acceptance rate, if any. As provided by §330.125(h), the estimated waste acceptance rate is not a limiting parameter of the permit.

Once expanded, the landfill will provide a total disposal capacity of 183,500,000 cubic yards. The total disposal capacity calculations are provided in Part III, Attachment H, Appendix H3. The remaining disposal capacity calculations are provided Part III, Attachment D4.

The estimate of the population or population equivalent served by the facility has been determined based on the population forecast (approximately 1.45% annual growth) included in the Texoma Council of Governments (TCOG) Community and Economic Development Program (CED). The TASWA DRF generally serves an area that includes Grayson and Cooke County and surrounding areas. Based on this general service area included in the CED that are consistent with the service area, the approximate estimate of population equivalent are as follows:

Population Equivalent:	<u>2020</u>	<u>2070</u>
	212,983 persons	579,087 persons

2.3 Waste Acceptance Plan Form

Refer to Appendix IIJ for the completed form.

3 GENERAL LOCATION MAPS

30 TAC §330.61(c)

Consistent with §330.61(c), the general location maps are provided in Appendix IIA. These general location maps are provided in addition to those maps provided in Part I, Appendix IA. These maps, collectively as a group, accurately show the proximity of the facility to surrounding features and specifically show the items identified in §330.61(c)(1)-(12).

4 FACILITY LAYOUT MAPS

30 TAC §330.61(d)

Consistent with §330.61(d), the facility layout maps are provided in Appendix IIA. These facility layout maps, collectively as a group, specifically show the items identified in §330.61(d)(1)-(9).

5 GENERAL TOPOGRAPHIC MAP

30 TAC §330.61(e)

The United States Geological Survey (USGS) General Topographic Map is included in Appendix IIA. Drawing IIA.2, the topographic map consists of the 7-1/2 minute quadrangle sheets for Ethel and Sadler, Texas. Drawing IIA.2 is at a scale of one inch equals 2,000 feet as required by §330.61(e).

6 AERIAL PHOTOGRAPH

30 TAC §330.61(f)

Consistent with §330.61(f), the aerial photograph of the site and surrounding area is presented in Appendix IIA as Drawing IIA.7. This aerial photograph represents conditions as downloaded from Google Map Pro on February 10, 2022. The aerial photograph shows the area within at least a one-mile radius of the permit boundary. In addition, the permit boundary and limits of waste are shown.

7 LAND USE MAP

30 TAC §330.61(g)

Consistent with §330.61(g) a land use map is included in Appendix IIB as Figure 2. This land use map has been prepared based on the land use analysis conducted by Integrated Environmental Solutions, LLC. The land use features identified and depicted on this drawing, as required by §330.61(g), include the facility permit boundary, uses within the permit boundary, and existing uses such as agricultural, industrial, and residential uses within one mile of the permit boundary. Locations of residences, commercial establishments, schools, licensed day care facilities, churches, cemeteries, ponds or lakes, and recreational areas within one mile of the permit boundary are shown. Refer to the facility layout maps, Drawing IIA.3, for drainage, pipeline, and utility easements within the permit boundary.

8 IMPACT ON SURROUNDING AREA

30 TAC §330.61(h)

Consistent with §330.61(h), an evaluation of the impact on the area surrounding the facility was conducted. Refer to Appendix IIB for a detailed land use analysis. The land use analysis addresses zoning within two miles of the facility, character of surrounding land uses within one mile of the facility, growth trends within five miles of the facility, proximity to residences and other uses within one mile of the facility.

8.1 Wells Within 500 Feet

Consistent with §330.61(h)(5), a description of known wells within 500 feet of the facility has been prepared.

A water well and oil and gas well search was conducted to identify known wells in the vicinity of the proposed facility boundary. A discussion of the well search is included in Part III Attachment E, Section 3.4. The water well search details and the state well numbering system identification number cross reference table may be found with additional information about each of the wells in Part III, Attachment E. Consistent with §330.61(c)(2), the water wells located within 500 feet of the proposed permit boundary are shown on Drawing IIA.4. There are a total of 4 water well locations within 500 feet of the proposed permit boundary. There are currently 16 existing monitoring wells and 14 piezometer locations within the TASWA DRF permit boundary. There are no known abandoned water wells within the permit boundary. If any unknown abandoned water wells are located during facility development, they will be managed as described in Section 12.1. Well locations, use and status are shown on Drawing IIA.4.

An oil and gas well search of state records was conducted to identify any oil and gas wells on the site and in the vicinity of the permit boundary. The search included a review of records and maps on file at the Texas Railroad Commission (RRC). As shown on Drawing IIA.5, a total of eight oil well locations were observed with a 500-foot radius of the site. Three dry holes are located within the waste footprint and have been properly plugged prior to construction of waste cells. Three additional dry holes are identified on the property outside of the waste permit but within the boundary. One permitted well location is shown on the property within the limit of waste; the well was never drilled, and the permit expired in 2002. One oil well was identified outside the permit boundary but within a 500-foot radius of the site. A Public Information Request was submitted to the RRC in an effort to gain information about the oil well identified as 181. Despite an exhaustive search performed by the RRC, no records or data pertaining to oil well 181 were located. The RRC was able to locate records for the two most adjacent wells with respect to oil well 181; both adjacent wells are considered dry and were plugged in 1966. Due to the lack of records for oil well 181 and the exclusive presence of documented dry holes within the permit boundary, oil well 181 should not be considered an active crude oil or natural gas production well or a well associated with mineral recovery.

Information is discussed in Part III, Attachment E. No other oil or gas wells or tests (dry holes) have been drilled within 500 feet of the permit boundary. If any unknown

abandoned crude oil or natural gas wells or other wells associated with mineral recovery are located during facility development, they will be managed as described in Part III, Attachment E.

9 TRANSPORTATION

30 TAC §330.61(i)

Consistent with §330.61(i)(1)-(4), a transportation study is included as Appendix IIC. The transportation study provides information on the availability and adequacy of access roads, provides data on the existing and expected vehicular traffic on access roads within one mile of the facility during the expected site life of the facility, and projects the volume of traffic expected to be generated by the facility on the access roads within one mile of the facility. Documentation of coordination with the Texas Department of Transportation (TxDOT), is also included in Appendix IIC. Information in the Transportation Study shows that access roads to the site are available and adequate.

9.1 Airport Impact

Consistent with §330.61(i)(5), an evaluation of the facility impact on surrounding airports was conducted in accordance with §330.545. Refer to Drawing IIA.6 for the location of the facility in relationship to area airports. The map provides the facility boundary, a 5,000-foot radius, a 10,000-foot radius, and a six-mile radius overlain on the May 19, 2022, Dallas-Ft. Worth FAA Sectional Aeronautical Chart.

The Federal Aviation Administration conducted an aeronautical study for the vertical and lateral expansion of the TASWA Facility and has issued a "Determination of No Hazard to Air Navigation". Further, notification has been provided to the two general aviation airports within 6 miles of the facility boundary of the proposed landfill expansion. Refer to Appendix IIH for documentation of coordination with FAA and the airports regarding location of the facility in relation to airports in the designated areas as required by §330.61(i) and §330.545.

The TASWA DRF meets the Airport Safety location restriction in §330.545.

10 GENERAL GEOLOGY AND SOILS STATEMENT

30 TAC §330.61(j)

Consistent with §330.61(j)(1)-(4), a general discussion of the geology and soils of the site has been prepared. Detailed discussion of the geology of the site can be found in Part III, Attachment E of this application. The geology and hydrogeology characteristics for this limited expansion are consistent with the previously approved Geology Report prepared by Biggs and Mathews Environmental, Inc. as part of the previous permit application for Permit No. MSW 2290, issued on October 31, 2003.

10.1 General Geology

The gently north sloping topography of the site is interrupted by gentle north-northwest trending topographic high areas on the western and eastern portions of the site. The low areas between the topographic highs form a north trending drainage feature in the central portion of the site and an east trending drainage feature in the southwest corner of the site. Surface water run-on drains from the south of the site onto the site through culverts beneath Utley Road. The topographic high area on the east side of the site directs runoff to the east. Surface elevations on the site range from about 765 feet above mean sea level (AMSL) on the topographic highs to about 725 feet AMSL in the lowest intermittent stream channels.

The TASWA site lies on the western edge of the northern extent of the physiographic province known as the Blackland Prairie. The Blackland Prairie consists of weathered outcrops of Cretaceous shale, marl, and chalk formations including the Eagle Ford Shale, the Austin Chalk, and the Taylor and Navarro Marls. Blackland Prairie terrain typically has undulating surfaces and fertile soils that have been cleared of most natural vegetation and cultivated for farm crops. Immediately west of the northern part of the Blackland Prairie is the Grand Prairie. The Grand Prairie in this area has low, undulating hills formed on the sandy soils of the Woodbine Formation outcrop. The sandy soils west of the site typically support tree growth better than the Blackland Prairie soils that are on the project site (Wermund, 1996).

The site is located near the upper reaches of the Red River Basin watershed. In the site vicinity the surface slopes gently to the north and is bisected by shallow intermittent features that convey surface water runoff to the north and west into tributaries of Mustang Creek. These tributaries are the nearest surface water bodies to the site when they contain water. Mustang Creek is a large intermittent stream that flows north to join Big Mineral Creek before it flows into Lake Texoma about 4½ miles north-northeast of the site. Lake Texoma resulted from the impoundment of the Red River. Local impoundments of some small intermittent streams form small stock tanks north and west of the site. A regional drainage divide separating the Trinity River Watershed from the Red River Watershed occurs about ¼ mile south of the site. North of that divide surface water drains generally north to the Red River. South of the divide surface water drains generally south to the Trinity River. The maximum elevation on the site is approximately 810 feet AMSL near the center of the site. The minimum elevation is approximately 725 on the north central portion of the site. The site slopes generally to the north at

approximately 100 feet per mile (approximately 1.9 percent). Natural internal relief on the site displays slopes with gradients ranging from 1.5 percent to 5 percent.

10.2 General Stratigraphy

Regional stratigraphic units that outcrop in the Texoma area include formations of the Lower Cretaceous Comanche Series west of the site and those of the Upper Cretaceous Gulf Series at and east of the site. The stratigraphic relationships of these formations are shown in the table below.

A regional cross-section across the Texoma area (Nordstrom, 1982) is shown in Figure IIA.9. The geologic units of the Cretaceous System are an east-southeastward dipping wedge of sediments that thicken toward the Gulf of Mexico. Outcrops of the Cretaceous formations in southern Grayson and Cooke Counties generally trend north-south. In the northeastern part of Grayson County and northern Fannin County the northern flank of the East Texas Embayment is bounded by the Ouachita Uplift causing the Cretaceous outcrops to have a more east-west trend that reflects dip of those formations southward into the Gulf of Mexico.

Stratigraphy of The Cretaceous of North Texas
(Modified from Barnes, 1991)

System	Series	Group, Formation		Member	
Cretaceous	Gulf	Navarro		Outcrop at TASWA site.	
		Taylor (Ozan Formation)			
		Austin			
		Eagle Ford			
		Woodbine			Templeton
	Lewisville				
	Red Branch				
	Dexter				
	Comanche	Washita			
		Fredericksburg			
		Trinity	Paluxy		Antlers
			Glen Rose		
			Twin Mountains		

*Outcrop at
TASWA site.*

Refer to Part III, Attachment E for more detailed information.

10.2.1 Site Stratigraphy

The site is on the outcrop of the Eagle Ford Shale. The Eagle Ford is typically gray to dark gray and brown shale with sandy shale and sand interbeds. Near the surface, the Eagle Ford weathers to gray to brown clay, shaly clay, and sandy clay. The Templeton

Shale member of the Woodbine crops out west of the site and underlies the Eagle ford Shale. The shallowest Woodbine sandstone is found beneath the site ranging in depth from about 70 on the western parts of the site to about 100 feet on the eastern portion of the site. The sandstone is locally interbedded with thin shale or clayey shale. The Woodbine sandstone is typically gray to dark gray, hard, carbonaceous, and glauconitic with calcareous cement.

Six geologic units have been identified in the subsurface beneath the site. They are described in detail in Part III, Attachment E. Part III, Appendix E3 contains geologic cross sections of the site which illustrate generalized subsurface conditions and interpreted correlations of the geologic and hydrogeologic unit at the site. The cross-sections are based on lithologic and stratigraphic data from the logs of borings provided in Part III, Appendix E2.

10.2.2 Layer I - Clay and Shaly Clay

Layer I is a weathered surficial unit generally consisting of clay overlying shaly clay. This layer also has some sandy shale interbeds. Layer I soils were encountered from the surface to a maximum depth of 47 feet. Average thickness of this layer is 23 feet. This layer is the near-surface weathered portion of the Layer II shale layer.

10.2.3 Layer II - Shaly Sandstone and Shale

Layer II is hard and consists of thin, flaggy beds of calcareous, shaly sandstone and shale. There is a minor, thin flaggy limestone within this layer. Layer II is correlatable across the site except for a few locations where it was not identified in borings (borings EB-6, P-10, YY-25, BME-3, 4, 5, 6, 7, 9, 11, 14, 15, 17, 18, 19, 20). Layer II was encountered from 3 to 82 feet deep except for one location (boring F-40 on the northwest corner of the site), where the overlaying clay is absent, and Layer II is found at the surface. This layer, where present, is 1 to 24 feet thick and averages about 5 feet thick.

10.2.4 Layer III – Shale with Sand

Layer III consists of gray to dark gray shale with sand. The shale is glauconitic, carbonaceous, and in places is calcareously cemented and fractured with near-vertical to diagonal fractures. The shale is typically gradational with slightly more sand near the top grading downward to 100 percent shale near the contact with the underlying Layer IV shale. A few thin mudstone and sand seams occur in Layer III. The unit is correlatable across the site. Layer III ranges from 10 to 53 feet thick and is an average of 40 feet thick. The top of Layer III averages 27 feet below ground surface.

10.2.5 Layer IV - Shale

Layer IV is dark gray, massive shale, carbonaceous with some mudstone seams. The top of the unit was encountered at an average depth of about 63 feet and ranged from 3 to 79 feet thick, averaging 36 feet. The unit contained mudstone seams and traces of glauconitic sand. Near vertical and diagonal fractures occur scattered throughout the unit. The unit is correlatable across the site.

10.2.6 Layer V – Sandstone and Shaly Sand

Layer V is a tan to dark gray glauconitic, carbonaceous, variably cemented sandstone interbedded with shaly sandstones. It contains minor shale and mudstone interbeds as well as fossil shell fragments. Layer V ranges from 2 feet to 26 feet thick and averages 10 feet thick across the site. The unit is correlatable across the site.

10.2.7 Layer VI – Shale and Shale with Sand

Layer VI is dark gray, glauconitic, carbonaceous shale with sandy seams. The unit typically grades from more sand near the base of Layer V sandstones to all shale deeper into the layer. A maximum of 43 feet of this shale unit and an average of about 14 feet was penetrated by drilling during exploration. There is a deeper sand below Layer VI that was observed in borings BME-1, BME-8, and BME-13. The maximum thickness is not known because it was not fully penetrated in all borings. The unit is correlatable across the site.

10.3 Fault Areas

Consistent with §330.61(j)(2) and §330.555, fault areas documentation was prepared and included in Part III, Attachment E to demonstrate that the TASWA DRF meets the location restriction for fault areas.

A review of published literature found no oil and gas accumulations on the property.

The facility is in compliance with the Fault Area location restriction as defined by §330.555.

10.4 Seismic Impact Zones

A seismic impact zone, as referenced in §330.61(j)(3) and defined by §330.557, is an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earthen material, expressed as a percentage of the earth's gravitational pull, will exceed 0.10g in 250 years.

Based on the USGS 2014 National Seismic Hazard Map, the TASWA DRF lies in an area where the peak horizontal acceleration, with a 2% probability of being exceeded in 50 years (functionally equivalent to a 10% probability of exceedance in 250 years), is less than 10% of gravity (less than 0.1g). Appendix IIA shows the site location on the USGS 2014 National Seismic Hazard Map.

The facility is in compliance with the Seismic Impact Zone location restriction as defined by §330.557.

10.5 Unstable Areas

Consistent with §330.61(j)(4) and §330.559, unstable areas documentation was prepared as part of this application to demonstrate that the TASWA DRF meets the location restriction for unstable areas.

An unstable area is defined by the TCEQ as a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill's structural components responsible for preventing releases from a landfill. An unstable area can exhibit poor foundation conditions, areas susceptible to mass movement, and karst terrains.

The determination of potential unstable areas at the landfill site is based on site observations and a review of existing documentation for the site by a licensed professional engineer. Based on this review, the foundation conditions and the local geologic formations are stable. In addition, there is no evidence to suspect mass movement of natural formations of earthen material on or in the vicinity of this site. The proposed landfill components were evaluated with respect to settlement, heave, and slope stability. The detailed analysis is included in Part III, Attachment D5. The proposed landfill components were evaluated with respect to differential settlement, heave, and slope stability.

Based on site observations, a review of existing geological data, and geotechnical analysis of the structural components of the landfill development, the site is not located in an unstable area and the integrity of the landfill is not expected to become impaired by natural, surface, or subsurface human-made features or events.

The facility is in compliance with the Unstable Areas location restriction as defined by §330.559.

11 GROUNDWATER AND SURFACE WATER

30 TAC §330.61(k)

11.1 Groundwater

Consistent with §330.61(k)(1) and 330.549, a discussion of groundwater conditions at or near the facility has been prepared and is included in Part III, Attachment E. The groundwater monitoring system proposed for the site is discussed in Part III, Attachment F. The facility is not located within the recharge zone of the Edwards Aquifer, as identified in 30 TAC Chapter 213.

Groundwater conditions at the site were determined using data from a combination of piezometers and monitoring wells that are a part of the approved site Subtitle D groundwater monitoring system. Details and logs of the borings, monitoring wells, and piezometers are provided in Part III, Appendix E2.

The facility is in compliance with the Groundwater location restriction as defined by §330.549.

11.1.1 Hydrogeologic Units

11.1.1.1 Layer II/III Shaly Sandstone and Shale with Sand

Groundwater is contained in the Layer II shaly sandstone and the Layer III shale with sand. Groundwater enters Layer II at its outcrop on the western part of the TASWA property and flows to the northeast. In addition to the recharge to Layer II and III from infiltration on their surface outcrops, infiltration from the surface may penetrate Layer I in localized areas where Layer I does not contain lower permeability material. Hydrographs of water levels in site piezometers, plotting water levels versus precipitation, do not suggest that the groundwater levels respond to precipitation events. Layer III contains shale with sand. Layer III generally contains more sand near the top of the layer. The amount of sand grades generally downward toward its base as it transitions into the Layer IV shale. Groundwater found in the upper parts of Layer III is apparently in direct communication with groundwater in Layer II and acts as one hydrogeologic unit. Groundwater would move preferentially in a lateral direction in the Layer II material since it is significantly more permeable than Layer III. Groundwater flow in Layer II is estimated to be about 25 feet per year.

11.1.1.2 Layer IV Shale

Layer IV consists of dark gray, dense shale, and ranges from 3 to 79 feet thick across the site. The lithologic and hydrogeologic characteristics of this unit indicate that it serves as the lower confining unit to the groundwater in Layers II/III and the upper confining unit to the underlying sandstone aquifer in Layer V.

11.1.1.3 Layer V Sandstone

Groundwater enters the Layer V sandstone at its outcrop west of the site. The groundwater moves downdip, generally to the east. Groundwater is confined in Layer V by the overlying Layer IV shale and the underlying Layer VI shale. Slug tests discussed in Section 5.7 of Attachment E were conducted in the piezometers, which were screened in Layer V. The geometric mean of hydraulic conductivity values (K) calculated from the Layer V slug tests is 1.22×10^{-4} cm/sec. The estimated groundwater flow velocity in Layer V is about 15 feet/year.

11.1.1.4 Layer VI Shale and Shale with Sand

Layer VI consists of a dark gray, dense shale similar to Layer IV. The shale in Layer VI contains thin seams of sand near the top and grades to a dense shale with depth. An average of about 14 feet and a maximum of 43 feet of this shale was penetrated by site borings. This shale serves as the aquiclude unit to the Layer V aquifer sand.

11.2 Regional Aquifers

The Woodbine Formation and Trinity Group aquifers are the only defined regional aquifers.

11.2.1 Woodbine Aquifer

The Woodbine Aquifer is classified by the State of Texas as a minor aquifer. The outcrop of the Templeton Shale Member of the Woodbine Formation lies immediately west of the existing permit boundary of the TASWA DRF. The recharge zone of the sandy portions of the Woodbine aquifer trends generally from north to south in a band that stretches from about five miles east of Gainesville in Cook County to about ½ mile west of the site. Depth to the Woodbine sandstone beneath the site ranges from about 70 feet below the ground surface on the western portions of the site to as deep as 130 feet on the eastern portions of the site. The thickness of the Woodbine varies from about 50 feet in the western parts of the recharge zone to more than 400 feet in the eastern parts of the region.

The Woodbine aquifer consists of sandstone, siltstone, and shaly sand interbedded with non-aquifer-quality shale and sandy clay. The Woodbine generally dips to the east at about 60 feet per mile. The Woodbine aquifer is confined by the overlying Eagle Ford Shale in western Grayson County and the Eagle Ford Shale and Austin Chalk in the eastern parts of Grayson County.

The primary recharge to the woodbine is by rainfall on the outcrop area and from infiltration from lakes and streams on the outcrop. Woodbine groundwater occurs in unconfined, water-table conditions near the outcrop and becomes confined downdip. Groundwater within the Woodbine moves east-southeast from the recharge zones on the outcrop. Based on published, regional data, the average rate of groundwater movement in the Woodbine in the Texoma Area is estimated to be about 10 to 20 feet per year depending on the local gradient and permeability. Water quality of the Woodbine near the outcrop typically has high iron concentrations but is otherwise fresh and of good quality. As the Woodbine groundwater migrates downgradient, the water quality deteriorates with increases in sodium, chloride, and bicarbonate. Total dissolved

solids typically range from 250 to 1500 milligrams per liter in groundwater withdrawn from Woodbine wells in the area.

11.2.2 Washita Group

The Woodbine Formation is separated from the deeper Trinity aquifer by sediments of the Washita Group. The Washita Group consists of, from oldest to youngest, Kiamichi Limestone, Fort Worth Limestone and Duck Creek Marl, Denton Clay, Weno Limestone, Paw Sandstone and Clay, Main Street and Bennington Limestones, and the Grayson Marl (Main Street and Grayson are largely undivided in Texas). The Washita Group consists mostly of limestone, dense marl, clay, and some sand. The sediments of the Washita Group are not considered aquifer quality, though will yield small quantities of water in shallow wells near their outcrop.

11.2.3 Trinity Aquifer

The Trinity aquifer is classified as a major aquifer by the State of Texas. Regionally, the Trinity consists of, from oldest to youngest, the Twin Mountains, the Glen Rose, and the Paluxy. In the Texoma area, the Trinity aquifer is collectively known as the Antlers Formation, (Nordstrom, 1982; and Barnes, 1991). The Antlers crops out in western Cooke County and consists of sandstone, sand, and clay. The thickness of the Antlers in Cooke and Grayson counties ranges from 400 to 800 feet and deepens from the outcrop area to more than 1400 feet deep in eastern Grayson County (Figure E1-2).

The potentiometric surface of confined groundwater in the Antlers is about 450 feet below mean sea level in the general area of the site. A regional potentiometric surface map of the Trinity Antlers aquifer is on Figure E1-4. Nordstrom (1982) estimates a groundwater velocity for the Antlers of 1 to 2 feet per year. Groundwater moves slowly to the east-southeast in the Antlers.

Hydraulic properties of the sand units that comprise the Trinity aquifer are given in Nordstrom, (1982) and Langley, (1999), and are summarized in Table E-2. Transmissivities range from 5,000 to 10,000 gallons per day per foot. Hydraulic conductivity ranges from 25 to 53 gallons per day per square foot.

Recharge to the Trinity Antlers is by precipitation on the outcrop as well as seepage from the lakes and streams on the outcrop. Groundwater in the Antlers near the outcrop is unconfined and under water table conditions. Down dip from the outcrop, the groundwater is confined by the lower permeability rocks above and below the Antlers. The nearest outcrop for the Trinity is more than 25 miles west of the site.

11.3 Surface Water

Consistent with §330.61(k)(2), a discussion of surface water at or near the site has been prepared.

The proposed TASWA DRF is located in west central Grayson County in the Red River drainage basin. The site is near the upper limits of the drainage divide between the Red River and Trinity River drainage basins. Stormwater runoff from the TASWA DRF property generally runs off from south to north into unnamed tributaries of Mustang

Creek. Mustang Creek flows into Big Mineral Creek, which empties into Lake Texoma about 7 miles north of the site.

Runoff from the west half of the TASWA DRF contributes to the existing tributary just west of the permit boundary. The central part of the site contributes to a tributary that flows through the middle of the site. The east part of the site runs off into a series of smaller tributaries that flow under Old Sanborn Ranch Road and eventually into a tributary of Mustang Creek east of the site. The existing streams or creeks running through or adjacent to the site are intermittent streams. The proposed TASWA DRF permit boundary is not located within the 100-year floodplain as defined by the Federal Emergency Management Agency (FEMA).

11.4 Stormwater Permitting

The facility has been designed to prevent the discharge of pollutants into waters of the state of Texas or waters of the United States, as defined by the Texas Water Code and the Federal Clean Water Act, respectively. TASWA DRF submitted a notice of intent (NOI) to comply with TPDES General Permit No. TXR050000 relating to stormwater discharge associated with industrial activity (Multi-Sector General Permit) and received Permit No. TXR05AH82. A copy of the permit is included in Appendix IIG.

12 ABANDONED OIL AND WATER WELLS

30 TAC §330.61(l)

12.1 Water Wells

Consistent with §330.61(h)(5), there are no known abandoned water wells within the permit boundary. There are currently 16 existing monitoring well locations within the current permit boundary.

Should any unknown abandoned water wells be discovered during facility development, TASWA DRF will provide notification to the TCEQ executive director of their location. The well will be plugged in accordance with applicable rules and regulations of the TCEQ or other state agency and written certification to that effect will be submitted to the executive director within 30 days after discovery.

12.2 Oil and Gas Wells

As discussed in Section 8.1 there are six plugged dry wells located within the permit boundary and one well location with an expired permit that was never drilled. An additional oil well location was observed outside the permitted boundary but within a 500-foot radius of the site. A Public Information Request was submitted to the RRC in an effort to gain information about the oil well identified as 181. Despite an exhaustive search performed by the RRC, no records or data pertaining to oil well 181 were located. The RRC was able to locate records for the two most adjacent wells with respect to oil well 181; both adjacent wells are considered dry and were plugged in 1966. Due to the lack of records for oil well 181 and the exclusive presence of documented dry holes within the permit boundary, oil well 181 should not be considered an active crude oil or natural gas production well or a well associated with mineral recovery. There are no other known existing or abandoned crude oil or natural gas wells or other wells associated with mineral recovery within the TASWA DRF permit boundary.

If any abandoned crude oil or natural gas wells or other wells associated with mineral recovery are discovered during site development, written notification of each well's location will be provided to the executive director within 30 days after such discovery. Within 30 days after plugging any such well, the executive director will be provided with written certification that the well has been properly capped, plugged, 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. Any producing crude oil or natural gas well that does not affect or hamper landfill operations may be installed or remain in its current state if identified in the permit for the landfill or in a written notification to the executive director.

13 FLOODPLAINS AND WETLANDS

30 TAC §330.61(m)

13.1 Floodplains

Consistent with §330.61(m)(1) and §330.547, an evaluation of the 100-year floodplain has been prepared for TASWA DRF.

FEMA has defined the limits of the 100-year floodplain (1% annual chance) in the vicinity of the landfill and published the Flood Insurance Rate Map (FIRM) for the area as the FIRM Community Panel Numbers 48181C0250F and 48181C0375F with an effective date of September 29, 2010. The FIRM identifies areas within the facility permit boundary as Zone X - areas determined to be outside the 0.2% annual chance floodplain. A copy of the FIRM is included in Appendix IIA.

In accordance with §330.547(a), the TASWA DRF's waste disposal operations will not be located in the 100-year floodway. In accordance with §330.547(b), the TASWA DRF's new and existing municipal solid waste disposal units are not located in the 100-year floodplain, will not restrict the flow of the 100-year flood, will not reduce the temporary water storage capacity of the floodplain, and will not result in the washout of solid waste. Further, in accordance with §330.547(c), the TASWA DRF's processing and/or storage units are not located within the 100-year floodplain.

The facility is in compliance with the Floodplains location restriction as defined by §330.547.

13.2 Wetlands

Consistent with §330.61(m)(2) and (3), a wetlands determination under applicable federal, state, and local laws has been prepared and is included in Appendix IID. The wetlands determination was conducted to evaluate areas subject to jurisdiction under §404 of the federal Clean Water Act and areas meeting the State's definition of "wetland" per 30 TAC §330.3(184) and 30 TAC §307.3(85). The use of the term "wetland" throughout this Section 13.2 refers to features that have soil, hydrology, and vegetation characteristics consistent with either the federal or the state "wetland" definition, or with both definitions. No feature was excluded from classification as a wetland per the exclusions provided in the State's definition. There are no applicable local laws related to wetland areas.

TASWA has submitted a wetland delineation and received concurrence from the Tulsa District of the US Army Corps of Engineers (COE) for total credit demand and have submitted a draft Permittee Responsible Mitigation Plan (PRMP) and nationwide permit pre-construction notification (PCN) to provide mitigation for development of all impacted wetland/jurisdictional waters within the TASWA facility boundary. Copies of correspondence demonstrating coordination with the COE are included in Appendix IID.

The facility is in compliance with the Wetlands location restriction as defined by §330.553.

14 ENDANGERED OR THREATENED SPECIES

30 TAC §330.61(n)

Consistent with §330.61(n) and §330.551, an evaluation of endangered or threatened species at the site has been prepared and is included in Appendix IIE.

Based on site visits conducted by qualified biologists, there are no threatened or endangered species or critical habitat found on the site.

Based on evaluation conducted by qualified biologists, and coordination with the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department, in accordance with §330.551(a), the facility and the operation of the facility will not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

Coordination with the United States Fish and Wildlife Service and the Texas Parks and Wildlife Department regarding the locations and specific data relating to endangered and threatened species in Texas is provided in Appendix IIE.

The facility is in compliance with the Endangered or Threatened Species location restriction as defined by §330.551.

15 TEXAS HISTORICAL COMMISSION REVIEW

30 TAC §330.61(o)

Consistent with §330.61(o), a review letter was submitted to the Texas Historical Commission documenting compliance with the Natural Resources Code, Chapter 191, Texas Antiquities Code. The state Historic Preservation Officer determined that no historic properties are present or affected by the project. Documentation of the coordination with the Texas Historical Commission is provided in Appendix IIF.

16 COUNCIL OF GOVERNMENTS AND LOCAL GOVERNMENT REVIEW REQUEST

30 TAC §330.61(p)

Consistent with §330.61(p), Parts I and II of the application were submitted for review by the Texoma Council of Governments for compliance with the regional solid waste plan. Because the TASWA DRF is not located within the city limits of any city, there is not an applicable local government solid waste plan and review process. Documentation of the coordination with the Texoma Council of Governments is provided in Appendix III.

17 EASEMENTS AND BUFFER ZONE

No solid waste unloading, storage, disposal, or processing operations will occur within any easement, buffer zone, or right-of-way that crosses the site. The existing TASWA DRF and proposed expansion are consistent with the provisions of §330.543.

No solid waste disposal 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. All pipeline and utility easements shall be clearly marked with posts that extend at least 6 feet above ground level, spaced at intervals no greater than 300 feet. Utilities or pipelines within the 2290A permit boundary will be relocated or abandoned prior to development within or adjacent to their easements.

The buffer zone distances between the permit boundary and waste disposal area meets or exceeds the minimum buffer zone distance of 125 feet, as shown on Drawing IIA.3.

The buffer zone distance for waste storage or processing operational activities equals or exceeds the minimum distance of 125 feet. Buffer zone distances vary to each storage or processing facility. The buffer distances from the facility boundary to these facilities are shown on Drawing IIA.3.

The facility is in compliance with the Easements and Buffer Zone location restriction as defined by §330.543.

18 COASTAL AREAS

The facility is consistent with the provision of §330.561; it is not located within a coastal area or within 5,000 feet of an area subject to active coastal shoreline erosion as defined in 30 TAC §335.584(b)(3) or (4).

The facility is an existing Type I landfill, that has not in the past accepted, and will not accept, Class I industrial waste. There are no existing or proposed Class I cells or disposal areas at the facility. Therefore, the facility satisfies the provisions of §330.561; and the facility is not located on a barrier island or peninsula as defined in §335.584(b)(3); nor is the facility located within a coastal area as defined in §335.584(b)(4).

The facility is in compliance with the Coastal Areas location restriction as defined by §330.561.

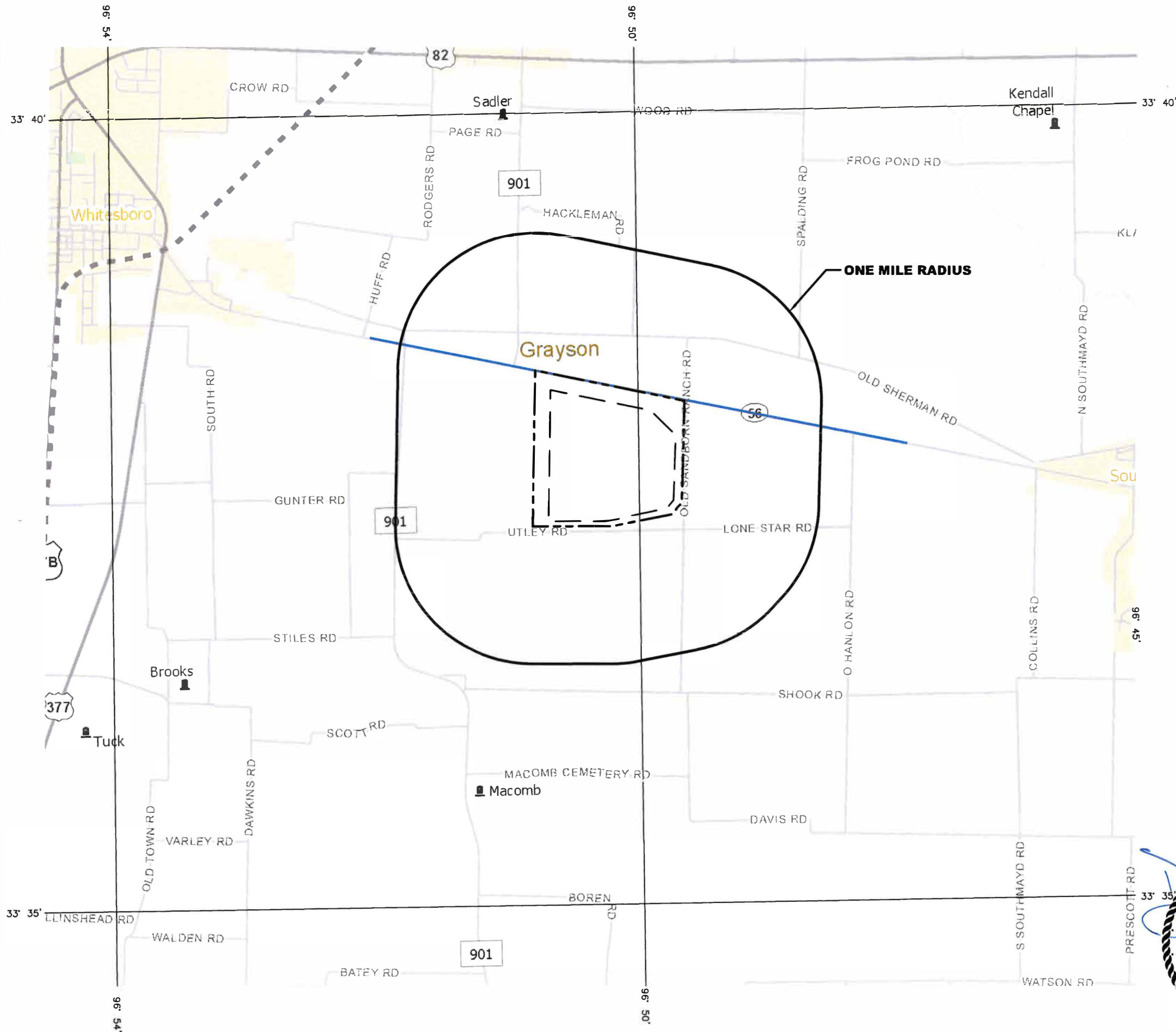
19 LANDFILL PERMIT PROHIBITION

The facility is consistent with the provisions of §330.563; this permit amendment application is not subject to the prohibitions in Texas Health Safety Code §361.122 because the site is not Type IV nor does it meet the description in §361.123(d).

The TASWA DRF meets the Type I and Type IV Landfill Permit Issuance Prohibited location restriction in §330.563.

**APPENDIX IIA
MAPS AND DRAWINGS**

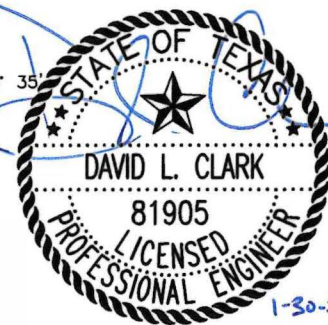
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- LEGEND**
- 2290A PERMIT BOUNDARY
 - 2290A LANDFILL FOOTPRINT
 - REGULAR DELIVERY ROUTES WITHIN 2 MILES OF SITE ENTRANCE

- o 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

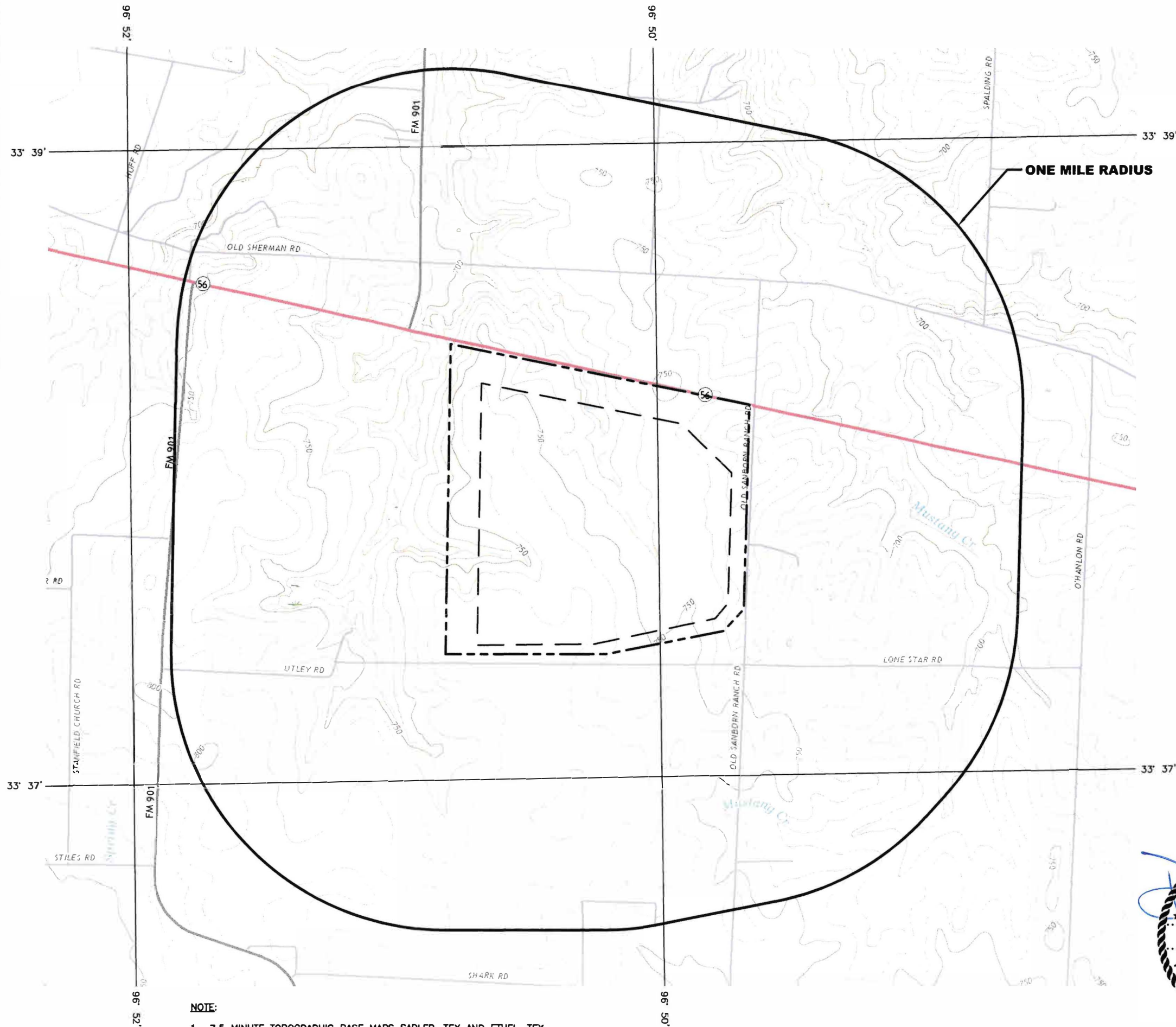
- NOTES:**
1. GRAYSON AND COOKE COUNTY HIGHWAY MAPS DOWNLOADED FROM TXDOT WEBSITE ON FEBRUARY 10, 2022.
 2. PRIMARY ACCESS ROAD WITHIN ONE MILE OF THE FACILITY USED TO ACCESS THE FACILITY IS STATE HIGHWAY 56. THIS ROAD IS HARD SURFACED PAVED ROADS OF ASPHALT OR CONCRETE.



ISSUED FOR PERMITTING PURPOSES ONLY

DETAILED HIGHWAY MAP GRAYSON COUNTY	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING IIA.1
TBPG FIRM NO. 50222	

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NOTE:

1. 7.5 MINUTE TOPOGRAPHIC BASE MAPS SADLER, TEX AND ETHEL, TEX DOWNLOADED FROM USGS WEBSITE ON FEBRUARY 10, 2022.



LEGEND

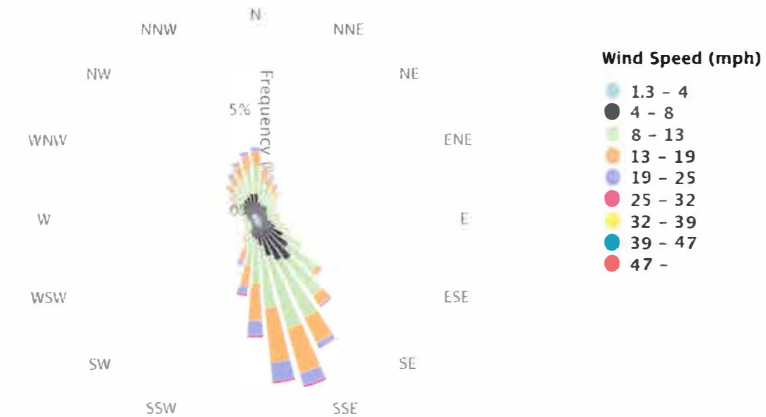
- 2290A PERMIT BOUNDARY
- 2290A LANDFILL FOOTPRINT
- 700 EXISTING 10' GROUND CONTOUR
- SURFACE WATER BODY OR OTHER WATER

SADLER, TEX 2019 ETHEL, TEX 2019

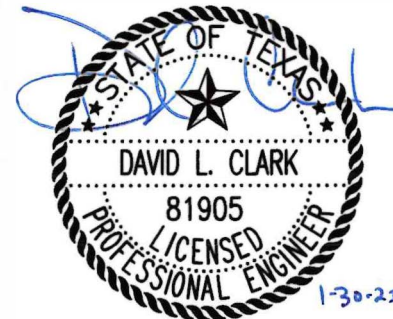
- ROAD CLASSIFICATION**
- Expressway
 - Secondary Hwy
 - Ramp
 - Interstate Route
 - Local Connector
 - Local Road
 - 4WD
 - US Route
 - State Route

DENTON MUNI AP (TX) Wind Rose

July 1, 1996 - Feb. 14, 2022
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



WIND ROSE
SOURCE: MIDWEST REGIONAL CLIMATE CENTER



ISSUED FOR PERMITTING PURPOSES ONLY

GENERAL TOPOGRAPHIC MAP

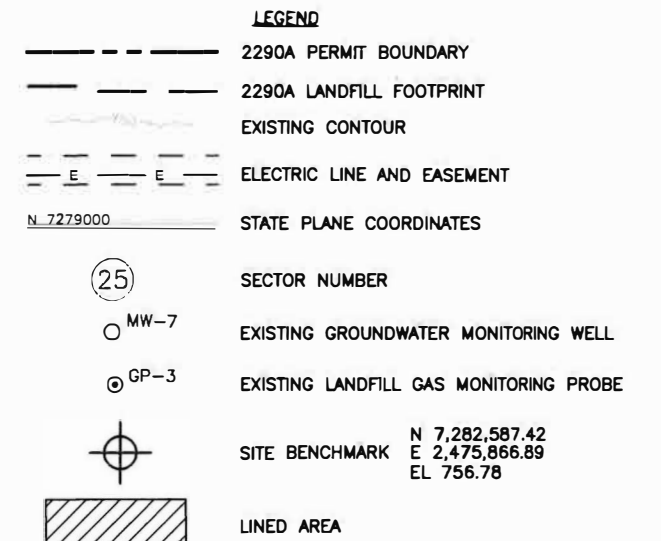
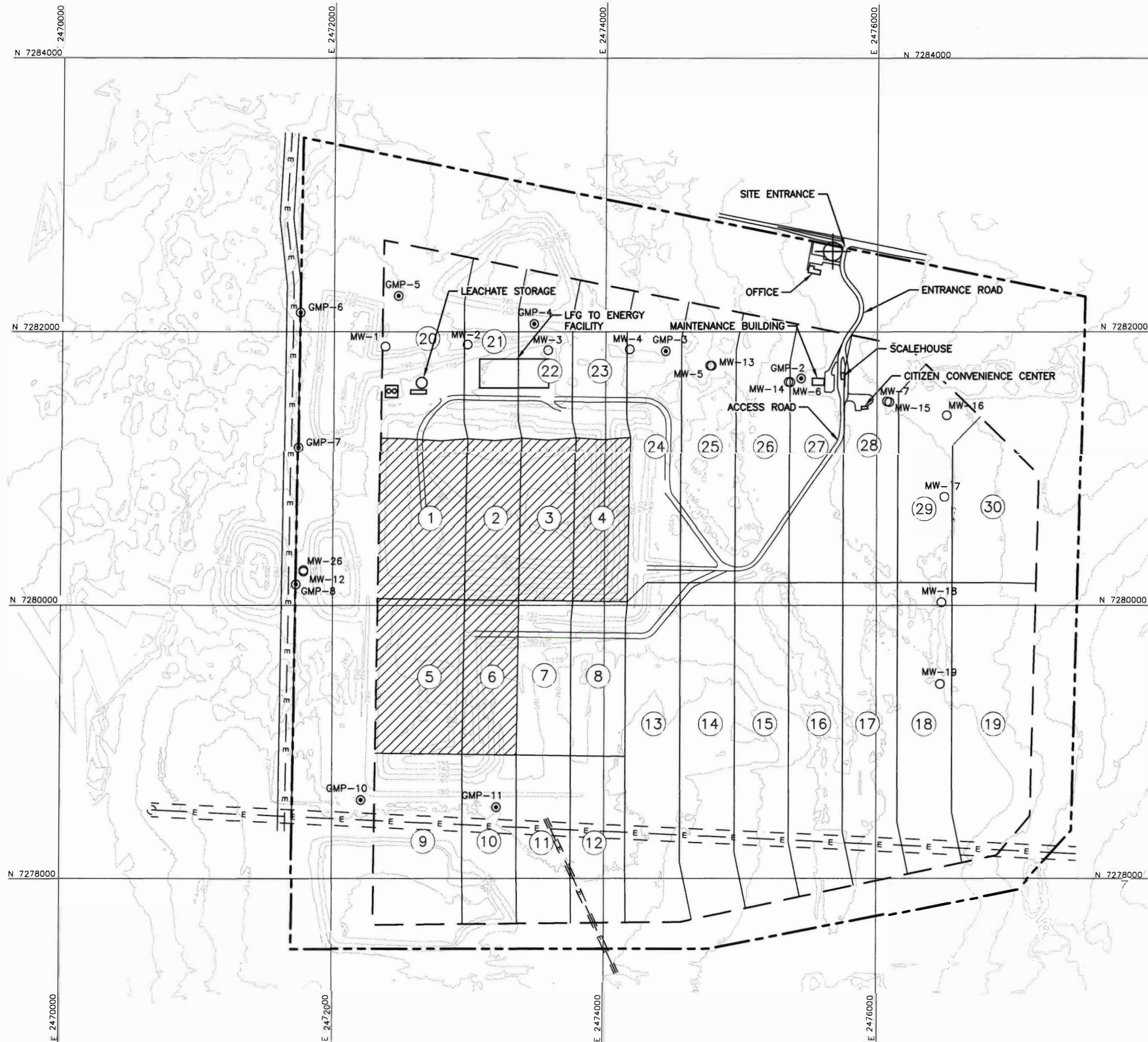
TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT

BME **BIGGS & MATHEWS ENVIRONMENTAL**
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256
TBPG FIRM NO. 50222

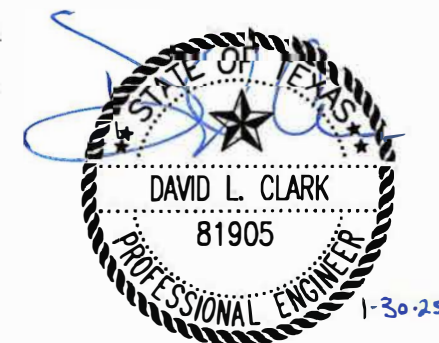
DRAWING
IIA.2

O:\TASWA\Drawings\PART II\IA.3-Facility Layout.dwg Layout:1 User: bboles



NOTES:

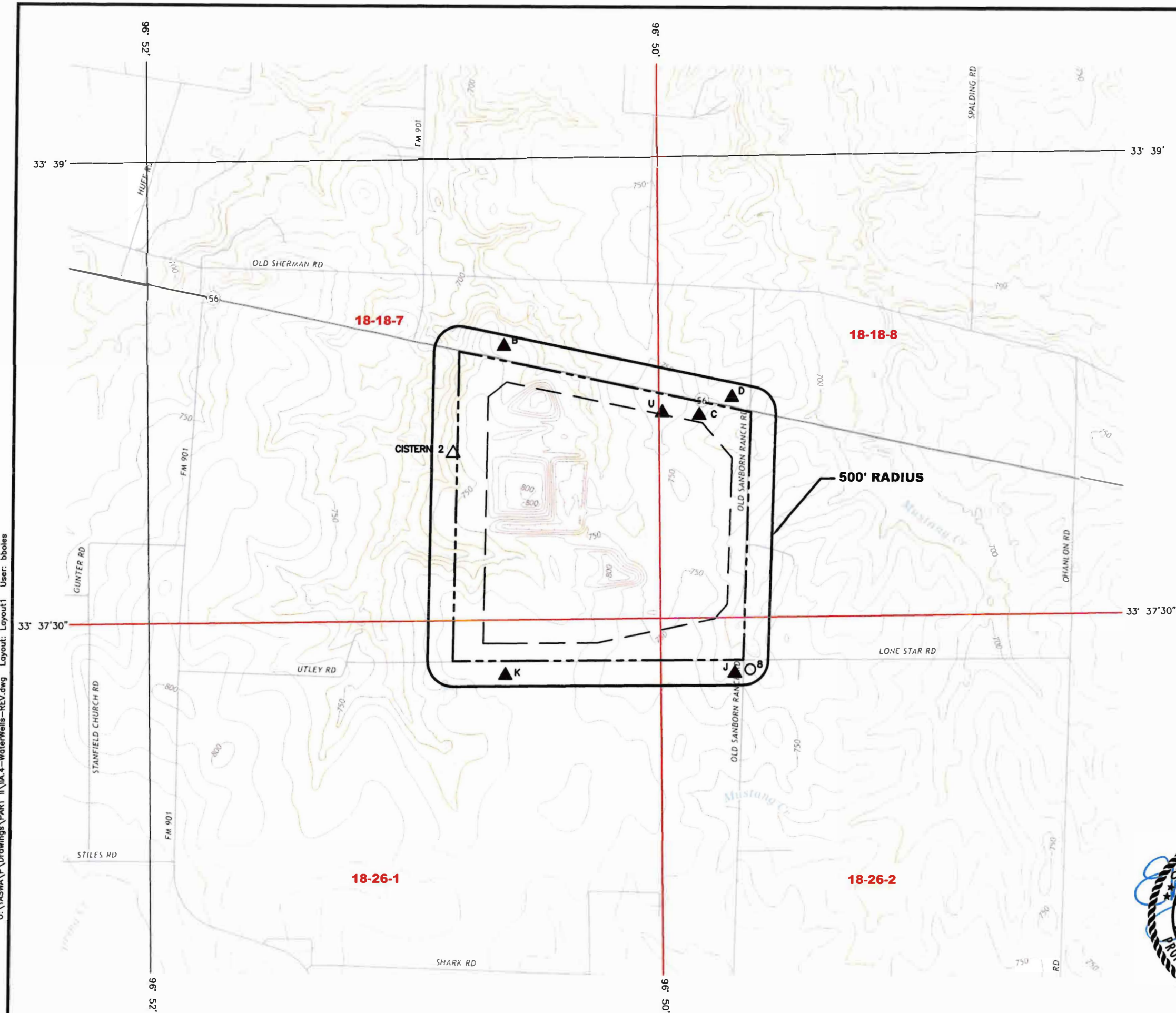
1. REFER TO PART II APPENDIX B - LAND USE ANALYSIS FOR DETAILED LAND USE INFORMATION AND LAND USE MAP.
2. PERMIT BOUNDARY INFORMATION PROVIDED BY BIGGS AND MATHEWS ENVIRONMENTAL.
3. DEVELOPMENT OF LANDFILL UNIT WILL PROCEED IN GENERAL SEQUENCE OF SECTOR NUMBERING.
4. FENCING IS PROVIDED AT PROPERTY BOUNDARY.



FACILITY LAYOUT PLAN	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING IIA.3
TBPG FIRM NO. 50222	

ISSUED FOR PERMITTING PURPOSES ONLY

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- LEGEND**
- 2290A PERMIT BOUNDARY
 - - - 2290A LANDFILL FOOTPRINT
 - 700 EXISTING 10' GROUND CONTOUR
 - SURFACE WATER BODY OR OTHER WATER
 - WATER WELL ID GRID
 - 18-18-7 WATER WELL GRID NUMBER
 - ▲ HISTORICAL WATER WELL
 - △ HISTORICAL POSSIBLE WATER WELL
 - 2024 WATER WELL
 - 2024 POSSIBLE WATER WELL

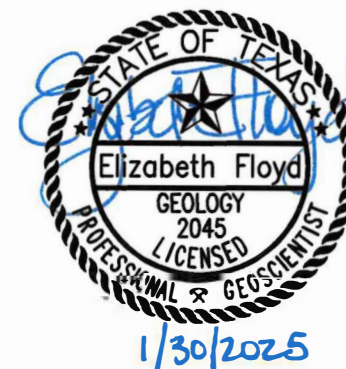
SADLER, TEX
2022

ETHEL, TEX
2022

- ROAD CLASSIFICATION**
- Expressway
 - Secondary Hwy
 - Ramp
 - Local Connector
 - Local Road
 - 4WD
 - Interstate Route
 - US Route
 - State Route

NOTES:

- 7.5 MINUTE TOPOGRAPHIC BASE MAPS SADLER, TEX AND ETHEL, TEX DOWNLOADED FROM USGS WEBSITE ON MARCH 25, 2024.
- WATER WELLS IDENTIFIED FROM ONLINE STATE RECORDS.
- THERE ARE NO STRUCTURES OR INHABITABLE BUILDINGS WITH 500 FEET OF THE PROPOSED FACILITY.



ISSUED FOR PERMITTING PURPOSES ONLY

WATER WELL LOCATION MAP

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT

BME

**BIGGS & MATHEWS
ENVIRONMENTAL**
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

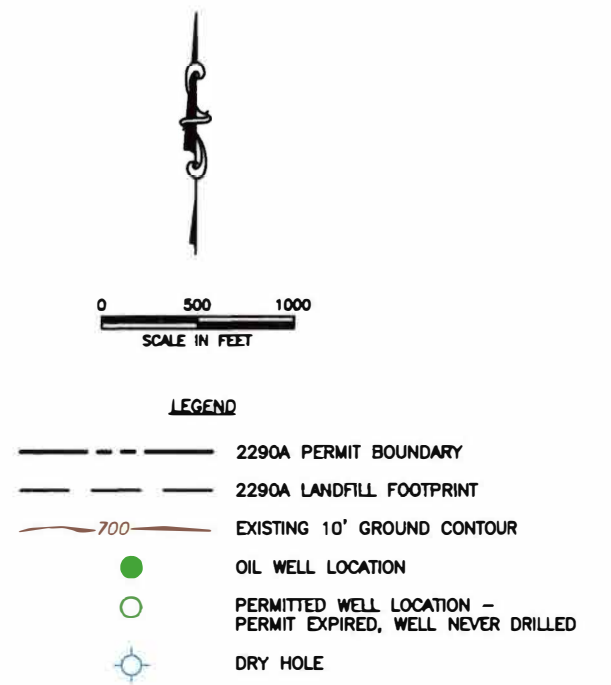
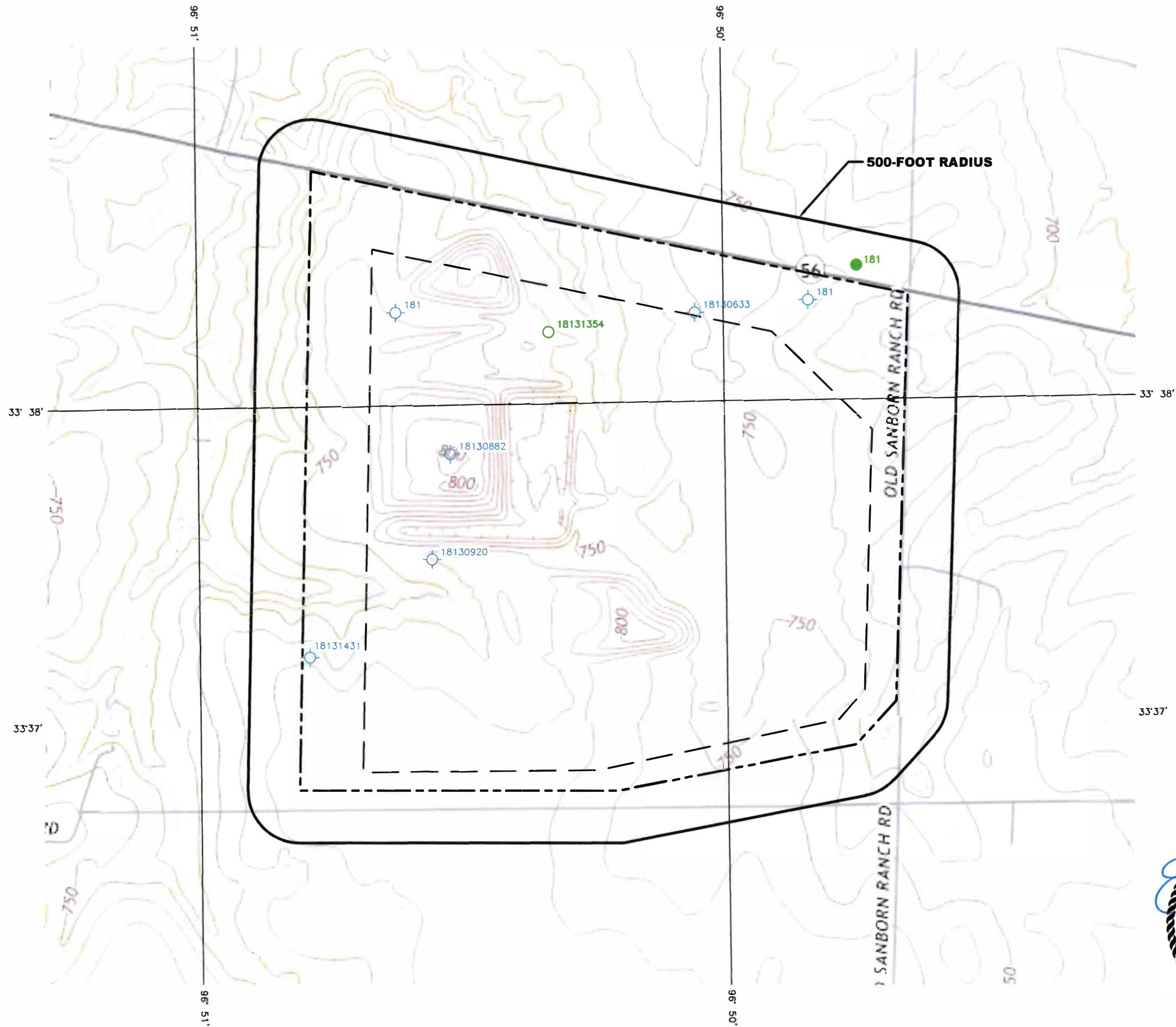
TBPE FIRM NO. F-256

TBPG FIRM NO. 50222

DRAWING

IIA.4

O:\TASWA\Drawings\PART I\IIA.5-Oil_GasWells.dwg Layout: LAYOUT 1 User: bboles

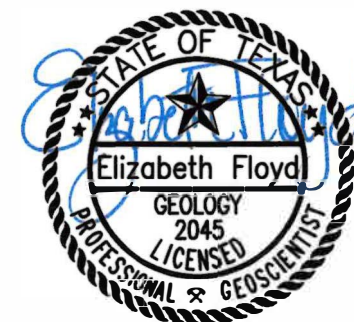


SADLER, TEX 2022 ETHEL, TEX 2022



NOTES:

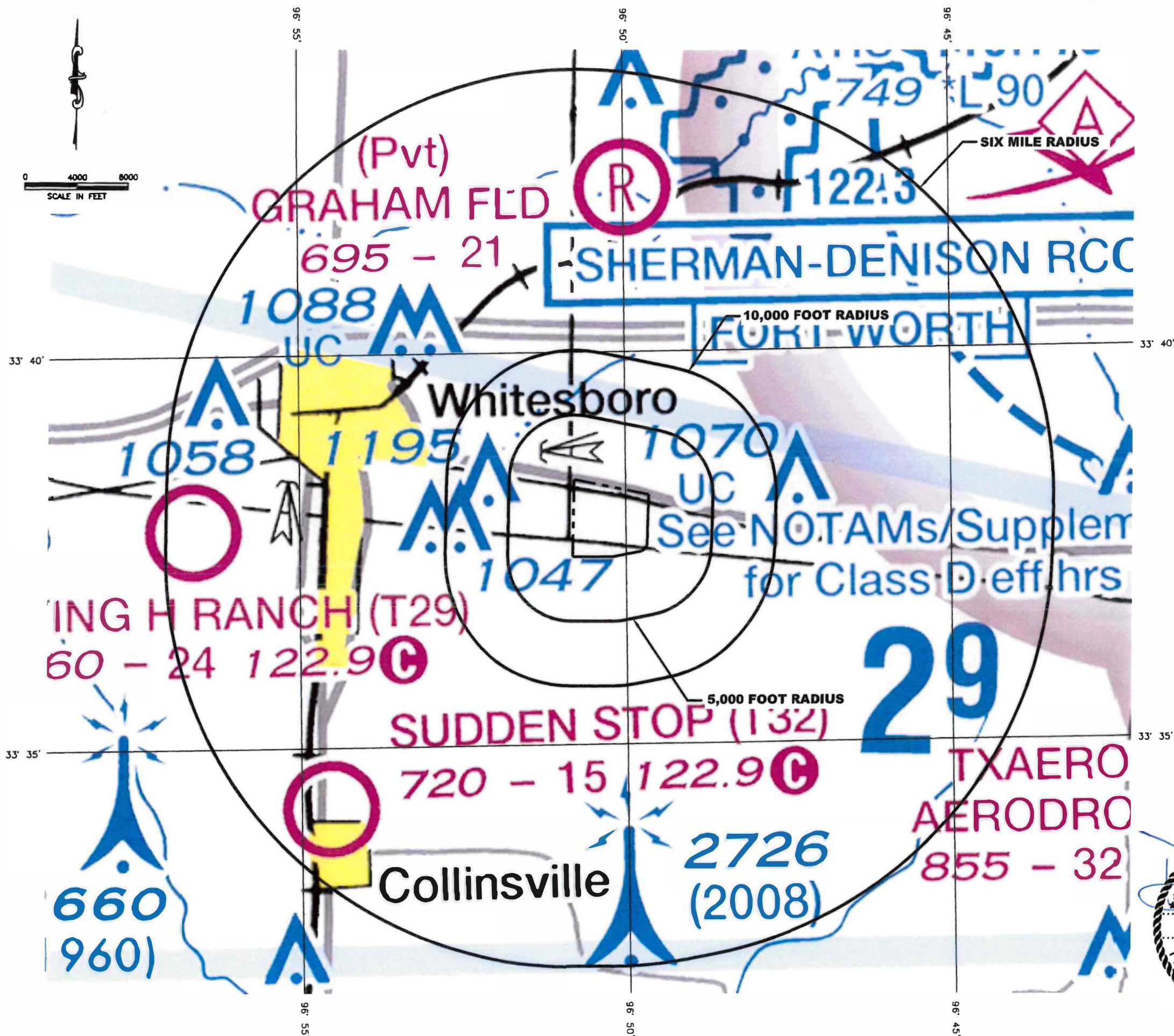
- 7.5 MINUTE TOPOGRAPHIC BASE MAPS SADLER, TEX AND ETHEL, TEX DOWNLOADED FROM USGS WEBSITE ON MARCH 25, 2024.
- OIL AND GAS WELL LOCATIONS DOWNLOADED FROM RAILROAD COMMISSION OF TEXAS IN MARCH 2024.
- THERE ARE NO PRODUCING WELLS WITHIN 500 FEET OF THE PERMIT BOUNDARY.
- REFER TO PART III, ATTACHMENT E FOR OIL AND GAS WELL INFORMATION.



1/30/2025

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LOCATIONS OF OIL AND GAS WELLS	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DISPOSAL AND RECYCLING FACILITY PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING IIA.5
TBPG FIRM NO. 50222	



LEGEND

PERMIT BOUNDARY

AIRPORTS

- 

 Other than hard-surfaced runways
- 

 Hard-surfaced runways 1500 ft. to 8069 ft. in length
- 

 Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.
- 

 Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, DME or VORTAC location.
- All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

AIRPORT DATA

Box indicates FSS 93, FSS, FAR 91
Special Air Traffic Rules & Airport Traffic Patterns. NO SVFR ← Location Identifier
NAME (NAM) (PNAM) ← ICAO Location Identifier
Runways with Right Traffic Patterns (public use) CT - 118.3 * **C** ATIS 123.8
295 L 72 122 95 show outside contiguous U.S.
* RP Special Conditions exist - see Supplement. RP 23, 34
VFR Advsy 125.0 UNICOM
WX CAM ← Weather Camera (AK)
FSS - Flight Service Station AOE ← Airport of Entry
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 tabulation for hours of operation.
C - Follows the Common Traffic Advisory Frequency (CTAF)
ATIS 123.8 - Automatic Terminal Information Service
ATIS 135.2 - Automatic Flight Information Service (AK)
ASOS/AWOS 135.42 - Automated Surface Weather Observing Systems (shown where full-time ATIS not available).
Some ASOS/AWOS facilities may not be located at airports
UNICOM - Aeronautical advisory station
VFR Advsy - VFR Advisory Service shown where full-time ATIS not available and frequency is other than primary CT frequency.
285 - Elevation in feet
L - Lighting in operation Sunset to Sunrise
*L - Lighting limitations exist; refer to Supplement.
72 - Length of longest runway in hundreds of feet; usable 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.

OBSTRUCTIONS

- OBSTRUCTIONS**
- 1000 ft and higher AGL
- Above 200 ft & below 1000 ft AGL (above 299 ft AGL in urban area)
- Obstruction with high-intensity lights; may operate part-time
- Wind Turbine
- Group Obstruction
- Wind Turbine Farm
- Elevation of the top above mean sea level
- Height above ground Under construction or reported: position and elevation unverified
- 2045' (1149' UC)
- 2894' UC
- NOTICE: Guy wires may extend outward from structures.

NOTE:

1. THERE ARE 2 PUBLIC USE AIRPORTS LOCATED WITHIN SIX MILES OF THE FACILITY.
2. BASE MAP IS FAA SECTIONAL AERONAUTICAL CHART DALLAS--FT. WORTH, EFFECTIVE DATE MAY 19, 2022 TO JULY 14, 2022.



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FAA AIRPORT LOCATION MAP

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT

BME

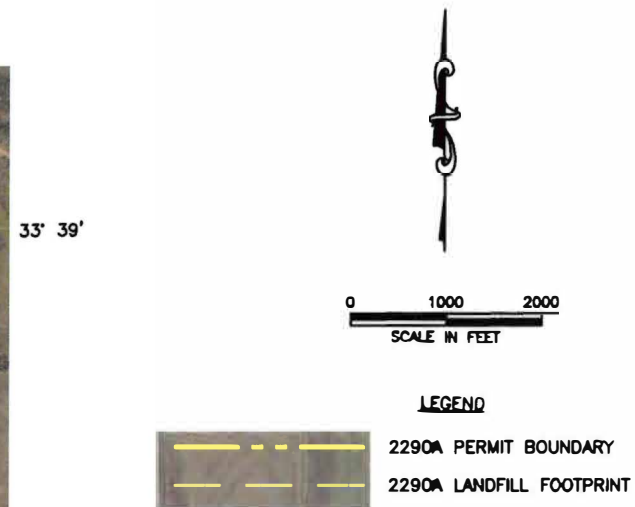
**BIGGS & MATHEWS
ENVIRONMENTAL**
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

TYPE FIRM NO. F-256

TBPG FIRM NO. 50222

DRAWING

IIA.6



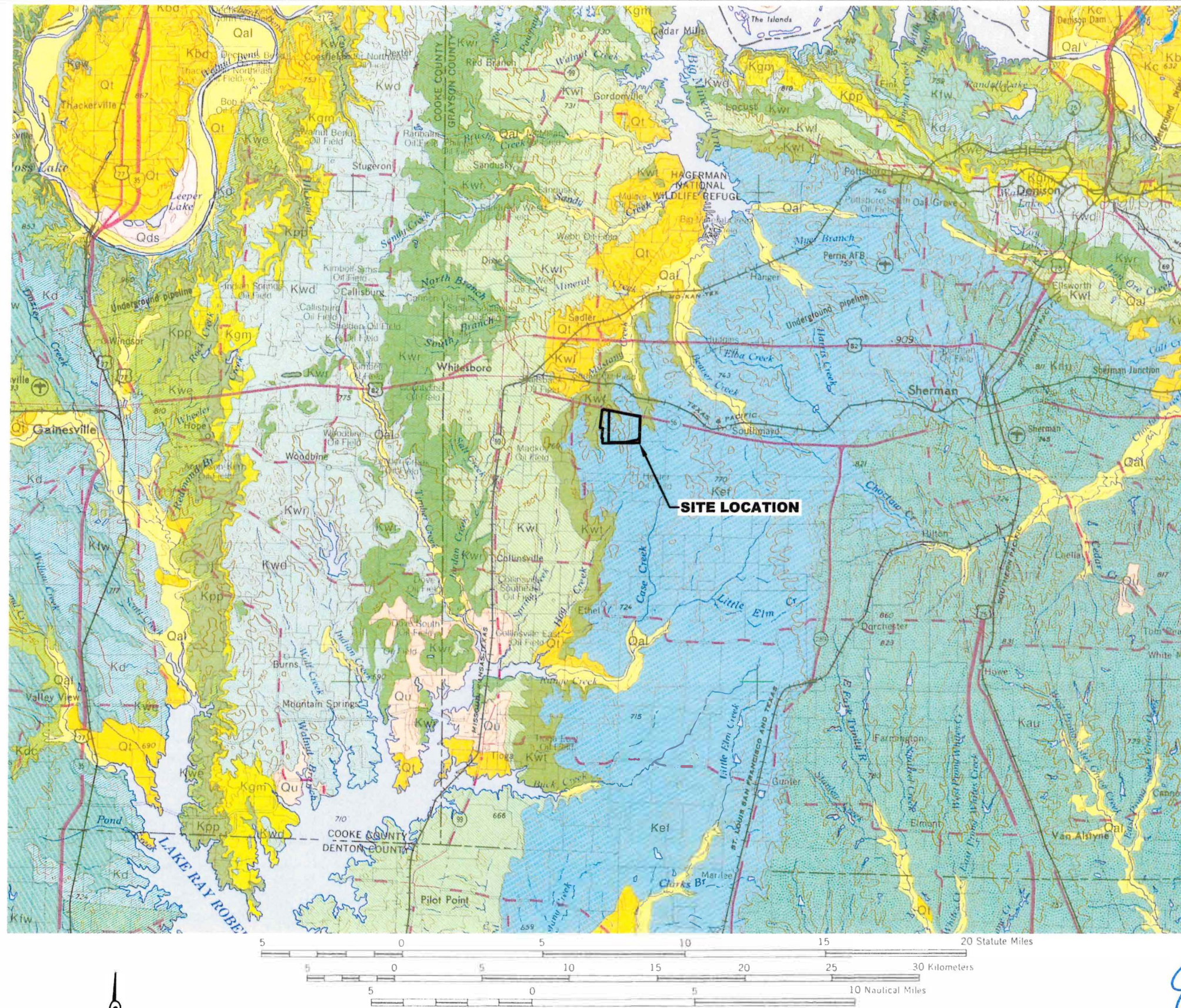
NOTE:

1. AERIAL PHOTOGRAPH TAKEN FROM 7.5 MINUTE QUADRANGLE SADLER, TEX AND ETHEL, TEX. DOWNLOADED ON FEBRUARY 10, 2022.



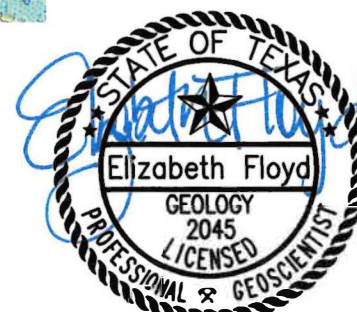
ISSUED FOR PERMITTING PURPOSES ONLY

AERIAL PHOTOGRAPH	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING IIA.7
TBPG FIRM NO. 50222	



GEOLOGIC ATLAS OF TEXAS, SHERMAN SHEET

WALTER SCOTT ADKINS MEMORIAL EDITION
REVISED 1991



1/30/2025
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REGIONAL GEOLOGIC MAP

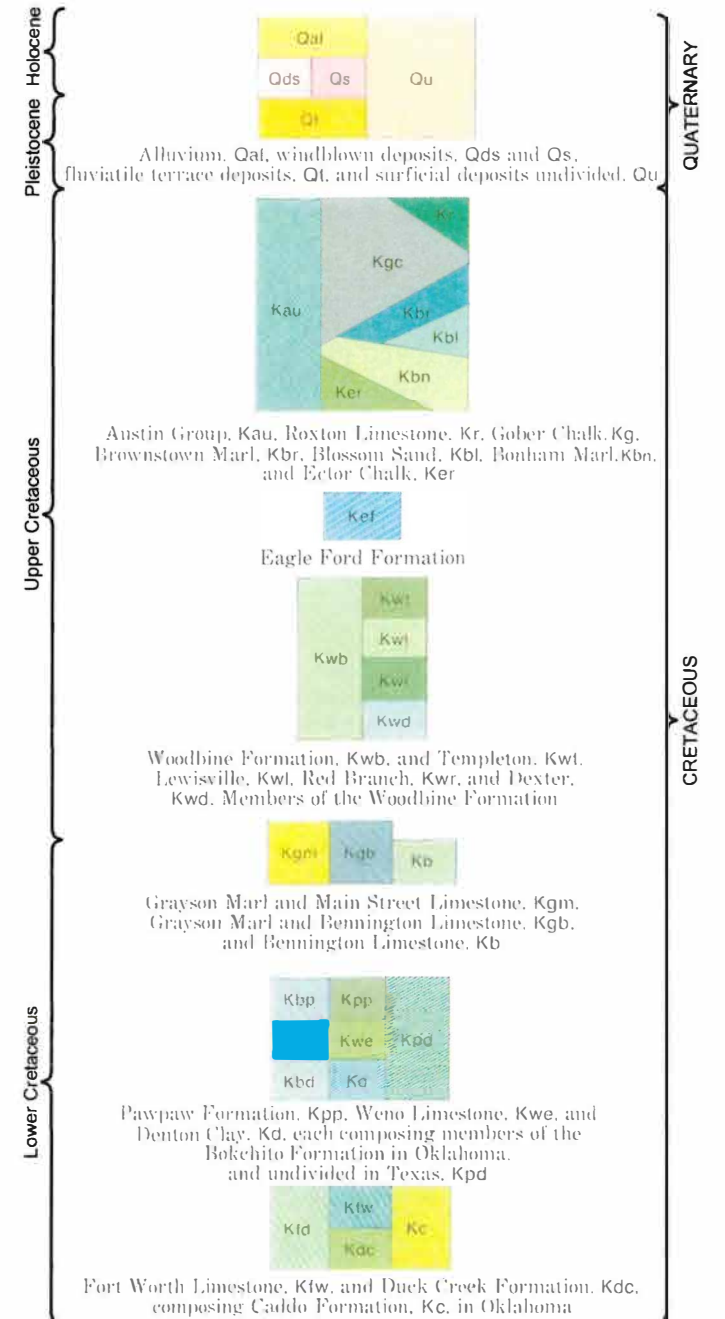
TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT

BME

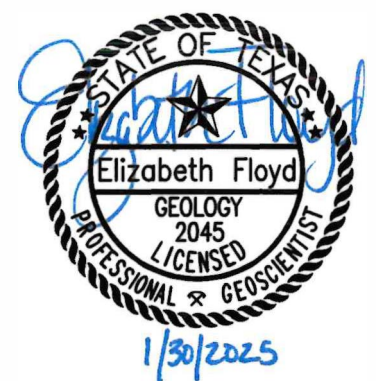
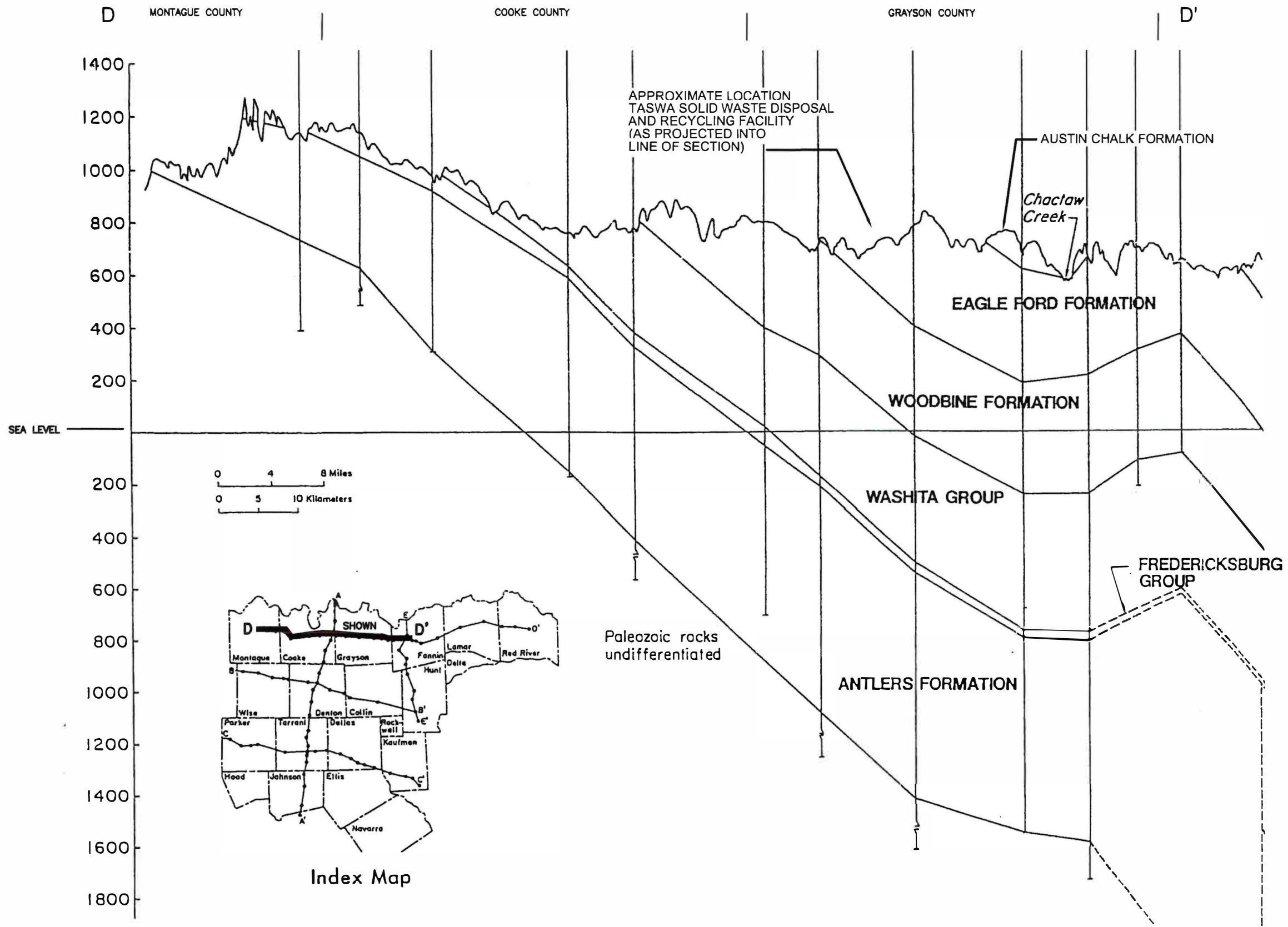
**BIGGS & MATHEWS
ENVIRONMENTAL**
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MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256
TBPG FIRM NO. 50222

DRAWING
IIA.8



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MODIFIED FROM NORDSTROM, 1982

GENERALIZED REGIONAL GEOLOGIC
CROSS SECTION

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DISPOSAL AND RECYCLING FACILITY
PERMIT AMENDMENT

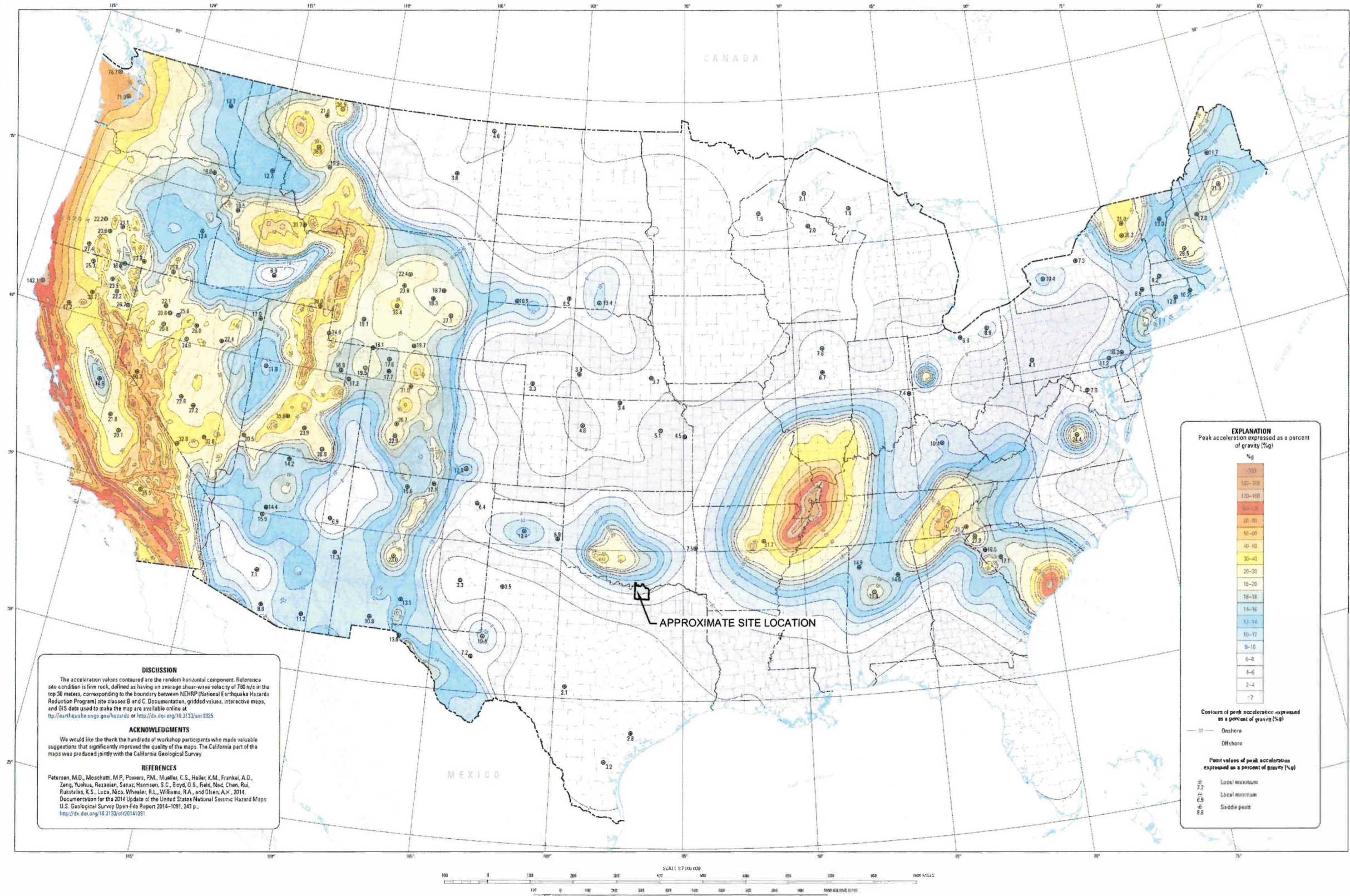


**BIGGS & MATHEWS
ENVIRONMENTAL**
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MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256
TBPG FIRM NO. 50222

DRAWING
IIA.9

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NOTES:

1. THE FACILITY LIES IN AN AREA WHERE THE PGA, WITH A 2% PROBABILITY OF BEING EXCEEDED IN 50 YEARS, IS LESS THAN 10% OF GRAVITY (LESS THAN 0.1g). THIS IS EQUIVALENT TO A 10% PROBABILITY IN 250 YEARS. A PRINTOUT OF THE USGS FAQ RESPONSE CONFIRMING THE EQUIVALENCY IS INCLUDED IN THIS SUBMITTAL ON THE NEXT PAGE.
2. THE MAP PRESENTED HERE IS INTENDED TO ONLY DEPICT THE IMPACT ZONE IN WHICH THE FACILITY LIES. PLEASE REFER TO PETERSON, M.D., ET AL., 2015, SEISMIC HAZARD MAPS FOR THE CONTERMINOUS UNITED STATES, 2014: U.S. GEOLOGICAL SURVEY SCIENTIFIC INVESTIGATION MAP 3325, 6 SHEETS, SCALE 1:7,000,000. [HTTPS://PUBS.USGS.GOV/SIM/3325/PDF/SIM3325_SHEET2.PDF](https://pubs.usgs.gov/sim/3325/pdf/SIM3325_SHEET2.PDF) FOR A FULLY LEGIBLE VERSION.



SEISMIC IMPACT ZONE MAP

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DISPOSAL AND RECYCLING FACILITY
PERMIT AMENDMENT

BME

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1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256

TBPG FIRM NO. 50222

DRAWING

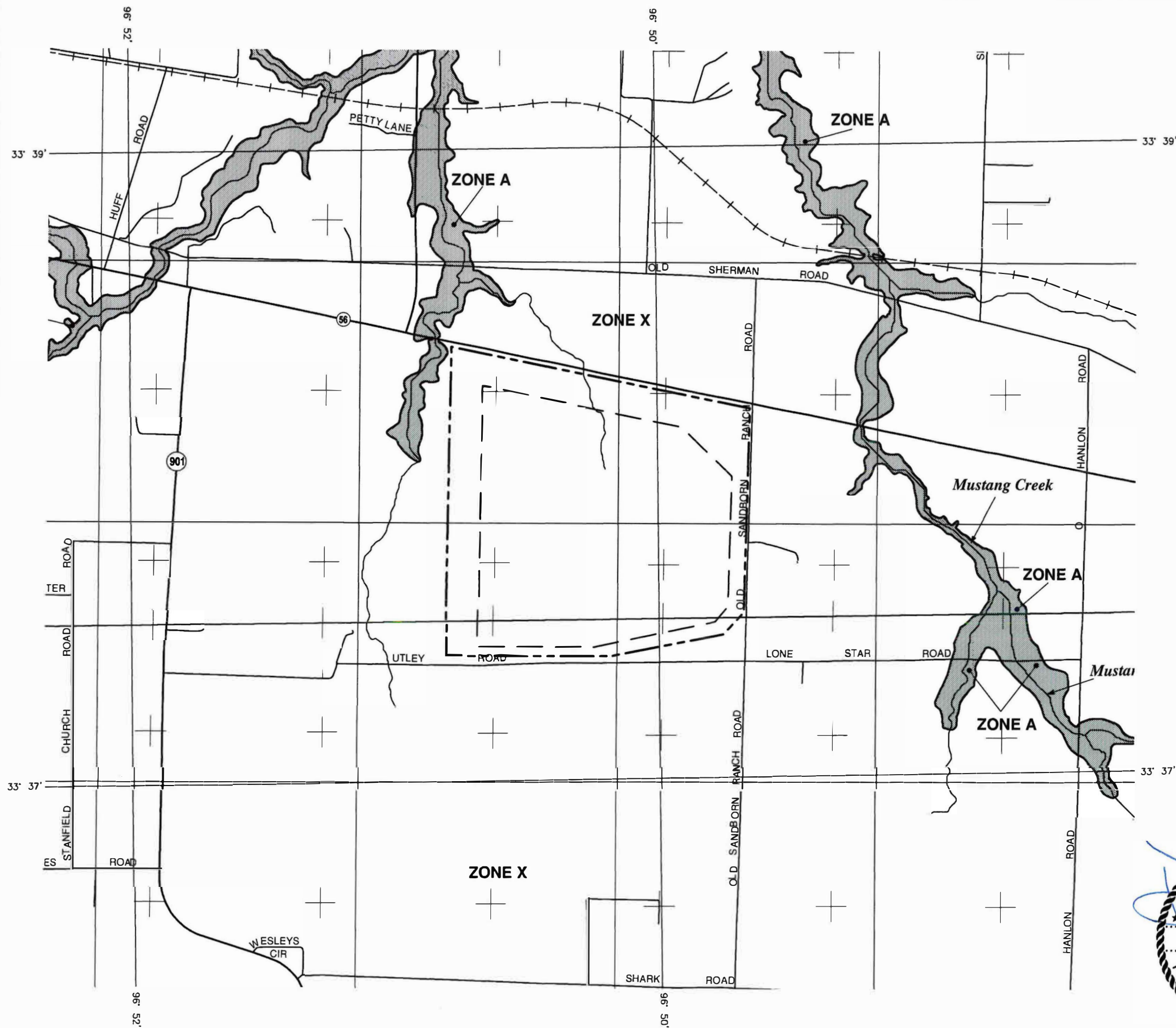
IIA.10

Seismic-Hazard Maps for the Conterminous United States, 2014
Peak Horizontal Acceleration with 2 Percent Probability of Exceedance in 50 Years

By

Mark D. Petersen,¹ Morgan P. Moschetti,¹ Peter M. Powers,¹ Charles S. Mueller,¹ Kathleen M. Haller,¹ Arthur D. Frankel,¹ Yuehua Zeng,¹ Sanaz Rezaei,¹ Stephen C. Harmsen,¹ Oliver S. Boyd,¹ Edward H. Field,¹ Rui Chen,² Nicolas Luco,² Russell L. Wheeler,² Robert A. Williams,¹ Anna H. Olsen,¹ and Kenneth S. Rukstales,¹
2015

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LEGEND

- 2290A PERMIT BOUNDARY
- 2290A LANDFILL FOOTPRINT

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.

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.

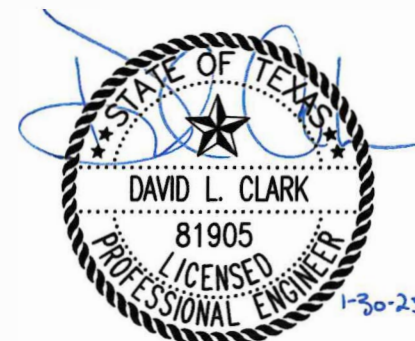
OTHER AREAS

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

- Floodplain boundary
- Floodway boundary
- 97°07'30", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 42°75'000m 1000-meter Universal Transverse Mercator grid ticks, zone 14
- 6000000 FT 5000-foot grid values: Texas State Plane coordinate system, north central zone (FIPSZONE 4202), Lambert Conformal Conic

NOTE(S):

1. THIS MAP HAS BEEN COMPILED FROM FEMA FLOOD INSURANCE RATE MAP (FIRM) OF GRAYSON COUNTY, TEXAS AND INCORPORATED AREAS COMMUNITY PANEL NUMBERS 48181C0250F AND 48181C0375F REVISED SEPTEMBER 29, 2010.



FLOOD INSURANCE RATE MAP (FIRM)

TEXOMA AREA SOLID WASTE AUTHORITY
 TASWA DRF
 PERMIT AMENDMENT

BME **BIGGS & MATHEWS ENVIRONMENTAL**
 1700 ROBERT ROAD, STE. 100
 MANSFIELD, TEXAS 76063
 817-563-1144

TBPE FIRM NO. F-256
 TBPG FIRM NO. 50222

DRAWING
 IIA.11

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**APPENDIX IIB
LAND USE ANALYSIS**

Land Use Analysis

Texoma Area Solid Waste Authority Landfill

Type 1 Facility

January 27, 2025

Prepared by:

Integrated Environmental Solutions, LLC.

310 W Eldorado Pkwy; Suite 101

McKinney, TX 75069

972-562-7672

INTRODUCTION

The Texoma Area Solid Waste Authority (TASWA) is currently a Type 1 municipal solid waste facility with a proposed on-site expansion. The current facility encompasses 920+ acres in a rural area in Grayson County, approximately 3 miles east of the City of Whitesboro (**Attachment A, Figure 1**). The proposed facility expansion would expand the current landfill footprint to 475 acres, an increase of 247 acres.

The purpose of this land use evaluation is to address land use issues as required by the Texas Commission on Environmental Quality (TCEQ) in support of an application for TCEQ municipal solid waste facility authorization for the TASWA Landfill expansion. Specifically, this evaluation addresses those portions of the TCEQ rules pertaining to land use compatibility. The relevant rule portions, as excerpted from 30 Texas Administrative Code (TAC) § 330.61, are:

(g) Land-use map. This is a constructed map of the facility showing the boundary of the facility and any existing zoning on or surrounding the property and actual uses (e.g., agricultural, industrial, residential, etc.) both within the facility and within one mile of the facility. The owner or operator shall make every effort to show the location of residences, commercial establishments, schools, licensed day-care facilities, churches, cemeteries, ponds or lakes, and recreational areas within one mile of the facility boundary...

(h) Impact on surrounding area. A primary concern is that the use of any land for a municipal solid waste facility not adversely impact human health or the environment. The owner or operator shall provide information regarding the likely impacts of the facility on cities, communities, groups of property owners, or individuals by analyzing the compatibility of land use, zoning in the vicinity, community growth patterns, and other factors associated with the public interest. To assist the commission in evaluating the impact of the site on the surrounding area, the owner or operator shall provide the following:

(1) if available, a published zoning map for the facility and within two miles of the facility for the county or counties in which the facility is or will be located. If the site requires approval as a nonconforming use or a special permit from the local government having jurisdiction, a copy of such approval shall be submitted;

(2) information about the character of surrounding land uses within one mile of the proposed facility;

(3) information about growth trends within five miles of the facility with directions of major development;

(4) the proximity to residences and other uses (e.g., schools, churches, cemeteries, historic structures and sites, archaeologically significant sites, sites having exceptional aesthetic quality, etc.) within one mile of the facility. The owner or operator shall provide the approximate number of residences and commercial establishments within one mile of the proposed facility including the distances and directions to the nearest residences and commercial establishments. Population density and proximity to residences and other uses described in this paragraph may be considered for assessment of compatibility...

LIST OF FIGURES

- 1 General Location Map
- 2 Land Use – 1 Mile
- 3 Growth Trends – 5 Miles

ZONING

Because the site is not in an incorporated area, there is no zoning. Moreover, the site is more than 2 miles from any incorporated city; hence there is no zoning within 2 miles.

The site is not within the extraterritorial jurisdiction of any incorporated city and is therefore not subject to the subdivision regulations of any city. The site does not require approval as a nonconforming use or a special permit from any local government.

CHARACTER OF SURROUNDING LAND USES

The predominant land use within 1 mile of the permit boundary is classified as *Other* (open, agricultural, vacant, floodplain). This land use comprises 94.8 percent of the land area within 1 mile of the facility boundary (**Attachment A, Figure 2**). Nearly all of this open land is agricultural pastureland or wooded floodplains.

Table 1. Land Use within 1 Mile from the TASWA Facilities

Land Use	Acres	Percentage	Remarks
Other	4,395	94.8	Open, agricultural, vacant, floodplain
Water Bodies	77	1.6	2022 surface area
Residential	139	3.0	139 residences
Commercial	27	0.6	5 establishments
Total	4,638	100	Not including permit boundary

Source: 2022 Aerial Photography

There are approximately 77 acres of *Water Bodies* within 1 mile of the permit boundary, representing approximately 1.6 percent within 1 mile. The water bodies consist of impoundments, stock ponds, and ornamental water features. (Water surface area was calculated based on 2022 aerial photographic interpretation).

All the *Residential* land (139 estimated acres) is rural, single-family residential, consisting of 139 residences and representing an estimated 3.0 percent within 1 mile of the permit boundary. (In the case of rural residences, 1 acre is attributed to each residence.)

Commercial land use (five establishments) makes up only 0.6 percent of the land area within 1 mile of the permit boundary.

GROWTH TRENDS

The TASWA site is in western Grayson County, approximately 2 miles southeast of Sadler, the nearest community. The site is approximately 3 miles east of Whitesboro and 3 miles west of Southmayd. Projected growth patterns for the nearest zip codes and counties (Grayson, Cooke) are listed below.

Table 2. Projected Population Growth, by Zip Code and County

	2021 Population	2026 Population Estimate	% Growth 2021-2026
Zip Code			
Gainesville - 76240	29,881	30,795	0.60
Whitesboro - 76273	10,514	11,094	1.08
Sherman - 75092	27,345	29,064	1.23
Sadler - 76264	1,721	1,851	1.47
County			
Cooke County	43,588	45,039	0.66
Grayson County	142,442	151,576	1.25

Source: Esri's U.S. Updated Demographic (2021/2026) Data

Grayson County, where TASWA is located, is the dominant county in terms of population size and growth. For purposes of comparison, the State of Texas is projected to grow 1.54 percent from 2021 through 2026.

Attachment A, Figure 3 depicts growth trends within 5 miles of the site, as well as regional growth trends for the projected period of 2021 through 2026. Within 5 miles of the site, population growth in the census block group immediately north and south of the site is projected to grow by 1.42 and 2.29 percent, respectively from 2021 through 2026. To the far east and north of the site the census blocks are projected to grow by more than 1.4 percent from 2021 through 2026.

Within the region, the highest growth is occurring within the census block groups between the Cities of Whitesboro and Sherman.

PROXIMITY

As of May 2022, there are 139 residences within 1 mile of the facility boundary. The nearest residence to the proposed facility is at 1274 Utley Road, estimated to be approximately 259 feet south of the permit boundary, and approximately 440 feet south of the limit of fill.

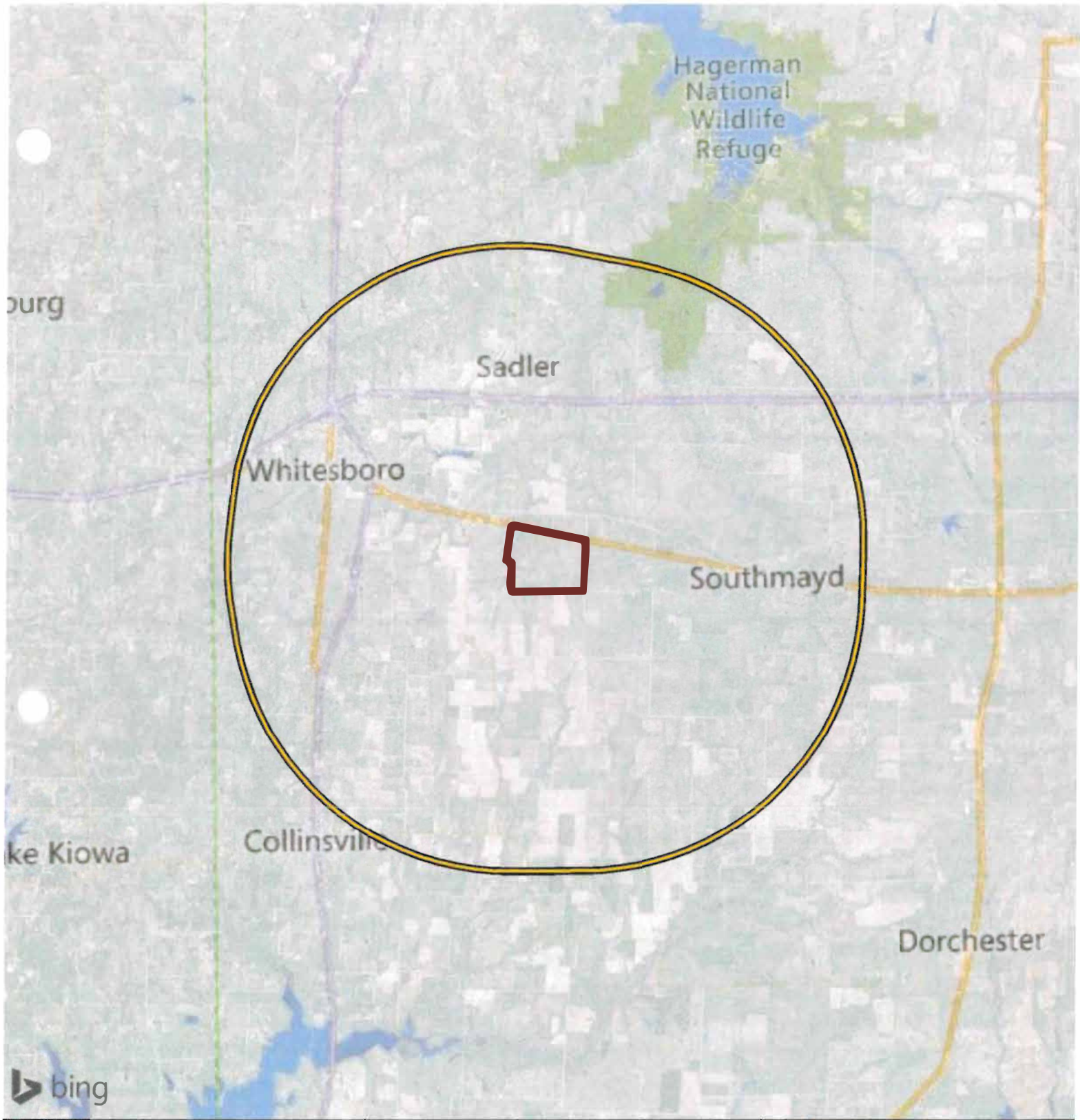
There are five business establishments within 1 mile of the permit boundary. The most proximate business establishment is a concrete contractor outside of the western limits of the property boundary, approximately 500 feet west of the facility boundary and 2,600 feet from the limit of fill.

The Texas Historic Sites Atlas of the Texas Historical Commission identified one Texas State Historical marker located on the south side of SH 5 approximately 0.5 mile east of the site entrance. The historical marker denotes the Sanborn Ranch, which was one of the first ranches in Texas to be fenced with barbed wire. There are no additional historic structures or archeologically significant sites within one mile of the facility boundary.

There are no hospitals, churches, licensed day-care facilities, cemeteries, schools, recreational areas, or sites having exceptional aesthetic quality within one mile of the facility boundary.

ATTACHMENT A

Figures



**Figure 1.
General Location Map**

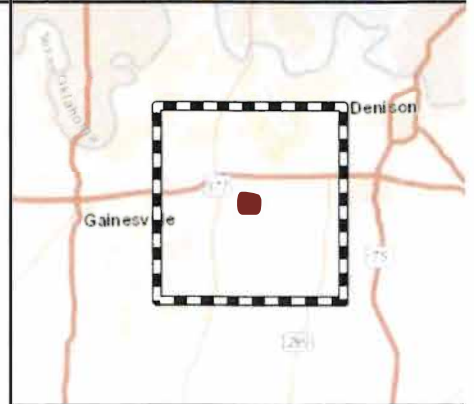
TASWA
City of Whitesboro
Grayson County, Texas

1 in = 12,500 feet
0 12,500

File Ref. 04.240.095
Date: 5/20/2022



 Survey Area
 5 Mile Buffer



Area of Detail Scale: 1 inch equals 20 miles

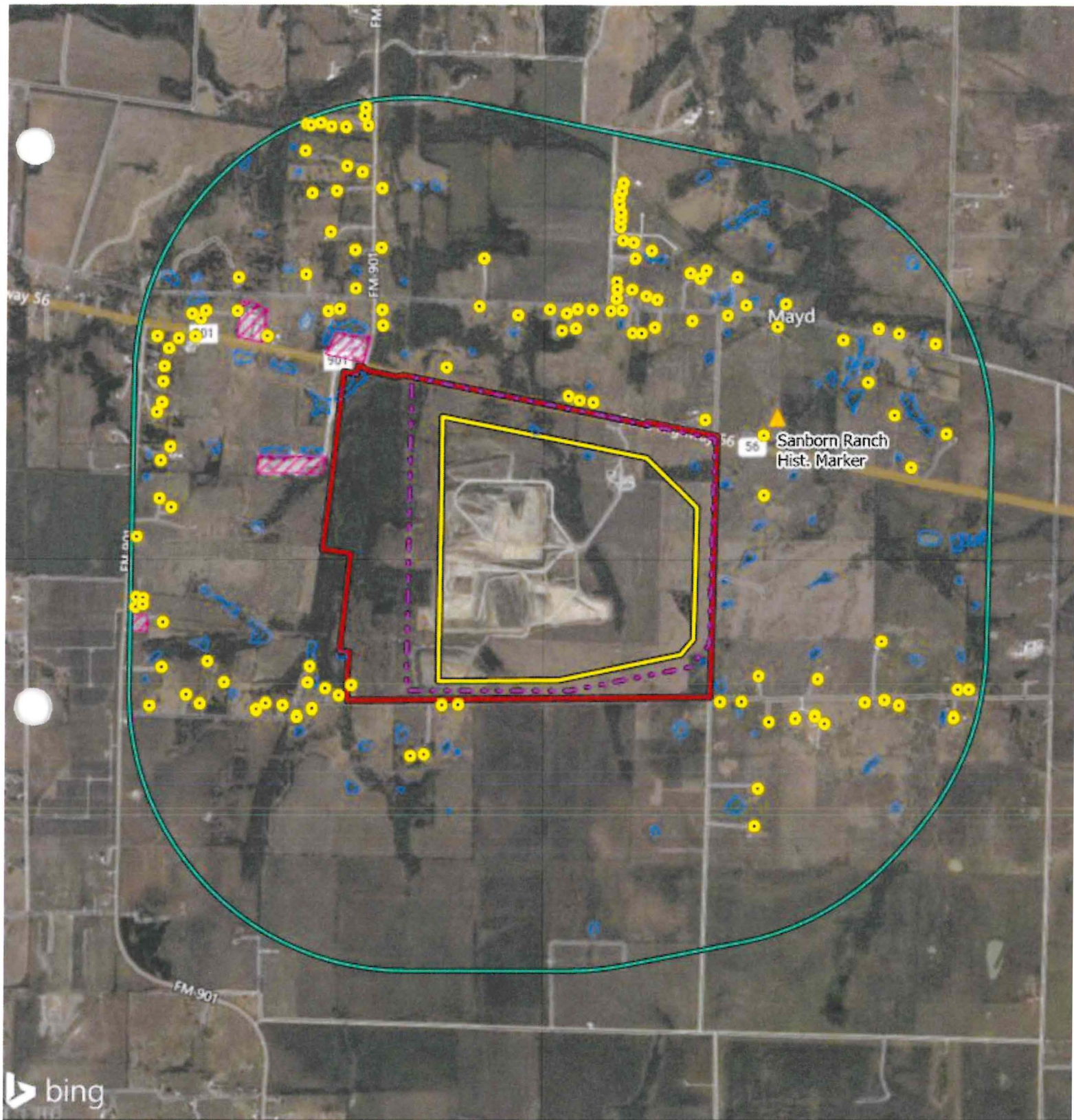
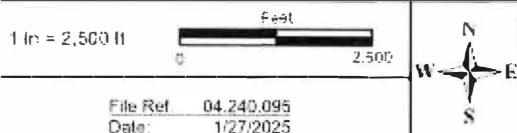


Figure 2.
Land Use Within 1 Mile
of Permit Boundary

TASWA
City of Whitesboro
Grayson County, Texas



- Property Boundary
- Permit Boundary
- Waste Footprint (Limit of Fill)
- Permit Boundary 1 Mile Radius

Land Use

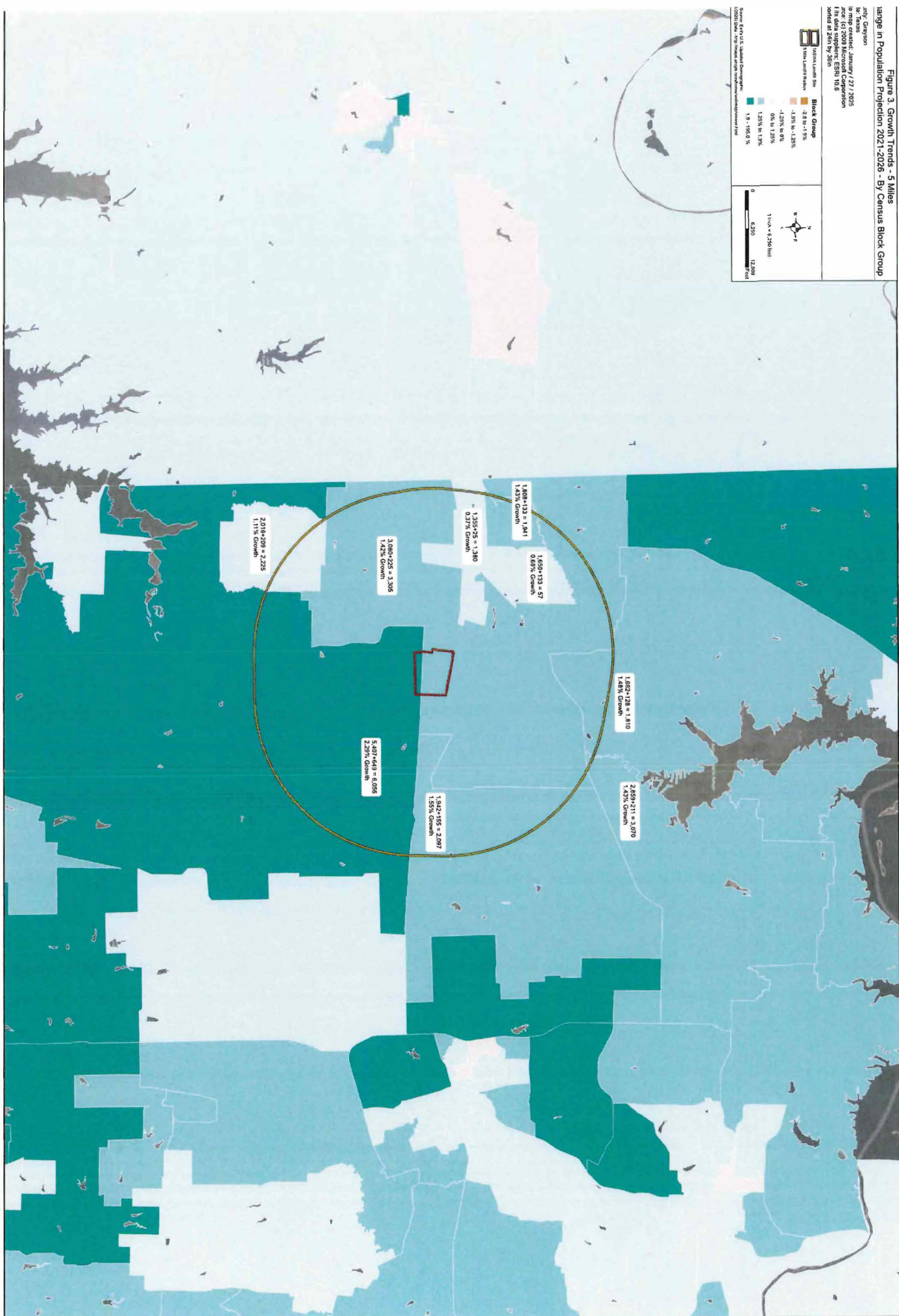
- Residential (139 units)
- Commercial (5 units)
- Open Water
- Other: Open, Agricultural, Vacant, Floodplain
- Historical Marker

- No hospitals, churches, licensed day-care facilities, cemeteries, schools, recreational areas, archaeologically significant sites, or sites having exceptional aesthetic quality within one mile of the facility boundary.

- Reference survey for drainage, pipeline and utility easements.

Figure 3. Growth Trends - 5 Miles
Change in Population Projection 2021-2026 - By Census Block Group

Author: Grayson
 Title: Texas
 Date created: January 17 / 2025
 Source: (c) 2009 Microsoft Corporation
 All data supplied: ESRI 10.6
 Exported at 24in by 36in



**APPENDIX IIC
TRANSPORTATION STUDY**

David Clark

From: Aaron Bloom [REDACTED]
Sent: Tuesday, July 12, 2022 1:32 PM
To: David Clark
Subject: RE: Transportation Analysis Coordination - TASWA Disposal and Recycling Facility

David,

I have reviewed the transportation analysis for the future development of the TASWA site on SH 56 and I agree with your report that the access roads in the vicinity of the TASWA facility are adequate now and into the future based on the estimated development of the site.

Thanks,

Aaron R. Bloom, P.E.
Area Engineer
Sherman Area Office
3904 US 75 South
Sherman, TX 75090
Office: 903-892-6529
Email: [REDACTED]

From: David Clark [REDACTED]
Sent: Tuesday, July 5, 2022 12:12 PM
To: Aaron Bloom [REDACTED]
Subject: Transportation Analysis Coordination - TASWA Disposal and Recycling Facility

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Bloom,

On behalf of the Texoma Solid Waste Authority (TASWA), Biggs & Mathews Environmental, Inc. (BME) is preparing a permit amendment application to expand the existing TASWA Disposal and Recycling Facility (TCEQ Permit MSW 2290) located in Grayson County, Texas. The amendment application will request a vertical and horizontal expansion of the existing waste disposal boundary. The purpose of this email/correspondence is to document coordination with the Texas Department of Transportation consistent with the requirements of the municipal solid waste regulations, 30 Texas Administrative Code Chapter 330 (30 TAC §330.61(i)) for traffic and location restrictions relative to access roads within 1 mile of the entrance to the facility.

I have attached a cover letter and the transportation analysis to be included in the TCEQ permit application. Please review at your earliest convenience and let me know if you have any questions or need any additional information. If your review concurs that the access roads in the vicinity of the TASWA facility are adequate and will continue to be adequate based on the estimated future development of the site, an email response indicating concurrence will satisfy the TCEQ requirement for coordination with the local TxDOT district/area.

We appreciate your assistance.

Clark

David Clark
Biggs and Mathews Env.
1700 Robert Road, Ste 100
Mansfield, TX 76063
O: (817) 563-1144
C: (817) 223-5784



A Texas Department of Transportation message

HELP
#EndTheStreakTX

End the streak of daily deaths
on Texas roadways.



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: TASWA Disposal and Recycling Facility

MSW Permit No.: 2290A

Site Operator/Permittee Name and Mailing Address: Texoma Area Solid Waste Authority
25090 State Highway 56, Whitesboro, TX 76273

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: July 5, 2022
3. TXDOT's response received? ☒ Yes ☐ No
4. 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.
5. Did TxDOT's response include recommendation of improvements to any of the roadways or intersections that lead to the site? ☐ Yes ☒ No
6. If you checked "Yes" in Item I.5 above, proceed to Section III., TxDOT's Recommended Roadway or Intersection Improvements (as applicable).

Facility Name: TASWA DRF

Revision No.: 0

Permit No: 2290A

Date: 3/28/2025

7. 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)* Attached.

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. N/A
- 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)
SH 56	TxDOT	July 5, 2022	July 12, 2022	☐ Yes ☒ No
FM 901	TxDOT	July 5, 2022	July 12, 2022	☐ Yes ☒ No
				☐ Yes ☐ No
				☐ Yes ☐ No

Transportation Data and Coordination Report for MSW Type I Landfills

Facility Name: TASWA DRF

Revision No.: 0

Permit No: 2290A

Date: 3/28/2025

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): N/A
 - (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
- Facility located on south side of SH 56 ~1 mile West of the SH 56 and FM 901 intersection.
2. Waste Acceptance Rates
- (a) Initial Waste Acceptance Rate: ~865 tons per day
 - (b) Estimated Maximum Waste Acceptance Rate at any Time During Facility Life: ~4,330 tons per day
3. Hours of Operation and Site Life
- (a) a. Operating Hours: 24 hours per day, 7 days per week
 - (b) b. Waste Acceptance Hours: Monday 12:01 AM through Saturday 5:00 PM
 - (c) c. Estimated Site Life: ~90 years
4. Other Information Used or Assumed in Estimating Transportation Data: Average Annual Daily Traffic (AADT) counts from the TxDOT Traffic Count Database System (TCDS) for stations 92U104 (SH 56 East of TASWA Entrance), 92H94 (SH 56 West of TASWA Entrance), and 92H95 (FM 901 North of SH 56)

Facility Name: TASWA DRF

Permit No: 2290A

Revision No.: 0

Date: 3/28/2025

VI. Facility Daily Traffic Volume Data

- 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	137	137
Employee Vehicles	25	25
Visitors Vehicles	5	5
Other Vehicles	113	113
Summation of Daily Volume of Traffic to and from the Facility		
Total Daily Volume of Traffic	280	280

- Describe the source(s) of or method(s) used to obtain the existing daily volume of traffic generated by the facility: TxDOT TCDS counts from Stations 92U104, 92H94, and 92H95
- Location(s) of traffic counts (if applicable): 92U104 (SH 56 East of TASWA Entrance), 92H94 (SH 56 West of TASWA Entrance), and 92H95 (FM 901 North of SH 56)

- 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	303	303
Employee Vehicles	40	40
Visitors Vehicles	10	10
Other Vehicles	247	247
Summation of Daily Volume of Traffic to and from the Facility		
Total Daily Volume of Traffic	600	600

Transportation Data and Coordination Report for MSW Type I Landfills

Facility Name: TASWA DRF

Revision No.: 0

Permit No: 2290A

Date: 3/28/2025

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: Land Use Analysis indicates a growth trend for Cooke and Grayson Counties ranging from 0.66 to 1.25 percent. 1 percent annual growth rate was used to estimate future daily volume of traffic.
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: Maps provided in part II, Appendix IIA.

Facility Name: TASWA DRF

Revision No.: 0

Permit No: 2290A

Date: 3/28/2025

VII. Availability and Adequacy of Roads

- 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
SH 56	2464	5462	3200 pc/h	3200 pc/h	80000	55/NA	14	Asph/2	A	196 vpd	420 vpd
FM 901	1224	2713	3200 pc/h	3200 pc/h	80000	55/NA	14	Asph/2	A	196 vpd	420 vpd

- 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
N/A											

- 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
N/A		

Transportation Data and Coordination Report for MSW Type I Landfills

Facility Name: TASWA DRF

Revision No.: 0

Permit No: 2290A

Date: 3/28/2025

Please list major (signalized) roadway intersections for access roads within 1 mile of facility	Existing Capacity	Existing Level of Service

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: No signalized intersections within 1 mile.

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:

Facility traffic is not expected to cause an adverse effect on the access roads in the vicinity of the facility at present or during the anticipated life of the facility.

IX. Highway Beautification

Enter facility distance from interstate or primary highways and screening information as required by 30 TAC 330.23(a).

- Distance of Facility from Interstate or Primary Highway: N/A
- Type of Facility Screening Provided, if applicable: N/A

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: Part II, Appendix IIH.

XI. Documentation of Coordination with the Federal Aviation Administration for Compliance with Airport Location Restrictions

- 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

Transportation Data and Coordination Report for MSW Type I Landfills

Facility Name: TASWA DRF

Permit No: 2290A

Revision No.: 0

Date: 3/28/2025

(a) Enter Date of Coordination Letter to FAA: 9/2022

(b) Enter Date of FAA Response: 10/4/2022

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:

Determination of No Hazard to Air Navigation correspondence from FAA included in Part II, Appendix IIH.

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.

The structure (landfill) is to be marked/lighted in accordance with FAA Advisory circular 70/7416-1 M within 5 days after construction reaches its greatest height.

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:

**APPENDIX IID
WETLANDS DOCUMENTATION**

David Clark

From: Carraway, David W CIV USARMY CESWT (USA) [REDACTED]
Sent: Wednesday, July 3, 2024 10:45 AM
To: Karisa Fenton
Cc: Rudi Reinecke; David [REDACTED] Parisotto, Edward M CIV USARMY CESWT (USA)
Subject: RE: TASWA Credit Demand Total - SWT-0-10175

Karisa,

As discussed, we've evaluated the total credit demand and find it satisfactory. Please let me know if you have any questions, thanks!

V/r,

David W. Carraway, AWB, PWS
Regulatory Project Manager
Tulsa District, U.S. Army Corps of Engineers
Govt. Cell: (918) 857-8075
2488 E 81st Street
Tulsa, OK 74137-4290

From: Karisa Fenton [REDACTED]
Sent: Tuesday, July 2, 2024 1:36 PM
To: Carraway, David W C [REDACTED]
[REDACTED] John O'Steen
[REDACTED] Parisotto, Edward M CIV USARMY CESWT (USA)
[REDACTED]
Subject: [Non-DoD Source] TASWA Credit Demand Total - SWT-0-10175

David,

Good afternoon, the RES team is looking to move forward with planning for the TASWA off-site mitigation and would like to solidify the total credit demand. I have attached a document and series of maps detailing the proposed credit demand for the remaining jurisdictional tributary and the currently constructed mitigation areas. Please let me know if you have any questions or comments on the document, and if you agree with the total credit demand total.

Thank you,

Karisa Fenton
Integrated Environmental Solutions, LLC
301 W Eldorado Parkway, Ste. 101
McKinney, Texas 75069
972-562-7672 (o) 937-725-6307 (m)
[REDACTED]





26 June 2024

Mr. David Carraway
Regulatory Division – USACE Tulsa District
2488 E 81st Street
Tulsa, Oklahoma 74137

RE: Texoma Area Solid Waste Authority (TASWA) Off-Site Credit Demand Total - SWT-0-10175

Dear Mr. Carraway,

Integrated Environmental Solutions, LLC. (IES), as the environmental consultant for TASWA on this project, is requesting a review of the proposed credit demand for jurisdictional aquatic features and currently constructed mitigation areas within the TASWA property boundary. TASWA is seeking to permit the largest landfill applicable on the site to prevent any foreseeable modifications to the permit in the future based on capacity needs. This approach will result in increasing the impacts to waters of the United States from what was previously approved under the 09 October 2000 Mitigation Plan as an additional segment of the intermittent drainage oriented north-to-south will be filled within the waste boundary and the two constructed mitigation areas will be impacted. The TASWA board has approved the use of RES to purchase an off-site property to develop a mitigation plan, construct and manage the mitigation area for all unavoidable impacts. Prior to moving forward with the permitting and mitigation plan, IES requests a review of the credit demand generated for each of the currently constructed mitigation areas, the wetland, and the intermittent drainage that has not been impacted to date. The goal of this submittal is to solidify the total off-site credit demand so RES can move forward with mitigation planning.

The following provides a description of each of the **Attachment A** figures in the sequence that was used to generate the total credit demand:

Figure 1 - The proposed waste boundary comprises approximately 504 acres located southeast of the intersection of Texas State Highway 56 and Farm-to-Market Road 901, Grayson County, Texas.

Figure 2 - Under the 09 October 2000 Mitigation Plan submitted to the USACE (Project No. 10175) titled Mitigation Plan for T.A.S.W.A., Grayson County, Texas, impacts to 3,340.6 linear feet (LF) of intermittent tributary and 0.09 acre of forested wetland were approved. Impact 1 (Tributary 2) accounted for 1,547.6 LF of intermittent tributary impact, Impact 2 (Tributary 5) accounted for 1,793.0 LF of intermittent tributary impact, and Impact 3 accounted for 0.09 acre of forested wetland impact.

Figure 3 - Under the 2000 Mitigation Plan, four compensatory mitigation areas were located on-site around the perimeter of the landfill permit boundary. To date, the mitigation areas to the northwest and southwest have been constructed and are functioning while the mitigation areas to the northeast and southeast have not been constructed.

Figure 4 - The landfill is divided into a series of cells that are utilized over a period of time. Therefore, rather than clearing the full site once the 2000 Plan was approved, cells have been excavated accordingly to match the community's needs. To date, Tributary 5 and the wetland at the headwaters of Tributary 5 have been impacted. The northwestern and southwestern mitigation areas have been constructed and evaluated in accordance with the 2000 Mitigation Plan to provide compensatory mitigation for the currently impacted features.

Figure 5 - The remaining drainage (Tributary 2), impacted wetland, and the constructed compensatory mitigation areas were assessed using the Texas Rapid Assessment Methodology (TxRAM Version 2.0) to ensure that the proposed off-site compensatory mitigation balances the functions and values associated with the loss of waters of the United States. As Tributary 5 was impacted previously, the mitigation demand was calculated based on the TxRAM scores and lengths of the existing mitigation areas which were constructed to offset the Tributary 5 impacts. As Tributary 2 has not been impacted to date, a TxRAM score was generated for Tributary 2 rather than the northeastern and southeastern mitigation areas which would have been constructed to satisfy compensatory mitigation requirements under the 2000 Plan. This method directly evaluates Tributary 2 rather than providing speculative TxRAM values based on the two eastern 2000 Plan mitigation areas. Nearby wetlands on site were used to generate a TxRAM score for the wetland at the headwaters of Tributary 5.

The total credit demand for each mitigation area or exiting drainage is as follows:

Table 1. Compensatory Mitigation Demand Using TxRAM

Water Identification		Impacted Length/Area	Existing TxRAM Score	Compensatory Mitigation Demand
Tributary 2 Impact		3,178.0 LF	70.45	2,238.9
NW Mitigation Area		1,055.7 LF	37.26	393.4
SW Mitigation Area – Zone A		909.0 LF	41.32	375.6
SW Mitigation Area – Zone B		2,800.4 LF	39.7	1,111.8
Wetland 2		0.09 AC	64.2	0.06
Totals	Tributary	3,340.6 LF	---	4,119.7 intermittent stream credits
	Wetlands	0.09 AC	---	0.06 wetland credits

If you have any questions regarding the project or would like any additional information, please do not hesitate to contact me at 972-562-7672 [REDACTED]

Sincerely,

Integrated Environmental Solutions, LLC

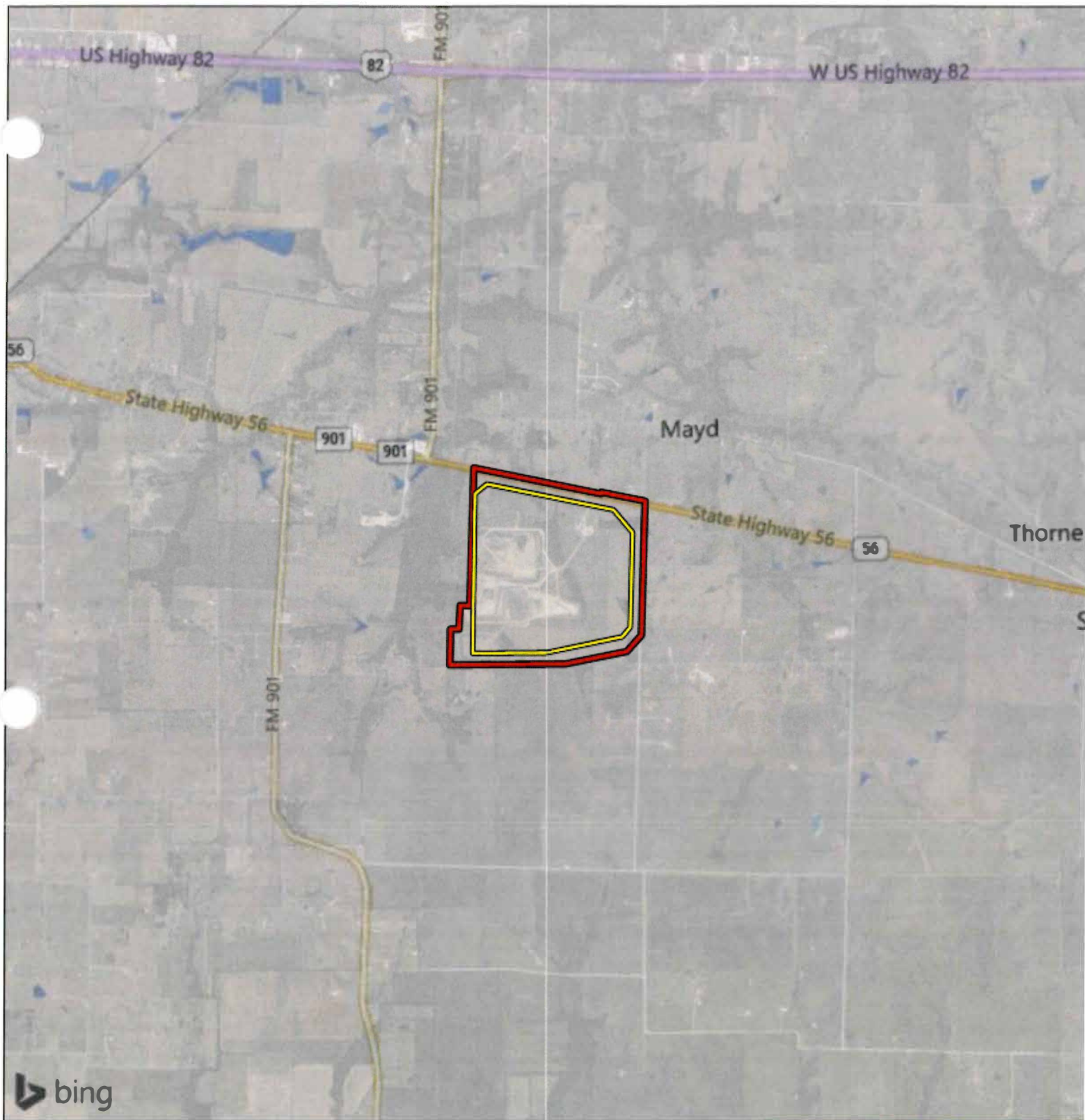


Karisa Fenton
Biologist

CC: David Clark, Biggs and Mathews Env.
John Osteen, TASWA
Mr. Brandon Hall, RES

Enclosure

ATTACHMENT A
Figures



**Figure 1.
General Location Map**

**TASWA Expansion
Grayson County, Texas**

-  Permit Boundary
-  Waste Boundary (Limits of Disturbance)

1 in = 4,000 ft

Feet
0 4,000



File Ref: 04.240.095
Date: 6/20/2024



Area of Detail Scale: 1 inch equals 10 miles

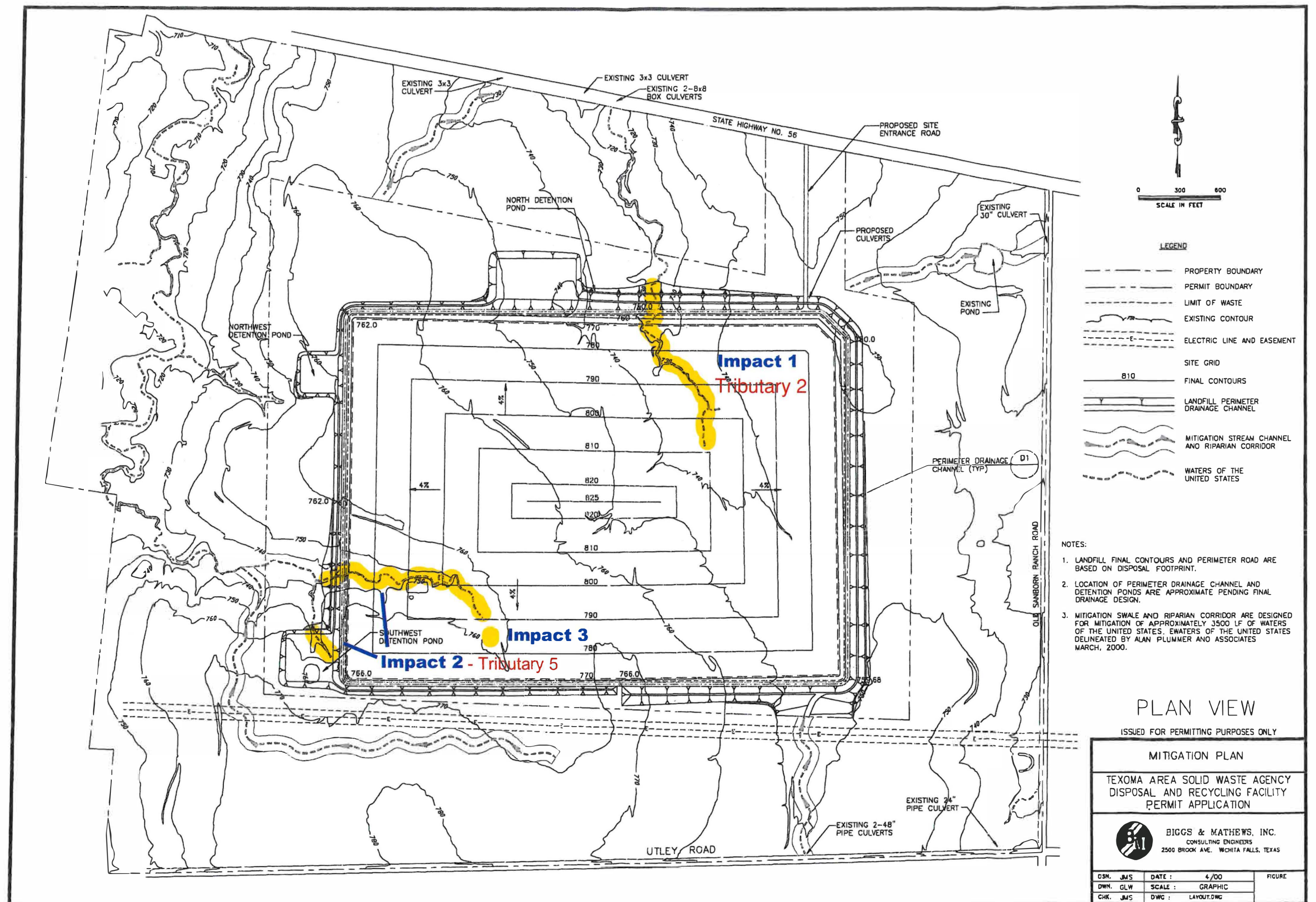


Figure 2. 2000 Plan Impact Areas shown in yellow.

Figure 3. Mitigation Areas from Original Permit

County: Tarrant
State: Texas
Date map created: June 1, 2024
Source: (c) 2009 Microsoft Corporation
and its data suppliers; ESRI 10.6
Exported at 24in by 36in

- Boundary
- Waste Boundary
- Mitigation Areas
- Construction Mitigation Area
 - Planned Mitigation Areas 2000 Permit

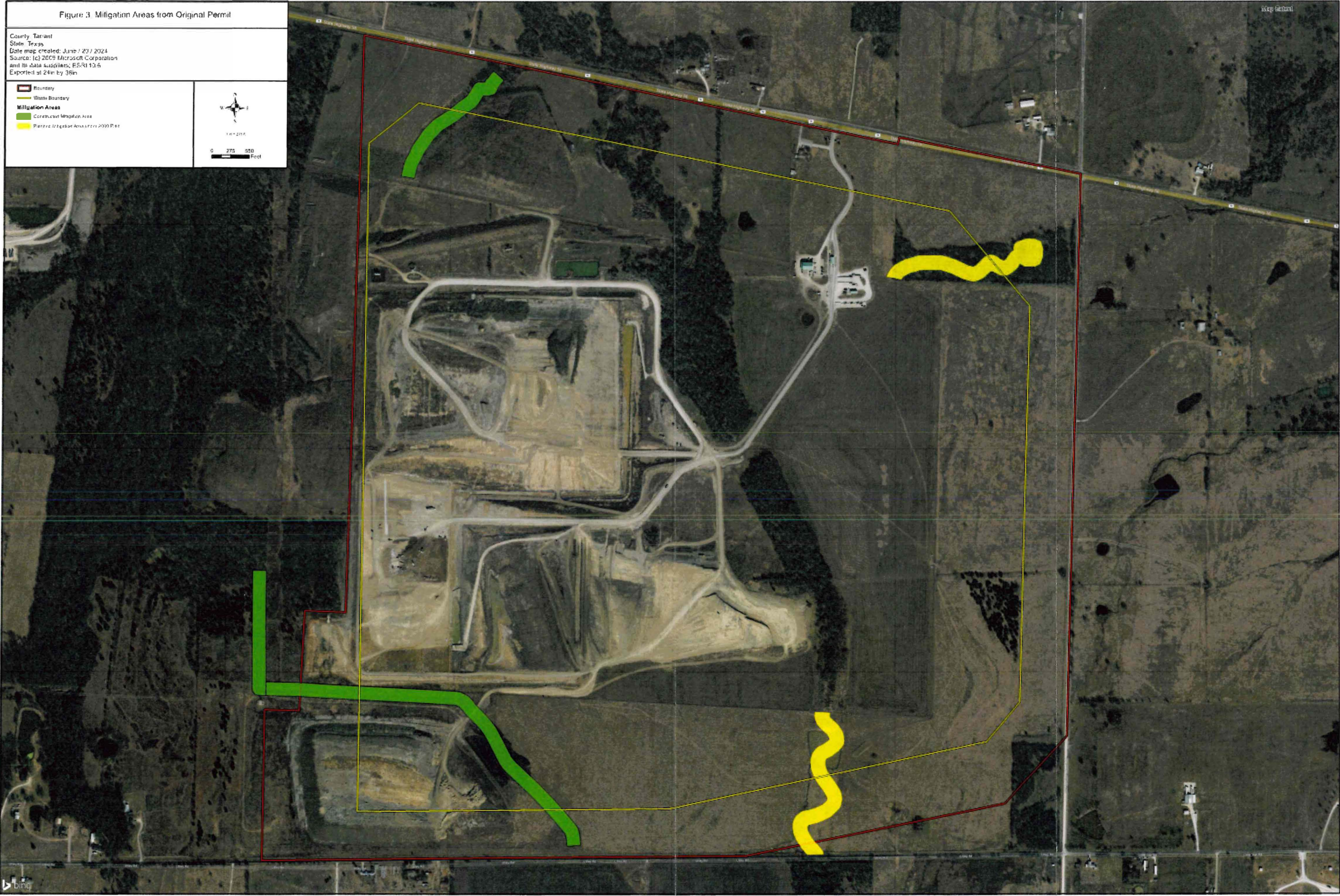


Figure 4. Completed Actions From Original Permit

County: Tarrant
State: Texas
Date map created: June 1 2017 2024
Source: (c) 2009 Microsoft Corporation
and its data suppliers, ESRI 10.6
Exported at 24 in by 36 in

- Parcel Boundary
- Water Boundary
- Tributary 5 - Impacted
- Watershed - Impacted
- Conservation Map Overlay

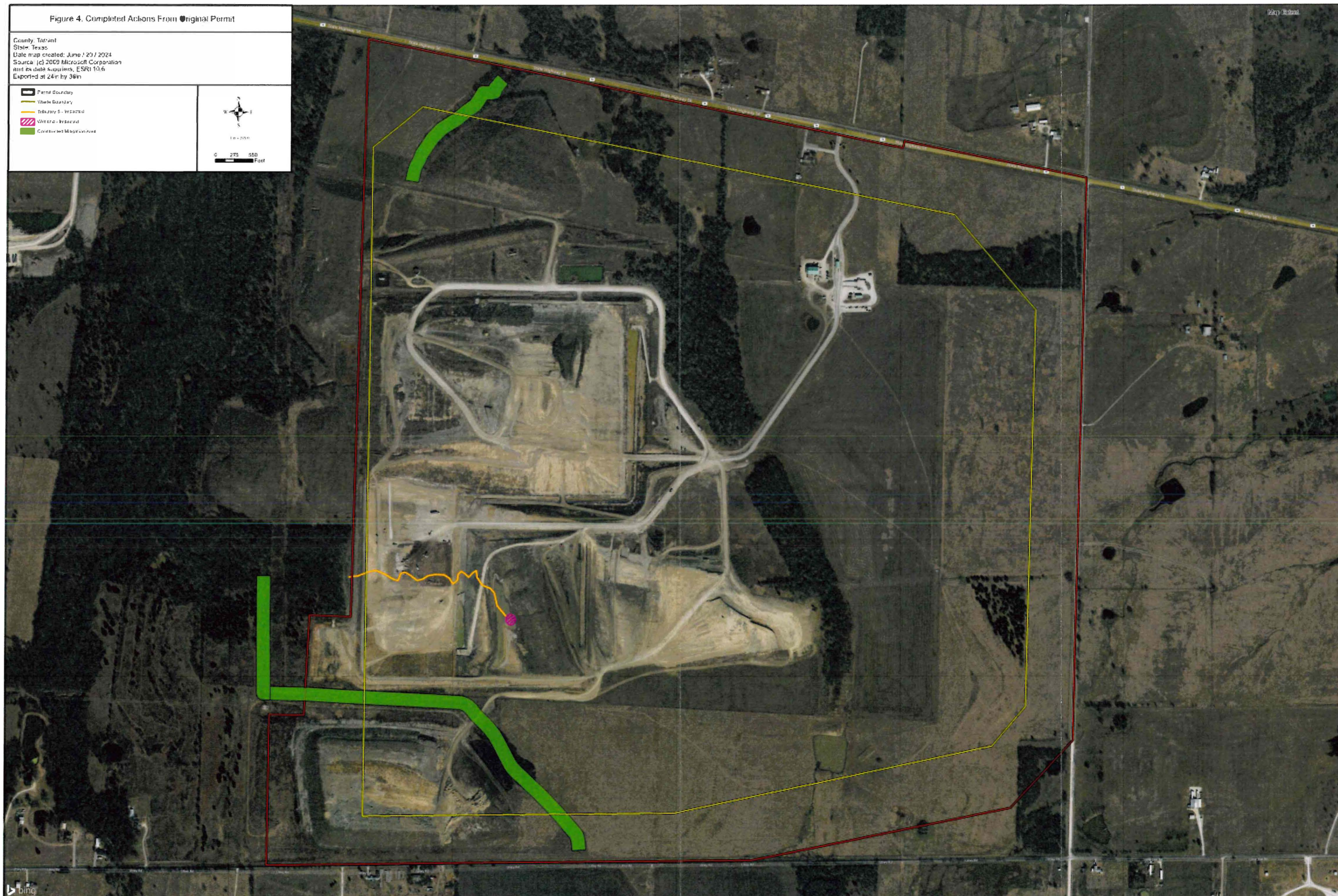
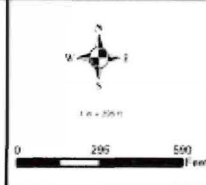


Figure 5. Off-Site Credit Demand

County: Tarrant
State: Texas
Date map created: June / 19 / 2024
Source: (c) 2009 Microsoft Corporation
and its data suppliers, ESRI 10.6
Exported at 24 in by 36 in

- Boundary
- Water Boundary (Units of Dissimilarity)
- Constructed to 2000 Area
- Aquatic Features
- 100% Intermittent Tributary



NW Mitigation Site
TxRAM = 37.26
1,055.7 LF
Constructed to mitigate for
Tributary 5 and a portion of Tributary 2
Credit Demand - 393.4

Total Off-Site Mitigation Credit Demand:
4,119.7 stream credits
0.79 acre wetland credit (wetland credit demand from 2000 permit)

Tributary 2
TxRAM = 70.45
3,476.24 LF
This tributary has not been impacted yet.
Proposed Total Impacts -
0.454 acre
3,178 LF
Original 2000 Mitigation Plan Impact -
1,547.6 LF
Credit Demand - 1,090.3
Additional Impact Under Update -
1,630.4 LF
Credit Demand - 1,148.6

SW Mitigation Site
Zone A
TxRAM = 41.32
909 LF
Constructed to mitigate for
Tributary 5
Credit Demand - 375.6

SW Mitigation Site
Zone B
TxRAM = 39.7
2,800.4 LF
Constructed to mitigate for
Tributary 5
Credit Demand - 1,111.8



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, TULSA DISTRICT
2488 EAST 81ST STREET
TULSA, OKLAHOMA 74137-4290

May 20, 2024

Regulatory Office

Ms. Karisa Fenton
Integrated Environmental Solutions, LLC
301 W Eldorado Parkway, Ste. 101
McKinney, TX 75069

Dear Ms. Fenton:

Please reference the request for a Delineation Concurrence, referenced May 6, 2024, regarding the Texoma Area Solid Waste Authority's 731 acre site located southeast of the intersection of Texas State Highway 56 and Farm-to-Market Road 901, Grayson County, Texas.

Based on a review of the information submitted, the delineated boundaries depicted on the enclosed map titled, Figure 5. Aquatic Features Identified within the Survey Area, is a reasonable representation of the aquatic resources located onsite.

This information is sufficient for planning and permitting purposes with our office. Unless otherwise requested, no further correspondence will be forthcoming regarding this request.

Your request has been assigned Identification Number SWT-0-10175. Please refer to this number during future correspondence. If further assistance is required, please contact Mr. David Carraway at (918) 857-8075.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew R. Commer", is located below the "Sincerely," text.

Andrew R. Commer
Chief, Regulatory Office

Enclosure



02 January 2024

Mr. David Carraway
U.S. Army Corps of Engineers – Tulsa District
2488 E. 81st Street
Tulsa, Oklahoma 74137-4290

Re: Texoma Area Solid Waste Authority (TASWA) - Approved Jurisdictional Determination (AJD) Request
Approximately 731 acres located southeast of the intersection of Texas State Highway (SH) 56 and Farm-to-Market Road (FM) 901, Grayson County, Texas.

Dear Mr. Carraway,

Integrated Environmental Solutions, LLC (IES) performed a site survey to identify any aquatic features that meet a definition of a water of the United States on approximately 731 acres located southeast of the intersection of SH 56 and FM 901, Grayson County, Texas (**Attachment A, Figure 1**). This report will ultimately assess and delineate potentially jurisdictional aquatic features to ensure compliance with Clean Water Act (CWA) Sections 401 and 404.

TASWA is a solid waste authority formed by the cities of Sherman, Gainesville, and Denison. TASWA is a publicly operated solid waste facility, located approximately 3 miles east of the City of Whitesboro, that is intended to provide long-term public waste disposal services. The TASWA owns 920+ acres and is looking to expand the footprint of their current landfill to increase the capacity and lifespan to accommodate area growth. Within the 920+ acres, the proposed facility expansion permit boundary will encompass approximately 731 acres. The landfill disposal footprint will cover approximately 504 acres within the facility permit boundary. The full 920+ acre property boundary is not included in this AJD request as landfill expansion to the west is not feasible due to drainage requirements; however, it should be noted that impacts to the western region have been avoided and minimized. The permit and waste boundaries have been included in the report attachments to indicate the limits for the AJD request (Permit Boundary) as well as show the limits where additional impacts will occur for the expansion (Waste Boundary). **As there are aquatic features within the proposed expansion limits, IES is requesting that the USACE review our delineation and provide an Approved Jurisdictional Determination (AJD) to ensure that the project is planned and developed in compliance with the CWA.**

INTRODUCTION

Waters of the United States are protected under guidelines outlined in CWA Sections 401 and 404, in Executive Order (EO) 11990 (Protection of Wetlands), and by the review process of the Texas Commission on Environmental Quality (TCEQ). Agencies that regulate impacts to the nation's water resources within Texas include the U.S. Army Corps of Engineers (USACE), the U.S. Environmental Protection Agency (USEPA), the U.S. Fish and Wildlife Service (USFWS), and the TCEQ. The USACE has the primary regulatory authority for enforcing CWA Section 404 requirements for waters of the United States.

The decision for whether a CWA Section 404 permit is required on a property is determined if there are waters of the United States present and the extent of losses of those features. The USACE and USEPA have gone through rulemaking to define what is a water of the United States, independently and jointly, several times since the initial CWA. The longest standing definitions of waters of the United States were those published in 1986; however, these definitions were challenged in 2001, 2007, and 2023 U.S. Supreme Court (SCOTUS) decisions. In addition to this, the

Obama, Trump, and Biden administrations completed rulemaking to modify the definitions of waters of the United States. The 2023 SCOTUS decision defined a water of the United States as “a relatively permanent body of water connected to traditional interstate navigable waters.” The SCOTUS also included wetlands that have a continuous surface connection with that water, in the definition of a water of the United States. This wetland connection was described as the boundary where it was difficult to determine where the ‘water’ ends, and the ‘wetland’ begins.

This 2023 SCOTUS decision is consistent with the relatively permanent water (RPW) standard identified in the previous 2007 SCOTUS decision. Until further guidance is published from the USACE or USEPA, the 2007 USACE and EPA guidance defining a “relatively permanent water” will be used. According to this guidance, RPW are non-navigable tributaries of traditional navigable waters (TNW) that flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). In addition to this, the guidance also stipulated regulation over wetlands that directly abut such tributaries.

METHODOLOGY

Prior to conducting fieldwork, the U.S. Geological Survey (USGS) topographic map (**Attachment A, Figures 2A and 2B**), the *Soil Survey of Grayson County, Texas*, and the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) digital soil databases for Grayson County (**Attachment A, Figure 3**), the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (**Attachment A, Figure 4**), and recent and historic aerial photographs of the proposed survey area were studied to identify possible aquatic features that could meet the definition of waters of the United States and areas prone to wetland development. Ms. Karisa Fenton of IES conducted the initial delineation in the field in accordance with the USACE procedures on 11, and 15 February 2022, and conducted site revisits to collect additional data 02 May 2022, and 16 November 2023.

Wetland determinations and delineations were performed on location using the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineer Wetland Delineation Manual: Great Plains Region (Version 2.0). The presence of a wetland is determined by the positive indication of three criteria (i.e., hydrophytic vegetation, hydrology, and hydric soils). Potential jurisdictional boundaries for other water features (i.e., non-wetland) were delineated in the field at the ordinary high-water mark (OHWM). The 33 CFR 328.3 (c)(7) defines OHWM as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Water feature boundaries were recorded on a Trimble GeoExplorer XT Global Positioning System (GPS) unit capable of sub-meter accuracy. Photographs were also taken at representative points within the survey area (**Attachment B**). Routine wetland determination data forms are provided in **Attachment C**.

RESULTS

Background Review

Topographic Setting

The USGS topographic maps (Sadler 7.5' Quadrangle 1982, revised 1983; and Ethel 7.5' Quadrangle 1982, revised 1983) illustrate four blue line features and five ponds. The first blue line feature is depicted bisecting the site, oriented south-to-north. The second blue line feature is depicted originating in the west and exiting via the western boundary, oriented east-to-west. The third and fourth blue line features are illustrated in the northeastern and southeastern corner, respectively, oriented southwest-to-northeast. Two isolated ponds are depicted west of the first blue line feature and a third pond is shown south of the second blue line feature. A fourth pond is illustrated at the start of the third blue line feature and a fifth pond is shown west of the fourth blue line feature, along the eastern boundary (see **Attachment A, Figure 2A**). The 2022 Sadler and Ethel 7.5' Quadrangle maps illustrate the blue line features in similar alignment; however, a relatively large pond is depicted west of the first blue line feature and the southern pond west of the first blue line feature is no longer depicted. Additionally, the fourth blue line feature has been partially channelized and the pond in the southeastern corner is now on-channel. Another isolated pond is depicted near the southern boundary, between the first and fourth blue line features (see **Attachment A, Figure 2B**). The overall site topography was illustrated with slopes oriented east-to-west in the west, south-to-north centrally,

and southwest-to-northeast in the east. The maximum site elevation was approximately 800 feet above mean sea level (amsl) with a minimum site elevation of approximately 720 feet amsl.

Soils

The USDA NRCS Web Soil Survey identified nine soil map units within the survey area, Bunyan and Whitesboro soils, frequently flooded; Elbon soils, frequently flooded; Heiden clay, 1 to 3 percent slopes; Heiden clay, 3 to 5 percent slopes; Normangee clay loam, 1 to 3 percent slopes; Normangee clay loam, 4 to 8 percent slopes; Vertel clay, 3 to 5 percent slopes; Vertel clay, 5 to 12 percent slopes; and Wilson silty clay loam, 1 to 3 percent slopes. Elbon soils, frequently flooded, located in depressions, was listed as a hydric soil on the Hydric Soils of Texas list prepared by the National Technical Committee for Hydric Soils (accessed 27 December 2023, Grayson County, Texas) (see **Attachment A, Figure 3**). Hydric soils are described as soils that are sufficiently wet in the upper part to develop anaerobic conditions during the growing season.

FEMA FIRM

The FEMA FIRM (Grayson County; Map Panels 48181C0250F and 48181C0375F; effective 29 September 2010) shows the entire survey area is within Zone X (Areas determined to be outside the 0.2 percent annual chance floodplain) (see **Attachment A, Figure 4**).

Weather History

The weather history for Wunderground.com JML Enterprises WX weather station (KTXWHITE107) recorded 0.32 inch of precipitation during the 7-day period and a total of 8.30 inches during the 30-day period, prior to the 16 November 2023 site visit. The Antecedent Precipitation Tool (APT) indicated that the conditions on-site at the time of the evaluation were considered hydrologically “normal” based on the 30-year climactic average (33.631703N, -96.841006W).

Field Investigation

The TASWA property was comprised of five vegetation communities including **non-maintained grassland**, **maintained grassland**, **disturbed urban matrix**, and **forested riparian corridor** with small regions of **forested upland** scattered across the site.

The **non-maintained grassland** vegetation community was predominantly observed in undeveloped regions that experienced low traffic with little access. These areas were observed in transition between strictly grasslands to savannah or shrubland habitat types. The maintenance regimes for these parcels were either limited or apparently non-existent beyond utility line rights-of-way (ROW) that were observed crossing some parcels. Though species dominance fluctuated, the species composition was relatively consistent. Grass and forbs species observed included Bermudagrass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*), little bluestem (*Schizachyrium scoparium*), common sunflower (*Helianthus annuus*), giant ragweed (*Ambrosia trifida*), spreading hedge-parsley (*Torilis arvensis*), prairie broomweed (*Amphiachyris dracunculoides*), prairie threeawn (*Aristida oligantha*), sumpweed (*Iva annua*), white tridens (*Tridens albescens*), and goldenrod (*Solidago gigantea*). The lack of a maintenance regime frequently allows thickets of shrub species to inhabit the grassland habitats. The shrub species observed included eastern redcedar (*Juniperus virginiana*), honey mesquite (*Prosopis glandulosa*), sugarberry (*Celtis laevigata*), and honey locust (*Gleditsia triacanthos*). Trees of the same species were also observed in clusters and along the established forested areas, frequently creating a transitional area between grassland and forestland consisting of sporadic trees and shrubs in a savannah-like habitat.

The **maintained grassland** vegetation community was characterized by the presence of short turf grasses and sporadic forbs frequently maintained by mowing for hay production, landscaping, or active grazing. The dominant vegetation type in these areas was Bermudagrass with various other grasses and forbs, including Johnsongrass, white tridens, common sunflower, and goldenrod scattered throughout. The maintained grasslands were often bisected or bordered by paved/ gravel roads or buildings.

The **disturbed urban matrix** vegetation community was associated with the landfill footprint and was characterized by the presence of paved roads, parking lots, frequently traveled gravel or dirt roads, relocated fill dirt, and dump

sites. While most of the vegetation had been cleared from this area, maintained Bermudagrass was observed surrounding buildings and roads.

The **forested riparian corridor** was predominantly observed along the central, unnamed tributary of Mustang Creek. The forested riparian corridor areas were dominated by sugarberry, cedar elm (*Ulmus crassifolia*), and Osage orange (*Maclura pomifera*). Other tree and shrub species observed included common persimmon (*Diospyros virginiana*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), post oak (*Quercus stellata*), rough leaf dogwood (*Cornus drummondii*), honey locust, and coralberry (*Symphoricarpos orbiculatus*). Ground cover was dominated by inland wood oats (*Chasmanthium latifolium*), eastern woodland sedge (*Carex blanda*), and Virginia wildrye (*Elymus virginicus*).

The **forested upland** vegetation community was observed in relatively small regions near the northern and eastern boundaries. The forested upland areas were dominated by eastern redcedar, sugarberry, and honey locust with an understory of common greenbrier (*Smilax bona-nox*), sedge (*Carex spp.*), and poison-ivy (*Toxicodendron radicans*).

Water from the survey area flows north into an unnamed tributary of Mustang Creek, which flows into Big Mineral Creek. Big Mineral Creek flows in the Red River, a TNW. **Table 1** and the following paragraphs detail the aquatic features identified within the survey area at the time of evaluation (**Attachment A, Figure 5**).

Table 1. Aquatic Features Identified within the Survey Area

Water Identification	Hydrology Characteristics	Area (Acre)	Length (Linear Feet)	Water Classification
Tributary 1	Intermittent	0.57	3,818	RPW
Tributary 2	Ephemeral	0.08	699	Non-RPW
Wetland 1	Seasonally Saturated	0.08	---	No Continuous Surface Connection to a RPW
Wetland 2	Seasonally Saturated	0.09	---	No Continuous Surface Connection to a RPW
Wetland 3	Seasonally Saturated	0.06	---	No Continuous Surface Connection to a RPW
Pond 1	Seasonally Inundated	0.47	---	No Continuous Surface Connection to a RPW
Pond 2	Seasonally Inundated	0.04	---	No Continuous Surface Connection to a RPW
Pond 3	Seasonally Inundated	0.40	---	No Continuous Surface Connection to a RPW
Pond 4	Semi-Permanently Inundated	0.85	---	No Continuous Surface Connection to a RPW
Pond 5	Seasonally Inundated	0.14	---	No Continuous Surface Connection to a RPW
Pond 6	Seasonally Inundated	0.22	---	No Continuous Surface Connection to a RPW
Pond 7	Semi-Permanently Inundated	1.35	---	No Continuous Surface Connection to a RPW
Pond 8	Seasonally Inundated	0.23	---	No Continuous Surface Connection to a RPW
EF 1	Ephemeral	0.04	332	Non-RPW

Tributary 1 was identified meandering through the northern region. Tributary 1 originated centrally, downslope of the southern landfill section, pastureland, and a forested region, and flowed northwest, exiting via a culvert under SH 56. Tributary 1 was identified by OHWM characteristics that included the destruction of terrestrial vegetation, the presence of litter and debris, sediment sorting, a water line, and a bed and bank. The channel's substrate was comprised of silt, sand, clay, gravel, and cobble. Tributary 1 was incised into the landscape 3 to 8 feet with average widths of 5 to 12 feet. Given the tributary's relatively low location in the watershed and the presence of flowing and ponded water at the time of evaluation, it is IES's professional opinion that Tributary 1 would be considered to have at least seasonal, intermittent flow.

Tributary 2 was a relatively small, discontinuous tributary identified in the southeastern corner. Tributary 2 entered via a culvert under Utley Road, oriented southwest-to-northeast. Tributary 2 was identified and delineated by OHWM characteristics that included the destruction of terrestrial vegetation, the presence of litter and debris, and a bed and bank. The channel's substrate was composed of silt and clay sediment. Tributary 2 was incised into the landscape between 1 to 3 feet with average OHWM widths between 2 to 6 feet. Given the tributary's relatively high location in the local watershed, small size, and the absence of flowing water at the time of evaluation, it is IES's professional opinion that Tributary 2 would be considered to have ephemeral flow.

Wetlands 1 through 3 were identified as emergent wetlands located within shallow, depressional regions. The wetlands were dominated by small-fruit spikerush (*Eleocharis microcarpa*), giant ragweed, Raven's foot sedge (*Carex crus-corvi*), and common spikerush (*Eleocharis palustris*). Hydric soil for Wetlands 1 through 3 was indicated by Redox Dark Surface with a matrix of 10YR 3/1 with redoximorphic concentrations in the pore linings and matrix. Hydrologic indicators consisted of saturation, inundation, crayfish burrows, and a positive FAC-neutral test. Given their relatively high location in the watershed and the hydrology observed, these wetlands would be considered seasonally saturated.

Ponds 1 through 8 were identified as isolated, artificially excavated ponds. The ponds were formed by excavating a depression into the landscape and placing an earthen embankment in such a manner to capture direct rainfall and sheet flow. The ponds' limits were identified and delineated by OHWM characteristics that included a natural line impressed in the bank, a wrack line, and a water line. No features with OHWM characteristics were observed entering or exiting the limits of Ponds 1 through 6, or 8 at the time of evaluation. EF 1 was observed entering the limits of Pond 7; however, no features were observed exiting Pond 7. A review of aerial imagery indicates Ponds 4 and 7 have minor water level fluctuations while water levels in the remaining ponds fluctuate seasonally. As such, it is IES's professional opinion that Ponds 4 and 7 would be considered semi-permanently inundated, and Ponds 1 through 3, 5, 6, and 8 would be considered seasonally inundated.

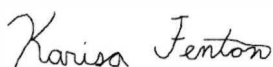
EF 1 was an inconsistent, poorly defined, eroded channel identified within a hillside swale upslope of Pond 7. The feature lacked consistent OHWM characteristics, and a review of aerial imagery indicates that the feature formed over the last decade. EF 1 was predominantly dry at the time of evaluation with sporadic segments of ponded water observed along the feature. Given the lack of flowing water and seasonal hydrology indicators, it is IES's professional opinion that EF 1 would be considered to have ephemeral flow.

To summarize the delineation, 2 tributaries, 3 wetlands, 8 ponds, and an erosion feature were identified and delineated within the survey area. The activities in support of the landfill expansion will impact some of these aquatic features and will require a CWA Section 404 permit. IES is requesting that the USACE review this report and provide an Approved Jurisdictional Determination for the permit boundary project limits.

IES appreciates the opportunity to work with you and the Tulsa Regulatory Branch on this project and look forward to your review. If you have any comments, questions, or concerns, please do not hesitate to contact myself or Rudi Reinecke at 972-562-7672 [REDACTED]

Sincerely,

Integrated Environmental Solutions, LLC.

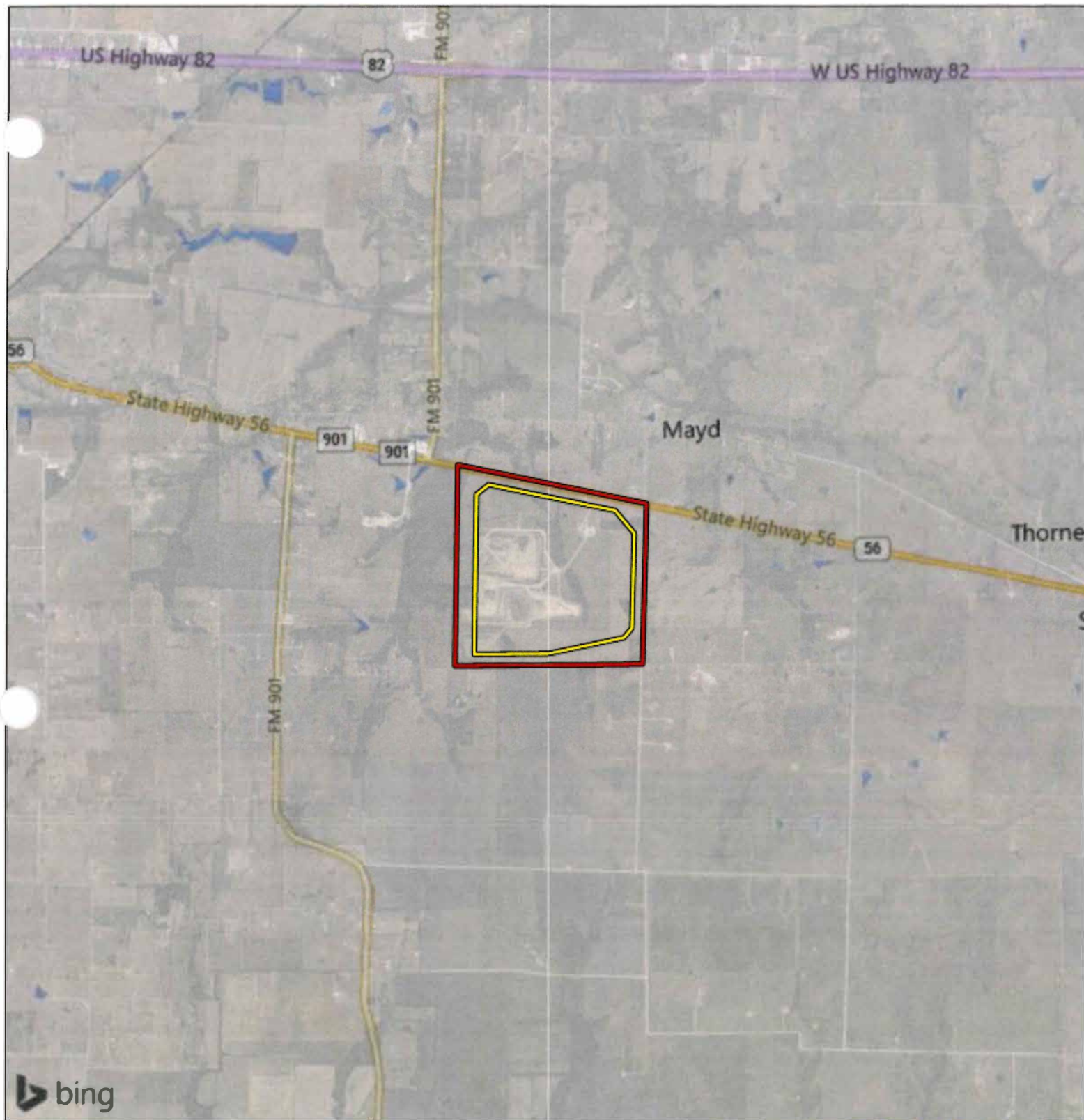


Ms. Karisa Fenton
Biologist

Attachments

File ref: 04.240.095

ATTACHMENT A
Figures



**Figure 1.
General Location Map**

**TASWA Expansion
Grayson County, Texas**

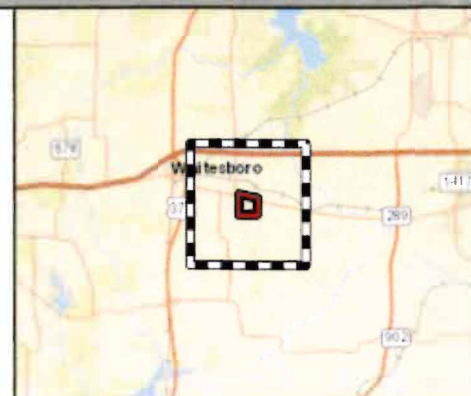
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Feet
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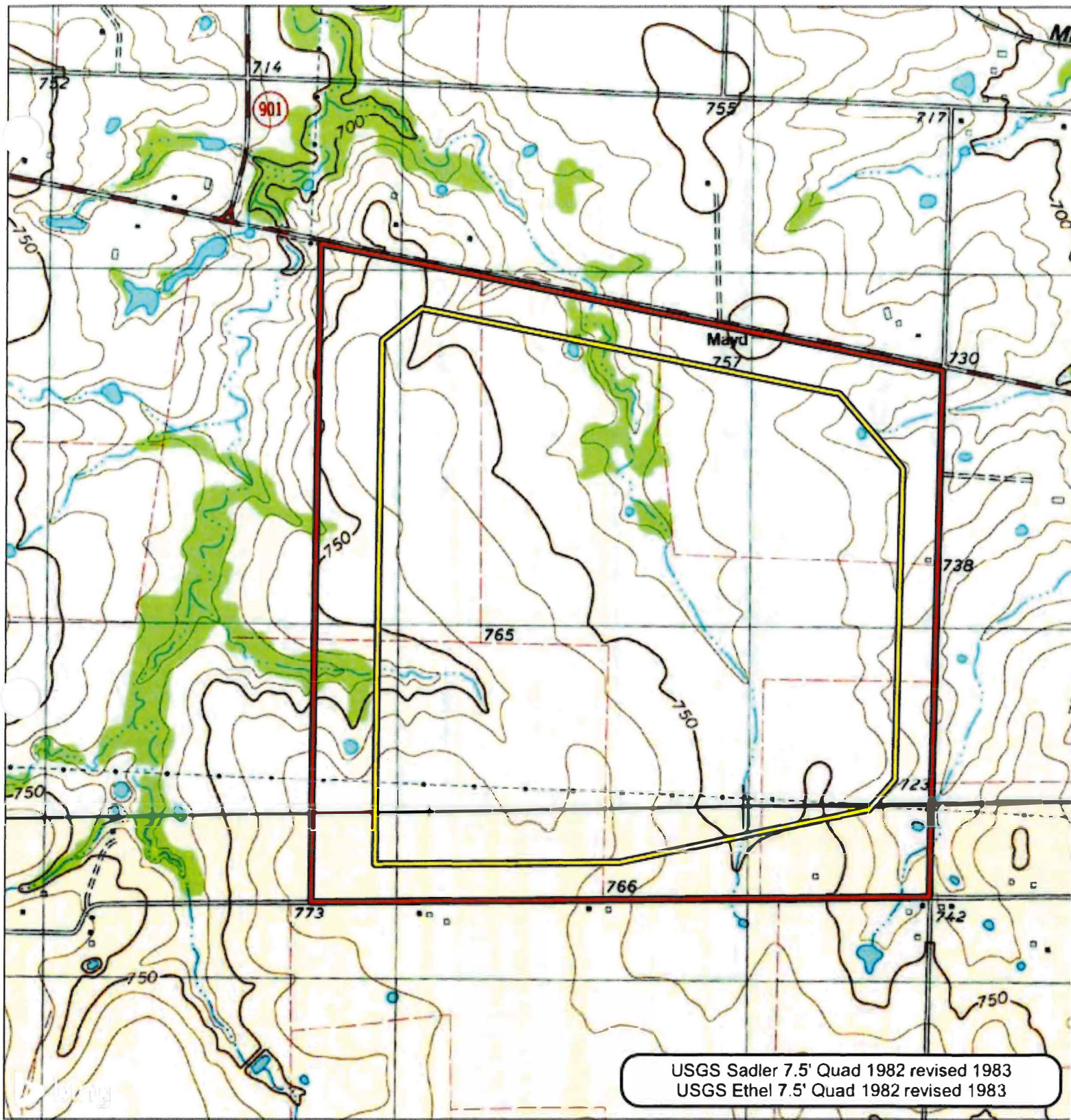


File Ref: C4_240.095
Date: 12/27/2023

-  Waste Boundary
-  Permit Boundary

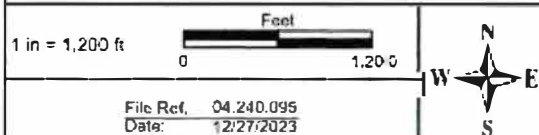


Area of Detail Scale: 1 inch equals 10 miles

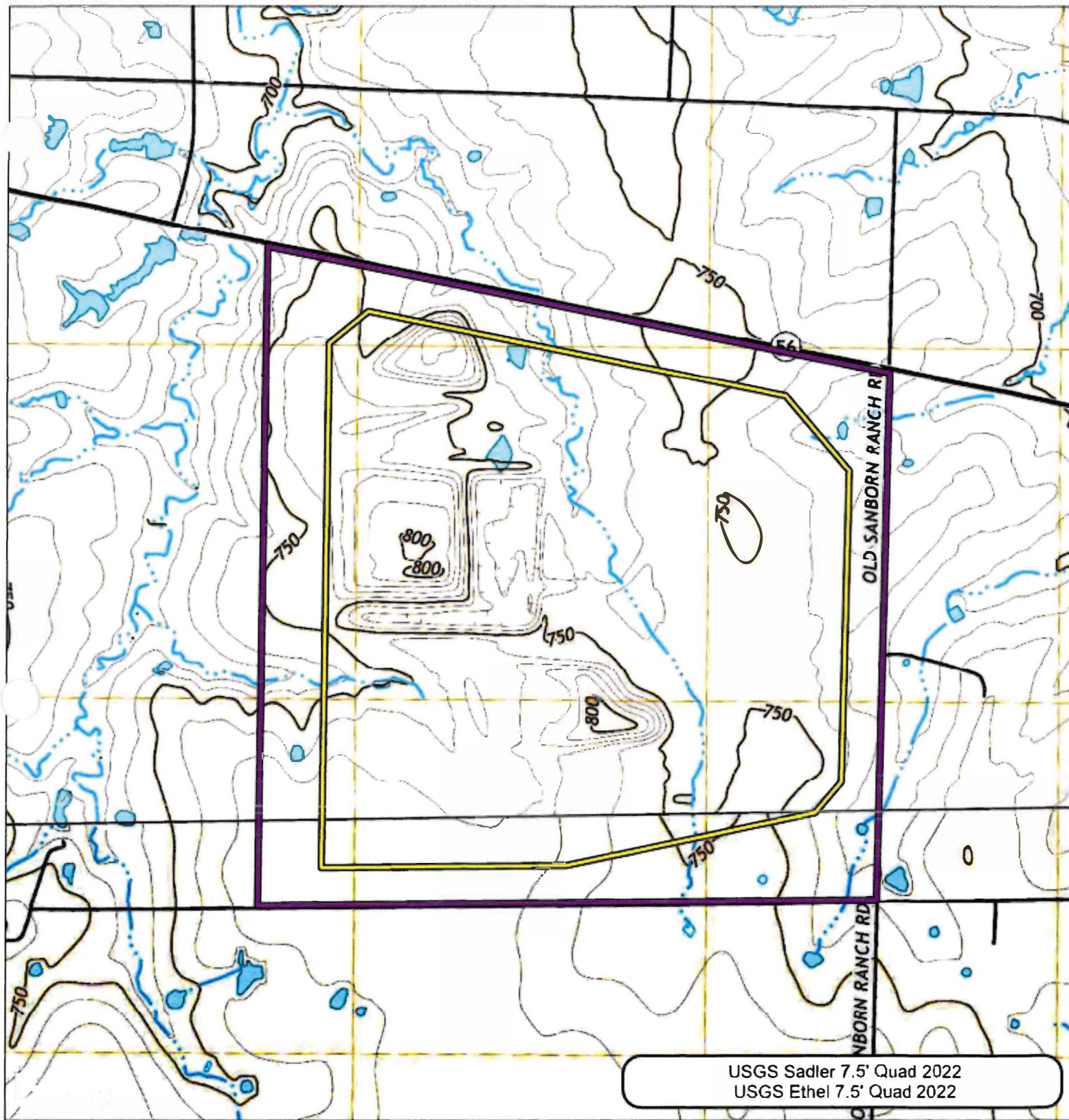


**Figure 2A.
Topographic Setting**

TASWA Expansion
Grayson County, Texas



- Waste Boundary
- Permit Boundary



**Figure 2B.
Topographic Setting**

**TASWA Expansion
Grayson County, Texas**

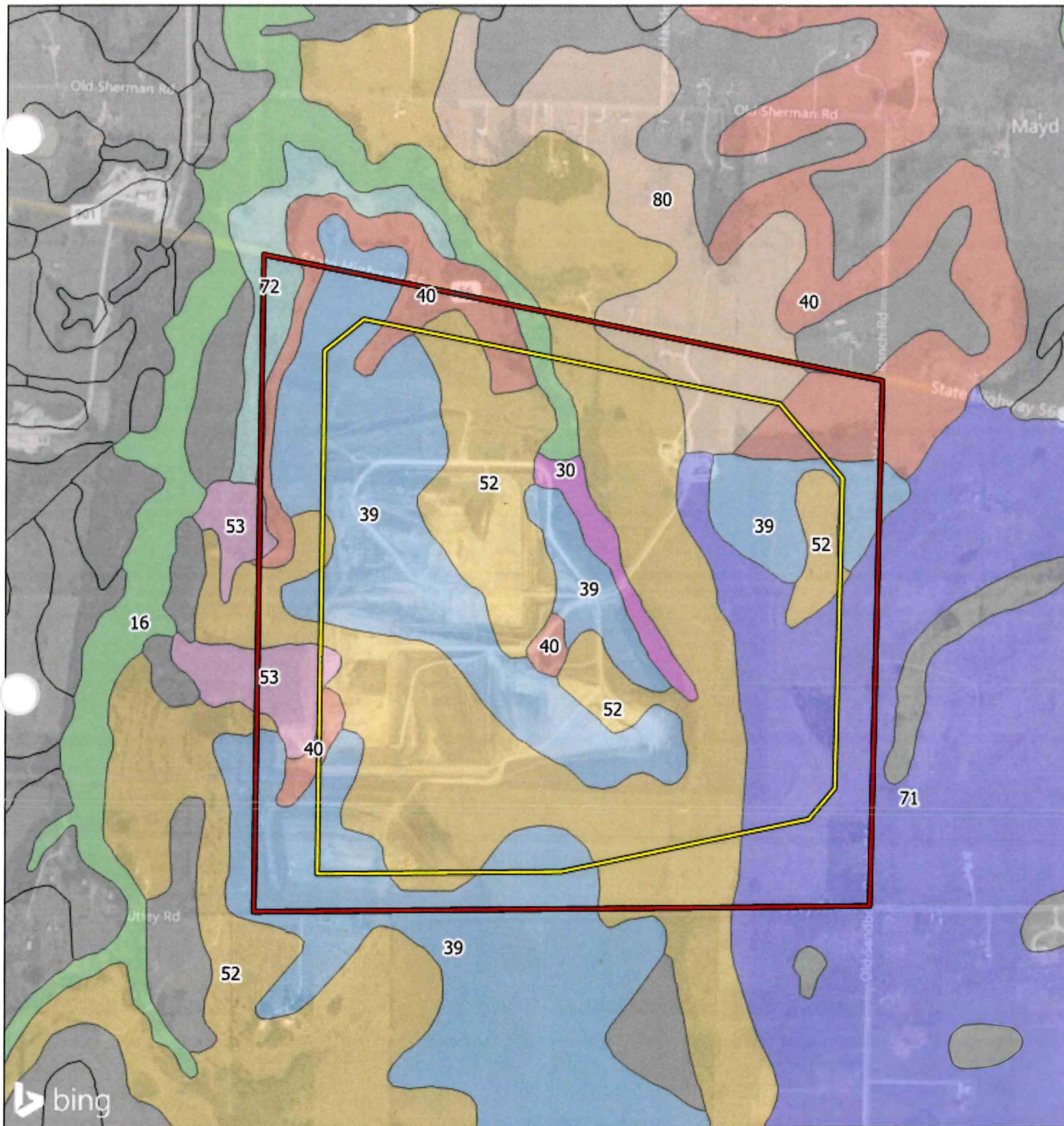
1 in = 1,200 ft

Feet
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File Ref. 04.240.095
Date: 12/27/2023



- Waste Boundary
- Permit Boundary



**Figure 3.
Soils Map**

**TASWA Expansion
Grayson County, Texas**

— Waste Boundary

— Permit Boundary

Soil map units outside survey area

Soil Map Units

16 - Bunyan and Whitesboro soils, frequently flooded

30 - Elbon soils, frequently flooded

39 - Heiden clay, 1 to 3 percent slopes

40 - Heiden clay, 3 to 5 percent slopes

52 - Normangee clay loam, 1 to 3 percent slopes

53 - Normangee clay loam, 4 to 8 percent slopes

71 - Vertel clay, 3 to 5 percent slopes

72 - Vertel clay, 5 to 12 percent slopes

80 - Wilson silty clay loam, 1 to 3 percent slopes

1 in = 1,200 ft



File Ref. 04.240.095
Date: 12/27/2023



Figure 4.
Federal Emergency
Management Agency
Flood Insurance Rate Map

TASWA Expansion
Grayson County, Texas

1 in = 1,200 ft

Feet
0 1,200

File Ref. C4.240.095
Date: 12/27/2023



Waste Boundary

Permit Boundary

FEMA FIRM Zone Descriptions

- Zone X - Areas determined to be outside the 0.2% annual chance floodplain
- 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
- Zone A - Special Flood Hazard Areas subject to inundation by the 1% annual chance flood; No base flood elevations determined
- Zone AE - Special Flood Hazard Areas subject to inundation by the 1% annual chance flood; Base flood elevations determined
- Zone AE - Floodway areas in Zone AE

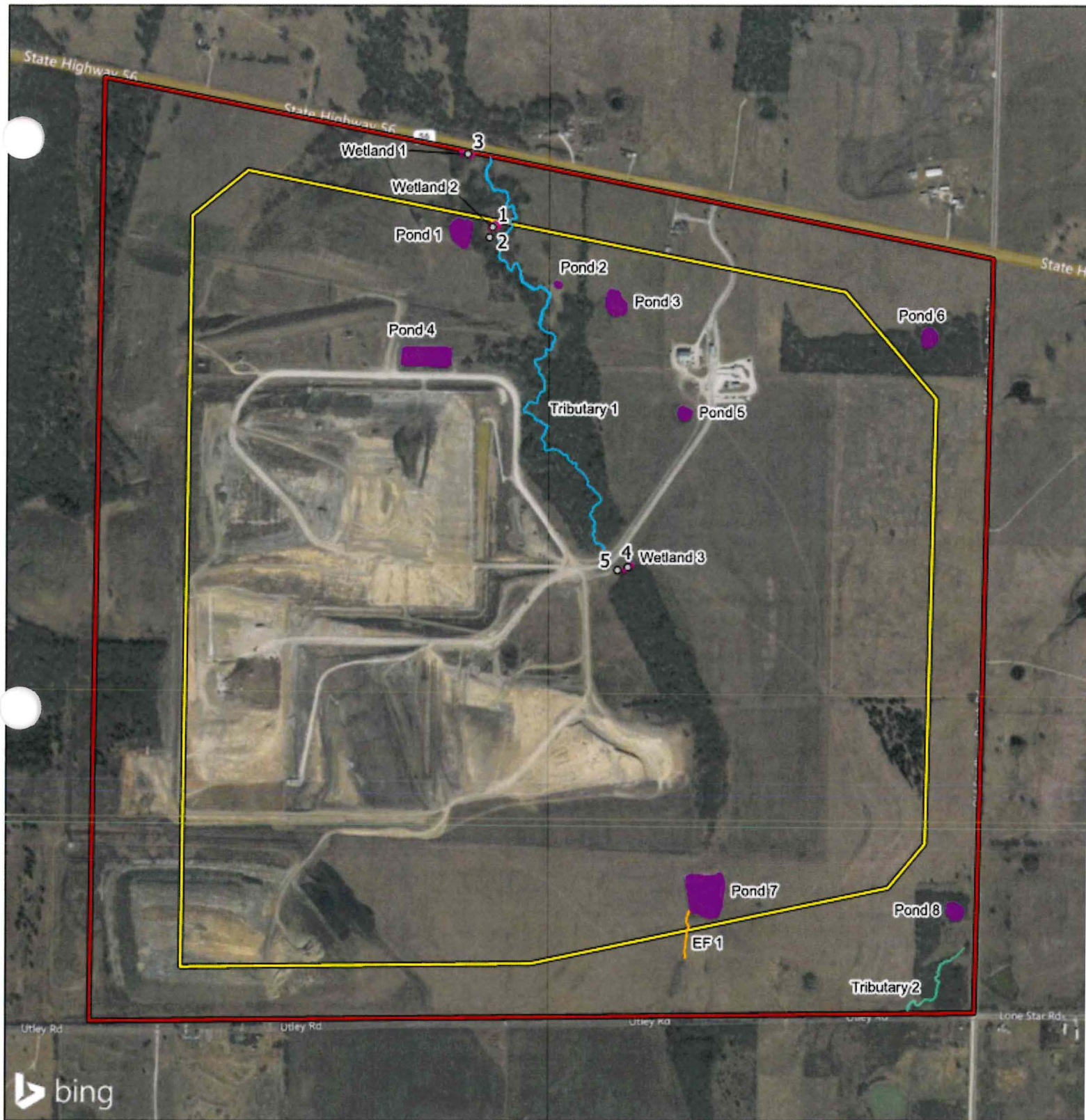


Figure 5.
Aquatic Features Identified
within the Survey Area

TASWA Expansion
Grayson County, Texas

1 in = 850 ft



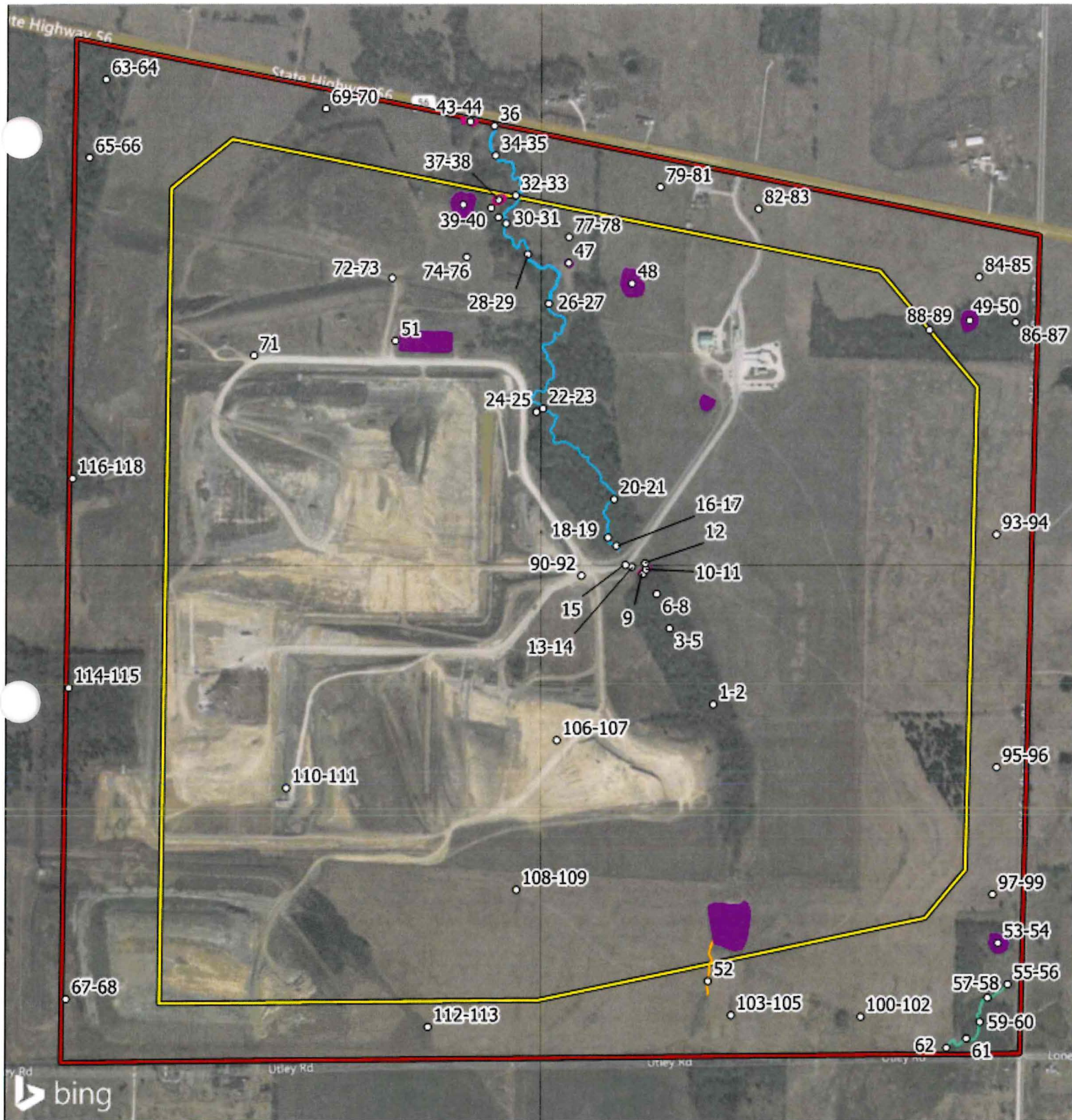
File Ref. 04 240.095
Date: 12/27/2023

- Waste Boundary
- Permit Boundary
- Wetland Determination Data Form

Aquatic Features

- RPW, Intermittent Tributary
- Non-RPW, Ephemeral Tributary
- Non-RPW, Erosion Feature
- Pond, Isolated
- Wetland, Isolated

ATTACHMENT B
Site Photographs



Photograph Location Map

TASWA Expansion
Grayson County, Texas

1 in = 775 ft

0 775

File Ref. 04.240.095
Date: 12/27/2023



- Waste Boundary
- Permit Boundary
- Photograph Location

Aquatic Features

- RPW, Intermittent Tributary
- Non-RPW, Ephemeral Tributary
- Non-RPW, Erosion Feature
- Pond, Isolated
- Wetland, Isolated



Photograph 1



Photograph 2



Photograph 3



Photograph 4



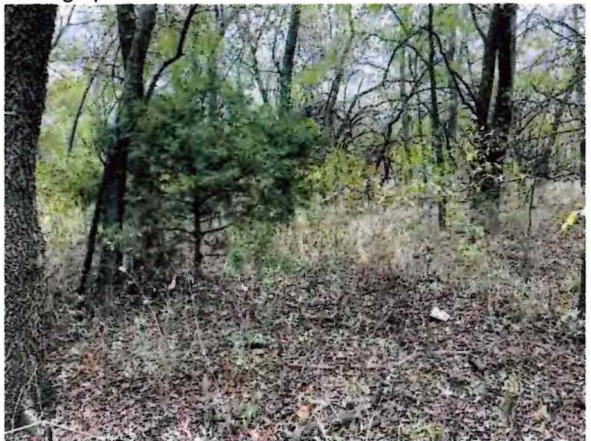
Photograph 5



Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



Photograph 18



Photograph 19



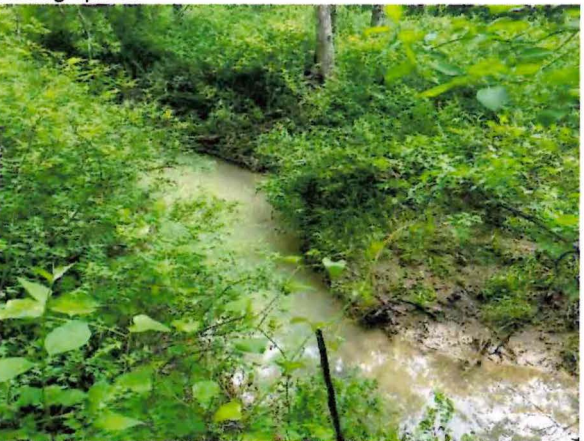
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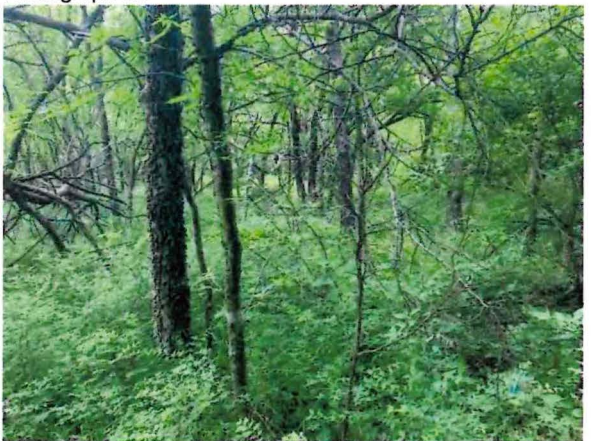
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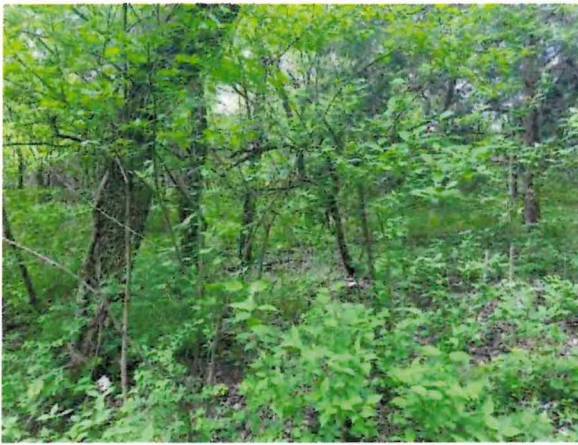
Photograph 22



Photograph 23



Photograph 24



Photograph 25



Photograph 26



Photograph 27



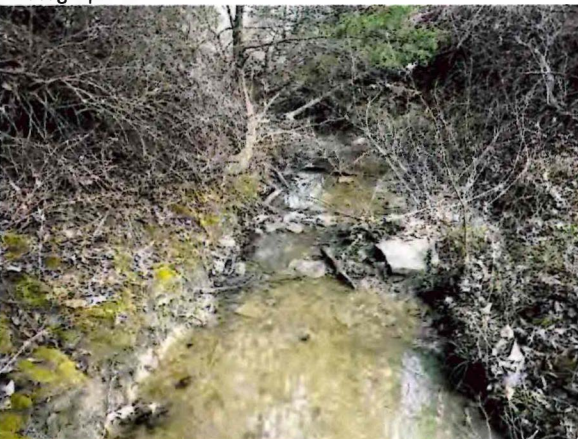
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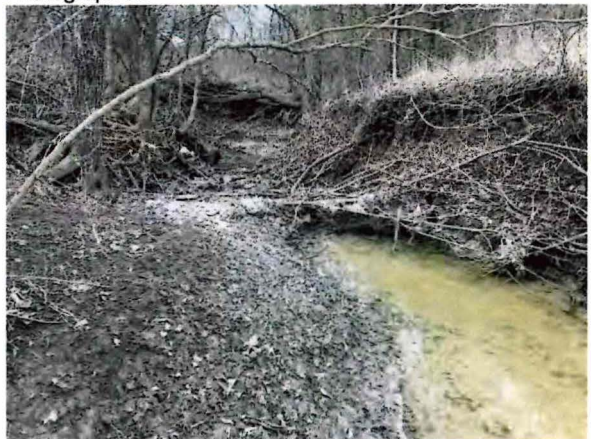
Photograph 29



Photograph 30



Photograph 31



Photograph 32



Photograph 33



Photograph 34



Photograph 35



Photograph 36



Photograph 37



Photograph 38



Photograph 39



Photograph 40



Photograph 41



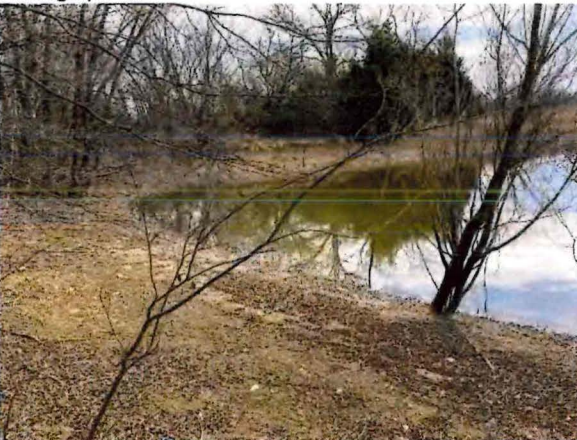
Photograph 42



Photograph 43



Photograph 44



Photograph 45



Photograph 46



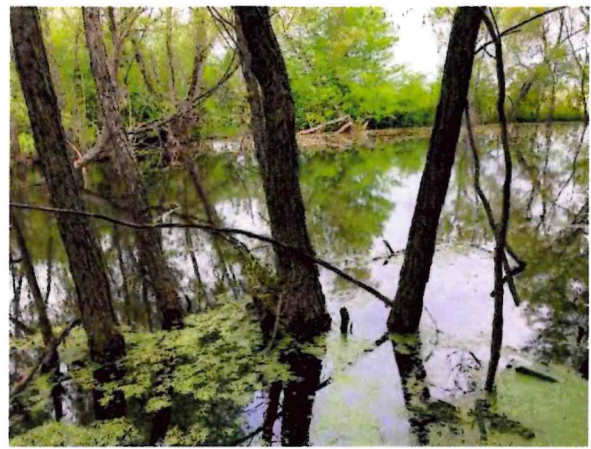
Photograph 47



Photograph 48



Photograph 49



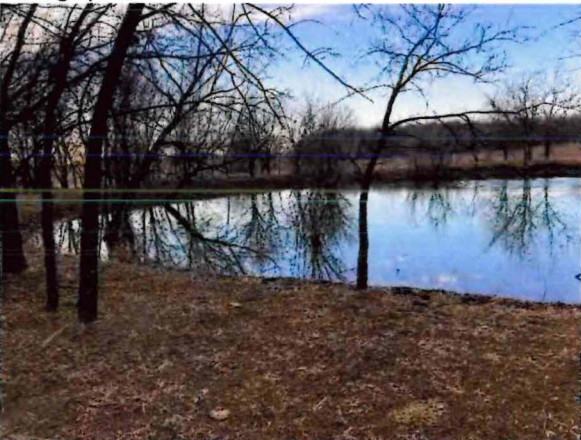
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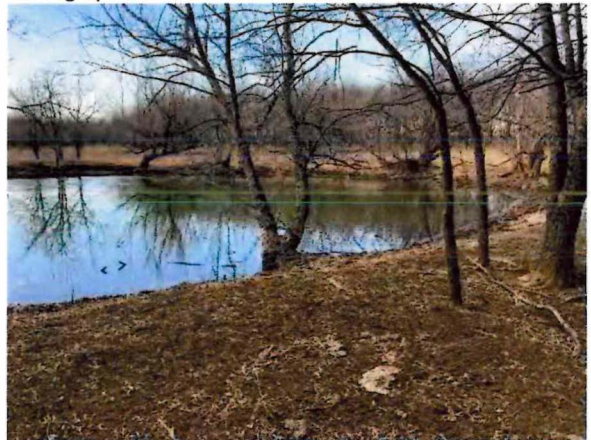
Photograph 51



Photograph 52



Photograph 53



Photograph 54



Photograph 55



Photograph 56



Photograph 57



Photograph 58



Photograph 59



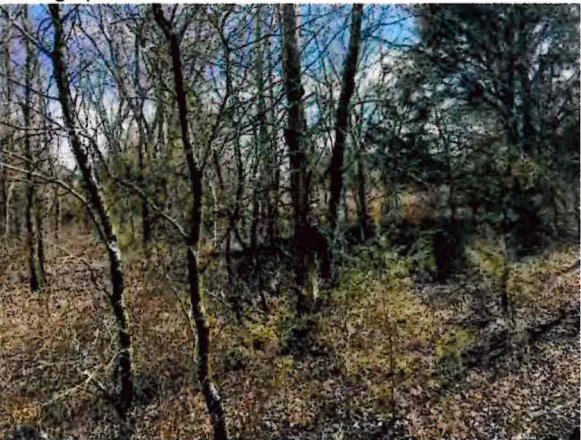
Photograph 60



Photograph 61



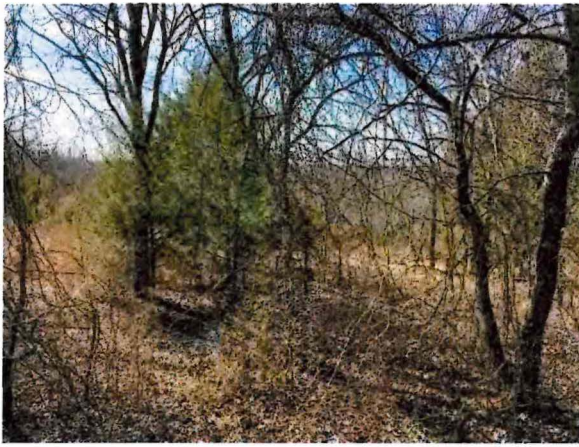
Photograph 62



Photograph 63



Photograph 64



Photograph 65



Photograph 66



Photograph 67



Photograph 68



Photograph 69



Photograph 70



Photograph 71



Photograph 72



Photograph 73



Photograph 74



Photograph 75



Photograph 76



Photograph 77



Photograph 78



Photograph 79



Photograph 80



Photograph 81



Photograph 82



Photograph 83



Photograph 84



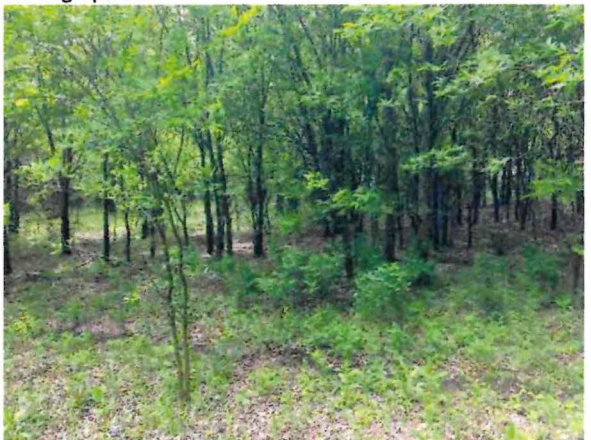
Photograph 85



Photograph 86



Photograph 87



Photograph 88



Photograph 89



Photograph 90



Photograph 91



Photograph 92



Photograph 93



Photograph 94



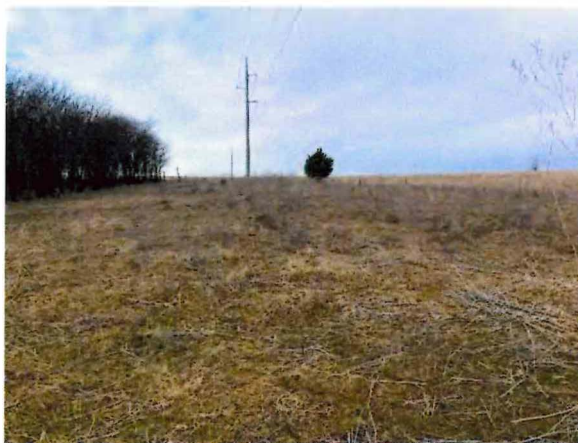
Photograph 95



Photograph 96



Photograph 97



Photograph 98



Photograph 99



Photograph 100



Photograph 101



Photograph 102



Photograph 103



Photograph 104



Photograph 105



Photograph 106



Photograph 107



Photograph 108



Photograph 109



Photograph 110



Photograph 111



Photograph 112



Photograph 113



Photograph 114



Photograph 115



Photograph 116



Photograph 117



Photograph 118

ATTACHMENT C
Routine Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: TASWA City/County: Grayson Sampling Date: 11/16/23
 Applicant/Owner: TASWA State: TX Sampling Point: 1
 Investigator(s): Karisa Fenton, Rudi Reinecke Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 2-3
 Subregion (LRR): J Lot: 33.63683932 N Long: -96.83808372 W Datum: NAD 1983
 Soil Map Unit Name: Bunyan and Whitesboro soils, frequently flooded NWI Classification: N/A

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 ☐
 Hydric Soil Present? Yes ☒ No ☐
 Wetland Hydrology Present? Yes ☒ No ☐

Is the Sampled Area within a wetland? Yes ☒ No ☐

Remarks: Depression upslope of intermittent tributary

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot Size: Depression)
 1. NA
 2.
 3.
 4.
 = Total Cover

Sapling/Shrub Stratum (Plot Size: Depression)
 1. NA
 2.
 3.
 4.
 5.
 = Total Cover

Herb Stratum (Plot Size: Depression)
 1. Eleocharis microcarpa 90 Y OBL
 2. Ambrasia trifida 35 Y FAC
 3. Iva annua 30 N FAC
 4.
 5.
 6.
 7.
 8.
 9.
 10.
155 = Total Cover

Woody Vine Stratum (Plot Size: Depression)
 1. NA
 2.
 = Total Cover

% Bare Ground in Herb Stratum NA

Remarks: NL - Not Listed. When the indicator status is Not Listed, the species is assumed to be Upland.
 Indicator Statuses have been provided by the US Army Corps of Engineers - https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html
 Updated scientific names have been provided by the USDA - <https://plants.usda.gov/home>

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 Hydrophytic Vegetation
- X 2 - Dominance Test is > 50%
- 3 - Prevalence Index is ≤ 3.0¹
- 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

SOILS

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ 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 N)

Indicators for Problematic Hydric Soils²:

- ☐ 1 CM Muck (A9) (LRR I, J)
☐ Coast Prairie Redox (A16) (LRR F, G, H)
☐ Dark Surface (S7) (LRR G)
☐ High Plains Depressions (F16)
 (LRR H outside of MLRA 72 & 73)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrphytic vegetation and wetland hydrology must be present, unless distributed or problematic.

Restrictive Layer (if present):

Type: NA

Depth (inches): NA

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicators (minimum of one required; check all that apply)

- | | | | |
|--------------------------|---|--------------------------|--|
| ☐ | Surface Water (A1) | ☐ | Salt Crust (B11) |
| ☐ | High Water Table (A2) | ☐ | Aquatic Invertebrates (B13) |
| ☐ | Saturation (A3) | ☐ | Hydrogen Sulfide Odor (C1) |
| ☐ | Water Marks (B1) | ☐ | Dry-Season Water Table (C2) |
| ☐ | Sediment Deposits (B2) | ☐ | Oxidized Rhizospheres on Living Roots (C3) |
| ☐ | Drift Deposits (B3) | | (where not tilted) |
| ☐ | Algal Mat or Crust (B4) | ☐ | Presence of Reduced Iron (C4) |
| ☐ | Iron Deposits (B5) | ☐ | Thin Muck Surface |
| ☐ | Inundation Visible on Aerial Imagery (B7) | ☐ | Other (Explain in Remarks) |
| ☐ | Water Stained Leaves (B9) | | |

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):	<u>NA</u>
Water Table Present?	Yes? ☐	No? ☒	Depth (inches):	<u>NA</u>
Saturation Present? (includes capillary fringe)	Yes? ☐	No? ☒	Depth (inches):	<u>NA</u>

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: TASWA City/County: Grayson Sampling Date: 11/16/23
 Applicant/Owner: TASWA State: TX Sampling Point: 2
 Investigator(s): Karisa Fenton, Rudi Reinecke Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 1-2
 Subregion (LRR): J Lat: 33.6366598 N Long: -96.83815024 W Datum: NAD 1983
 Soil Map Unit Name: Bunyan and Whitesboro soils, frequently flooded NWI Classification: N/A

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: <u>Hillslope within larger depression</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot Size: <u>Depression</u>)	Absolute % Coverage	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
1. <u>NA</u>					
2. _____					
3. _____					
4. _____					
		= Total Cover			
Prevalence Index Worksheet:					
Sapling/Shrub Stratum		(Plot Size: <u>Depression</u>)		Total % Cover of: _____ Multiply By: _____	
1. <u>Carya illinoensis</u>		<u>10</u>	<u>Y</u>	<u>FAC</u>	OBL species _____ x 1 = _____
2. _____					FACW species _____ x 2 = _____
3. _____					FAC species _____ x 3 = _____
4. _____					FACU species _____ x 4 = _____
5. _____					UPL species _____ x 5 = _____
		= Total Cover			Column Totals: _____ (A) _____ (B)
Prevalence Index = B/A = _____					
Hydrophytic Vegetation Indicators:					
_____ 1 - Rapid Test for Hydrophytic 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 ☒					
Herb Stratum (Plot Size: <u>Depression</u>)					
1. <u>Festuca arundinacea</u>		<u>95</u>	<u>Y</u>	<u>NL</u>	
2. <u>Cardiospermum halicacabum</u>		<u>5</u>	<u>N</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
		100 = Total Cover			
Woody Vine Stratum (Plot Size: <u>Depression</u>)					
1. <u>NA</u>					
2. _____					
		= Total Cover			
% Bare Ground in Herb Stratum <u>NA</u>					

Remarks: NL - Not Listed. When the indicator status is Not Listed, the species is assumed to be Upland.
 Indicator Statuses have been provided by the US Army Corps of Engineers - https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html
 Updated scientific names have been provided by the USDA - <https://plants.usda.gov/home>

SOILS

Sampling Point: 2_____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Gleyed Matrix (S4) |
| ☐ Histic Epipedon (A2) | ☐ Sandy Redox (S5) |
| ☐ Black Histic (A3) | ☐ Stripped Matrix (S6) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Stratified Layers (A5) (LRR F) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ 1 cm Muck (A9) (LRR F, G, H) | ☐ Depleted Matrix (F3) |
| ☐ Depleted below Dark Surface (A11) | ☒ Redox Dark Surface (F6) |
| ☐ Thick Dark Surface (A12) | ☐ Depleted Dark Surface (F7) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Redox Depressions (F8) |
| ☐ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) | ☐ High Plains Depressions (F16) |
| ☐ 5 cm Mucky Peat or Peat (S3) (LRR F) | |
- (MLRA 72 & 73 of LRR H)

Indicators for Problematic Hydric Soils²:

- ☐ 1 CM Muck (A9) (LRR I, J)
☐ Coast Prairie Redox (A16) (LRR F, G, H)
☐ Dark Surface (S7) (LRR G)
☐ High Plains Depressions (F16)
☐ (LRR H outside of MLRA 72 & 73)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless distributed or problematic.

Restrictive Layer (if present):

Type: NA

Depth (inches): NA

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicators (minimum of one required; check all that apply)

- | | | | |
|--------------------------|---|--------------------------|--|
| ☐ | Surface Water (A1) | ☐ | Salt Crust (B11) |
| ☐ | High Water Table (A2) | ☐ | Aquatic Invertebrates (B13) |
| ☐ | Saturation (A3) | ☐ | Hydrogen Sulfide Odor (C1) |
| ☐ | Water Marks (B1) | ☐ | Dry-Season Water Table (C2) |
| ☐ | Sediment Deposits (B2) | ☐ | Oxidized Rhizospheres on Living Roots (C3) |
| ☐ | Drift Deposits (B3) | | (where not tilled) |
| ☐ | Algal Mat or Crust (B4) | ☐ | Presence of Reduced Iron (C4) |
| ☐ | Iron Deposits (B5) | ☐ | Thin Muck Surface |
| ☐ | Inundation Visible on Aerial Imagery (B7) | ☐ | Other (Explain in Remarks) |
| ☐ | Water Stained Leaves (B9) | | |

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): NA

Water Table Present? Yes? ☐ No? ☒ Depth (inches): NA

Saturation Present? Yes? ☐ No? ☒ Depth (inches): NA

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: TASWA City/County: Grayson Sampling Date: 11/16/23
 Applicant/Owner: TASWA State: TX Sampling Point: 3
 Investigator(s): Karisa Fenton, Rudi Reinecke Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 1-2
 Subregion (LRR): J Lot: 33.63814678 N Long: -96.83859409 W Datum: NAD 1983
 Soil Map Unit Name: Bunyan and Whitesboro soils, frequently flooded NWI Classification: N/A

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: <u>Depression along fenceline by roadside ditch</u>			

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot Size: <u>Depression</u>)	Absolute % Coverage	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>NA</u>					
2. _____					
3. _____					
4. _____					
		= Total Cover			
Sapling/Shrub Stratum	(Plot Size: <u>Depression</u>)				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 = _____
1. <u>NA</u>					
2. _____					
3. _____					
4. _____					
5. _____					
		= Total Cover			
Herb Stratum	(Plot Size: <u>Depression</u>)				Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 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.
1. <u>Carex crux-carvi</u>		<u>90</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Cardiospermum haliacabum</u>		<u>20</u>	<u>N</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
		<u>110</u>	= Total Cover		
Woody Vine Stratum	(Plot Size: <u>Depression</u>)				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. <u>NA</u>					
2. _____					
		= Total Cover			

% Bare Ground in Herb Stratum NA
 Remarks: NL - Not Listed. When the indicator status is Not Listed, the species is assumed to be Upland.
 Indicator Statuses have been provided by the US Army Corps of Engineers - https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html
 Updated scientific names have been provided by the USDA - <https://plants.usda.gov/home>

SOILS

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | | | |
|--------------------------|---|-------------------------------------|------------------------------|
| ☐ | Histosol (A1) | ☐ | Sandy Gleyed Matrix (S4) |
| ☐ | Histic Epipedon (A2) | ☐ | Sandy Redox (S5) |
| ☐ | Black Histic (A3) | ☐ | Stripped Matrix (S6) |
| ☐ | Hydrogen Sulfide (A4) | ☐ | Loamy Mucky Mineral (F1) |
| ☐ | Stratified Layers (A5) (LRR F) | ☐ | Loamy Gleyed Matrix (F2) |
| ☐ | 1 cm Muck (A9) (LRR F, G, H) | ☐ | Depleted Matrix (F3) |
| ☐ | Depleted below Dark Surface (A11) | ☒ | Redox Dark Surface (F6) |
| ☐ | Thick Dark Surface (A12) | ☐ | Depleted Dark Surface (F7) |
| ☐ | Sandy Mucky Mineral (S1) | ☐ | Redox Depressions (F8) |
| ☐ | 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) | ☐ | High Plains Depressions (F16 |
| ☐ | 5 cm Mucky Peat or Peat (S3) (LRR F) | | (MLRA 72 & 73 of LRR H) |

Indicators for Problematic Hydric Soils³:

- ☐ 1 CM Muck (A9) (LRR I, J)
☐ Coast Prairie Redox (A16) (LRR F, G, H)
☐ Dark Surface (S7) (LRR G)
☐ High Plains Depressions (F16)
☐ (LRR H outside of MLRA 72 & 73)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless distributed or problematic.

Restrictive Layer (if present):

Type: NA
Depth (inches): NA

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicators (minimum of one required; check all that apply)

- | | | | |
|-------------------------------------|---|--------------------------|--|
| ☒ | Surface Water (A1) | ☐ | Salt Crust (B11) |
| ☐ | High Water Table (A2) | ☐ | Aquatic Invertebrates (B13) |
| ☒ | Saturation (A3) | ☐ | Hydrogen Sulfide Odor (C1) |
| ☐ | Water Marks (B1) | ☐ | Dry-Season Water Table (C2) |
| ☐ | Sediment Deposits (B2) | ☐ | Oxidized Rhizospheres on Living Roots (C3) |
| ☐ | Drift Deposits (B3) | | (where not tilled) |
| ☐ | Algal Mat or Crust (B4) | ☐ | Presence of Reduced Iron (C4) |
| ☐ | Iron Deposits (B5) | ☐ | Thin Muck Surface |
| ☐ | Inundation Visible on Aerial Imagery (B7) | ☐ | Other (Explain in Remarks) |
| ☐ | Water Stained Leaves (B9) | | |

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):	<u>1-2</u>
Water Table Present?	Yes? ☐	No? ☒	Depth (inches):	<u>NA</u>
Saturation Present? (includes capillary fringe)	Yes? ☒	No? ☐	Depth (inches):	<u>0</u>

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: TASWA City/County: Grayson Sampling Date: 11/16/23
 Applicant/Owner: TASWA State: TX Sampling Point: 4
 Investigator(s): Karisa Fentan, Rudi Reinecke Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 1-2
 Subregion (LRR): J Lat: 33.630752 N Long: -96.835269 W Datum: NAD 1983
 Soil Map Unit Name: Elbon soils, frequently flooded NWI Classification: N/A

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: <u>Depression downslope of wooded section and culvert</u>					

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot Size: <u>Depression</u>)	Absolute % Coverage	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)														
1. <u>NA</u>																			
2. _____																			
3. _____																			
4. _____																			
					Prevalence Index Worksheet: <table border="1"> <thead> <tr> <th>Total % Cover of:</th> <th>Multiply By:</th> </tr> </thead> <tbody> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> </tbody> </table> Prevalence Index = B/A = _____	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) _____
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) _____																		
= Total Cover																			
Sapling/Shrub Stratum	(Plot Size: <u>Depression</u>)																		
1. <u>NA</u>																			
2. _____																			
3. _____																			
4. _____																			
= Total Cover																			
Herb Stratum	(Plot Size: <u>Depression</u>)				Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 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.														
1. <u>Eleocharis palustris</u>		<u>90</u>	<u>Y</u>	<u>OBL</u>															
2. <u>Paspalum dilatatum</u>		<u>10</u>	<u>N</u>	<u>FAC</u>															
3. _____																			
4. _____																			
5. _____																			
6. _____																			
7. _____																			
8. _____																			
9. _____																			
10. _____																			
= Total Cover																			
Woody Vine Stratum	(Plot Size: <u>Depression</u>)				Hydrophytic Vegetation Present? Yes ☒ No ☐														
1. <u>NA</u>																			
2. _____																			
= Total Cover																			
% Bare Ground in Herb Stratum <u>NA</u> Remarks: NL - Not Listed. When the indicator status is Not Listed, the species is assumed to be Upland. Indicator Statuses have been provided by the US Army Corps of Engineers - https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html Updated scientific names have been provided by the USDA - https://plants.usda.gov/home																			

SOILS

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Groins. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ 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 Soils³:

- ☐ 1 CM Muck (A9) (LRR I, J)
- ☐ Coast Prairie Redox (A16) (LRR F, G, H)
- ☐ Dark Surface (S7) (LRR G)
- ☐ High Plains Depressions (F16)
- ☐ (LRR H outside of MLRA 72 & 73)
- ☐ Reduced Vertic (F18)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless distributed or problematic.

Restrictive Layer (if present):

Type: NA

Depth (inches): NA

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicators (minimum of one required; check all that apply)

- | | |
|--|---|
| ☒ Surface Water (A1) | ☐ Salt Crust (B11) |
| ☐ High Water Table (A2) | ☐ Aquatic Invertebrates (B13) |
| ☒ Saturation (A3) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Water Marks (B1) | ☐ Dry-Season Water Table (C2) |
| ☐ Sediment Deposits (B2) | ☐ Oxidized Rhizospheres on Living Roots (C3) |
| ☐ Drift Deposits (B3) | (where not tilled) |
| ☐ Algal Mat or Crust (B4) | ☐ Presence of Reduced Iron (C4) |
| ☐ Iron Deposits (B5) | ☐ Thin Muck Surface |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Other (Explain in Remarks) |
| ☐ Water Stained Leaves (B9) | |

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (BB)
- ☐ 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 (DS)
- ☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present? Yes? ☒ No? ☐

Depth (inches): 2-3

Water Table Present? Yes? ☐ No? ☒

Depth (inches): NA

Saturation Present? Yes? ☒ No? ☐

Depth (inches): 0

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: TASWA City/County: Grayson Sampling Date: 11/16/23
 Applicant/Owner: TASWA State: TX Sampling Point: 5
 Investigator(s): Karisa Fenton, Rudi Reinecke Section, Township, Range: N/A
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope %: 1-2
 Subregion (LRR): J Lat: 33.630702 N Long: -96.835493 W Datum: NAD 1983
 Soil Map Unit Name: Bunyan and Heiden clay, 1 to 3 percent slopesslois, frequently flooded NWI Classification: N/A

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: <u>Hillslope between wetland and culvert</u>		

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot Size: <u>30' Radius</u>)	Absolute % Coverage	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. <u>NA</u>					
2. _____					
3. _____					
4. _____					
		= Total Cover			
Sapling/Shrub Stratum	(Plot Size: <u>15' Radius</u>)				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 = _____
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
		= Total Cover			
Herb Stratum	(Plot Size: <u>5' Radius</u>)				Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is > 50% _____ 3 - Prevalence Index is ≤ 3.0! _____ 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.
1. <u>Cynodon dactylon</u>		<u>40</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Paspalum dilatatum</u>		<u>8</u>	<u>N</u>	<u>FAC</u>	
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
		<u>48</u>	= Total Cover		
Woody Vine Stratum	(Plot Size: <u>30' Radius</u>)				Hydrophytic Vegetation Present? Yes ☐ No ☒
1. <u>NA</u>					
2. _____					
		= Total Cover			

% Bare Ground in Herb Stratum 52

Remarks: NL - Not Listed. When the indicator status is Not Listed, the species is assumed to be Upland.

Indicator Statuses have been provided by the US Army Corps of Engineers - https://wetland-plants.usace.army.mil/nwpl_static/v34/home/home.html

Updated scientific names have been provided by the USDA - <https://plants.usda.gov/home>

SOILS

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Groins. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | | | |
|--------------------------|---|--------------------------|------------------------------|
| ☐ | Histolol (A1) | ☐ | Sandy Gleyed Matrix (S4) |
| ☐ | Histic Epipedon (A2) | ☐ | Sandy Redox (S5) |
| ☐ | Block Histic (A3) | ☐ | Stripped Matrix (S6) |
| ☐ | Hydrogen Sulfide (A4) | ☐ | Loamy Mucky Mineral (F1) |
| ☐ | Stratified Layers (A5) (LRR F) | ☐ | Loamy Gleyed Matrix (F2) |
| ☐ | 1 cm Muck (A9) (LRR F, G, H) | ☐ | Depleted Matrix (F3) |
| ☐ | Depleted below Dark Surface (A11) | ☐ | Redox Dark Surface (F6) |
| ☐ | Thick Dark Surface (A12) | ☐ | Depleted Dark Surface (F7) |
| ☐ | Sandy Mucky Mineral (S1) | ☐ | Redox Depressions (F8) |
| ☐ | 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) | ☐ | High Plains Depressions (F16 |
| ☐ | 5 cm Mucky Peat or Peat (S3) (LRR F) | ☐ | (MLRA 72 & 73 of LRR H) |

Indicators for Problematic Hydric Soils³:

- ☐ 1 CM Muck (A9) (LRR 1, J)
☐ Coast Prairie Redox (A16) (LRR F, G, H)
☐ Dark Surface (S7) (LRR G)
☐ High Plains Depressions (F16)
 (LRR H outside of MLRA 72 & 73)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless distributed or problematic.

Restrictive Layer (if present):

Type: NA
Depth (inches): NA

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary indicators (minimum of one required; check all that apply)

- | | | | |
|--------------------------|---|--------------------------|--|
| ☐ | Surface Water (A1) | ☐ | Salt Crust (B11) |
| ☐ | High Water Table (A2) | ☐ | Aquatic Invertebrates (B13) |
| ☐ | Saturation (A3) | ☐ | Hydrogen Sulfide Odor (C1) |
| ☐ | Water Marks (B1) | ☐ | Dry-Season Water Table (C2) |
| ☐ | Sediment Deposits (B2) | ☐ | Oxidized Rhizospheres on Living Roots (C3) |
| ☐ | Drift Deposits (B3) | | (where not tilted) |
| ☐ | Algal Mat or Crust (B4) | ☐ | Presence of Reduced Iron (C4) |
| ☐ | Iron Deposits (B5) | ☐ | Thin Muck Surface |
| ☐ | Inundation Visible on Aerial Imagery (B7) | ☐ | Other (Explain in Remarks) |
| ☐ | Water Stained Leaves (B9) | | |

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 Mounds (D7) (LRR F)

Field Observations:

Surface Water Present?	Yes? ☐	No? ☒	Depth (inches):	<u>NA</u>
Water Table Present?	Yes? ☐	No? ☒	Depth (inches):	<u>NA</u>
Saturation Present? (includes capillary fringe)	Yes? ☐	No? ☒	Depth (inches):	<u>NA</u>

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

APPENDIX IIE
ENDANGERED OR THREATENED SPECIES DOCUMENTATION



29 January 2025

Mr. John O'Steen
Texoma Area Solid Waste Authority, Inc.
25090 State Highway 56
Whitesboro, Texas 76273

Re: Texoma Area Solid Waste Authority - Protected Species Habitat Assessment
Approximately 920 acres located southeast of the intersection of Texas State Highway 56 and Farm-to-Market Road 901, Grayson County, Texas

Dear Mr. O'Steen,

Integrated Environmental Solutions, LLC (IES) performed a protected species habitat assessment on approximately 920 acres located southeast of the intersection of Texas State Highway (SH) 56 and Farm-to-Market (FM) Road 901, Grayson County, Texas (**Attachment A, Figure 1**). This habitat assessment was performed to satisfy the requirements regarding the Endangered Species Act (ESA). The following report is a list of the federally listed protected species for Grayson County and their preferred vegetation assemblages, a summary of the vegetation communities identified on the site, an evaluation of whether the communities present on the site could support a protected species, and whether future proposed actions would affect listed species.

INTRODUCTION

Protected Species

Federal

The ESA of 1973 (Public Law [P.L.] 93-205) and the amendments of 1988 (P.L. 100-578) were enacted to provide a program of preservation for endangered and threatened species and to provide protection for ecosystems upon which these species depend for their survival. The ESA requires all federal agencies to implement protection programs for designated species and to use their authorities to further the purposes of the Act. Responsibility for the listing of an endangered or threatened species and for the development of recovery plans lies with the Secretary of Interior and Secretary of Commerce. The U.S. Fish and Wildlife Service (USFWS) is responsible for implementing the ESA within the United States.

An endangered species is a species, which is in danger of extinction throughout all or a significant portion of its range. A threatened species is a species likely to become endangered within the near future throughout all or a significant portion of its range. Proposed species are those, which have been formally submitted to Congress for official listing as endangered or threatened.

In addition, the USFWS has identified species, which are candidates for possible addition to the list of Endangered and Threatened Wildlife and Plants (50 Code of Federal Regulations [CFR] 17.11 and 17.12) under the ESA. The USFWS maintains a candidate list to: (1) provide advance knowledge of potential listings that could affect land planning decisions, (2) solicit input to identify candidates not requiring protection or additional species that may require protection under the ESA, and (3) solicit information needed to prioritize the order in which species will be proposed for listing. Candidate species have no legal protection under the ESA.

The Migratory Bird Treaty Act of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a federal permit issued in accordance with the Act's policies and regulations. However, in a recent decision the U.S. Court of Appeals for the Fifth Circuit found that for an unlawful "taking" to occur, a "deliberate act done directly and intentionally to migratory birds" would need to occur. (United States v. CITGO Petroleum Corp., No. 14-40128 [5th Cir. Sept. 4, 2015]).

State

The Texas Parks and Wildlife Department (TPWD) Wildlife Diversity Program (WDP) maintains computerized records of state-listed threatened and endangered species by county. The State of Texas does not list threatened and endangered species using the same criteria as the federal government. When the USFWS lists a plant species, the State of Texas then lists that plant. Thus, the list of threatened and endangered plants in Texas is the same as the Federal list. The state has separate laws governing the listing of animal species as threatened or endangered. Threatened and endangered animal species in Texas are those species so designated according to Chapters 67 and 68 of the Texas Parks and Wildlife Code and Section 65.171 - 65.184 of Title 31 of the Texas Administrative Code. Species that are not currently listed by the Federal government may be listed as threatened or endangered by the TPWD.

TASWA Background

The Texoma Area Solid Waste Agency (TASWA) is a solid waste authority formed by the cities of Sherman, Gainesville, and Denison. TASWA is a publicly operated solid waste facility, located approximately three miles east of the City of Whitesboro, that is intended to provide long-term waste disposal services to the public. The TASWA authority owns 920+ acres and is looking to expand the footprint of their current landfill to increase the capacity and lifespan in order to accommodate growth in the area. Within the 920+ acres, the proposed facility expansion permit boundary will encompass approximately 689 acres. The landfill disposal footprint will cover approximately 475 acres within the facility permit boundary.

METHODOLOGY

Prior to conducting fieldwork, the list of Endangered and Threatened Wildlife and Plants under the ESA was obtained through the USFWS Information, Planning, and Conservation System (IPaC) and from the Texas Natural Diversity Database (TXNDD). The vegetation communities used by each species were obtained and are detailed below. During the field survey, vegetation composition within and adjacent to the project area was noted to determine whether there was any potential for protected species habitat. This survey was not designed to identify the presence of protected species; however, if any species were observed, they were recorded. Photographs were taken at representative points, illustrating common vegetation communities within the survey area (**Attachment B**).

RESULTS

Literature Review

According to the USFWS, three species; Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), and Whooping Crane (*Grus americana*) are listed as federally protected (i.e., threatened or endangered) with the potential to occur within Grayson County. Two of these species are conditionally listed as threatened within Grayson County on the basis that the proposed project is for wind energy production, Red Knot, and Piping Plover. The monarch butterfly (*Danaus plexippus*) and alligator snapping turtle (*Macrochelys temminckii*) are listed as proposed threatened with the potential to occur in Grayson County. No federally listed critical habitat for these species is located within the survey area vicinity. The TPWD lists 14 state protected species that could occur within Grayson County, three of which are also federally listed species. The review of the TXNDD files did not indicate any unique vegetation communities, state or federal parks or state or federal natural/managed areas within the survey area.

Attachment C identifies the federally protected species that could potentially occur within Grayson County from the IPaC list and Rare and Threatened Endangered Species of Texas (RTEST) lists.

Site Survey

Ms. Karisa Fenton of IES evaluated the survey area on 10 February 2022. This survey was designed to provide a habitat evaluation of the overall survey area with the primary focus on the plant community. The TASWA property was comprised of five vegetation communities including **non-maintained grassland**, **maintained grassland**, **disturbed urban matrix**, and **forested riparian corridor** with small regions of **forested upland** scattered across the site. The following provide detailed descriptions of the habitat in each of these vegetation communities which are mapped in **Attachment A, Figure 2**.

The **non-maintained grassland** vegetation community was predominantly observed in undeveloped survey area portions that experienced low traffic with little access. These areas were observed in transition between strictly grasslands to savannah or shrubland habitat types. The maintenance regimes for these parcels were either limited or apparently non-existent beyond utility line rights-of-way (ROW) that were observed crossing some parcels. Though species dominance fluctuated, the species composition was relatively consistent. Grass and forbs species observed included Bermudagrass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*), little bluestem (*Schizachyrium scoparium*), common sunflower (*Helianthus annuus*), giant ragweed (*Ambrosia trifida*), spreading hedge-parsley (*Torilis arvensis*), prairie broomweed (*Amphiachyris dracunculoides*), prairie threeawn (*Aristida oligantha*), sumpweed (*Iva annua*), white tridens (*Tridens albescens*), and goldenrod (*Solidago gigantea*). The lack of a maintenance regime frequently allows thickets of shrub species to inhabit the grassland habitats. The shrub species observed included eastern redcedar (*Juniperus virginiana*), honey mesquite (*Prosopis glandulosa*), sugarberry (*Celtis laevigata*), and honey locust (*Gleditsia triacanthos*). Trees of the same species were also observed in clusters and along the established forested areas, frequently creating a transitional area between grassland and forestland consisting of sporadic trees and shrubs in a savannah-like habitat.

The **maintained grassland** vegetation community was characterized by the presence of short turf grasses and sporadic forbs frequently maintained by mowing for hay production, landscaping, or active grazing. The dominant vegetation type in these areas was Bermudagrass with various other grasses and forbs, including Johnsongrass, white tridens, common sunflower, and goldenrod scattered throughout. The maintained grasslands were often bisected or bordered by paved/ gravel roads or buildings.

The **disturbed urban matrix** vegetation community was associated with the landfill footprint and was characterized by the presence of paved roads, parking lots, frequently traveled gravel or dirt roads, relocated fill dirt, and dump sites. While most of the vegetation had been cleared from this area, maintained Bermudagrass was observed surrounding buildings and roads.

The **forested riparian corridor** was predominantly observed to the northwest along an unnamed tributary of Mustang Creek. This vegetation community was also observed along drainages in the central, northeastern, and southeastern regions. The forested riparian corridor areas were dominated by sugarberry (*Celtis laevigata*), cedar elm (*Ulmus crassifolia*), and Osage orange (*Maclura pomifera*). Other tree and shrub species observed included common persimmon (*Diospyros virginiana*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), post oak (*Quercus stellata*), rough leaf dogwood (*Cornus drummondii*), honey locust (*Gleditsia triacanthos*), and coralberry (*Symphoricarpos orbiculatus*). Ground cover was dominated by inland wood oats (*Chasmanthium latifolium*), eastern woodland sedge (*Carex blanda*), and Virginia wildrye (*Elymus virginicus*).

The **forested upland** vegetation community was observed in relatively small regions near the northern and eastern boundaries. The forested upland areas were dominated by eastern redcedar, sugarberry, and honey locust with an understory of common greenbrier (*Smilax bona-nox*), sedge (*Carex spp.*), and poison-ivy (*Toxicodendron radicans*).

CONCLUSIONS

Preferred Habitat for Federally Protected Species

Table 1 provides a summary of the state and federally listed species that could potentially occur within Grayson County, as well as a brief description of their habitat, whether this habitat is present within the survey area, and whether the proposed project would potentially affect the listed species.

Table 1. Federally- and State-listed Threatened and Endangered Species Occurring or Potentially Occurring in Grayson County, Texas

Species	State Status	Federal Status	Description of Habitat	Habitat Present ¹	Species Effect ²
BIRDS					
Black Rail (<i>Laterallus jamaicensis</i>)	T	---	Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of <i>Salicornia</i> .	No	No
Interior Least Tern (<i>Sternula antillarum athalassos</i>)	E	---	Sand beaches, flats, bays, inlets, lagoons, islands. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony.	No	No
Piping Plover (<i>Charadrius melodus</i>)	T	LT	Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e., north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.	No	No
Rufa Red Knot (<i>Calidris canutus rufa</i>)	T	LT	Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore. Bolivar Flats in Galveston County, sandy beaches Mustang Island, few on outer coastal and barrier beaches, tidal mudflats and salt marshes	No	No
White-faced Ibis (<i>Plegadis chihi</i>)	T	---	Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.	No	No
Whooping Crane (<i>Grus americana</i>)	E	LE	Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.	No	No
Wood Stork (<i>Mycteria americana</i>)	T	---	Prefers to nest in large tracts of baldcypress (<i>Taxodium distichum</i>) or red mangrove (<i>Rhizophora mangle</i>); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.	No	No
FISH					
Blue sucker (<i>Cycleptus elongatus</i>)	T	--	Blue Sucker usually inhabit rapids, riffles, runs and pools with moderate to fast current, with bottoms of exposed bedrock sometimes in combination with hard clay, sand, gravel, and boulders; generally intolerant of highly turbid conditions. Adults winter in deep pools and move upstream in spring to spawn on riffles. Current distribution in Texas includes the Red River downstream of Lake Texoma, Sabine and Neches rivers, and Colorado River downstream of Austin, Texas. May occur in other river systems (Warren et al. 2000).	No	No
Chub shiner (<i>Notropis patteni</i>)	T	--	Brazos, Colorado, San Jacinto, and Trinity river basins. Flowing water with silt or sand substrate	No	No

Species	State Status	Federal Status	Description of Habitat	Habitat Present ¹	Species Effect ²
Paddlefish (<i>Polyodon spathula</i>)	T	--	Species occurred in every major river drainage from the Trinity Basin eastward, but its numbers and range had been substantially reduced by the 1950's; recently reintroduced into Big Cypress drainage upstream of Caddo Lake. Prefers large, free-flowing rivers but will frequent impoundments with access to spawning sites.	No	No
Shovelnose sturgeon (<i>Scaphirhynchus platyrhynchus</i>)	T	SAT	Found only in the Red River below Denison Dam (Lake Texoma). Evidence of the presence of this species in the lower Pecos River, during prehistoric times, strongly suggests that it likely occurred in many Texas rivers. Inhabits flowing water over sandy bottoms or near rocky points or bars.	No	No
MAMMALS					
Black bear (<i>Ursus americanus</i>)	T	--	Generalist. Historically found throughout Texas. In Chisos, prefers higher elevations where pinyon-oaks predominate; also occasionally sighted in desert scrub of Trans-Pecos (Black Gap Wildlife Management Area) and Edwards Plateau in juniper-oak habitat. For ssp. luteolus, bottomland hardwoods, floodplain forests, upland hardwoods with mixed pine; marsh. Bottomland hardwoods and large tracts of inaccessible forested areas.	No	No
REPTILES					
Texas horned lizard (<i>Phrynosoma cornutum</i>)	T	---	Terrestrial: Open habitats with sparse vegetation, including grass, prairie, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive. Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area.	No	No
Alligator Snapping Turtle (<i>Macrochelys temminckii</i>)	---	PT	Aquatic: Perennial water bodies; rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near running water; sometimes enters brackish coastal waters. Females emerge to lay eggs close to the water's edge.	No	No
INSECTS					
Monarch butterfly (<i>Danaus plexippus</i>)	---	PT	Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily <i>Asclepias</i> spp.), and larvae emerge after 2 to 5 days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately 2 to 5 weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live 6 to 9 months. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites.	Yes	No
MOLLUSKS					
Texas heelsplitter (<i>Potamilus amphichaenus</i>)	T	---	Occurs in small streams to large rivers in standing to slow-flowing water; most common in banks, backwaters and quiet pools; adapts to some reservoirs. Often found in soft substrates such as mud, silt or sand (Howells et al. 1996; Randklev et al. 2017a). [Mussels of Texas 2019]	No	No

LE – Federally Listed Endangered, LT – Federally Listed Threatened C – Candidate PT – Proposed Threatened SAT – Similarity of Appearance to a Threatened Taxon E – State Listed Endangered T – State Listed Threatened

¹Habitat Present? – Do the vegetation communities located within the survey area match the requirements for that particular protected species?

²Species Effect? – Will the proposed project potentially affect a protected species?

Data Sources: USFWS IPaC (Published and accessed 29 January 2025), TPWD (accessed 29 January 2025) and field survey of the survey area

Regarding federally listed threatened and endangered species, Red Knot, Piping Plover, and Whooping Crane were listed for Grayson County.

- As this project will not be related to wind energy, the Red Knot and Piping Plover will not be affected.
- Whooping Cranes utilize estuaries, prairie marshes, moist grasslands, croplands, and will use large shallow wetland areas associated with lakes for roosting and feeding. Although the survey area contained open water, the stock ponds were too deep to promote the marsh-type mix of vegetation communities in association with open water sources that this species utilizes.

- The alligator snapping turtle prefers perennial water bodies including rivers, canals, lakes, and oxbows as well as swamps, bayous, and ponds near running water. It sometimes enters brackish coastal waters. Although multiple tributaries were identified, the ephemeral and intermittent nature of the tributaries would not provide suitable habitat for the alligator snapping turtle.
- The monarch butterfly migrates through the United States, including Texas, to and from overwintering grounds and summer habitats primarily located in Mexico and Canada, respectively. During migration, monarch butterflies feed on various flowering plants and breed solely on milkweeds (*Asclepias* spp.). While flowering plants were observed, their occurrence was sporadic and restricted to non- or infrequently maintained areas. As such, minimal feeding habitat was observed. Therefore, the only occurrence of monarch butterflies would be in relation to stopover during migration.

As such, the habitats present within the survey area were not suitable for any of the federally listed threatened or endangered species. Nor were the habitats suitable for nesting, feeding, or stopover migration habitat for these species.

Preferred Habitat for State Protected Species

There were 14 state-listed threatened and endangered species for Grayson County, which includes three of the aforementioned federally listed species. Any occurrence of the Piping Plover, and Whitefaced Ibis (*Plegadis chihi*) would be in relation to stopover during migration; however, no suitable stopover or nesting habitat was observed within the survey area. Whooping Crane, Black Rail, Interior Least Tern (*Sternula antillarum athalassos*), and Wood Stork (*Mycteria americana*) would be unlikely to utilize the survey area, as their preferred habitat types were not present. Black Rails utilize freshwater marshes and grassy swamps with dense emergent vegetation, which were not present within the site. While this site contained a freshwater wetland, this community did not meet the parameters of the Wood Stork for roosting with no tall snags, red mangrove (*Rhizophora mangle*) dominated areas, or bald cypress (*Taxodium distichum*) dominated areas. Wood Storks utilize flooded fields and marsh habitats with shallow standing water for feeding areas, but none were observed. As such, foraging habitat potentially suitable for the Wood Stork was not present within the survey area.

Due to the high-traffic nature of the survey area and lack of any records of the black bear in the area it is unlikely that this species will utilize the site. The Texas horned lizard (*Phrynosoma cornutum*) prefers bare ground with scattered clumps of vegetation which did not occur within the survey area. The Texas heelsplitter (*Potamilus amphichaenus*) occurs in streams with flowing or standing water. Although multiple tributaries were identified, the ephemeral and intermittent nature of the tributaries would not provide suitable habitat for the Texas heelsplitter or the state listed fish species.

Vegetation Communities

None of the vegetation observed within the survey area would be considered unique or compose a unique vegetation type for the region. The vegetation communities described were composed of species that are not only common to grassland and forested areas, but to the Cross-Timbers and Blackland Prairie eco-regions of North Central Texas. It is IES's professional opinion that the proposed project will not have any effect on any unique vegetation, vegetation communities, or habitat types.

Potential to Affect Protected Species

As previously noted, habitat for any of the federally listed species and state listed species was not present within the survey area. As such, the facility and the operation of the facility shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

IES appreciates the opportunity to work with you and Texoma Area Solid Waste Authority, Inc. on this project and hope we may be of assistance to you in the future. If you have any comments, questions, or concerns, please do not hesitate to contact me at 972-562-7672 or by email [REDACTED]

Sincerely,

Integrated Environmental Solutions, LLC.

A handwritten signature in cursive script that reads "Karisa Fenton".

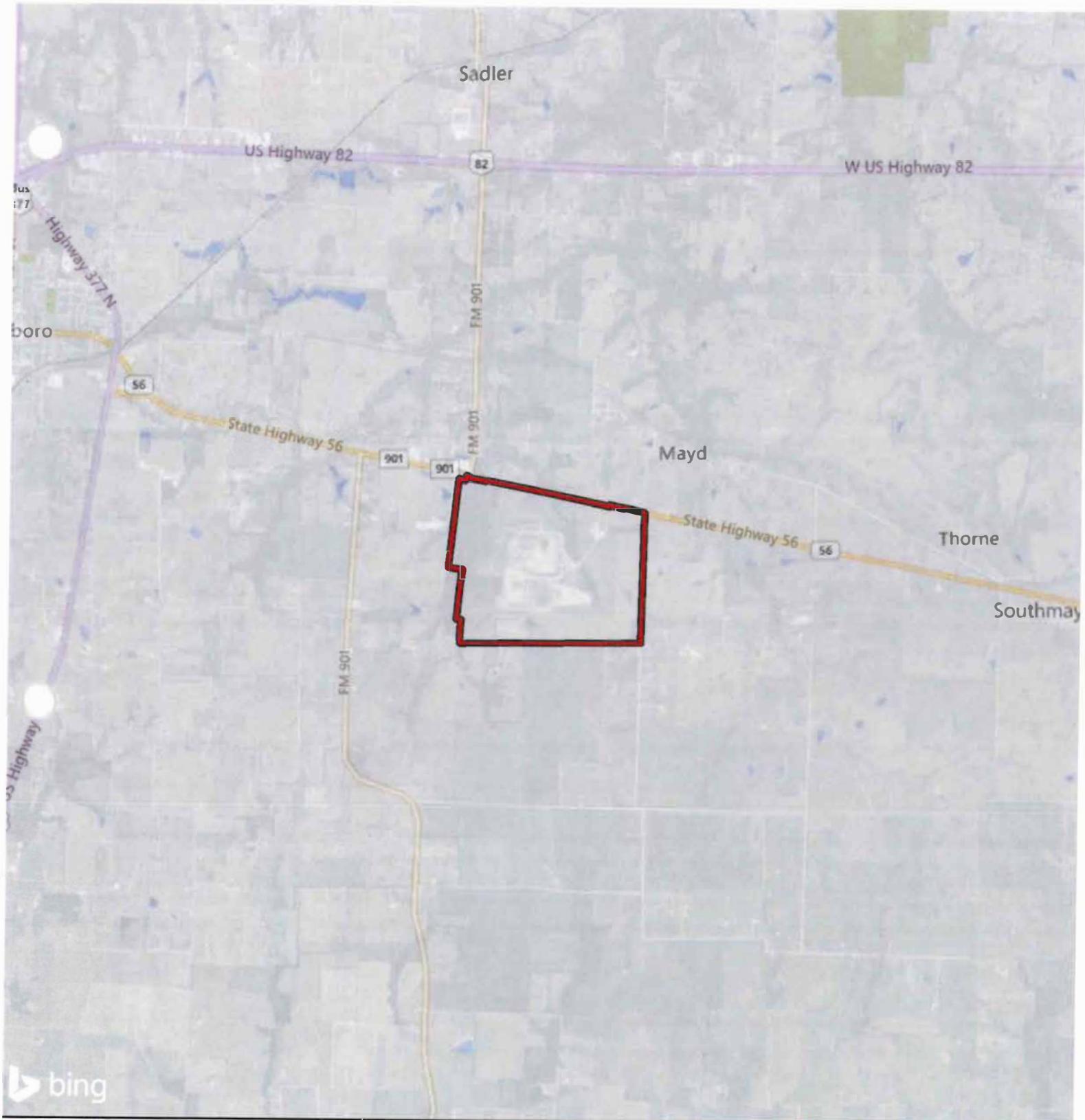
Ms. Karisa Fenton
Environmental Specialist

Attachments

File ref: 04.240.095

ATTACHMENT A

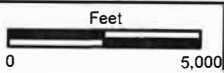
Figures



**Figure 1.
General Location Map**

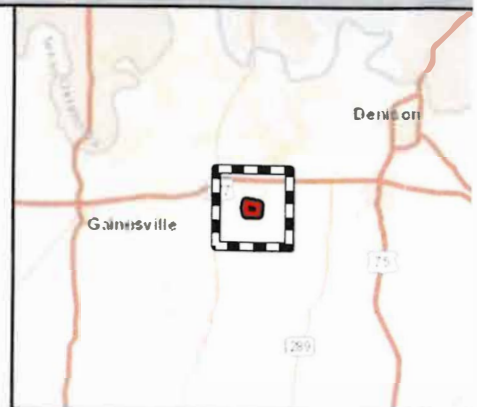
TASWA
City of Whitesboro
Grayson County, Texas

1 in = 5,000 feet



File Ref: 04.240.095
Date: 5/16/2022

 Survey Area



Area of Detail

Scale: 1 inch equals 20 miles



Figure 2.
Vegetation Communities Identified
within the Survey Area

TASWA
City of Whitesboro
Grayson County, Texas

in = 925 feet
0 925



File Ref. 04.240.095
Date: 5/16/2022

Survey Area

Vegetation Communities

- Forested Riparian Corridor
- Forested Upland
- Maintained Grassland
- Non-Maintained Grassland
- Disturbed Urban Matrix

ATTACHMENT B

Site Photographs



Photograph Location Map

TASWA
City of Whitesboro
Grayson County, Texas

1 in = 925 feet



File Ref. 04.240.095
Date: 5/16/2022

Survey Area

Photograph Location

Vegetation Communities

Forested Riparian Corridor

Forested Upland

Maintained Grassland

Non-Maintained Grassland

Disturbed Urban Matrix



Photograph 1



Photograph 2



Photograph 3



Photograph 4



Photograph 5



Photograph 6



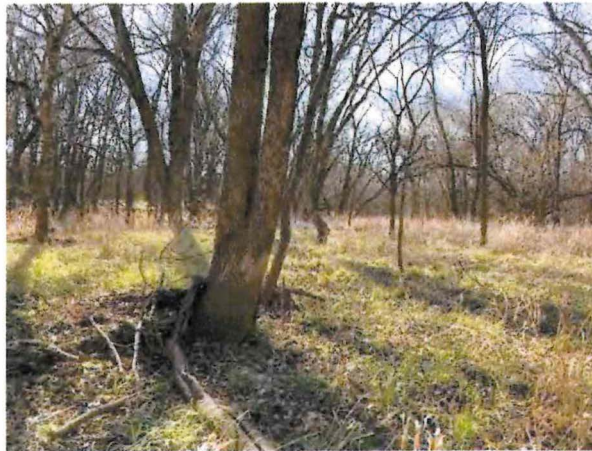
Photograph 7



Photograph 8



Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



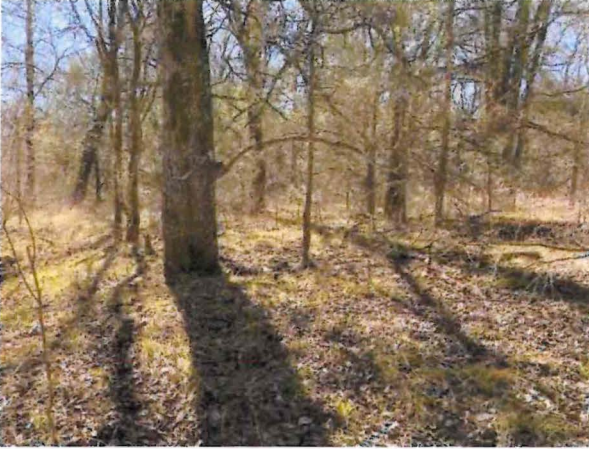
Photograph 16



Photograph 17



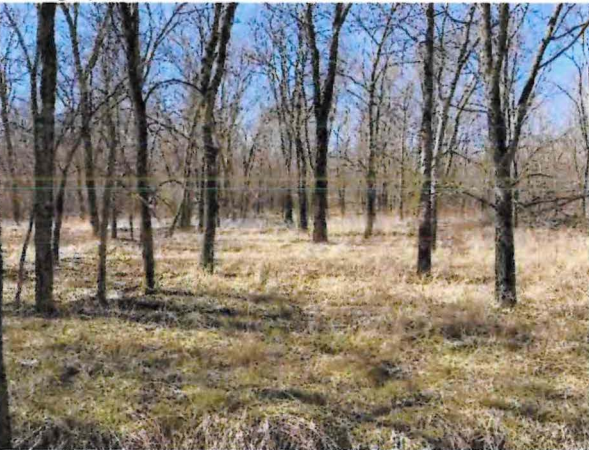
Photograph 18



Photograph 19



Photograph 20



Photograph 21



Photograph 22



Photograph 23



Photograph 24



Photograph 25



Photograph 26



Photograph 27



Photograph 28



Photograph 29



Photograph 30



Photograph 31



Photograph 32



Photograph 33



Photograph 34



Photograph 35



Photograph 36



Photograph 37



Photograph 38



Photograph 39



Photograph 40



Photograph 41



Photograph 42



Photograph 43



Photograph 44



Photograph 45



Photograph 46



Photograph 47



Photograph 48



Photograph 49



Photograph 50



Photograph 51



Photograph 52



Photograph 53



Photograph 54



Photograph 55



Photograph 56



Photograph 57



Photograph 58



Photograph 59



Photograph 60



Photograph 61



Photograph 62



Photograph 63



Photograph 64



Photograph 65



Photograph 66



Photograph 67



Photograph 68



Photograph 69



Photograph 70



Photograph 71



Photograph 72



Photograph 73



Photograph 74



Photograph 75



Photograph 76



Photograph 77



Photograph 78



Photograph 79



Photograph 80



Photograph 81



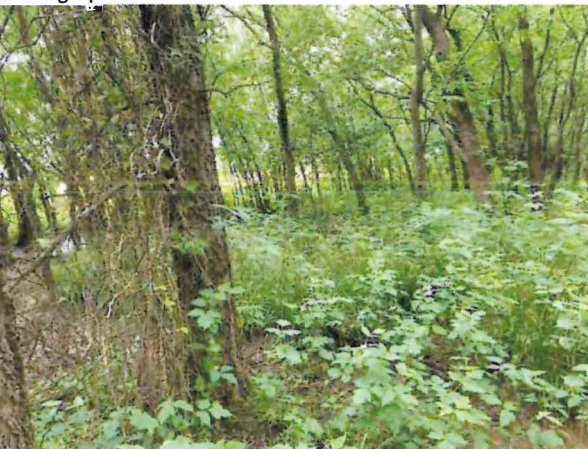
Photograph 82



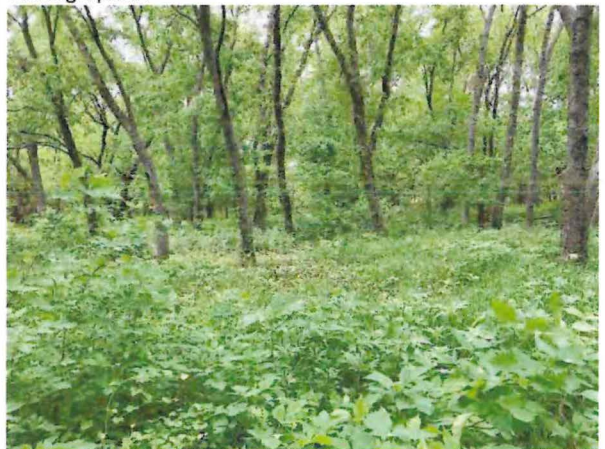
Photograph 83



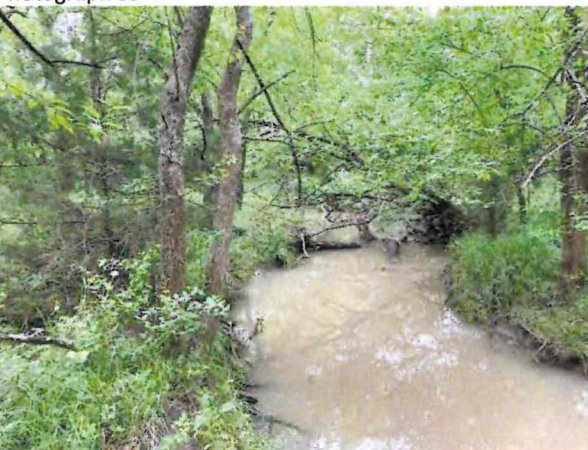
Photograph 84



Photograph 85



Photograph 86



Photograph 87



Photograph 88



Photograph 89



Photograph 90



Photograph 91



Photograph 92



Photograph 93



Photograph 94



Photograph 95



Photograph 96

ATTACHMENT C

Protected Species Lists



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Arlington Ecological Services Field Office
17629 El Camino Real, Suite 211
Houston, TX 77058-3051
Phone: (817) 277-1100 Fax: (817) 277-
[REDACTED]

In Reply Refer To:
Project Code: 2022-0022863
Project Name: TASWA

01/29/2025 19:08:16 UTC

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, which may occur within the boundary of 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.).

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 section 7(a)(1) of the Act, Federal agencies are directed to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Under and 7(a)(2) and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether their actions may affect threatened and endangered species and/or designated critical habitat. A Federal action is an activity or program authorized, funded, or carried out, in whole or in part, by a Federal agency (50 CFR 402.02).

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 Federal actions 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.

After evaluating the potential effects of a proposed action on federally listed species, one of the following determinations should be made by the Federal agency:

1. *No effect* - the appropriate determination when a project, as proposed, is anticipated to have no effects to listed species or critical habitat. A "no effect" determination does not require section 7 consultation and no coordination or contact with the Service is necessary. However, the action agency should maintain a complete record of their evaluation, including the steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information.
2. *May affect, but is not likely to adversely affect* - the appropriate determination when a proposed action's anticipated effects to listed species or critical habitat are insignificant, discountable, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where "take" of a listed species occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects, or expect discountable effects to occur. This determination requires written concurrence from the Service. A biological evaluation or other supporting information justifying this determination should be submitted with a request for written concurrence.
3. *May affect, is likely to adversely affect* - the appropriate determination if any adverse effect to listed species or critical habitat may occur as a consequence of the proposed action, and

the effect is not discountable or insignificant. This determination requires formal section 7 consultation.

The Service has performed up-front analysis for certain project types and species in your project area. These analyses have been compiled into *determination keys*, which allows an action agency, or its designated non-federal representative, to initiate a streamlined process for determining a proposed project's potential effects on federally listed species. The determination keys can be accessed through IPaC.

The Service recommends that candidate species, proposed species, and proposed critical habitat be addressed should consultation be necessary. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found at: <https://www.fws.gov/service/section-7-consultations>

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 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 IPaC system by completing the same process used to receive the enclosed list.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (<https://www.fws.gov/library/collections/bald-and-golden-eagle-management>). Additionally, wind energy projects should follow the wind energy guidelines (<https://www.fws.gov/media/land-based-wind-energy-guidelines>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation>. The Federal Aviation Administration (FAA) released specifications for and made mandatory flashing L-810 lights on new towers 150-350 feet AGL, and the elimination of L-810 steady-burning side lights on towers above 350 feet AGL. While the FAA made these changes to reduce the number of migratory bird collisions (by as much as 70%), extinguishing steady-burning side lights also reduces maintenance costs to tower owners. For additional information concerning migratory birds and eagle conservation plans, please contact the Service's Migratory Bird Office at 505-248-7882.

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 Tracking Number 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
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

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:

Arlington Ecological Services Field Office

17629 El Camino Real, Suite 211

Houston, TX 77058-3051

(817) 277-1100

PROJECT SUMMARY

Project Code: 2022-0022863
Project Name: TASWA
Project Type: Landfill - Solid Waste
Project Description: 04.240.095
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.631491999999994,-96.83981105283601,14z>



Counties: Grayson County, Texas

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 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 Fisheries¹, 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.

-
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

Piping Plover *Charadrius melodus*

Threatened

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. Your location does not overlap the critical habitat.

This species only needs to be considered under the following conditions:

- Wind Energy Projects

Species profile: <https://ecos.fws.gov/ecp/species/6039>

Rufa Red Knot *Calidris canutus rufa*

Threatened

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

This species only needs to be considered under the following conditions:

- Wind Energy Projects

Species profile: <https://ecos.fws.gov/ecp/species/1864>

Whooping Crane *Grus americana*

Endangered

Population: Wherever found, except where listed as an experimental population

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

Species profile: <https://ecos.fws.gov/ecp/species/758>

REPTILES

NAME

STATUS

Alligator Snapping Turtle *Macrochelys temminckii*

Proposed

No critical habitat has been designated for this species.

Threatened

Species profile: <https://ecos.fws.gov/ecp/species/4658>

INSECTS

NAME

STATUS

Monarch Butterfly *Danaus plexippus*

Proposed

There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat.

Threatened

Species profile: <https://ecos.fws.gov/ecp/species/9743>

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service). The incidental take of migratory birds is the injury or death of birds that results from, but is not the purpose, of an activity. The Service interprets the MBTA to prohibit incidental take.

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME

Chimney Swift *Chaetura pelagica*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9406>

BREEDING SEASON

Breeds Mar 15 to Aug 25

Little Blue Heron *Egretta caerulea*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9477>

Breeds Mar 10 to Oct 15

Prairie Loggerhead Shrike *Lanius ludovicianus excubitorides*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8833>

Breeds Feb 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

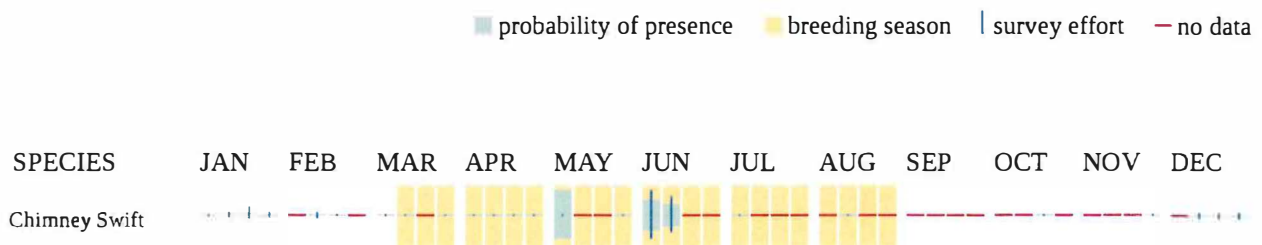
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

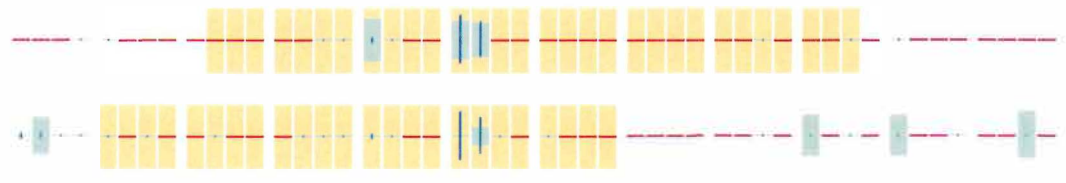
A week is marked as having no data if there were no survey events for that week.



BCC Rangewide (CON)

Little Blue Heron
BCC - BCR

Prairie Loggerhead
Shrike
BCC - BCR



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R4SBC
- R4SBA
- R5UBH

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A

FRESHWATER POND

- PUBHh

IPAC USER CONTACT INFORMATION

Agency: Integrated Environmental Solutions

Name: Karisa Fenton

Address: 301 W Eldorado Pkwy, Suite 101

City: McKinney

State: TX

Zip: 75069

Email

Phone: 9725627672

GRAYSON COUNTY

AMPHIBIANS

black rail *Laterallus jamaicensis*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of *Salicornia*

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

interior least tern *Sternula antillarum athalassos*

Sand beaches, flats, bays, inlets, lagoons, islands. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Federal Status:	State Status: E	SGCN: N
Endemic: N	Global Rank: G4T3Q	State Rank: S1B

pipin plover *Charadrius melodus*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e. north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.

Federal Status: T	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2N

rufa red knot *Calidris canutus rufa*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore. Bolivar Flats in Galveston County, sandy beaches Mustang Island, few on outer coastal and barrier beaches, tidal mudflats and salt marshes.

Federal Status: T	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4T2	State Rank: S2N

white-faced ibis *Plegadis chihi*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.

Federal Status:	State Status: T	SGCN: N
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Endemic: N

Global Rank: G5

State Rank: S4B

whooping crane*Grus americana*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.

Federal Status: E

State Status: E

SGCN: Y

Endemic: N

Global Rank: G1

State Rank: S1S2N

wood stork*Mycteria americana*

The county distribution for this species includes geographic areas that the species may use during migration. Time of year should be factored into evaluations to determine potential presence of this species in a specific county. Prefers to nest in large tracts of baldcypress (*Taxodium distichum*) or red mangrove (*Rhizophora mangle*); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.

Federal Status:

State Status: T

SGCN: Y

Endemic: N

Global Rank: G4

State Rank: SHB,S3N

FISH**blue sucker***Cycleptus elongatus*

Blue Sucker usually inhabit rapids, riffles, runs and pools with moderate to fast current, with bottoms of exposed bedrock sometimes in combination with hard clay, sand, gravel, and boulders; generally intolerant of highly turbid conditions. Adults winter in deep pools and move upstream in spring to spawn on riffles. Current distribution in Texas includes the Red River downstream of Lake Texoma, Sabine and Neches rivers, and Colorado River downstream of Austin, Texas. May occur in other river systems (Warren et al. 2000).

Federal Status:

State Status: T

SGCN: Y

Endemic: N

Global Rank: G3G4

State Rank: S3

chub shiner*Notropis potteri*

Brazos, Colorado, San Jacinto, and Trinity river basins. Flowing water with silt or sand substrate

Federal Status:

State Status: T

SGCN: Y

Endemic: N

Global Rank: G4

State Rank: S2

paddlefish*Polyodon spathula*

Species occurred in every major river drainage from the Trinity Basin eastward, but its numbers and range had been substantially reduced by the 1950's; recently reintroduced into Big Cypress drainage upstream of Caddo Lake. Prefers large, free-flowing rivers but will frequent impoundments with access to spawning sites.

Federal Status:

State Status: T

SGCN: Y

Endemic: N

Global Rank: G4

State Rank: S3

shovelnose sturgeon*Scaphirhynchus platyrhynchus*

Found only in the Red River below Denison Dam (Lake Texoma). Evidence of the presence of this species in the lower Pecos River, during prehistoric times, strongly suggests that it likely occurred in many Texas rivers. Inhabits flowing water over sandy bottoms or near rocky points or bars.

Federal Status: SAT

State Status: T

SGCN: Y

Endemic: N

Global Rank: G4

State Rank: S2

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MAMMALS

black bear

Ursus americanus

Generalist. Historically found throughout Texas. In Chisos, prefers higher elevations where pinyon-oaks predominate; also occasionally sighted in desert scrub of Trans-Pecos (Black Gap Wildlife Management Area) and Edwards Plateau in juniper-oak habitat. For ssp. *luteolus*, bottomland hardwoods, floodplain forests, upland hardwoods with mixed pine; marsh. Bottomland hardwoods and large tracts of inaccessible forested areas.

Federal Status:

State Status: T

SGCN: Y

Endemic: N

Global Rank: G5

State Rank: S3

MOLLUSKS

Texas heelsplitter

Potamilus amphichaenus

Occurs in small streams to large rivers in standing to slow-flowing water; most common in banks, backwaters and quiet pools; adapts to some reservoirs. Often found in soft substrates such as mud, silt or sand (Howells et al. 1996; Randklev et al. 2017a). [Mussels of Texas 2019]

Federal Status: PE

State Status: T

SGCN: Y

Endemic: N

Global Rank: G1G3

State Rank: S1

REPTILES

Texas horned lizard

Phrynosoma cornutum

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

Federal Status:

State Status: T

SGCN: Y

Endemic: N

Global Rank: G4G5

State Rank: S3

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BIGGS & MATHEWS ENVIRONMENTAL, INC
TBPE No. F-256 TBPG No. 50222

June 24, 2022

Karen Hardin
Texas Parks and Wildlife Department
Wildlife Division - Wildlife Habitat Assessment Program
4200 Smith School Road
Austin, TX 78744

Re: Threatened and Endangered Species Assessment
TASWA Disposal and Recycling Facility, TCEQ Permit MSW 2290
Grayson County, Texas

On behalf of the Texoma Solid Waste Authority (TASWA), Biggs & Mathews Environmental, Inc. is preparing a permit amendment application to expand the existing TASWA Disposal and Recycling Facility (TCEQ Permit MSW 2290) located in Grayson County, Texas. The amendment application will request a vertical and horizontal expansion of the existing waste disposal boundary. The purpose of this letter is to document coordination with the Texas Parks and Wildlife Department consistent with the requirements of the municipal solid waste regulations, 30 Texas Administrative Code Chapter 330 (30 TAC §330.61(n)) for locations and specific data relating to endangered and threatened species in Texas.

TASWA has commissioned Integrated Environmental Solutions (IES) to perform a site specific evaluation for Protected Species Habitat Assessment. IES has completed the site work and prepared a draft assessment to be included in the permit amendment application. The IES draft assessment is included as an attachment to this correspondence. Please review the attached IES assessment and confirm concurrence with their assessment and conclusions and/or provided any additional information relating to endangered and threatened species in Texas that should be considered.

Please call or e-mail me at 817-563-1144 [REDACTED] if you have any questions or need additional information.

Sincerely,

BIGGS & MATHEWS ENVIRONMENTAL

A handwritten signature in blue ink, appearing to read "D. Clark", is written over a horizontal line.

David Clark, P.E.
Principal

Attachments: Protected Species Habitat Assessment (IES draft dated May 23, 2022)

O:\TASWA\IPTPWD COORD.docx

1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • Phone: 817-563-1144



BIGGS & MATHEWS ENVIRONMENTAL, INC
TBPE No. F-256 TBPB No. 50222

June 24, 2022

U.S. Fish and Wildlife Service
Arlington Ecological Services Field Office
2005 NE Green Oaks Boulevard
Arlington, TX 76006-6247

Re: Threatened and Endangered Species Assessment
TASWA Disposal and Recycling Facility, TCEQ Permit MSW 2290
Grayson County, Texas

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BIGGS & MATHEWS ENVIRONMENTAL

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David Clark, P.E.
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Dallas

Lee M. Bass
Chairman-Emeritus
Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

Carter P. Smith
Executive Director

July 12, 2022

Mr. David Clark, P.E.
Biggs & Mathews Environmental
1700 Robert Road, Suite 100
Mansfield, TX 76063

RE: TASWA Disposal and Recycling Facility, TCEQ Permit MSW 2290,
Proposed Permit Amendment for Facility Expansion, Grayson County

Dear Mr. David Clark:

Texas Parks and Wildlife Department (TPWD) received a review request dated June 24, 2022, for the facility referenced above.

Under Texas Parks and Wildlife Code (PWC) section 12.0011(b)(2) and (b)(3), TPWD has authority to provide recommendations and informational comments that will protect fish and wildlife resources to local, state, and federal agencies that approve, license, or construct developmental projects or make decisions affecting those resources. TPWD is providing input on this proposed project to facilitate the incorporation of beneficial management practices (BMP) during construction, operation, and maintenance that may assist the project proponent in minimizing impacts to the state's natural resources.

Pursuant to PWC section 12.0011(b)(2) and (b)(3), TPWD offers the following comments and recommendations concerning this project. Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see PWC section 12.0011. Please refer to TPWD project number 48803 in return correspondence regarding this project.

Project Description

Biggs & Mathews Environmental, Inc. is preparing a permit amendment application on behalf of the Texoma Solid Waste Authority (TASWA) to expand the existing TASWA Disposal and Recycling Facility (Project) located in Grayson County. The amendment will include a vertical and horizontal expansion of the existing waste disposal boundary. A 920-acre property owned by TASWA includes the existing facility. With the amendment, a proposed disposal footprint of approximately 382 acres will be located within a proposed 569-acre permit boundary in the 920-acre property. Biggs & Mathews Environmental, Inc. retained Integrated Environmental Solutions, LLC to conduct a *Protected Species Habitat Assessment* (PSHA) of the 920-acre property to include in the permit application. The PSHA was provided for TPWD review; however, the location of the proposed permit boundary and disposal footprint were not included in the review materials.

Federal Law: Migratory Bird Treaty Act

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

The PSHA recognizes the MBTA though claims that incidental take is not a violation of the MBTA. Please note that the USFWS published a final rule revoking the January 7, 2021, regulation that limited the scope of the MBTA and returns to implementing the MBTA as prohibiting incidental take. Information regarding the USFWS rules can be found at [fws.gov/regulations/mbta/](https://www.fws.gov/regulations/mbta/).

Within the Project area, potential impacts to migratory birds may occur during disturbance of existing vegetation and bare ground that may harbor active bird nests, including nests that may occur in grass, shrubs and trees and on bare ground including gravel pads and roads.

Recommendation: TPWD recommends excluding vegetation clearing activities during the general bird nesting season, March 15 through September 15, to avoid adverse impacts to breeding birds. If clearing vegetation during the migratory bird nesting season is unavoidable, TPWD recommends surveying the area proposed for disturbance to ensure that no nests with eggs or young will be disturbed by operations. TPWD generally recommends a 150-foot buffer of vegetation remain around active nests until the eggs have hatched and the young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional USFWS office.

Sky glow because of light pollution can have negative impacts on wildlife and ecosystems by disrupting natural diurnal and nocturnal behaviors such as migration, reproduction, nourishment, rest, and cover from predators.

Recommendation: As bird protection measures, TPWD recommends designing the Project's lighted areas to contain the minimum amount of permanent night-time lighting needed for safety and security. TPWD recommends minimizing the Project's contribution toward skyglow by focusing light downward, with cutoff luminaires to avoid emitting light above the horizontal, and to use dark-sky friendly lighting that is illuminated only when needed, down-shielded, as bright as needed, and minimizes blue light emissions. Lighting technologies, BMPs, and other dark sky resources can be found at the International Dark-Sky Association and McDonald Observatory websites.

Federal Law: Clean Water Act

Section 404 of the Clean Water Act (CWA) establishes a federal program to regulate the discharge of dredge and fill material into the waters of the U.S., including wetlands.

The United States Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) are responsible for regulating water resources under this act.

The PSHA identifies riparian areas within the 902-acre survey area, though does not identify the location of streams or wetlands. TPWD review of U.S. Geological Survey topographical maps and USFWS National Wetland Inventory Maps indicates the Project survey area contains unnamed streams, freshwater ponds, and wetlands that may be jurisdictional waters of the U.S. and would be subject to USACE Section 404 CWA permitting if the Project would place dredge or fill into waters of the U.S.

Although isolated wetlands may not be applicable to the USACE Section 404 CWA permitting process, aquatic systems provide an essential role in providing habitat for wildlife and helping to protect water quality and TPWD recommends protecting all waters from disturbance to the extent feasible.

Recommendation: TPWD recommends avoiding development within streams and wetlands and referring to the recommendations provided in the section below regarding *State Laws: Aquatic Resources*.

Federal Law: Endangered Species Act

Federally listed animal species and their habitat are protected from take on any property by the Endangered Species Act (ESA). Take of a federally listed species can be allowed if it is incidental to an otherwise lawful activity and must be permitted in accordance with Section 7 or 10 of the ESA. Take of a federally listed species or its habitat without allowance from USFWS is a violation of the ESA.

The Project materials and permit application include a list of federal threatened and endangered species that may occur in the Project area obtained March 22, 2022, from the USFWS Information Planning and Consultation (IPaC) website and indicated that no impacts to federally listed species will occur due to the proposed Project.

Please note that species lists generated from USFWS IPaC expire after 90 days.

Recommendation: To be up to date on current listing status and to ensure compliance with ESA, prior to disturbance into natural areas and streams within the Project area, TPWD recommends referring to the USFWS IPaC periodically to ensure that the Project will not impact newly listed species that may occur in the Project area.

In December 2020, the USFWS determined that ESA listing for the monarch butterfly (*Danaus plexippus*) was warranted; however, listing was precluded by higher priority listing actions. Currently the monarch butterfly is a candidate species for listing, and the USFWS will review the species status annual until a proposal for listing is developed.

Significant declines in the population of migrating monarch butterflies have led to widespread concern about this species and other native insect pollinator species due to reductions in native floral resources. To support pollinators and migrating monarchs,

TPWD encourages the establishment of native wildflower habitats on private and public lands. Establishing wildflower habitats in land reclamation of landfill sites can contribute to pollinator conservation and can provide habitat for a diverse community of pollinators, providing food, breeding, or nesting opportunities. By acting as refugia for pollinators in otherwise inhospitable landscapes, this habitat can contribute to the maintenance of healthy ecosystems and provide ecological services. Resources regarding pollinators can be found on TPWD's Native Pollinator, Monarch Butterfly, and Pollinator Bioblitz webpages.

Recommendation: To provide pollinator conservation and support migrating monarchs, TPWD encourages TASWA to revegetate disposal areas with vegetation that provides habitat for monarch butterflies and other pollinator species. Species appropriate for the project area can be found by accessing the Lady Bird Johnson Wildflower Center, working with TPWD biologists to develop an appropriate list of species, or utilizing resources found at the Monarch Watch website or the Xerces Society's Guidelines webpage.

State Law: Chapter 64, Birds

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

Recommendation: To minimize potential impacts to avian species, please review the *Migratory Bird Treaty Act* section above for recommendations as they are also applicable for compliance with PWC.

State Law: Aquatic Resources

PWC section 1.011 grants TPWD authority to regulate and conserve aquatic animal life of public waters. Texas Administrative Code (TAC) section 57.157 regulates take of mussels, including mussels that are not state listed. TPWD regulates the introduction and stocking of fish, shellfish, and aquatic plants into public waters of the state under PWC 12.015, 12.019, and 66.015 and TAC 52.101-52.105, 52.202, and 57.251-57.259.

Dewatering activities can impact aquatic resources through stranding fish and mussels. Other harmful construction activities can trample, dredge or fill areas exhibiting stationary aquatic resources such as plants and mussels. Relocating aquatic life to an area of suitable habitat outside the project footprint avoids or reduces impacts to aquatic life. Relocation activities are done under the authority of a TPWD *Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters* with an approved Aquatic Resource Relocation Plans (ARRP). The permit allows for movement (i.e., introduction, stocking, transplant, relocation) of aquatic species in waters of the state. ARRPs are used to plan resource handling activities and assist in the permitting process. If dewatering activities and other project related activities cause mortality to fish and wildlife species, then the responsible party would be subject to investigation by the TPWD Kills and Spills Team (KAST) and will be liable for the value of lost resources under the authority of PWC sections 12.0011 (b) (1) and 12.301.

If the Project includes filling streams or stream relocation and channelization, then the Project may affect aquatic resources of the state.

Recommendation: If water is present and stream impacts will occur, the Project should be coordinated with the TPWD KAST for appropriate authorization and to ensure protection of native aquatic wildlife. TPWD recommends that impact avoidance measures for aquatic organisms, including all native fish and freshwater mussel species, regardless of state listing status, be considered during Project planning and construction activities.

Recommendation: When dewatering, excavating, or filling activities are involved with Project activities in streams when water is present, TPWD recommends relocating native aquatic resources, including fish and mussels, in conjunction with a *Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters* and an ARRP. The ARRP should be approved by the department 30 days prior to activity within Project waters or resource relocation and submitted with an application for a no-cost permit. ARRPs can be submitted to Bregan Brown TPWD Region 2 KAST available at [REDACTED]

State Law: Aquatic Invasive Species

Per TAC chapter 57, it is an offense for any person to possess, transport, or release into the water of this state any species, hybrid of a species, subspecies, eggs, seeds, or any part of any species defined as a harmful or potentially harmful exotic fish, shellfish, or aquatic plant. This rule applies not only to zebra mussels (*Dreissena polymorpha*) (live or dead) and their larvae but also to any species or fragments thereof designated as harmful or potentially harmful under this subchapter (e.g., giant salvinia, hydrilla, Eurasian watermilfoil). The full list of prohibited species can be found on the TPWD webpage regarding prohibited aquatic species.

If the Project involves work within a stream, equipment and other vehicles coming in contact with surface waters could transport aquatic invasive species where mud, plant debris, or water accumulate.

Recommendation: If the Project involves work within a stream, TPWD recommends preparing and following an aquatic invasive species (AIS) transfer prevention plan which outlines BMP for preventing inadvertent transfer of aquatic invasive plants and animals on project equipment and materials. To minimize the risk of transporting aquatic invasive species, TPWD recommends reviewing and adhering to the AIS BMP identified in the ARRP guidelines packet and the *TPWD Clean/Drain/Dry Procedures and Zebra Mussel Decontamination Procedures for Contractors Working in Inland Public Waters*.

Species of Greatest Conservation Need

In addition to federal and state listed species, TPWD tracks SGCN and natural plant communities and actively promotes their conservation. TPWD considers it important to evaluate and, if feasible, minimize impacts to SGCN and their habitat to reduce the

likelihood of endangerment and preclude the need to list as threatened or endangered in the future.

Although the Project materials presented information regarding state listed species potentially occurring in Grayson County obtained from TPWD online application identifying rare, threatened, and endangered species by county (RTEST), the Project did not consider other SGCN of Grayson County.

The RTEST list for Grayson County identifies the following SGCN with potential to occur with the county, excluding the federal and state listed SGCN addressed above or in the project's PSHA. These species could be impacted due to construction, operation, and maintenance activities if suitable habitat or the species occur at the Project site. General habitat descriptions for these species are included in RTEST:

Taxon	Scientific Name	Common Name	GRank ¹	SRank ²
Amphibians	<i>Ambystoma tigrinum</i>	eastern tiger salamander	G5	S3
Amphibians	<i>Anaxyrus woodhousii</i>	Woodhouse's toad	G5	SU
Amphibians	<i>Pseudacris streckeri</i>	Strecker's chorus frog	G5	S3
Amphibians	<i>Lithobates areolatus areolatus</i>	southern crawfish frog	G4T4	S3
Birds	<i>Haliaeetus leucocephalus</i>	bald eagle	G5	S3B,S3N
Birds	<i>Leucophaeus pipixcan</i>	Franklin's gull	G5	S2N
Birds	<i>Athene cunicularia hypugaea</i>	western burrowing owl	G4T4	S2
Birds	<i>Anthus spragueii</i>	Sprague's pipit	G3G4	S3N
Birds	<i>Calcarius ornatus</i>	chestnut-collared longspur	G5	S3
Fish	<i>Anguilla rostrata</i>	american eel	G4	S4
Fish	<i>Hiodon alosoides</i>	goldeye	G5	S3
Fish	<i>Notropis bairdi</i>	Red River shiner	G4	S3
Fish	<i>Macrhybopsis storeriana</i>	silver chub	G5	S3
Fish	<i>Etheostoma radiosum</i>	orangebelly darter	G4	S3
Mammals	<i>Perimyotis subflavus</i>	tricolored bat	G3G4	S2
Mammals	<i>Eptesicus fuscus</i>	big brown bat	G5	S5
Mammals	<i>Lasiurus borealis</i>	eastern red bat	G3G4	S4
Mammals	<i>Lasiurus cinereus</i>	hoary bat	G3G4	S4
Mammals	<i>Sylvilagus aquaticus</i>	swamp rabbit	G5	S5
Mammals	<i>Ondatra zibethicus</i>	muskrat	G5	S5
Mammals	<i>Mustela frenata</i>	long-tailed weasel	G5	S5
Mammals	<i>Spilogale putorius</i>	eastern spotted skunk	G4	S1S3
Mammals	<i>Puma concolor</i>	mountain lion	G5	S2S3
Reptiles	<i>Deirochelys reticularia miaria</i>	western chicken turtle	G5T5	S2S3

Reptiles	<i>Terrapene carolina</i>	eastern box turtle	G5	S3
Reptiles	<i>Terrapene ornata</i>	western box turtle	G5	S3
Reptiles	<i>Apalone mutica</i>	smooth softshell	G5	S3
Reptiles	<i>Ophisaurus attenuatus</i>	slender glass lizard	G5	S3
Reptiles	<i>Plestiodon septentrionalis</i>	prairie skink	G5	S2
Reptiles	<i>Crotalus horridus</i>	timber (canebrake) rattlesnake	G4	S4
Insects	<i>Bombus pensylvanicus</i>	American bumblebee	G3G4	SNR
Insects	<i>Bombus variabilis</i>	No accepted common name	G1G2	SNR
Plants	<i>Dalea hallii</i>	Hall's prairie clover	G3	S2
Plants	<i>Crataegus viridis</i> var. <i>glabriuscula</i>	Sutherland hawthorn	G5T3T4	S3
Plants	<i>Valerianella stenocarpa</i>	bigflower cornsalad	G3	S3

¹GRank is the NatureServe global conservation status rank.

²SRank is the NatureServe subnational or state level conservation status rank.

See NatureServe's website for specific global and state ranking definitions.

The Project is located within the Texas Blackland Prairies Ecoregion, and priority habitats identified in the Texas Conservation Action Plan for conservation of SGCN of the within the Texas Blackland Prairies Ecoregion include barrens, native grassland communities, slope forests and woodlands, riparian and bottomland woodlands, freshwater wetlands, seeps, springs, and savannahs and woodlands. Of the species listed above, the southern crawfish frog and eastern spotted skunk are identified within the Texas Natural Diversity Database, occurring approximately 2 to 4 miles from the Project site. These and several of the SGCN listed above are associated with grassland habitats, and loss to grassland communities is a concern in the Texas Blackland Prairies ecoregion.

The PSHA identifies non-maintained grassland, maintained grassland, disturbed urban mix, forested riparian corridor, and forested upland vegetation communities within the 920-acre survey area. Of those habitats the forested riparian corridor and non-maintained grassland communities best represent priority habitats of the ecoregion for conservation including native grassland communities, riparian and bottomland woodlands, and savannahs and woodlands.

Beneficial Management Practices

TPWD recommends implementing the following additional BMP to avoid or minimize impacts to wildlife, particularly state listed species and other SGCN, potentially occurring at the project site:

1. TPWD recommends designing the project to minimize removal of native vegetation and retain native habitats. TPWD recommends that precautions be taken to avoid impact to SGCN flora and fauna, natural plant communities, and priority

habitat types of the ecoregion while working in Grayson County or if encountered during project construction, operation, maintenance, and reclamation activities. Areas exhibiting a native grass and forbs component should be protected from disturbance and from introduction of non-native vegetation. TPWD encourages clearly marking areas found to contain rare plants as work zone avoidance areas prior to disturbance activities.

2. TPWD recommends avoiding disturbance to streams, tributaries, and wetlands and providing robust setback distances to aquatic systems to serve as wooded stream buffers that provide aquatic resources with shade, protect streams from runoff and erosion, and serve as wildlife habitat and travel corridors.
3. Of the vegetation communities present within the 920-acre site, TPWD recommends the permit boundary and disposal footprint exclude streams, wetlands, riparian corridors, and the non-maintained grassland areas to the extent feasible. These areas likely provide greater species diversity and wildlife habitat than the maintained grassland and disturbed urban mix communities at the project site. There is an abundance of disturbed urban mix and maintained grassland to accommodate the approximately 382-acre disposal footprint and 569-acre permit boundary proposed for the permit amendment.
4. TPWD recommends informing employees and contractors of the potential for state listed species or SGCN to occur in the Project area. Contractors should be advised to avoid impacts to all wildlife that are encountered.
5. Wildlife, including aquatic wildlife, observed during construction should be allowed to safely leave the site or be translocated by a permitted individual to a nearby area with similar habitat that would not be disturbed during construction. TPWD recommends that any translocations of reptiles be the minimum distance possible no greater than one mile, preferably within 100-200 yards from the initial encounter location. For relocation of aquatic resources, a TPWD permit is required per the Section above regarding *State Law: Aquatic Resources*. For purposes of relocation, surveys, monitoring, and research, terrestrial state listed species may only be handled after obtaining authorization through the TPWD Wildlife Permits Office. TPWD recommends that consultants obtain such authorization and serve as on-site biological monitors if encounters of state listed terrestrial wildlife are likely.
6. Small vertebrates including snakes, lizards, toads, and mice fall into trenches and become trapped. Wildlife unable to escape from trenches are susceptible to loss from backfilling activities, exposure to elements, starvation, dehydration, and predation by other wildlife. Where trenching or other excavation is involved, TPWD recommends minimizing the length of trenches left open at any given time during construction. Trenches left open for more than two daylight hours should be inspected for the presence of trapped wildlife prior to backfilling. If trenches cannot be backfilled the day of initial trenching, then escape ramps, in the form of short lateral trenches or wooden planks sloping to the surface at an angle of less than 45 degrees, should be installed at least every 90 meters.

July 12, 2022

7. For soil stabilization and revegetation of disturbed areas within the proposed project area, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching and/or hydroseeding rather than erosion control blankets or mats due to a reduced risk to wildlife. If erosion control blankets or mats will be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Hydromulch containing plastic ingredients and plastic mesh matting should be avoided.
8. To aid in the scientific knowledge of a species' status and current range, TPWD encourages reporting encounters of protected and rare species to the TXNDD according to the data submittal instructions found at the TPWD Texas Natural Diversity Database: Submit Data webpage. An additional method for reporting observations of species is through the iNaturalist community app where plant and animal observations are uploaded from a smartphone. The observer then selects to add the observation to specific TPWD Texas Nature Tracker Projects appropriate for the taxa observed, including Herps of Texas, Birds of Texas, Texas Eagle Nests, Texas Whooper Watch, Mammals of Texas, Rare Plants of Texas, Bees & Wasps of Texas, Terrestrial Mollusks of Texas, Texas Freshwater Mussels, Fishes of Texas, and All Texas Nature.

TPWD appreciates the opportunity to provide input on the proposed project. Thank you for considering the fish and wildlife resources of Texas. If you have any questions, please contact me [REDACTED] or (903) 322-5001.

Sincerely,



Karen B. Hardin
Wildlife Habitat Assessment Program
Wildlife Division

kbh/48803

David Clark

From: Khan, Jennifer M [REDACTED]
Sent: Tuesday, July 5, 2022 1:18 PM
To: David Clark
Subject: RE: [EXTERNAL] Threatened and Endangered Species - Wildlife Habitat Assessment

Hello Mr. Clark:

Thank you for sending this information on the proposed expansion of the TASWA Disposal and Recycling Facility in Grayson County, Texas. The biological assessment for the proposed project indicates you have determined the project would have no effect on federally listed species. For projects that are determined to have no effect on federally listed species, section 7 consultation under the Endangered Species Act is not required. We recommend the information in the assessment, as well as any other information relating to the determination, be provided to the federal action agency and maintained with the project file.

You may also find it useful to use our determination key within our Information for Planning and Consultation (IPaC) website. The determination key will lead you through a series of questions that can assist you in determining potential effects of a project on federally listed species. The Determination Key will also give you the option to download a letter documenting your coordination with this office. You can find the Determination Key feature by logging into the project home where you obtained the original species list from our IPaC system and then clicking "start review" as shown in the box below.

Please let me know if you have any questions. Thank you.

What's next?

ESA REVIEW

Review this project's effects on listed species pursuant to the Endangered Species Act (ESA), as part of the overall regulatory review.

START REVIEW

SPECIES LIST

Requesting an official species list is now part of IPaC's ESA Review.

REQUEST SPECIES LIST

Jen M. Khan
Fish & Wildlife Biologist
U.S. Fish & Wildlife Service
2005 NE Green Oaks Blvd, Suite 140
Arlington, Texas 76006
(817) 277-1100 ext. 22105

From: Arlington ES, FW2 [REDACTED]
Sent: Friday, June 24, 2022 3:27 PM
To: Khan, Jennifer M [REDACTED]
Subject: Fw: [EXTERNAL] Threatened and Endangered Species - Wildlife Habitat Assessment

Please review and advise. Thanks.

From: David Clark [REDACTED]
Sent: Friday, June 24, 2022 3:19 PM
To: Arlington ES, FW2 [REDACTED]
Subject: [EXTERNAL] Threatened and Endangered Species - Wildlife Habitat Assessment

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

On behalf of the Texoma Solid Waste Authority (TASWA), Biggs & Mathews Environmental, Inc. is preparing a permit amendment application to expand the existing TASWA Disposal and Recycling Facility (TCEQ Permit MSW 2290) located in Grayson County, Texas. The amendment application will request a vertical and horizontal expansion of the existing waste disposal boundary. The purpose of this correspondence is to document coordination with the Texas Parks and Wildlife Department consistent with the requirements of the municipal solid waste regulations, 30 Texas Administrative Code Chapter 330 (30 TAC §330.61(n)) for locations and specific data relating to endangered and threatened species in Texas.

A site-specific habitat assessment has been completed and the draft report is attached for your review and concurrence. A hard copy of the attached correspondence will also be sent to the Arlington office address. If you need any additional information or have any questions, please do not hesitate to contact me. Thanks for your assistance,
Clark

David Clark
Biggs and Mathews Env.
1700 Robert Road, Ste 100
Mansfield, TX 76063

APPENDIX IIF
TEXAS HISTORICAL COMMISSION DOCUMENTATION

TEXAS HISTORICAL COMMISSION

REQUEST FOR SHPO CONSULTATION:

Section 106 of the National Historic Preservation Act and/or the Antiquities Code of Texas

Please see instructions for completing this form and additional information on Section 106 and Antiquities Code consultation on the Texas Historical Commission website at <http://www.thc.state.tx.us/crm/crmsend.shtml>.

☒ This is a new submission.

☐ This is additional information relating to THC tracking number(s): _____

Project Information

PROJECT NAME Permit Amendment Application - TASWA Disposal and Recycling Facility		
PROJECT ADDRESS 25090 State Highway 56	PROJECT CITY Whitesboro	PROJECT ZIP CODE(S) 76273
PROJECT COUNTY OR COUNTIES Grayson		
PROJECT TYPE (Check all that apply) ☐ Road/Highway Construction or Improvement ☒ Site Excavation ☐ Utilities and Infrastructure ☒ New Construction ☐ Repair, Rehabilitation, or Renovation of Structure(s) ☐ Addition to Existing Structure(s) ☐ Demolition or Relocation of Existing Structure(s) ☐ None of these		
BRIEF PROJECT DESCRIPTION: Please explain the project in one or two sentences. More details should be included as an attachment to this form. Site is an existing Type I Municipal Solid Waste landfill (TCEQ Permit MSW 2290) that is being expanded. A cultural survey of the property was conducted by Geo-Marine, Inc. and a report dated July 2000 was submitted to the THC during the initial permitting process. The waste boundary limit is being expanded within the same property as originally permitted.		

Project Contact Information

PROJECT CONTACT NAME David Clark	TITLE Engineer	ORGANIZATION Biggs and Mathews Env.
ADDRESS 1700 Robert Road, Suite 100	CITY Mansfield	STATE TX
PHONE 817-563-1144	ZIP CODE 76063	EMAIL [REDACTED]

Federal Involvement (Section 106 of the National Historic Preservation Act)

Does this project involve approval, funding, permit, or license from a federal agency? ☐ Yes (Please complete this section) ☒ No (Skip to next section)	
FEDERAL AGENCY	FEDERAL PROGRAM, FUNDING, OR PERMIT TYPE
CONTACT PERSON	PHONE
ADDRESS	EMAIL

State Involvement (Antiquities Code of Texas)

Does this project occur on land or property owned by the State of Texas or a political subdivision of the state? ☐ Yes (Please complete this section) ☒ No (Skip to next section)	
CURRENT OR FUTURE OWNER OF THE PUBLIC LAND	
CONTACT PERSON	PHONE
ADDRESS	EMAIL

Identification of Historic Properties: Archeology

Does this project involve ground-disturbing activity?

☒ Yes (Please complete this section)

☐ No (Skip to next section)

Describe the nature of the ground-disturbing activity, including but not limited to depth, width, and length.

Site is an existing landfill facility with excavation to a depth of approximately 90 feet over the waste footprint boundary of approximately 385 acres. Earth stockpiles may be placed on adjacent areas within the property boundary. Site plans showing the property, permit and waste boundaries are attached.

Describe the previous and current land use, conditions, and disturbances.

Site has been operated as a landfill since 2005. Prior to development of the property as a landfill, the property was mainly agricultural.

Identification of Historic Properties: Structures

Does the project area or area of potential effects include buildings, structures, or designed landscape features (such as parks or cemeteries) that are 45 years of age or older?

☐ Yes (Please complete this section)

☒ No (Skip to next section)

Is the project area or area of potential effects within or adjacent to a property or district that is listed in or eligible for listing in the National Register of Historic Places?

☐ Yes, name of property or district:

☒ No

☐ Unknown

In the space below or as an attachment, describe each building, structure, or landscape feature within the project area or area of potential effect that is 45 years of age or older.

ADDRESS	DATE OF CONSTRUCTION	SOURCE FOR CONSTRUCTION DATE
ADDRESS	DATE OF CONSTRUCTION	SOURCE FOR CONSTRUCTION DATE
ADDRESS	DATE OF CONSTRUCTION	SOURCE FOR CONSTRUCTION DATE

Attachments

[Please see detailed instructions regarding attachments.](#)

Include the following with each submission:

☐ Project Work Description

☒ Maps

☐ Identification of Historic Properties

☐ Photographs

For Section 106 reviews only, also include:

☐ Consulting Parties/Public Notification

☐ Area of Potential Effects

☐ Determination of Eligibility

☐ Determination of Effect

For SHPO Use Only

Submit completed form and attachments to the address below. Faxes and email are not acceptable.

Mark Wolfe

State Historic Preservation Officer

Texas Historical Commission

P.O. Box 12276, Austin, TX 78711-2276 (mail service)

108 W. 16th Street, Austin, TX 78701 (courier service)

REVIEW REQUEST CONFIRMATION

Your request for consultation has been successfully submitted to the Texas Historical Commission.

Project Name

TASWA Disposal and Recycling Facility

Track Number

202211707

Date Received

6/24/2022 4:50:09 PM

Due Date:

7/24/2022 4:50:09 PM (30 Days)

Thank you!

David Clark

From: [REDACTED]
Sent: [REDACTED] 32 AM
To: David Clark [REDACTED]
Subject: Section 106 Submission



TEXAS HISTORICAL COMMISSION
real places telling real stories

Re: THC Courtesy Project Review
THC Tracking #202211707
Date: 07/12/2022
TASWA Disposal and Recycling Facility
25090 State Highway 56
Whitesboro, TX 76273

Description: Site is an existing TCEQ permitted landfill that is expanding the waste fill area.

Dear David Clark:

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), as a courtesy review only and does not suffice for review under Section 106 of the National Historic Preservation Act or the Antiquities Code of Texas.

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

Above-Ground Resources

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

Archeology Comments

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

We 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: [REDACTED]

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,

A handwritten signature in cursive script that reads "Caitlin Brashear".

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

Please do not respond to this email.

**APPENDIX IIG
TPDES PERMIT**

Water Quality General Permits Search

Summary of Authorization TXR05AH82

Permit Number: TXR05AH82
Authorization Status: ACTIVE
Date Coverage Began: 09/07/2011
Date Coverage Ended:

Authorization Details

Site Name on Permit: TEXOMA AREA SOLID WASTE AUTHORITY LANDFILL
Authorization Type: INDUSTRIAL
Primary SIC Code: 4953
Activity Code : LF
Facility Operational Status : ACTIVE
Hazardous Metals Waiver : NO
Msw Landfill Closed : YES
Sector : L

Outfall Number : 001
SEGMENT NUMBER - 0203
RECEIVING WATER BODY - MUSTANG CREEK
OUTFALL LATITUDE - 33.639864
OUTFALL LONGITUDE - (-96.847537)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Outfall Number : 002
SEGMENT NUMBER - 0203
RECEIVING WATER BODY - MUSTANG CREEK
OUTFALL LATITUDE - 33.638108
OUTFALL LONGITUDE - (-96.838109)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Outfall Number : 003
SEGMENT NUMBER - 0203
RECEIVING WATER BODY - MUSTANG CREEK
OUTFALL LATITUDE - 33.635007
OUTFALL LONGITUDE - (-96.827454)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Outfall Number : 004
SEGMENT NUMBER - 0203
RECEIVING WATER BODY - MUSTANG CREEK
OUTFALL LATITUDE - 33.632947
OUTFALL LONGITUDE - (-96.827605)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Outfall Number : 005
SEGMENT NUMBER - 0203
RECEIVING WATER BODY - MUSTANG CREEK
OUTFALL LATITUDE - 33.628309
OUTFALL LONGITUDE - (-96.827855)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Outfall Number : 006
SEGMENT NUMBER - 0203
RECEIVING WATER BODY - MUSTANG CREEK
OUTFALL LATITUDE - 33.624902
OUTFALL LONGITUDE - (-96.828031)
DISCHARGE TO MARINE OR FRESH - FRESH WATER

Permittee Information

Operator: CN600339428 - TEXOMA AREA SOLID WASTE AUTHORITY
Address: 25090 STATE HIGHWAY 56 WHITESBORO TX 76273 4993
Annual Fee Billing Address: JOHN OSTEEN
25090 STATE HIGHWAY 56 WHITESBORO TX 76273 4993

Permitted Site Information

RN: RN100629922
RE Name: TEXOMA AREA SOLID WASTE AUTHORITY LANDFILL
Site Location: 25090 STATE HIGHWAY 56 WHITESBORO TX 76273 4993
County: GRAYSON
TCEQ Region: REGION 04 - DFW METROPLEX
Latitude: 33.717222
Longitude: -96.912777

Regulated Entity Site Information

RE Name: TEXOMA AREA SOLID WASTE AUTHORITY LANDFILL
Site Location: 25090 STATE HIGHWAY 56 WHITESBORO TX 76273 4993

County: GRAYSON
TCEQ Region: REGION 04 - DFW METROPLEX
Latitude: 33.717222
Longitude: -96.912777

Application History for this Authorization

Application Type	Status	Received Date	Final Action Date
NOTICE OF INTENT	APPROVED	09/07/2011	09/07/2011
NOI-RENEWAL	APPROVED	11/01/2016	11/01/2016
NOI-RENEWAL	APPROVED	11/10/2021	11/10/2021

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Statewide Links: Texas.gov | Texas Homeland Security | TRAIL Statewide Archive | Texas Veterans Portal

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APPENDIX IIH
FEDERAL AVIATION ADMINISTRATION DOCUMENTATION



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

Aeronautical Study No.
2022-ASW-18834-OE

Issued Date: 10/04/2022

David Clark
Biggs and Mathews Environmental
1700 Robert Road
Suite 100
Mansfield, TX 76063

**** 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 TASWA Disposal and Recycling Facility
Location:	Whitesboro, TX
Latitude:	33-37-57.24N NAD 83
Longitude:	96-49-43.20W
Heights:	731 feet site elevation (SE) 394 feet above ground level (AGL) 1125 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:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, red lights-Chapters 4,5(Red),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 04/04/2024 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, effective 21 Nov 2007, 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, [REDACTED]
On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-ASW-18834-OE.

Signature Control No: 552255723-556445638

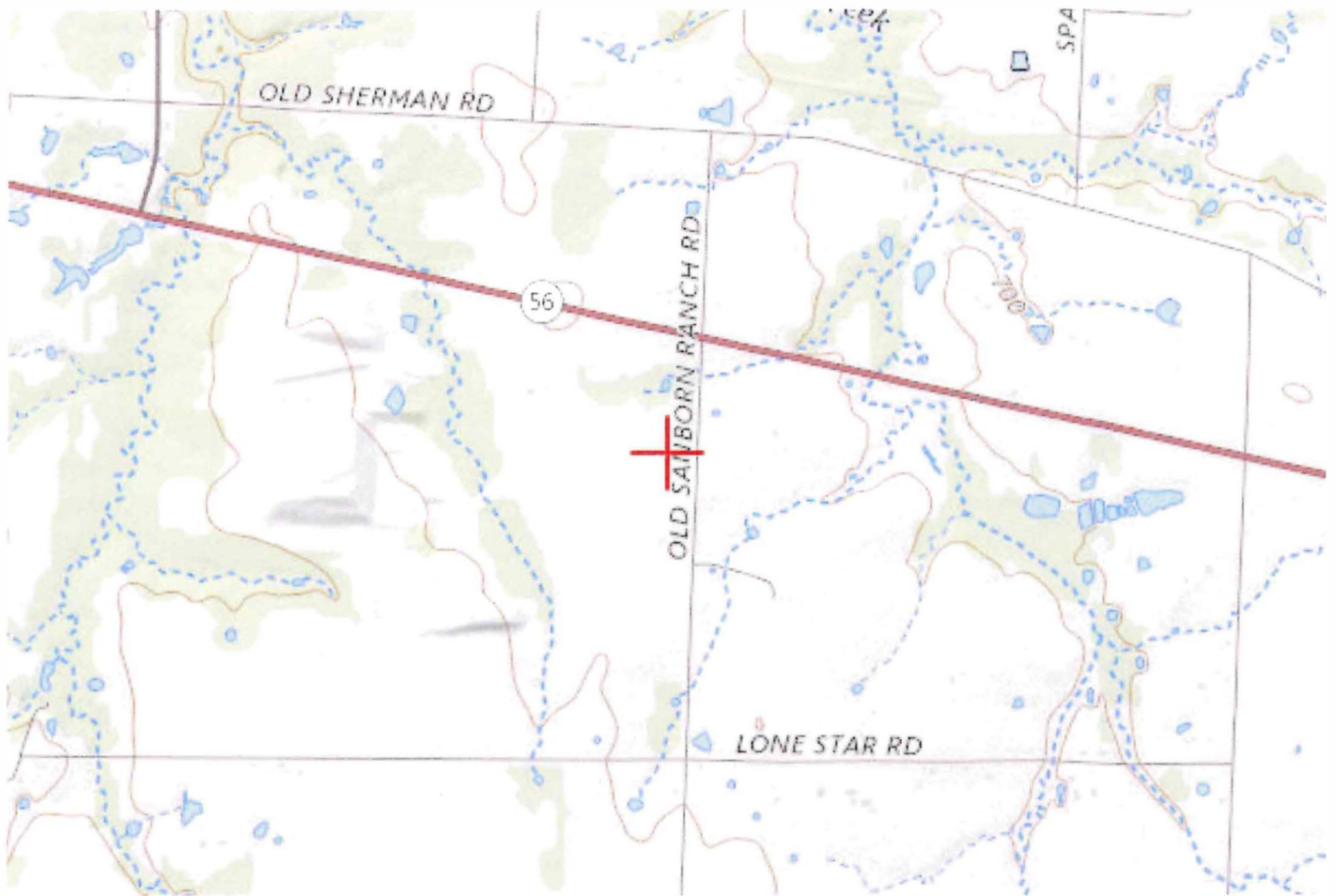
(DNE)

Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2022-ASW-18834-OE

TASWA DRF is requesting a permit amendment from the TCEQ to increase the waste fill height from 835 ft msl to 1125 ft msl.







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

Aeronautical Study No.
2022-ASW-18837-OE

Issued Date: 10/04/2022

David Clark
Biggs and Mathews Environmental
1700 Robert Road
Suite 100
Mansfield, TX 76063

**** 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 TASWA Disposal and Recycling Facility
Location:	Whitesboro, TX
Latitude:	33-38-02.34N NAD 83
Longitude:	96-50-40.29W
Heights:	757 feet site elevation (SE) 361 feet above ground level (AGL) 1118 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:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, red lights-Chapters 4,5(Red),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 04/04/2024 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, effective 21 Nov 2007, 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 [REDACTED]
On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-ASW-18837-OE.

Signature Control No: 552255726-556445639

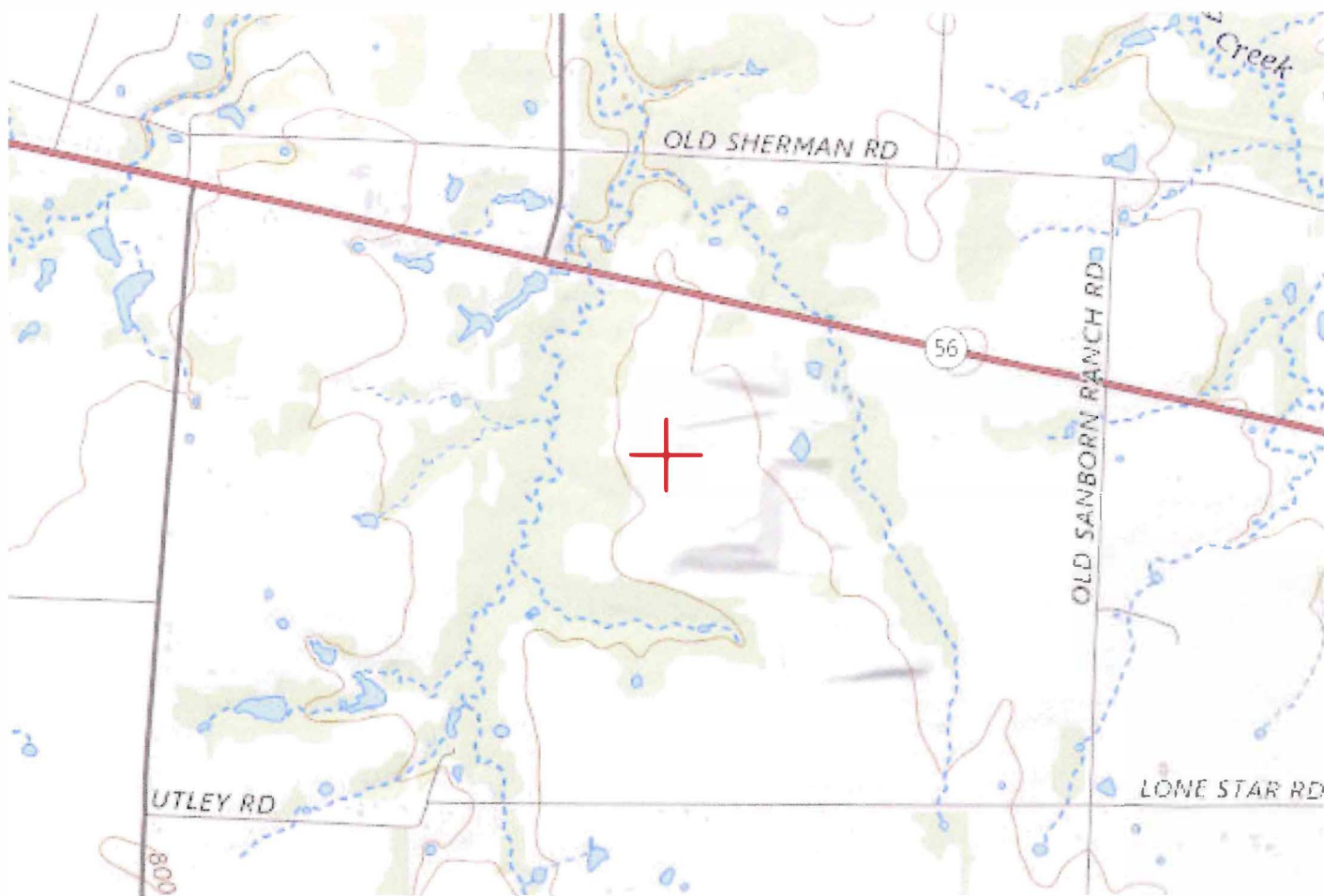
(DNE)

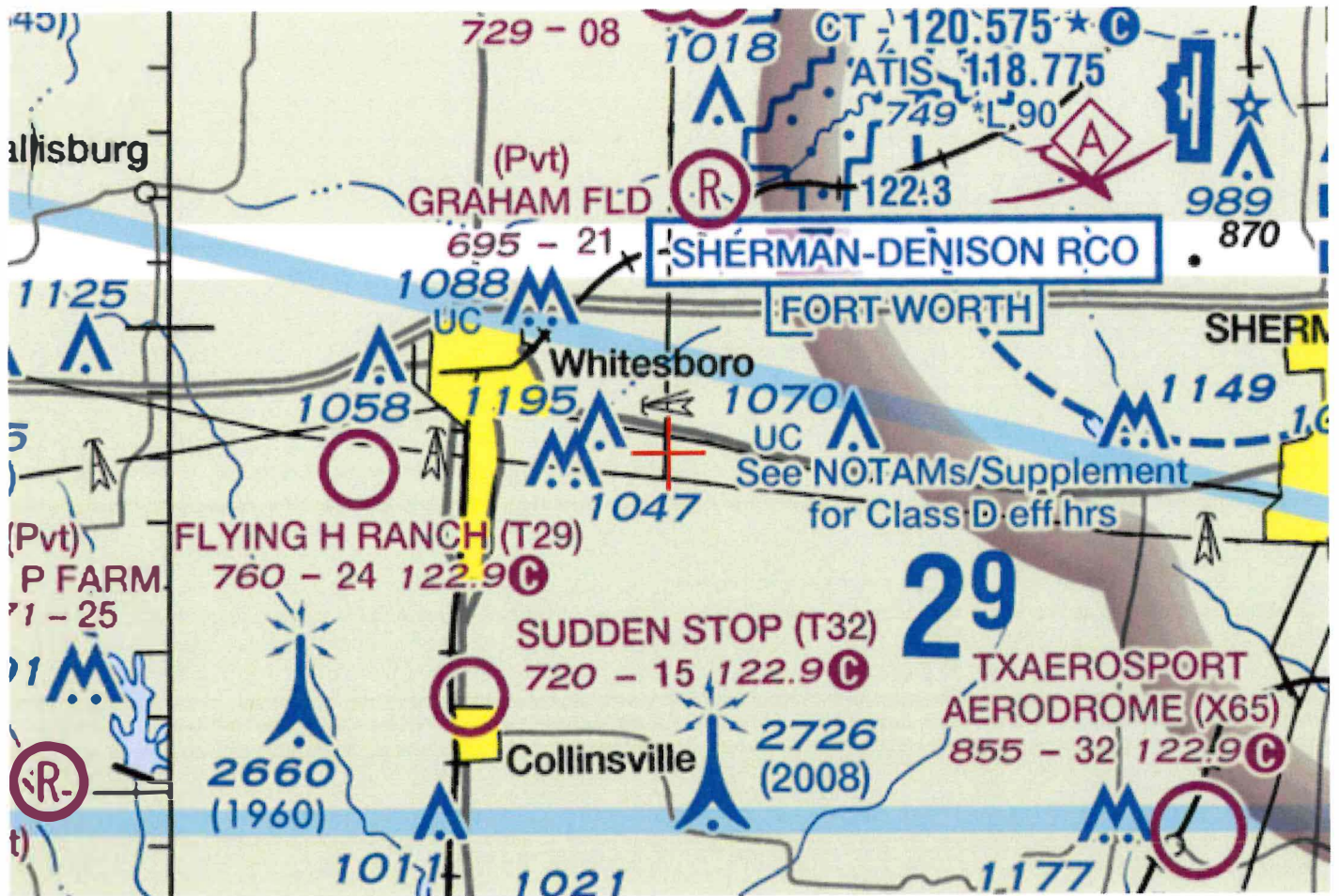
Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2022-ASW-18837-OE

TASWA DRF is requesting a permit amendment from the TCEQ to increase the waste fill height from 835 ft msl to 1125 ft msl.







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

Aeronautical Study No.
2022-ASW-18835-OE

Issued Date: 10/04/2022

David Clark
Biggs and Mathews Environmental
1700 Robert Road
Suite 100
Mansfield, TX 76063

**** 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 TASWA Disposal and Recycling Facility
Location:	Whitesboro, TX
Latitude:	33-37-32.64N NAD 83
Longitude:	96-49-44.39W
Heights:	740 feet site elevation (SE) 384 feet above ground level (AGL) 1124 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:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, red lights-Chapters 4,5(Red),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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)

This determination expires on 04/04/2024 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, effective 21 Nov 2007, 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 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 [REDACTED]
On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-ASW-18835-OE.

Signature Control No: 552255724-556445640

(DNE)

Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2022-ASW-18835-OE

TASWA DRF is requesting a permit amendment from the TCEQ to increase the waste fill height from 835 ft msl to 1125 ft msl.







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

Aeronautical Study No.
2022-ASW-18836-OE

Issued Date: 10/04/2022

David Clark
Biggs and Mathews Environmental
1700 Robert Road
Suite 100
Mansfield, TX 76063

**** 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 TASWA Disposal and Recycling Facility
Location:	Whitesboro, TX
Latitude:	33-37-25.50N NAD 83
Longitude:	96-50-41.63W
Heights:	778 feet site elevation (SE) 347 feet above ground level (AGL) 1125 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:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 M, Obstruction Marking and Lighting, red lights-Chapters 4,5(Red),&15.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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)
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 04/04/2024 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.

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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 [REDACTED]
On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-ASW-18836-OE.

Signature Control No: 552255725-556445641

(DNE)

Andrew Hollie
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2022-ASW-18836-OE

TASWA DRF is requesting a permit amendment from the TCEQ to increase the waste fill height from 835 ft msl to 1125 ft msl.







BIGGS & MATHEWS ENVIRONMENTAL, INC
TBPE No. F-256 TBPG No. 50222

June 22, 2022

Mr. Joseph G. Washington
Airports Division
Safety and Standards Branch, ASW-620
U.S. Department of Transportation
Federal Aviation Administration
10101 Hillwood Pkwy
Fort Worth, Texas 76177

Re: TASWA Disposal and Recycling Facility, TCEQ Permit MSW 2290
Grayson County, Texas
Documentation of Coordination Relating to Airport Safety

Dear Mr. Washington:

On behalf of the Texoma Solid Waste Authority (TASWA), Biggs & Mathews Environmental, Inc. is preparing a permit amendment application to expand the existing TASWA Disposal and Recycling Facility (TCEQ Permit MSW 2290) located in Grayson County, Texas. The amendment application will request a vertical and horizontal expansion of the existing waste disposal boundary. The purpose of this letter is to document coordination with the Federal Aviation Administration consistent with the requirements of the municipal solid waste regulations, 30 Texas Administrative Code Chapter 330 (30 TAC §330.61(i)(5) and 30 TAC §330.545).

The location of the TASWA Disposal and Recycling Facility (TASWA DRF) is shown on attached Drawing IIA.1 – Detailed Highway Map. The site coordinates are approximately N33°38'13.70" and W96°49'58.55". Drawing IIA.2 illustrates that ground surface elevation of the site prior to any development of the facility ranged from approximately 730 ft msl to 770 ft msl. The proposed final elevation of the TASWA DRF facility at completion of all fill operations will be 1,124.50 ft msl.

Attached Drawing IIA.6 provides the proposed footprint of the TASWA DRF overlain on the Dallas – Ft Worth Sectional Aeronautical Chart effective May 19, 2022, through July 14, 2022 with 5,000 ft and 10,000 ft radius lines as well as a 6-mile radius line. The DFW chart indicates that there are no runways used by turbojet aircraft within 10,000 feet and no runways used by only piston-type aircraft within 5,000 feet of the proposed TASWA DRF footprint.

The DFW chart indicates that there are two general aviation airports within the 6-mile radius of the proposed TASWA DRF boundary. These two airports, Sudden Stop (T32) and Flying H Ranch (T29), are located approximately 4.8 nautical miles southwest and 5.4 nautical miles west of the proposed TASWA DRF boundary respectively and both have turf runway surfaces.

Mr. Joseph G. Washington
June 22, 2022
Page 2

Please confirm our finding that there are no runways used by turbojet aircraft within 10,000 ft and no runways used by only piston-type aircraft within 5,000 ft of the proposed TASWA RDF boundary. Please also confirm that this correspondence provides notification to the FAA and the two airports within the 6-mile boundaries regarding the proposed expansion of the TASWA DRF facility.

Please call or e-mail me at 817-563-1144 [REDACTED] you have any questions or need additional information.

Sincerely,

BIGGS & MATHEWS ENVIRONMENTAL



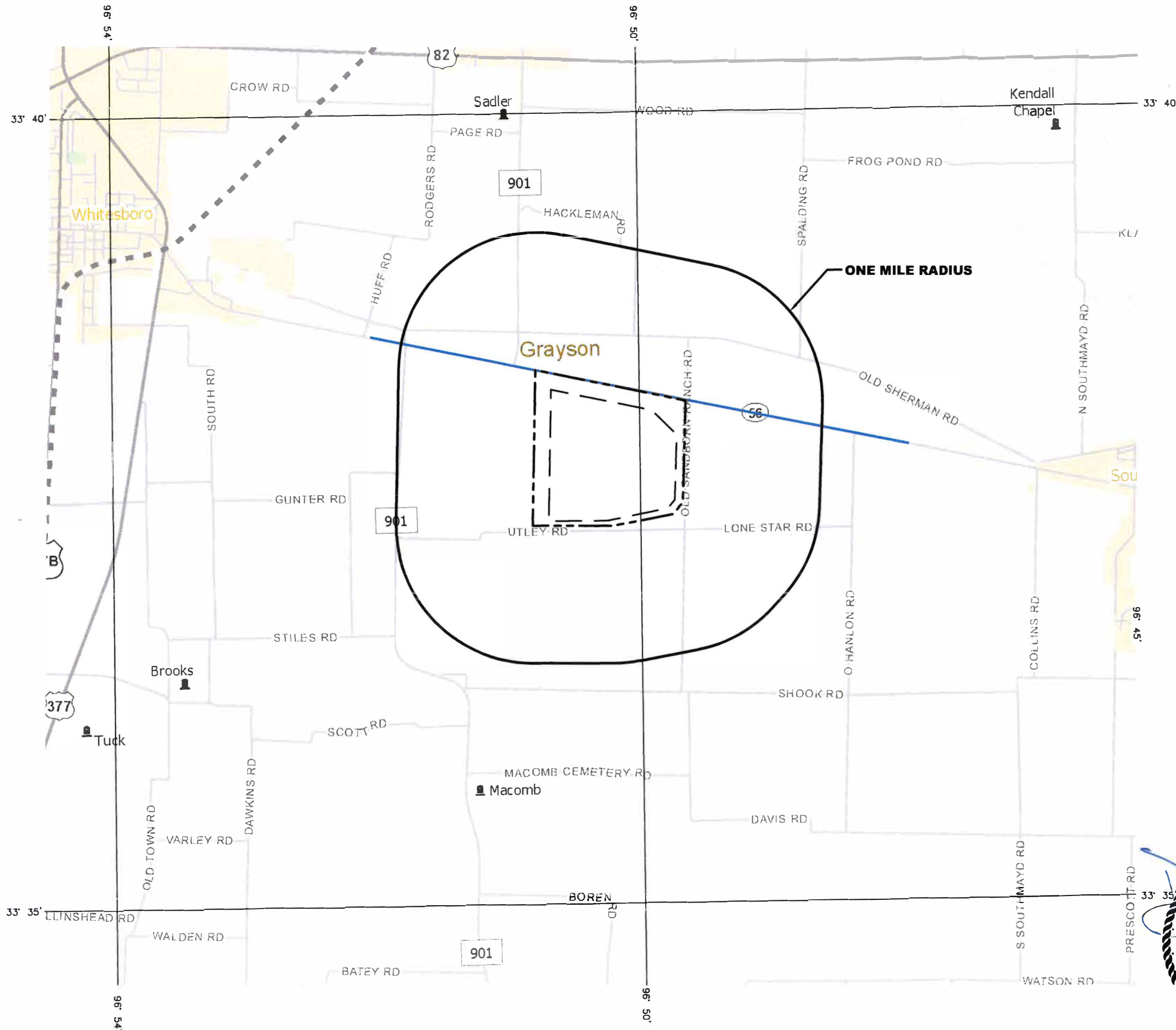
David Clark, P.E.
Principal

Attachments: Drawing IIA.1 – Detailed Highway Map
Drawing IIA.2 – General Topographic Map
Drawing IIA.6 – FAA Airport Location Map

cc: Jeff Howle, Manager – Flying H Ranch Airport, (T29)
P.O. Box 971
Whitesboro, TX 76273

Don Swindle, Manager – Sudden Stop Airport (T32)
1207 Joggers Trail
Collinsville, TX 76233

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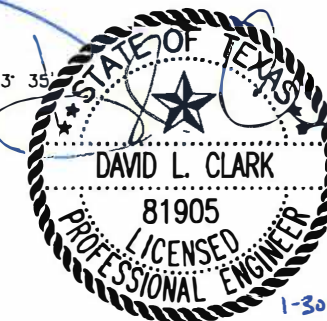


- LEGEND**
- 2290A PERMIT BOUNDARY
 - 2290A LANDFILL FOOTPRINT
 - REGULAR DELIVERY ROUTES WITHIN 2 MILES OF SITE ENTRANCE

- o 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:

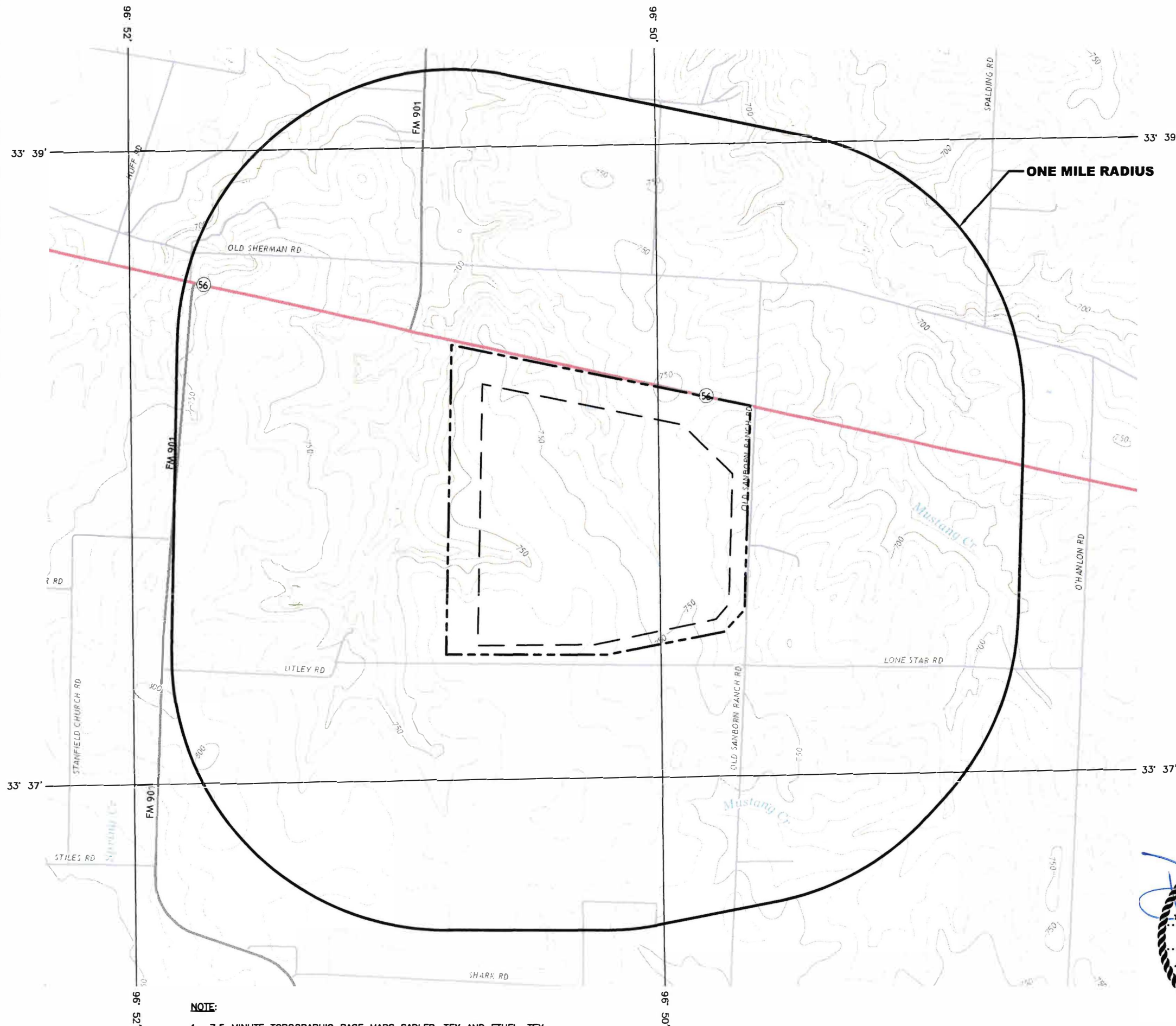
1. GRAYSON AND COOKE COUNTY HIGHWAY MAPS DOWNLOADED FROM TXDOT WEBSITE ON FEBRUARY 10, 2022.
2. PRIMARY ACCESS ROAD WITHIN ONE MILE OF THE FACILITY USED TO ACCESS THE FACILITY IS STATE HIGHWAY 56. THIS ROAD IS HARD SURFACED PAVED ROADS OF ASPHALT OR CONCRETE.



ISSUED FOR PERMITTING PURPOSES ONLY

DETAILED HIGHWAY MAP GRAYSON COUNTY	
TEXOMA AREA SOLID WASTE AUTHORITY TASWA DRF PERMIT AMENDMENT	
BME	BIGGS & MATHEWS ENVIRONMENTAL 1700 ROBERT ROAD, STE. 100 MANSFIELD, TEXAS 76063 817-563-1144
TBPE FIRM NO. F-256	DRAWING IIA.1
TBPG FIRM NO. 50222	

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NOTE:

1. 7.5 MINUTE TOPOGRAPHIC BASE MAPS SADLER, TEX AND ETHEL, TEX
DOWNLOADED FROM USGS WEBSITE ON FEBRUARY 10, 2022.



LEGEND

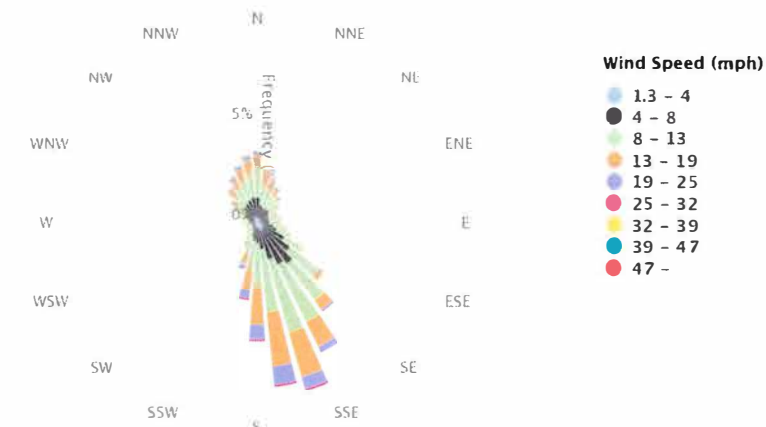
- 2290A PERMIT BOUNDARY
- 2290A LANDFILL FOOTPRINT
- 700 EXISTING 10' GROUND CONTOUR
- SURFACE WATER BODY OR OTHER WATER

SADLER, TEX 2019 ETHEL, TEX 2019

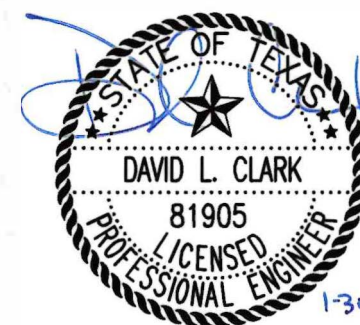
- ROAD CLASSIFICATION**
- Expressway
 - Secondary Hwy
 - Ramp
 - Interstate Route
 - Local Connector
 - Local Road
 - 4WD
 - US Route
 - State Route

DENTON MUNI AP (TX) Wind Rose

July 1, 1996 - Feb. 14, 2022
Sub-Interval Jan. 1 - Dec 31, 0 - 23



WIND ROSE
SOURCE: MIDWEST REGIONAL CLIMATE CENTER



ISSUED FOR PERMITTING PURPOSES ONLY

GENERAL TOPOGRAPHIC MAP

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRF
PERMIT AMENDMENT

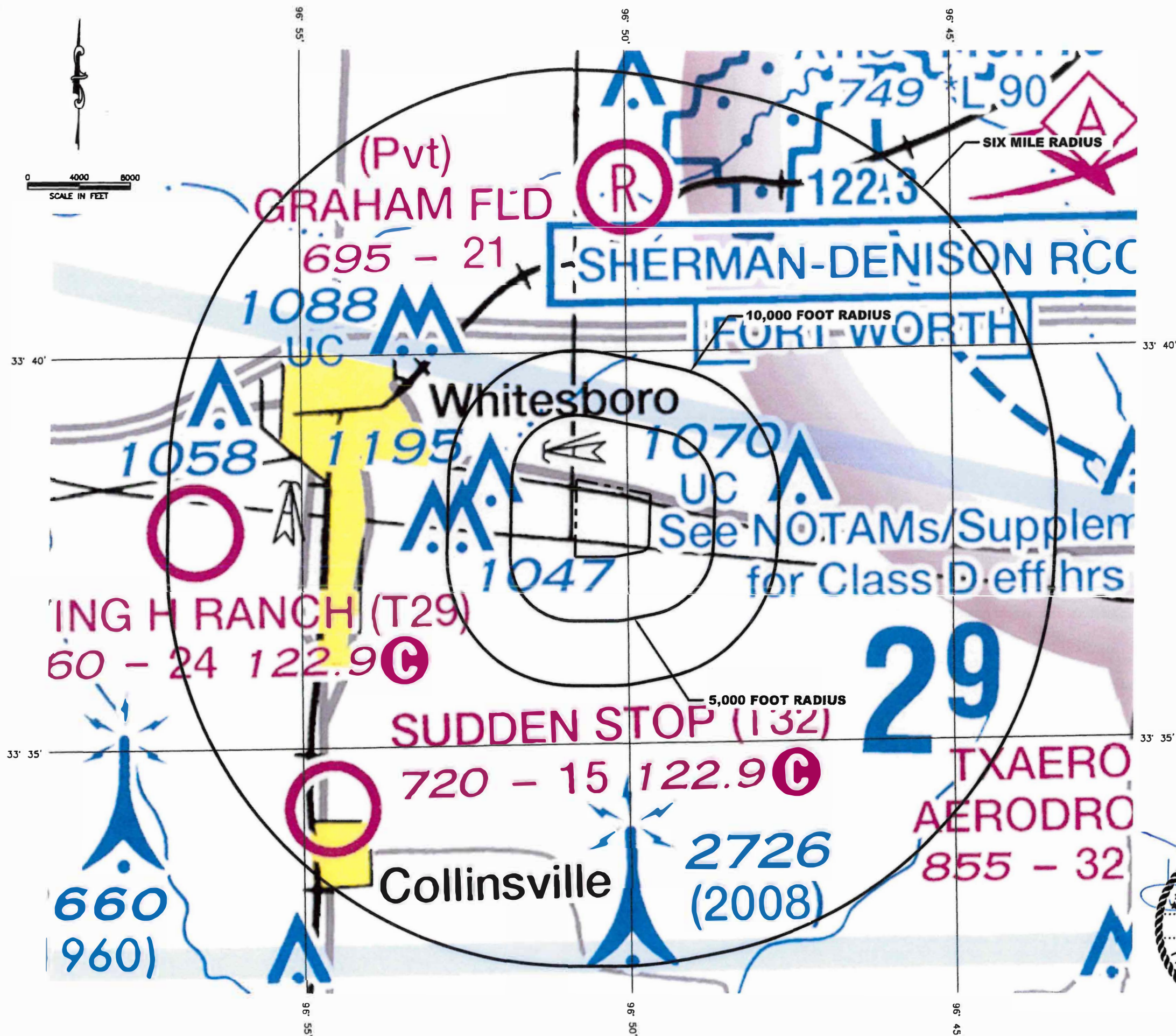
BME

BIGGS & MATHEWS ENVIRONMENTAL
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256
TBPG FIRM NO. 50222

DRAWING
IIA.2

O:\TASWA\p\Drawings\PART II\IA.6-AirportMap.dwg Layout: Layout1 User: scundiff



LEGEND

--- PERMIT BOUNDARY

AIRPORTS

- Other than hard-surfaced runways
- Hard-surfaced runways 1500 ft. to 8069 ft. in length
- Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.
- Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, DME or VORTAC location.
- All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

AIRPORT DATA

Box indicates FAR 93 Special Air Traffic Rules & Airport Traffic Patterns. Runways with Right Traffic Patterns (public use) *RP Special conditions exist - see Supplement.

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 tabulation for hours of operation. C - Follows the Common Traffic Advisory Frequency (CTAF) ATIS 123.8 - Automatic Terminal Information Service AFIS 135.2 - Automatic Flight Information Service (AFIS) ASOS/AWOS 135.42 - Automated Surface Weather Observing Systems (shown where full-time ATIS not available). Some ASOS/AWOS facilities may not be located at airports. UNICOM - Aeronautical advisory station VFR Advsy - VFR Advisory Service shown where full-time ATIS not available and frequency is other than primary CT frequency.

285 - Elevation in feet L - Lighting in operation Sunset to Sunrise *L - Lighting limitations exist; refer to Supplement. 72 - Length of longest runway in hundreds of feet; usable 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.

OBSTRUCTIONS

1000 ft and higher AGL

Above 200 ft & below 1000 ft AGL (above 299 ft AGL in urban area)

Obstruction with high-intensity lights; may operate part-time

Wind Turbine

Group Obstruction

Obstruction with high-intensity lights; may operate part-time

Wind Turbine Farm

Elevation of the top above mean sea level

Height above ground

Under construction or reported; position and elevation unverified

NOTICE: Guy wires may extend outward from structures.

- NOTE:**
1. THERE ARE 2 PUBLIC USE AIRPORTS LOCATED WITHIN SIX MILES OF THE FACILITY.
 2. BASE MAP IS FAA SECTIONAL AERONAUTICAL CHART DALLAS-FT. WORTH, EFFECTIVE DATE MAY 19, 2022 TO JULY 14, 2022.



FAA AIRPORT LOCATION MAP

TEXOMA AREA SOLID WASTE AUTHORITY
TASWA DRP
PERMIT AMENDMENT

BME

BIGGS & MATHEWS ENVIRONMENTAL
1700 ROBERT ROAD, STE. 100
MANSFIELD, TEXAS 76063
817-563-1144

TBPE FIRM NO. F-256
TBPG FIRM NO. 50222

DRAWING
IIA.6

ISSUED FOR PERMITTING PURPOSES ONLY

APPENDIX III
TEXOMA COUNCIL OF GOVERNMENTS DOCUMENTATION

February 11, 2025

Mr. David Clark, PE
Biggs and Mathews Environmental
1700 Robert Road, Suite 100
Mansfield, Texas 76063

RE: Compliance Review of Parts I and II of the Permit Amendment Application
for the TASWA DRF, Grayson County, Texas

Dear Mr. Clark,

The Texoma Texas Council of Governments (TCOG) has been directed by the Texas Commission on Environmental Quality to determine the consistency of solid waste permit applications, amendments, and registration applications with the 2022-2042 Regional Solid Waste Management Plan, Volumes I and II

On February 11, 2025, TCOG's Executive Director found the permit application for the TASWA DRF in Grayson County to be consistent with the goals of the Regional Management Plan.

If you have any questions regarding TCOG's conformance review, please contact Eric Bridges by phone at 903-893-2161 x3512 or by email [REDACTED]

Sincerely,



Eric Bridges
Executive Director

cc: John O'Steen
Alexis Taylor-Baker

APPENDIX IIJ
WASTE ACCEPTANCE PLAN FORM TYPE I AND
TYPE I AE LANDFILL FACILITIES



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: TASWA Disposal and Recycling Facility
2. MSW Permit No.: 2290A

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 Sherman	45,800
City of Denison	25,700
City of Gainesville	17,900
Grayson County	68,500
Cooke County	24,400
Other	10,000

Estimated population or population equivalent served by the facility
192,300

C. General Sources and Types of Waste to be Accepted at the Facility

General sources of waste to be received (household, commercial, industrial, etc.).

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.
N/A

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:
Special waste not listed above accepted only with prior written approval from the
executive director.

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.

N/A

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.

N/A

**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
1	270,000 cy
2	275,400 cy
3	280,900 cy
4	286,500 cy
5	292,300 cy

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.

N/A

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:
