

June 7, 2021  
SCS Project No. 16216088.00

Mr. Eric Clegg  
Municipal Solid Waste Permits Section  
Waste Permits Division (MC-126)  
Texas Commission on Environmental Quality  
12100 Park 35 Circle, Bldg. F  
Austin, TX 78753

Re: Proposed City of Waco Landfill - McLennan and Limestone Counties, Texas  
Municipal Solid Waste - Permit Application No. 2400  
New Permit Application – May 26, 2021 Information Request  
Tracking No. 23201563 [25533209/25817489]; RN110471307/CN600131940

Dear Mr. Clegg:

On behalf of the City of Waco, SCS Engineers (SCS) has prepared the following response to the Texas Commission on Environmental Quality's (TCEQ's) May 26, 2021 New Permit Application, Information Request letter/email, related to a permit application for the proposed City of Waco Landfill, TCEQ Permit No. MSW-2400.

The original comment received in your May 26, 2021 information request is provided below, followed by the City's response in bold/italics:

1. Section 11.2 of Parts I/II and the USACOE's April 13, 2021 letter specify that documents (the certification and the transaction documentation) must be submitted by the applicant/permittee to the USACOE prior to commencement of the activities authorized by the USACOE permit. Revise Section 11.2 of Parts I/II and other relevant portions of the application to specify that copies of the documents required by the USACOE will be submitted to the TCEQ prior to TCEQ's authorizing waste acceptance at this landfill.

***The USACOE permit states that the City is required to submit the permit compliance certification document to the USACOE "upon completion of the activity authorized by this permit and any mitigation required by the permit". As such, a copy of the permit compliance certification will be provided to the USACOE after authorized disturbance activities within waters of the United States have been completed in accordance with the nationwide permit, as previously indicated in Parts I/II, Section 11.2. In response to this comment, Section 11.2 has been updated to indicate that this certification will also be submitted to TCEQ and will be placed and maintained in the Site Operating Record of the landfill.***

***Related to the "transaction documentation," Part I/II, Section 11.2 has been revised to indicate that this documentation will be submitted to USACOE prior to commencing any ground-disturbing activity within waters of the United States, and that this transaction documentation will also be submitted by the Owner to TCEQ prior to TCEQ's authorizing waste acceptance at the landfill.***

***Part IV, Table 7.1 has also been revised to include the above recordkeeping requirements.***

2. Page I/IIIE-15 (the letter from the USACOE) requires compliance with the TCEQ water quality certification conditions. Revise Section 11.2 and other relevant portions of the application to

discuss how the permittee will achieve and stay in compliance with the TCEQ water quality certification conditions. If any measures that already exist in the application can be implemented to comply with the TCEQ water quality certification conditions, revise Section 11.2 to identify the measures and their locations in the application. If necessary, revise the cost estimates for closure and post-closure care for implementing those measures.

***In response to this comment, Part I/II, Section 11.2 has been revised to include a reference to Part III, Attachment 6A, Section 6.2, which includes various best management practices (BMPs) that the Owner will implement to achieve and stay in compliance with the TCEQ water quality certification conditions. Part I/II, Section 11.2 has also been revised to include specifics related to non-structural and structural controls (i.e., BMPs). Furthermore, Part I/II, Section 11.2 and Part III, Attachment 6A, Section 6.2 have been revised to indicate that "The functionality of these controls will be further gauged/measured by operating in compliance with the TPDES General Permit, TXR050000 for Stormwater Discharges associated with Industrial Activity, as indicated in Section 10.2."***

***No change to the closure and post-closure cost estimates were necessary in response to this comment, as the costs for addressing these controls are already included in prior submittals under Items 2.2.1h, 2.2.2h, and 2.8 for closure (see Attachment 8, Appendices 8A and 8B) and Items 2.1, 2.2, and 2.8 for post-closure care (see Attachment 8, Appendices 8C and 8D).***

Additionally, attached to this response letter, we have included one original and two (2) unmarked copies, and one marked copy of all revised pages for use as replacement pages in the permit application. Where possible, we have identified proposed changes from the existing permit application in a redline/strike-out version (i.e., marked version). Additionally, we have included a revision date (June 2021) and revision number (Revision 6) on pages that have been revised as part of this NOD response. Furthermore, we have attached a signed Part 1 Form, and posted this response on the publically accessible internet website <http://www.waco-texas.com/landfill-application-process.asp>.

We trust that our responses will assist you in the completion of your technical review. If you have any questions or need additional information, please do not hesitate to contact Ryan Kuntz, P.E. at (817) 358-6117.

Sincerely,



Ryan Kuntz, P.E.  
Vice President/Satellite Office Manager  
SCS Engineers  
TBPE Registration No. F-3407

Attachments: as described herein

cc: Mr. Charles Dowdell, City of Waco  
Mr. Jeffrey Reed, Lloyd Gosselink Rochelle & Townsend, P.C.

**TCEQ PART 1 FORM FOR NEW PERMIT FOR A MSW FACILITY (TCEQ-0650)**

Facility Name: City of Waco Landfill  
Permittee/Registrant Name: City of Waco  
MSW Authorization #:2400  
Initial Submittal Date: 8/7/2018  
Revision Date: 6/07/2021



**Texas Commission on Environmental Quality**  
**Part I Form for New Permit/Registration and**  
**Amendment Applications for an MSW Facility**

<b>1. Reason for Submittal</b>
<input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Notice of Deficiency (NOD) Response
<b>2. Authorization Type</b>
<input checked="" type="checkbox"/> Permit <input type="checkbox"/> Registration
<b>3. Application Type</b>
<input checked="" type="checkbox"/> New <input type="checkbox"/> Major Amendment <input type="checkbox"/> Major Amendment (Limited Scope)
<b>4. Application Fees</b>
<input type="checkbox"/> Pay by Check <input checked="" type="checkbox"/> Online Payment If paid online, e-Pay Confirmation Number: <b>582EA000311862</b>
<b>5. Application URL</b>
Is the application submitted for Type I Arid Exempt (AE) and/or Type IV AE facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If the answer is "No", provide the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted. <a href="http://www.waco-texas.com/landfill-application-process.asp">http://www.waco-texas.com/landfill-application-process.asp</a>
<b>6. Application Publishing</b>
Party Responsible for Publishing Notice: <input type="checkbox"/> Applicant <input type="checkbox"/> Agent in Service <input checked="" type="checkbox"/> Consultant Contact Name: <b>Ryan R. Kuntz, P.E.</b> Title: <b>Vice President /Project Director</b>

**7. Alternative Language Notice**

Is an alternative language notice required for this application? (For determination refer to Alternative Language Checklist on the Public Notice Verification Form TCEQ-20244-Waste)

Yes                       No

**8. Public Place Location of Application**

Name of the Public Place: **Waco-McLennan County Central Library**

Physical Address: **1717 Austin Avenue**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76701**

(Area code) Telephone Number: **254.750.5941**

**9. Consolidated Permit Processing**

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

Yes                       No                       Not Applicable

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

**10. Confidential Documents**

Does the application contain confidential documents?

Yes                       No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

**11. Permits and Construction Approvals**

Permit or Approval	Received	Pending	Not Applicable
Hazardous Waste Management Program under the Texas Solid Waste Disposal Act	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Underground Injection Control Program under the Texas Injection Well Act	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
National Pollutant Discharge Elimination System Program under the Clean Water Act and Waste Discharge Program under Texas Water Code, Chapter 26	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA). Nonattainment Program under the FCAA	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Permit or Approval	Received	Pending	Not Applicable
Dredge or Fill Permits under the CWA	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Licenses under the Texas Radiation Control Act	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other (describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**12. General Facility Information**

Facility Name: **City of Waco Landfill**  
 Contact Name: **Charles Dowdell** Title: **Director of Solid Waste**  
 MSW Authorization No. (if available): **2400**  
 Regulated Entity Reference No. (if issued)\*: **RN110471307**  
 Physical or Street Address (if available): **4730 T K Parkway**  
 City: **Axtell** County: **McLennan & Limestone** State: **TX** Zip Code: **76624**  
 (Area Code) Telephone Number: **(254) 750-1601**  
 Latitude (Degrees, Minutes Seconds): **N 31° 42' 05.31"**  
 Longitude (Degrees, Minutes Seconds): **W 96° 55' 52.07"**  
 Benchmark Elevation (above mean sea level):                      ft.  
 Provide a description of the location of the facility with respect to known or easily identifiable landmarks: **approximately 0.4 mile south of the intersection of TK Parkway and State Highway 31 in McLennan County**  
 Detail access routes from the nearest United States or state highway to the facility: **approximately 0.4 mile south of the intersection of TK Parkway and State Highway 31 in McLennan County**  
 \*If this number has not been issued for the facility, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Facility as the Regulated Entity.

**13. Facility Type(s)**

- Type I                       Type IV                       Type V  
 Type I AE                       Type IV AE                       Type VI

**14. Activities Conducted at the Facility**

- Storage                       Processing                       Disposal

### 15. Facility Waste Management Unit(s)

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Landfill Unit(s) | <input type="checkbox"/> Incinerator(s)                   |
| <input type="checkbox"/> Class 1 Landfill Unit(s)    | <input type="checkbox"/> Autoclave(s)                     |
| <input type="checkbox"/> Process Tank(s)             | <input type="checkbox"/> Refrigeration Unit(s)            |
| <input type="checkbox"/> Storage Tank(s)             | <input type="checkbox"/> Mobile Processing Unit(s)        |
| <input type="checkbox"/> Tipping Floor               | <input type="checkbox"/> Type VI Demonstration Unit       |
| <input type="checkbox"/> Storage Area                | <input type="checkbox"/> Compost Pile(s) and/or Vessel(s) |
| <input type="checkbox"/> Container(s)                | <input type="checkbox"/> Other (Specify)                  |
| <input type="checkbox"/> Roll-off Boxes              | <input type="checkbox"/> Other (Specify)                  |
| <input type="checkbox"/> Surface Impoundment         | <input type="checkbox"/> 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.

**Proposed Type I Municipal Solid Waste Landfill located on 502.5 acres of land in McLennan and Limestone Counties, designed in accordance with Title 30, Texas Administrative Code, Chapter 330. The primary purpose of this landfill is to serve as a replacement for the current City of Waco landfill (MSW Permit No. 948A). The landfill will provide disposal capacity for residences, businesses, and industries primarily in the communities of McLennan and Limestone Counties and other nearby counties. Includes submittal of Parts III and IV of the permit application, and responses to technical notice of deficiency letters dated 11/19/18, 2/14/19, 8/19/2020, 11/9/2020, 1/21/2021, 4/19/2021, and May 26, 2021.**

### 17. Facility Contact Information

**Site Operator (Permittee/Registrant) Name: City of Waco**

Customer Reference No. (if issued)\*: **CN600131940**

Contact Name: **Charles Dowdell**

Title: **Director of Solid**

**Waste**

Mailing Address: **501 Schroeder Drive**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76710**

(Area Code) Telephone Number: **(254) 750-1601**

Email Address: **charlesd@wacotx.gov**

TX Secretary of State (SOS) Filing Number:

\*If the Site Operator (Permittee/Registrant) does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Site Operator (Permittee/Registrant) as the Customer.

**Operator Name<sup>1</sup>: same as Permittee**

Customer Reference No. (if issued)\*:

Contact Name: Title:

Mailing Address:

City: County: State: Zip Code:

(Area Code) Telephone Number:

Email Address:

TX SOS Filing Number:

<sup>1</sup>If the Operator is the same as Site Operator/Permittee type "Same as "Site Operator (Permittee/Registrant)".

\*If the Operator does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Operator as the customer.

**Consultant Name (if applicable): SCS Engineers, TBPE Registration No. F-3407**

Texas Board of Professional Engineers Firm Registration Number:

Contact Name: **Ryan R. Kuntz, P.E.** Title: **Vice Pres., Pr. Director**

Mailing Address: **1901 Central Drive, Suite 550**

City: **Bedford** County: **Tarrant** State: **TX** Zip Code: **76021**

(Area Code) Telephone Number: **817.358.6117**

E-Mail Address: **rkuntz@scsengineers.com**

**Agent in Service Name (required only for out-of-state):**

Mailing Address:

City: County: State: Zip Code:

(Area Code) Telephone Number:

E-Mail Address:

**18. Facility Supervisor's License**

Select the Type of License that the Solid Waste Facility Supervisor, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations, will obtain prior to commencing facility operations.

Class A  Class B

**19. Ownership Status of the Facility**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Corporation         | <input type="checkbox"/> Limited Partnership        | <input type="checkbox"/> Federal Government |
| <input type="checkbox"/> Individual          | <input checked="" type="checkbox"/> City Government | <input type="checkbox"/> Other Government   |
| <input type="checkbox"/> Sole Proprietorship | <input type="checkbox"/> County Government          | <input type="checkbox"/> Military           |
| <input type="checkbox"/> General Partnership | <input type="checkbox"/> State Government           | <input type="checkbox"/> Other (Specify):   |

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

Yes                       No

If "No", provide the information requested below for any additional ownership.

**Owner Name:**

Street or P.O. Box:

City:                      County:                      State:                      Zip Code:

(Area Code) Telephone Number:

Email Address (optional):

**20. Other Governmental Entities Information**

**Texas Department of Transportation District: Waco**

District Engineer's Name: **Stanley Swiatek, P.E.**

Street Address or P.O. Box: **100 S. Loop Drive**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76704-2858**

(Area Code) Telephone Number: **(254) 867-2700**

E-Mail Address (optional):

**The Local Governmental Authority Responsible for Road Maintenance (if applicable): N.A.**

Contact Person's Name:

Street Address or P.O. Box:

City:                      County:                      State:                      Zip Code:

(Area Code) Telephone Number:

E-Mail Address (optional):

**City Mayor Information**

City Mayor's Name: **Kyle Deaver**

Office Address: **300 Austin Ave**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76702**

(Area Code) Telephone Number: **(254) 750-5750**

E-Mail Address (optional): **kyle.deaver@wcotx.gov**

**City Health Authority: Waco-McLennan County Public Health District**

Contact Person's Name: **Dr. Brenda Gray, Director**

Street Address or P.O. Box: **225 W. Waco Drive**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76707**

(Area Code) Telephone Number: **(254) 750-5450**

E-Mail Address (optional):

**County Judge Information**

County Judge's Name: **Scott M. Felton**  
Street Address or P.O. Box: **501 Washington Ave, Room 214**  
City: **Waco** County: **McLennan** State: **TX** Zip Code: **76701**  
(Area Code) Telephone Number: **(254) 757-5049**  
E-Mail Address (optional):

**County Health Authority: Waco-McLennan County Public Health District**

Contact Person's Name: **E. Farley Verner, M.D.**  
Street Address or P.O. Box: **7030 New Sanger Road, Suite 202**  
City: **Waco** County: **McLennan** State: **TX** Zip Code: **76712**  
(Area Code) Telephone Number: **(254) 855-9790**  
E-Mail Address (optional): **farleyverner@gmail.com**

**State Representative Information**

District Number: **12**  
State Representative's Name: **Kyle Kacal**  
District Office Address: **3000 Briarcrest Dr., Ste 203**  
City: **Bryan** County: **Brazos** State: **TX** Zip Code: **77802**  
(Area Code) Telephone Number: **979-774-7276**  
E-Mail Address (optional):

**State Senator Information**

District Number: **22**  
State Senator's Name: **The Honorable Brian Birdwell**  
District Office Address: **900 Austin Ave, Suite 500**  
City: **Waco** County: **McLennan** State: **TX** Zip Code: **76701**  
(Area Code) Telephone Number: **(254) 772-6225**  
E-Mail Address (optional):

**Council of Government (COG) Name: Heart of Texas**

COG Representative's Name: **Falen Bohannon**  
COG Representative's Title: **Solid Waste Program Manager**  
Street Address or P.O. Box: **1514 S. New Road**  
City: **Waco** County: **McLennan** State: **TX** Zip Code: **76711**  
(Area Code) Telephone Number: **(254)292-1800**  
E-Mail Address (optional): **Falen.Bohannon@hot.cog.tx.us**

**County Judge Information**

County Judge's Name: **Limestone County Judge: Honorable Richard Duncan**

Street Address or P.O. Box: **200 W. State ST., Ste 101**

City: **Groesbeck** County: **Limestone** State: **TX** Zip Code: **76642**

(Area Code) Telephone Number: **254-729-3810**

E-Mail Address (optional):

**County Health Authority: Limestone Medical Center**

Contact Person's Name: **Dr. Jeffrey Rettig**

Street Address or P.O. Box: **204 W. Trinity Street**

City: **Groesbeck** County: **Limestone** State: **TX** Zip Code: **76642**

(Area Code) Telephone Number: **254-729-3740**

E-Mail Address (optional):

**State Representative Information**

District Number: **12**

State Representative's Name: **Kyle Kacal**

District Office Address: **3000 Briarcrest Dr., Ste 203**

City: **Bryan** County: **Brazos** State: **TX** Zip Code: **77802**

(Area Code) Telephone Number: **979-774-7276**

E-Mail Address (optional):

**State Senator Information**

District Number: **5**

State Senator's Name: **Charles Schwertner**

District Office Address: **3000 Briarcrest Drive, Suite 202**

City: **Bryan** County: **Brazos** State: **TX** Zip Code: **77802**

(Area Code) Telephone Number: **979-776-0222**

E-Mail Address (optional):

**Council of Government (COG) Name: Heart of Texas**

COG Representative's Name: **Falen Bohannon**

COG Representative's Title: **Solid Waste Program Manager**

Street Address or P.O. Box: **1514 S. New Road**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76711**

(Area Code) Telephone Number: **(254)292-1800**

E-Mail Address (optional): **Falen.Bohannon@hot.cog.tx.us**

**River Basin Authority Name: Brazos River Authority**

Contact Person's Name: **Phil Ford**

Watershed Sub-Basin Name:

Street Address or P.O. Box: **4600 Cobbs Drive**

City: **Waco** County: **McLennan** State: **TX** Zip Code: **76710**

(Area Code) Telephone Number: **(888) 922-6272**

E-Mail Address (optional):

**Coastal Management Program**

Is the facility within the Coastal Management Program boundary?

Yes  No

**U.S. Army Corps of Engineers**

The facility is located in the following District of the U.S. Army Corps of Engineers:

Albuquerque, NM  Galveston, TX  
 Ft. Worth, TX  Tulsa, OK

**Local Government Jurisdiction**

Within City Limits of:

Within Extraterritorial Jurisdiction of:

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

Yes  No

(If "Yes", provide a copy of the ordinance or order as an attachment):

**Signature Page**

I, Bradley Ford, \_\_\_\_\_ City Manager,  
(Site Operator (Permittee/Registrant)'s Authorized Signatory) (Title)

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.

Signature: [Handwritten Signature]

Date: 6-7-2021

KFP

-----  
TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, \_\_\_\_\_, hereby designate \_\_\_\_\_  
(Print or Type Operator Name) (Print or Type Representative Name)

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

\_\_\_\_\_  
Printed or Typed Name of Operator or Principal Executive Officer

\_\_\_\_\_  
Signature

-----  
SUBSCRIBED AND SWORN to before me by the said Bradley Ford

On this 7th day of June, 2021

My commission expires on the 04 day of January 2025

Christina Podsednik

Notary Public in and for  
Melissa County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)



## Part I Attachments

(See Instructions for P.E. seal requirements.)

### Required Attachments

### Attachment No.

Supplementary Technical Report	X
Property Legal Description	X
Property Metes and Bounds Description	X
Facility Legal Description	X
Facility Metes and Bounds Description	X
Metes and Bounds Drawings	X
On-Site Easements Drawing	X
Land Ownership Map	X
Land Ownership List	X
Electronic List or Mailing Labels	X
Texas Department of Transportation (TxDOT) County Map	X
General Location Map	X
General Topographic Map	X
Verification of Legal Status	X
Property Owner Affidavit	X
Evidence of Competency	X

### Additional Attachments as Applicable- Select all those apply and add as necessary

<input checked="" type="checkbox"/> TCEQ Core Data Form(s)	X
<input checked="" type="checkbox"/> Signatory Authority Delegation	X
<input checked="" type="checkbox"/> Fee Payment Receipt	X
<input type="checkbox"/> Confidential Documents	
<input type="checkbox"/> Waste Storage, Processing and Disposal Ordinances	
<input type="checkbox"/> Final Plat Record of Property	
<input type="checkbox"/> Certificate of Fact (Certificate of Incorporation)	
<input type="checkbox"/> Assumed Name Certificate	

**MARKED VERSION**

**CITY OF WACO LANDFILL  
TCEQ PERMIT NO. MSW-2400  
McLENNAN AND LIMESTONE COUNTIES, TEXAS**

**PARTS I/II  
GENERAL APPLICATION REQUIREMENTS**

**Prepared for:**

**CITY OF WACO**



Solid Waste Services  
501 Schroeder Drive  
Waco, TX 76710



**Prepared by:**

**SCS ENGINEERS**

**Texas Board of Professional Engineers, Reg. No. F-3407**  
Dallas/Fort Worth Office  
1901 Central Drive, Suite 550  
Bedford, Texas 76021  
817/571-2288

Revision 0 - August 2018, September 2018 (Admin NOD #1)

Revision 1 – January 2019

Revision 2 – March 2019

Revision 3 – October 2020

Revision 4 – December 2020

Revision 5 – April 2021

Revision 6 – June 2021

SCS Project No. 16216088.00

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SCS Engineers  
 TBPE Reg. # F-3407



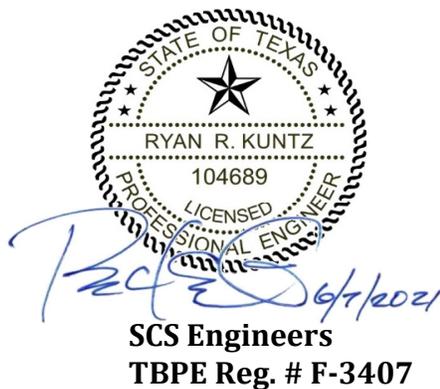
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## 11 FLOODPLAIN AND WETLANDS STATEMENT (30 TAC §330.61(m))

### 11.1 FLOODPLAIN STATEMENT

A small portion of the Site is within the 100-year floodplain of Horse and Packwood Creeks as defined by FEMA. The floodplain limits were obtained from the current effective Flood Insurance Rate Maps (Panels 48309C0250D and 48293C0125C) obtained from FEMA for portions of McLennan and Limestone County. The floodplain limits have been established as Zone A which indicates that no flood elevations have yet been determined along these creeks on the Site. The 100-year floodplain is shown on Drawings I/II-2, I/II-4, and I/II-5.

The proposed waste disposal footprint is located entirely outside the limits of the 100-year floodplain as defined by FEMA. In accordance with 30 TAC §330.547(a), no solid waste disposal operations will take place within the 100-year floodplain, and therefore no development is proposed in the 100-year floodplain. As such, no levee or other flood protection improvement is proposed. Additionally, in accordance with 30 TAC §330.547(b), site operations and development will not restrict the flow or reduce the temporary storage capacity of the 100-year floodplain; nor will the site operations result in washout of solid waste associated with the 100-year floodplain. Furthermore, in accordance with 30 TAC §330.547(c), all storage and processing facilities (e.g., onsite citizen's convenience center) will be located outside of the 100-year floodplain.

Additionally, the site will not require any levees or other improvements, including channel improvements, drainage works, or other projects on, along, or near any stream in the state that is subject to floods, freshets, or overflows, constructed so as to control, regulate, or otherwise change the floodwater of the stream. No portions of the landfill are located within a 100-year floodway. Therefore, the requirements of 30 TAC Chapter 301, Subchapter C, §301.31 to 301.46 relating to the Approval of Levees and Other Improvements, as referenced in 30 TAC §330.61(m)(1) and §330.63(c)(2)(D)(i), are not applicable.

Furthermore, as discussed in Part III, Attachment 6B, a site specific study of the 24-hour, 100-year storm event was performed. The proposed waste disposal footprint is completely outside of the area shown to be impacted by the 24-hour, 100-year storm event. Further, no waste processing is proposed in the area shown to be impacted by the 24-hour, 100-year storm event.

### 11.2 WETLANDS STATEMENT

See Appendix I/IIA for the coordination letter with the U.S. Army Corps of Engineers ([USACOE](#)), Section 404 Jurisdiction Determination report by C. Lee Sherrod of Horizon Environmental Services in Appendix I/II E, and Approved Jurisdictional Determination (AJD) under Section 404 of the Clean Water Act, Nationwide Permit 39 in Appendix I/II E, which addresses the pertinent TCEQ regulations (30 TAC §330.61(m)(2)) regarding wetlands. As noted in the coordination letter in Appendix I/II A, "No wetlands will be impacted by the proposed landfill activity." Additionally, as noted in the jurisdiction determination report, as well as the AJD (see Appendix I/II E), no wetlands exist within the two proposed disposal areas.

Furthermore, in accordance with the AJD, “the permittee shall implement and abide by the mitigation plan titled, "Mitigation Plan, New City of Waco Landfill, TK Parkway, McLennan and Limestone Counties,” prepared by Horizon Environmental Services, Inc., dated April 6, 2021.” This referenced mitigation plan is also included in Appendix I/IIIE. The City will implement the mitigation plan prior to commencing any ground-disturbing activity within waters of the United States, and will submit to ~~U.S. Army Corp of Engineers~~USACOE and TCEQ the permit compliance certification (see page I/IIIE-18) that the work, including any proposed mitigation, was completed in compliance with the nationwide permit within 30 days of the completion of work. Following completion of this certification, it will be placed and maintained in the Site Operating Record of the landfill.

The Owner will also complete the mitigation bank transaction and provide documentation to the USACOE that the transaction has occurred prior to commencing any ground-disturbing activity within waters of the United States, as specified in USACOE’s letter dated April 13, 2021. This transaction documentation will also be submitted by the Owner to TCEQ prior to TCEQ’s authorizing waste acceptance at the landfill.

The Owner will achieve and stay in compliance with the TCEQ water quality certification conditions by implementing best management practices (BMPs) described in Part III, Attachment 6A, Section 6.2. These BMPs may include the use of non-structural controls such as minimizing the disruption of existing vegetation, a phased development of the perimeter drainage system coinciding with landfill sector development, minimizing the size of bare soils that discharge runoff to the perimeter drainage system, and installation and maintaining structural controls identified in Attachment 6A, Section 6.2. The functionality of these controls will be further gauged/measured by operating in compliance with the TPDES General Permit, TXR050000 for Stormwater Discharges associated with Industrial Activity, as indicated in Section 10.2.

**CITY OF WACO LANDFILL  
TCEQ PERMIT NO. MSW-2400  
McLENNAN AND LIMESTONE COUNTIES, TEXAS**

**PART III – SITE DEVELOPMENT PLAN  
ATTACHMENT 6A  
SURFACE WATER DRAINAGE PLAN**

**Prepared for:**

**CITY OF WACO**



Solid Waste Services  
501 Schroeder Drive  
Waco, TX 76710



**Prepared by:**

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in the event they become clogged with sediment, as indicated by pooling water behind the berms or socks.

- 7. Vegetative Buffers or Filter Strips:** Vegetative buffers will be maintained near the perimeter of the property or natural stream to trap sediment, as appropriate.

The above specifications provide guidance to the Landfill Manager for selection of BMPs to control erosion and offsite sedimentation. At a minimum, drainage swales and downchutes will be installed on intermediate and final cover, as described in Subsections 6.4 and 6.5, respectively. The above referenced BMPs may be used separately or in combination with each other to control erosion and offsite sedimentation at the landfill. The following provides general guidelines on how the erosion control features will minimize erosion or sediment discharge from the site:

- The installation of erosion controls will be performed in conjunction with placement of intermediate cover and final cover. Final cover will be placed as areas of the landfill reach design final grades, followed by (1) placement of permanent erosion controls and (2) construction of drainage control structures, such as drainage swales and downchutes, vegetation, perimeter channels and detention ponds. The sequence of installing the perimeter drainage system is discussed in Subsection 6.6.
- Vegetation will be established on above-grade areas with intermediate cover and final cover following application of cover. The vegetative cover will substantially reduce erosion potential.
- Drainage swales and downchutes will be installed on intermediate and final cover at the frequency specified in Subsection 6.4 and Subsection 6.5, respectively. Other BMPs will be installed on an as-needed basis, as a result of cover inspections.
- Uncontaminated stormwater runoff from the landfill will be conveyed to the perimeter channels or detention basins by drainage swales/downchutes or overland flow before being discharged from the site. Sediment that collects in these drainage structures will be removed consistent with the stormwater system maintenance plan presented in Subsection 6.7.
- Site management will maintain coverage under the TPDES general stormwater permit TXR050000 for Stormwater Discharges associated with Industrial Activity, and will keep an updated version of the Storm Water Pollution Prevention Plan (SWP3) on-site. In accordance with the Approved Jurisdictional Determination (AJD) under Section 404 of the Clean Water Act, Nationwide Permit 39 (see Part I/II, Appendix I/II), the Owner will achieve and stay in compliance with the TCEQ water quality certification conditions by implementing the BMPs (i.e., non-structural and structural controls) described in this section. The functionality of these BMPs will be further gauged/measured by operating in compliance with the TPDES general permit.
- Runoff from the working face will be contained within the landfill by temporary containment and/or diversion berms, as described in Attachment 15 of this application.

### 6.3 SOIL STOCKPILES AND DAILY COVER EROSION CONTROL PRACTICES

Soil stockpiles and areas with daily cover are typically not vegetated, as these areas remain active for long periods of time. However, BMPs will be installed to reduce erosion and offsite sedimentation from these areas. At a minimum, BMPs will be installed down-gradient of daily cover areas and at the toe of soil stockpiles that have the potential to drain to the perimeter drainage system or landfill property boundary. Any of the BMPs described in Subsection 6.2.3 may be installed to reduce erosion and offsite sedimentation. The effectiveness of the selected BMP will be evaluated during cover and BMP inspections, as described in Subsection 6.7.

### 6.4 INTERMEDIATE COVER EROSION CONTROL PRACTICES

All areas that receive waste and then become inactive for longer than 180 days will be covered with intermediate cover. Vegetation will be established on intermediate cover within 180 days following application of the intermediate cover. Vegetation will provide a minimum 60 percent ground coverage. When vegetation is being established, landfill personnel will perform cover inspections, as described in Subsection 6.7, and will continue to place temporary seed or sod until vegetation is established.

An overland flow velocity and soil loss demonstration for intermediate cover are included in Appendices 6A-E and 6A-F, respectively. These demonstrations are discussed in Subsections 2.2 and 2.3 of this attachment. As presented in the soil loss analysis, the maximum soil loss from the intermediate cover topslope and sideslope is estimated to be approximately 5.5 tons/acre/year and 43.0 tons/acre/year, respectively. The overland flow velocity demonstration indicates that velocities on intermediate cover topslopes and sideslopes will be less than 3 fps.

To maintain soil loss and overland flow velocities below the permissible limits, drainage swales will be installed on intermediate cover slopes every 400 horizontal feet or 100 vertical feet on a 4H:1V sideslope. Drainage swales will drain surface water to installed downchutes that discharge into the perimeter drainage system. Drainage swales and downchutes will be installed on intermediate cover within 180 days of the application of intermediate cover, assuming the external embankment sideslopes have been constructed to at least 100-feet above natural grade. An example of drainage swales and downchutes installed on intermediate cover is shown on Drawing 6A-E.3 and 6A-E.4. Other BMPs will be installed, as needed, as a result of cover and BMP inspections. BMPs will also be evaluated for effectiveness during the inspections. Installation specifications for structural BMPs are provided in Subsection 6.2.3.

### 6.5 FINAL COVER EROSION CONTROL PRACTICES

Final cover will be installed consistent with Attachment 12 - Final Closure Plan. The top 6 inches of the final cover will be capable of sustaining native vegetation. Areas that receive final cover will be vegetated immediately following completion of final cover placement. Vegetation will provide a minimum 90 percent ground coverage. When vegetation is being established, landfill personnel will perform cover inspection, as described in Subsection 6.7, and will continue to place seed or sod until 90 percent vegetated coverage is established.

An overland flow velocity demonstration and a soil loss demonstration for final cover are included in Appendices 6A-E and 6A-F, respectively. These demonstrations are discussed in Subsections 2.2 and 2.3. As presented in the soil loss analysis, the maximum soil loss from the final cover topslopes and sideslopes is estimated to be approximately 0.45 tons/acre/year and 2.70 tons/acre/year, respectively. The overland flow velocity demonstration indicates that velocities on final cover topslopes and sideslopes will be less than 5 fps.

Consistent with the proposed drainage design, drainage swales will be installed on final cover every 130 horizontal feet or 32.5 vertical feet on a 4H:1V sideslope. Drainage swales and downchutes will be installed on final cover during placement of final cover. Drainage swales and downchutes will be installed on final cover at the locations shown on Drawing 6A.3.

Potential soil loss from final cover will be mitigated by (1) periodic cover inspections and maintenance consistent with the Subsection 6.7, and (2) constructing the perimeter drainage system as described in Subsection 6.6, and (3) implementing BMPs upstream of the drainage features, within the drainage features, or at the offsite discharge outlets, as appropriate, to prevent offsite sedimentation. Prior to placement of final cover, temporary structural controls will be removed followed by the installation of the permanent structural controls. These BMPs will be removed in such a manner so as to minimize disturbance of the vegetative layer in place at the time of removal.

## 6.6 SEQUENCE OF DEVELOPMENT - PERIMETER DRAINAGE SYSTEM

During ongoing landfill development, drainage features, as described in Section 4 and depicted on Drawing 6A.3, including perimeter drainage channels and detention basins, will be constructed and maintained. The drainage features will be installed concurrent with the construction of up-gradient landfill disposal cells, such that when the cell grades are above existing grade, down-gradient drainage features are in-place. The sector fill layout, which depicts the sequence of sector development and direction of fill, is provided on Drawing 1.4 (see Attachment 1). Additionally, to control offsite sedimentation and reduce erosive velocities in the perimeter drainage system, vegetation or other approved structural controls (as described in Subsections 6.3 through 6.5 for the phases of landfill operation) will be installed for controlling erosion and offsite sedimentation.

During ongoing landfill development, prior to vegetation on the top dome surface and external embankment sideslopes (intermediate or final cover), BMPs described in Subsection 6.2.3 will be installed, as appropriate, to reduce sedimentation up-gradient of offsite discharge outlets. Landfill cover, BMP, and perimeter drainage system inspections will be performed, as described in Subsection 6.7.

## 6.7 STORMWATER SYSTEM INSPECTION AND MAINTENANCE PLAN

In accordance with 30 TAC §330.305(e)(1), constructed stormwater systems such as channels, drainage swales, downchutes, and detention basins will be restored and repaired in the event of washout, failure, or erosion damage. In addition, other installed BMPs will be replaced or repaired, consistent with this inspection and maintenance plan.

Excessive sediment deposited during the landfill operations will be removed from the drainage features, as needed, so that the features will function as designed. Site inspections by landfill personnel will be performed daily for active daily cover areas, weekly for inactive daily cover and intermediate cover areas, monthly for final cover areas, or within 24 hours of significant rainfall events (a significant rainfall event being 0.5 inches or greater over a 24-hour period). Site inspections will include both inspection of the landfill cover and in-place BMPs. Cover and BMP inspections and maintenance will be documented in the Site Operating Record (as specified in the SOP). Daily inspections will be noted in the cover application log, and weekly and monthly inspections will be noted on the form or similar form provided in Appendix 6A-G - Erosion and Sedimentation Control Inspection and Maintenance Form.

The following items will be evaluated during the inspections:

- Erosion of daily, intermediate, and final cover areas; downchutes; drainage swales; detention basins; and other temporary and permanent drainage features.
- Adequate vegetation coverage for intermediate cover (60 percent minimum) and final cover (90 percent minimum).
- Silt and sediment build-up, or obstructions in temporary and permanent drainage features.
- Presence of erosion or sediment discharge at offsite discharge locations.
- Presence of sediment discharges along the site boundary in areas which have been disturbed by site activities.

Maintenance activities will be performed to correct damaged or deficient items noted during the cover and BMP inspections. These activities will be performed within 5 days of the inspection or detection of the damaged or deficiency, as described in the SOP. However, the timeframe for correction of damaged or deficient BMPs or erosion control structures may vary based on weather, ground conditions, and other site-specific conditions. Erosion of intermediate or final cover will be repaired by restoring the cover material, grading, compacting, and/or seeding or sodding, as described in the SOP.

Maintenance activities will include, but are not limited to, the following as needed:

- Placement of additional temporary or permanent vegetation in eroded areas or areas which have not achieved the required vegetative coverage.
- Placement of additional soils in eroded areas or areas which have settled. This will require re-grading and/or stabilization of soils in the eroded areas.
- Placement of additional rip rap, erosion control mats or TRMs, or other BMPs, as described in Subsection 6.2.3, in eroded areas or in area which have settled.
- Removal of obstructions, such as debris, silt, and sediment build-up from drainage features, including swales downchutes, perimeter channels, and detention basins.

- Replacement or repair of rip rap or other structural lining.
- Replacement or repair of permanent erosion mats or fabrics.
- Repairs to existing erosion and sedimentation controls.

**CITY OF WACO LANDFILL  
TCEQ PERMIT NO. MSW-2400  
McLENNAN AND LIMESTONE COUNTIES, TEXAS**

**PART IV  
SITE OPERATING PLAN**

**Prepared for:**

**CITY OF WACO**



Solid Waste Services  
501 Schroeder Drive  
Waco, TX 76710



**Prepared by:**

**SCS ENGINEERS**

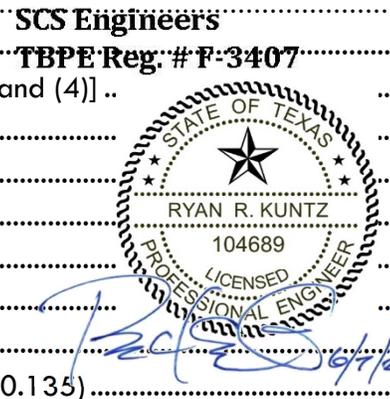
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**Table 7.1 Recordkeeping Requirements**

<b>Recordkeeping Requirement</b>	<b>TCEQ Regulation</b>	<b>Permit Reference</b>	<b>Minimum Frequency</b>
All location restriction demonstrations.	§330.125(b)(1)	Parts I/II	NA
<u>Permit Compliance Certification Document (Nationwide Permit 39)</u>	<u>§330.61(m)(2)</u>	<u>Part I/II, Section 11.2</u>	<u>Per occurrence</u>
<u>Mitigation Bank Transaction Document (Nationwide Permit 39)</u>	<u>§330.61(m)(2)</u>	<u>Part I/II, Section 11.2</u>	<u>Per occurrence</u>
Inspection and notification records relating to unauthorized waste.	§330.125(b)(2)	SOP, Section 5	Per occurrence
Personnel training requirements and records, and personnel operator licenses.	§335.586(d) and (e)	SOP, Section 2.2	Annually
Inspection records relating to fire prevention.	§330.129	SOP, Section 6	Per occurrence
Results from gas monitoring events.	§330.125(b)(3)	Attachment 11	Quarterly
Remediation plans relating to explosive and other gases.	§330.125(b)(3)	Attachment 11	Per occurrence
Documentation for the placement of leachate or gas condensate in the landfill.	§330.125(b)(4)	SOP, Section 4.22	Per occurrence
Demonstrations, certifications, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action.	§330.125(b)(5)	Attachment 7	Semi-Annually
Closure plans and monitoring, testing, or analytical data relating to closure requirements.	§330.125(b)(6)	Attachment 9	Per occurrence
Post-closure care plans and monitoring, testing, or analytical data relating to post-closure requirements.	§330.125(b)(6)	Attachment 9	Per occurrence
Cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure care.	§330.125(b)(7)	Attachment 8	Annually
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.	§330.125(b)(9)	Landfill Permit	Per occurrence
All documents, manifests, trip tickets, etc., involving special waste.	§330.125(b)(10)	SOP, Section 4.20	Per occurrence
Documents related to the annual waste acceptance rate, including quarterly and annual solid waste summary reports.	§330.125(h)	SOP, Section 7.2	Quarterly and Annually
Alternate operating hours.	§330.135	SOP, Section 4.3	Per occurrence
A record of unauthorized waste removed from the landfill.	§330.133(b)	SOP, Section 5.5	Per occurrence

**UNMARKED VERSION**

**CITY OF WACO LANDFILL  
TCEQ PERMIT NO. MSW-2400  
McLENNAN AND LIMESTONE COUNTIES, TEXAS**

**PARTS I/II  
GENERAL APPLICATION REQUIREMENTS**

**Prepared for:**

**CITY OF WACO**



Solid Waste Services  
501 Schroeder Drive  
Waco, TX 76710



**Prepared by:**

**SCS ENGINEERS**

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SCS Engineers  
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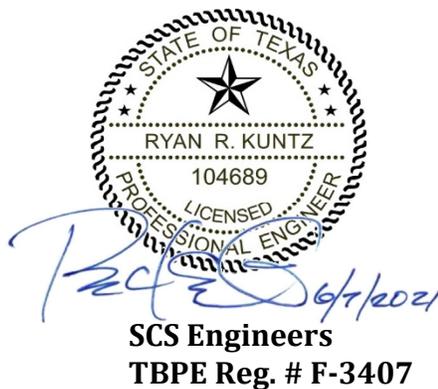
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## 11 FLOODPLAIN AND WETLANDS STATEMENT (30 TAC §330.61(m))

### 11.1 FLOODPLAIN STATEMENT

A small portion of the Site is within the 100-year floodplain of Horse and Packwood Creeks as defined by FEMA. The floodplain limits were obtained from the current effective Flood Insurance Rate Maps (Panels 48309C0250D and 48293C0125C) obtained from FEMA for portions of McLennan and Limestone County. The floodplain limits have been established as Zone A which indicates that no flood elevations have yet been determined along these creeks on the Site. The 100-year floodplain is shown on Drawings I/II-2, I/II-4, and I/II-5.

The proposed waste disposal footprint is located entirely outside the limits of the 100-year floodplain as defined by FEMA. In accordance with 30 TAC §330.547(a), no solid waste disposal operations will take place within the 100-year floodplain, and therefore no development is proposed in the 100-year floodplain. As such, no levee or other flood protection improvement is proposed. Additionally, in accordance with 30 TAC §330.547(b), site operations and development will not restrict the flow or reduce the temporary storage capacity of the 100-year floodplain; nor will the site operations result in washout of solid waste associated with the 100-year floodplain. Furthermore, in accordance with 30 TAC §330.547(c), all storage and processing facilities (e.g., onsite citizen's convenience center) will be located outside of the 100-year floodplain.

Additionally, the site will not require any levees or other improvements, including channel improvements, drainage works, or other projects on, along, or near any stream in the state that is subject to floods, freshets, or overflows, constructed so as to control, regulate, or otherwise change the floodwater of the stream. No portions of the landfill are located within a 100-year floodway. Therefore, the requirements of 30 TAC Chapter 301, Subchapter C, §301.31 to 301.46 relating to the Approval of Levees and Other Improvements, as referenced in 30 TAC §330.61(m)(1) and §330.63(c)(2)(D)(i), are not applicable.

Furthermore, as discussed in Part III, Attachment 6B, a site specific study of the 24-hour, 100-year storm event was performed. The proposed waste disposal footprint is completely outside of the area shown to be impacted by the 24-hour, 100-year storm event. Further, no waste processing is proposed in the area shown to be impacted by the 24-hour, 100-year storm event.

### 11.2 WETLANDS STATEMENT

See Appendix I/IIA for the coordination letter with the U.S. Army Corps of Engineers (USACOE), Section 404 Jurisdiction Determination report by C. Lee Sherrod of Horizon Environmental Services in Appendix I/II E, and Approved Jurisdictional Determination (AJD) under Section 404 of the Clean Water Act, Nationwide Permit 39 in Appendix I/II E, which addresses the pertinent TCEQ regulations (30 TAC §330.61(m)(2)) regarding wetlands. As noted in the coordination letter in Appendix I/II A, "No wetlands will be impacted by the proposed landfill activity." Additionally, as noted in the jurisdiction determination report, as well as the AJD (see Appendix I/II E), no wetlands exist within the two proposed disposal areas.

Furthermore, in accordance with the AJD, “the permittee shall implement and abide by the mitigation plan titled, "Mitigation Plan, New City of Waco Landfill, TK Parkway, McLennan and Limestone Counties,” prepared by Horizon Environmental Services, Inc., dated April 6, 2021.” This referenced mitigation plan is also included in Appendix I/II. The City will implement the mitigation plan prior to commencing any ground-disturbing activity within waters of the United States, and will submit to USACOE and TCEQ the permit compliance certification (see page I/II-18) that the work, including any proposed mitigation, was completed in compliance with the nationwide permit within 30 days of the completion of work. Following completion of this certification, it will be placed and maintained in the Site Operating Record of the landfill.

The Owner will also complete the mitigation bank transaction and provide documentation to the USACOE that the transaction has occurred prior to commencing any ground-disturbing activity within waters of the United States, as specified in USACOE’s letter dated April 13, 2021. This transaction documentation will also be submitted by the Owner to TCEQ prior to TCEQ’s authorizing waste acceptance at the landfill.

The Owner will achieve and stay in compliance with the TCEQ water quality certification conditions by implementing best management practices (BMPs) described in Part III, Attachment 6A, Section 6.2. These BMPs may include the use of non-structural controls such as minimizing the disruption of existing vegetation, a phased development of the perimeter drainage system coinciding with landfill sector development, minimizing the size of bare soils that discharge runoff to the perimeter drainage system, and installation and maintaining structural controls identified in Attachment 6A, Section 6.2. The functionality of these controls will be further gauged/measured by operating in compliance with the TPDES General Permit, TXR050000 for Stormwater Discharges associated with Industrial Activity, as indicated in Section 10.2.

**CITY OF WACO LANDFILL  
TCEQ PERMIT NO. MSW-2400  
McLENNAN AND LIMESTONE COUNTIES, TEXAS**

**PART III – SITE DEVELOPMENT PLAN  
ATTACHMENT 6A  
SURFACE WATER DRAINAGE PLAN**

**Prepared for:**

**CITY OF WACO**



Solid Waste Services  
501 Schroeder Drive  
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in the event they become clogged with sediment, as indicated by pooling water behind the berms or socks.

- 7. Vegetative Buffers or Filter Strips:** Vegetative buffers will be maintained near the perimeter of the property or natural stream to trap sediment, as appropriate.

The above specifications provide guidance to the Landfill Manager for selection of BMPs to control erosion and offsite sedimentation. At a minimum, drainage swales and downchutes will be installed on intermediate and final cover, as described in Subsections 6.4 and 6.5, respectively. The above referenced BMPs may be used separately or in combination with each other to control erosion and offsite sedimentation at the landfill. The following provides general guidelines on how the erosion control features will minimize erosion or sediment discharge from the site:

- The installation of erosion controls will be performed in conjunction with placement of intermediate cover and final cover. Final cover will be placed as areas of the landfill reach design final grades, followed by (1) placement of permanent erosion controls and (2) construction of drainage control structures, such as drainage swales and downchutes, vegetation, perimeter channels and detention ponds. The sequence of installing the perimeter drainage system is discussed in Subsection 6.6.
- Vegetation will be established on above-grade areas with intermediate cover and final cover following application of cover. The vegetative cover will substantially reduce erosion potential.
- Drainage swales and downchutes will be installed on intermediate and final cover at the frequency specified in Subsection 6.4 and Subsection 6.5, respectively. Other BMPs will be installed on an as-needed basis, as a result of cover inspections.
- Uncontaminated stormwater runoff from the landfill will be conveyed to the perimeter channels or detention basins by drainage swales/downchutes or overland flow before being discharged from the site. Sediment that collects in these drainage structures will be removed consistent with the stormwater system maintenance plan presented in Subsection 6.7.
- Site management will maintain coverage under the TPDES general stormwater permit TXR050000 for Stormwater Discharges associated with Industrial Activity, and will keep an updated version of the Storm Water Pollution Prevention Plan (SWP3) on-site. In accordance with the Approved Jurisdictional Determination (AJD) under Section 404 of the Clean Water Act, Nationwide Permit 39 (see Part I/II, Appendix I/II), the Owner will achieve and stay in compliance with the TCEQ water quality certification conditions by implementing the BMPs (i.e., non-structural and structural controls) described in this section. The functionality of these BMPs will be further gauged/measured by operating in compliance with the TPDES general permit.
- Runoff from the working face will be contained within the landfill by temporary containment and/or diversion berms, as described in Attachment 15 of this application.

### 6.3 SOIL STOCKPILES AND DAILY COVER EROSION CONTROL PRACTICES

Soil stockpiles and areas with daily cover are typically not vegetated, as these areas remain active for long periods of time. However, BMPs will be installed to reduce erosion and offsite sedimentation from these areas. At a minimum, BMPs will be installed down-gradient of daily cover areas and at the toe of soil stockpiles that have the potential to drain to the perimeter drainage system or landfill property boundary. Any of the BMPs described in Subsection 6.2.3 may be installed to reduce erosion and offsite sedimentation. The effectiveness of the selected BMP will be evaluated during cover and BMP inspections, as described in Subsection 6.7.

### 6.4 INTERMEDIATE COVER EROSION CONTROL PRACTICES

All areas that receive waste and then become inactive for longer than 180 days will be covered with intermediate cover. Vegetation will be established on intermediate cover within 180 days following application of the intermediate cover. Vegetation will provide a minimum 60 percent ground coverage. When vegetation is being established, landfill personnel will perform cover inspections, as described in Subsection 6.7, and will continue to place temporary seed or sod until vegetation is established.

An overland flow velocity and soil loss demonstration for intermediate cover are included in Appendices 6A-E and 6A-F, respectively. These demonstrations are discussed in Subsections 2.2 and 2.3 of this attachment. As presented in the soil loss analysis, the maximum soil loss from the intermediate cover topslope and sideslope is estimated to be approximately 5.5 tons/acre/year and 43.0 tons/acre/year, respectively. The overland flow velocity demonstration indicates that velocities on intermediate cover topslopes and sideslopes will be less than 3 fps.

To maintain soil loss and overland flow velocities below the permissible limits, drainage swales will be installed on intermediate cover slopes every 400 horizontal feet or 100 vertical feet on a 4H:1V sideslope. Drainage swales will drain surface water to installed downchutes that discharge into the perimeter drainage system. Drainage swales and downchutes will be installed on intermediate cover within 180 days of the application of intermediate cover, assuming the external embankment sideslopes have been constructed to at least 100-feet above natural grade. An example of drainage swales and downchutes installed on intermediate cover is shown on Drawing 6A-E.3 and 6A-E.4. Other BMPs will be installed, as needed, as a result of cover and BMP inspections. BMPs will also be evaluated for effectiveness during the inspections. Installation specifications for structural BMPs are provided in Subsection 6.2.3.

### 6.5 FINAL COVER EROSION CONTROL PRACTICES

Final cover will be installed consistent with Attachment 12 - Final Closure Plan. The top 6 inches of the final cover will be capable of sustaining native vegetation. Areas that receive final cover will be vegetated immediately following completion of final cover placement. Vegetation will provide a minimum 90 percent ground coverage. When vegetation is being established, landfill personnel will perform cover inspection, as described in Subsection 6.7, and will continue to place seed or sod until 90 percent vegetated coverage is established.

An overland flow velocity demonstration and a soil loss demonstration for final cover are included in Appendices 6A-E and 6A-F, respectively. These demonstrations are discussed in Subsections 2.2 and 2.3. As presented in the soil loss analysis, the maximum soil loss from the final cover topslopes and sideslopes is estimated to be approximately 0.45 tons/acre/year and 2.70 tons/acre/year, respectively. The overland flow velocity demonstration indicates that velocities on final cover topslopes and sideslopes will be less than 5 fps.

Consistent with the proposed drainage design, drainage swales will be installed on final cover every 130 horizontal feet or 32.5 vertical feet on a 4H:1V sideslope. Drainage swales and downchutes will be installed on final cover during placement of final cover. Drainage swales and downchutes will be installed on final cover at the locations shown on Drawing 6A.3.

Potential soil loss from final cover will be mitigated by (1) periodic cover inspections and maintenance consistent with the Subsection 6.7, and (2) constructing the perimeter drainage system as described in Subsection 6.6, and (3) implementing BMPs upstream of the drainage features, within the drainage features, or at the offsite discharge outlets, as appropriate, to prevent offsite sedimentation. Prior to placement of final cover, temporary structural controls will be removed followed by the installation of the permanent structural controls. These BMPs will be removed in such a manner so as to minimize disturbance of the vegetative layer in place at the time of removal.

## 6.6 SEQUENCE OF DEVELOPMENT - PERIMETER DRAINAGE SYSTEM

During ongoing landfill development, drainage features, as described in Section 4 and depicted on Drawing 6A.3, including perimeter drainage channels and detention basins, will be constructed and maintained. The drainage features will be installed concurrent with the construction of up-gradient landfill disposal cells, such that when the cell grades are above existing grade, down-gradient drainage features are in-place. The sector fill layout, which depicts the sequence of sector development and direction of fill, is provided on Drawing 1.4 (see Attachment 1). Additionally, to control offsite sedimentation and reduce erosive velocities in the perimeter drainage system, vegetation or other approved structural controls (as described in Subsections 6.3 through 6.5 for the phases of landfill operation) will be installed for controlling erosion and offsite sedimentation.

During ongoing landfill development, prior to vegetation on the top dome surface and external embankment sideslopes (intermediate or final cover), BMPs described in Subsection 6.2.3 will be installed, as appropriate, to reduce sedimentation up-gradient of offsite discharge outlets. Landfill cover, BMP, and perimeter drainage system inspections will be performed, as described in Subsection 6.7.

## 6.7 STORMWATER SYSTEM INSPECTION AND MAINTENANCE PLAN

In accordance with 30 TAC §330.305(e)(1), constructed stormwater systems such as channels, drainage swales, downchutes, and detention basins will be restored and repaired in the event of washout, failure, or erosion damage. In addition, other installed BMPs will be replaced or repaired, consistent with this inspection and maintenance plan.

Excessive sediment deposited during the landfill operations will be removed from the drainage features, as needed, so that the features will function as designed. Site inspections by landfill personnel will be performed daily for active daily cover areas, weekly for inactive daily cover and intermediate cover areas, monthly for final cover areas, or within 24 hours of significant rainfall events (a significant rainfall event being 0.5 inches or greater over a 24-hour period). Site inspections will include both inspection of the landfill cover and in-place BMPs. Cover and BMP inspections and maintenance will be documented in the Site Operating Record (as specified in the SOP). Daily inspections will be noted in the cover application log, and weekly and monthly inspections will be noted on the form or similar form provided in Appendix 6A-G - Erosion and Sedimentation Control Inspection and Maintenance Form.

The following items will be evaluated during the inspections:

- Erosion of daily, intermediate, and final cover areas; downchutes; drainage swales; detention basins; and other temporary and permanent drainage features.
- Adequate vegetation coverage for intermediate cover (60 percent minimum) and final cover (90 percent minimum).
- Silt and sediment build-up, or obstructions in temporary and permanent drainage features.
- Presence of erosion or sediment discharge at offsite discharge locations.
- Presence of sediment discharges along the site boundary in areas which have been disturbed by site activities.

Maintenance activities will be performed to correct damaged or deficient items noted during the cover and BMP inspections. These activities will be performed within 5 days of the inspection or detection of the damaged or deficiency, as described in the SOP. However, the timeframe for correction of damaged or deficient BMPs or erosion control structures may vary based on weather, ground conditions, and other site-specific conditions. Erosion of intermediate or final cover will be repaired by restoring the cover material, grading, compacting, and/or seeding or sodding, as described in the SOP.

Maintenance activities will include, but are not limited to, the following as needed:

- Placement of additional temporary or permanent vegetation in eroded areas or areas which have not achieved the required vegetative coverage.
- Placement of additional soils in eroded areas or areas which have settled. This will require re-grading and/or stabilization of soils in the eroded areas.
- Placement of additional rip rap, erosion control mats or TRMs, or other BMPs, as described in Subsection 6.2.3, in eroded areas or in area which have settled.
- Removal of obstructions, such as debris, silt, and sediment build-up from drainage features, including swales downchutes, perimeter channels, and detention basins.

- Replacement or repair of rip rap or other structural lining.
- Replacement or repair of permanent erosion mats or fabrics.
- Repairs to existing erosion and sedimentation controls.

**CITY OF WACO LANDFILL  
TCEQ PERMIT NO. MSW-2400  
McLENNAN AND LIMESTONE COUNTIES, TEXAS**

**PART IV  
SITE OPERATING PLAN**

**Prepared for:**

**CITY OF WACO**



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**Prepared by:**

**SCS ENGINEERS**

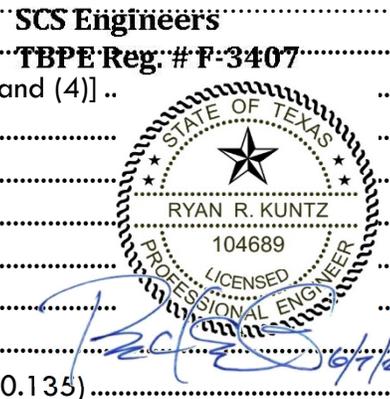
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**SCS Engineers**  
**TBPE Reg. # F-3407**

**Table 7.1 Recordkeeping Requirements**

<b>Recordkeeping Requirement</b>	<b>TCEQ Regulation</b>	<b>Permit Reference</b>	<b>Minimum Frequency</b>
All location restriction demonstrations.	§330.125(b)(1)	Parts I/II	NA
Permit Compliance Certification Document (Nationwide Permit 39)	§330.61(m)(2)	Part I/II, Section 11.2	Per occurrence
Mitigation Bank Transaction Document (Nationwide Permit 39)	§330.61(m)(2)	Part I/II, Section 11.2	Per occurrence
Inspection and notification records relating to unauthorized waste.	§330.125(b)(2)	SOP, Section 5	Per occurrence
Personnel training requirements and records, and personnel operator licenses.	§335.586(d) and (e)	SOP, Section 2.2	Annually
Inspection records relating to fire prevention.	§330.129	SOP, Section 6	Per occurrence
Results from gas monitoring events.	§330.125(b)(3)	Attachment 11	Quarterly
Remediation plans relating to explosive and other gases.	§330.125(b)(3)	Attachment 11	Per occurrence
Documentation for the placement of leachate or gas condensate in the landfill.	§330.125(b)(4)	SOP, Section 4.22	Per occurrence
Demonstrations, certifications, findings, monitoring, testing, and analytical data relating to groundwater monitoring and corrective action.	§330.125(b)(5)	Attachment 7	Semi-Annually
Closure plans and monitoring, testing, or analytical data relating to closure requirements.	§330.125(b)(6)	Attachment 9	Per occurrence
Post-closure care plans and monitoring, testing, or analytical data relating to post-closure requirements.	§330.125(b)(6)	Attachment 9	Per occurrence
Cost estimates and financial assurance documentation relating to financial assurance for closure and post-closure care.	§330.125(b)(7)	Attachment 8	Annually
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.	§330.125(b)(9)	Landfill Permit	Per occurrence
All documents, manifests, trip tickets, etc., involving special waste.	§330.125(b)(10)	SOP, Section 4.20	Per occurrence
Documents related to the annual waste acceptance rate, including quarterly and annual solid waste summary reports.	§330.125(h)	SOP, Section 7.2	Quarterly and Annually
Alternate operating hours.	§330.135	SOP, Section 4.3	Per occurrence
A record of unauthorized waste removed from the landfill.	§330.133(b)	SOP, Section 5.5	Per occurrence