Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: 09/2022
Facility Name: San Angelo Landfill
Permit or Registration No.: 79

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:	

REPUBLIC SERVICES

Sustainability in Action

September 28, 2022

Ms. Megan Henson
MC 124
Municipal Solid Waste Permits Section
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Permit Modification – Annual Waste Acceptance Rate
San Angelo Landfill – Permit No. MSW-79
Tom Green County, Texas

Dear Ms. Henson:

On behalf of the City of San Angelo (Owner) and Republic Waste Services of Texas, Ltd. (Operator), please find attached one original and one copy of the referenced permit modification. This permit modification has been prepared to increase the annual waste acceptance rate established for the facility. The landfill is currently permitted to accept up to 700 tons per day, which was established in the 1984 permit. This permit modification will modify the waste acceptance rate to allow the facility to accept up to 1,500 tons per day to meet the current and future disposal needs to San Angelo and surrounding areas.

This permit modification has been prepared under the provisions of Title 30 Texas Administrative Code (TAC) §330.125(h) and §305.70(k). Section 330.125(h) requires that the applicant must submit a permit modification under the provisions of §305.70(k) 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. Additionally, in accordance Title 30 TAC §330.61(i), coordination with the Texas Department of Transportation (TxDOT) is required on public roads within one mile of the landfill to demonstrate the adequacy and availability of roads to be used to or from the landfill through the life of the facility. A traffic study was submitted to TxDOT San Angelo District to analyze the facility access roads within one mile of the landfill. The traffic study and TxDOT concurrence letter is included in Attachment 4 of this submittal.

To facilitate the Texas Commission on Environmental Quality's (TCEQ) review, a redline/strikeout format (see Attachment 1) has been used for the text portion of the attached permit modification and Attachment 2 includes an unmarked revision of the attached permit modification.

The following table has been developed to summarize the attached replacement pages for this modification.

Item	Explanation
Part B – Cover Page and Table of Contents	Updated revision date.
Part B – List of Attachments	Added Attachment 18 – TxDOT Coordination and updated revision date.
Part B – Section 3.2	Revised the Public Roads and Wet Weather Access section to reflect current site conditions and traffic information.
Part B – Attachment 18	Added TxDOT Coordination as an attachment to the permit.
Part IV – Cover Page and Table of Contents	Updated revision date.
Part IV – Pages IV-1, IV-4, and IV-14	Revised text to increase the waste acceptance rate from 700 tons per day and 200,200 tons per year to 1,500 tons per day and 429,000 tons per year.

One original and one copy are provided for your review and distribution. Consistent with Title 30 TAC §305.44 and §305.70(f), a signature page is included on page 5 in Attachment 3 - TCEQ-20650 Form. Consistent with Title 30 TAC §305.70(f), a copy of this submittal was sent to the TCEQ regional office. A copy of this submittal was placed in the site operating record for this facility. Additionally, in accordance with the Title 30 TAC §330.59(h)(1), a $150.00 application fee has been submitted to the TCEQ, as documented on page 1 of TCEQ Form 20650.

If you have any questions or require further information, please call.

Sincerely,
Republic Waste Services of Texas, Ltd.

Brian Danko

Brian Danko
Environmental Manager

Attachments: Attachment 1 – Part B and SOP Replacement Pages (Redline/Strikeout Version)
Attachment 2 – Part B and SOP Replacement Pages (Clean Version)
Attachment 3 – TCEQ-20650 Form
Attachment 4 – TxDOT Coordination
Attachment 5 – Adjacent Property Owners' Information

cc: TCEQ Region 8 Office
Shane Kelton, City of San Angelo
Ryne J. Spicer, P.E., Weaver Consultants Group

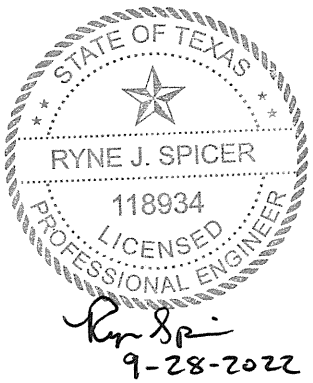
ATTACHMENT 1

PART B AND SOP REPLACEMENT PAGES
(REDLINE/STRIKEOUT VERSION)

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 79

PERMIT MODIFICATION

PART B – TECHNICAL REPORT



Prepared for

City of San Angelo (Owner)

And

Republic Waste Services of Texas, Ltd. (Operator)

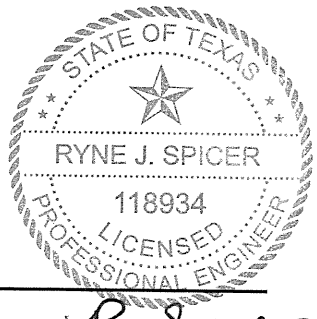
August 1983

Revised September 2022

Prepared by

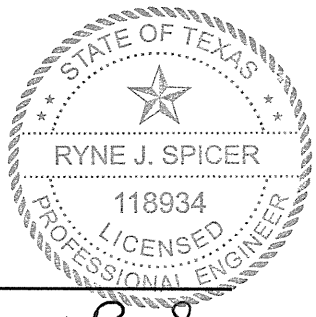
Weaver Consultants Group, LLC
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-686-11-31



9-28-2022

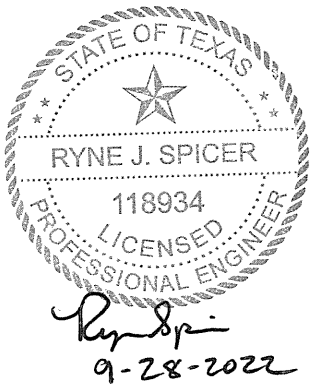
TABLE OF CONTENTS



9-28-202

TABLE OF CONTENTS (continued)

LIST OF ATTACHMENTS



3.2 Access

1. Public Roads – The public site access roads within one mile of the facility include Old Ballinger Highway (two-lane, asphalt-paved), Covington Road (two-lane, asphalt-paved), South 50th Street (two-lane, asphalt-paved), North U.S. Highway 277 (four lane, asphalt-paved highway), and North U.S. Highway 67 (four lane, asphalt-paved expressway). The site entrance to the landfill is located on Old Ballinger Highway.

The San Angelo Landfill is bound to the south by Old Ballinger Highway, to the east by Covington Road, and to the north by S. 50th Street. N. U.S. Highway 277 intersects with Old Ballinger Highway approximately one mile east of the permit boundary. In general, the majority of landfill vehicles originating from the east, south, or west will utilize N. U.S. Highway 67 to access the facility.

A traffic impact assessment was prepared by Weaver Consultants Group in December 2021 to evaluate the continued operation of the San Angelo Landfill on local roadways and traffic. In summary, the traffic study concludes that existing access roads within one mile of the landfill will continue to provide adequate access to the facility. Coordination with TxDOT regarding the traffic study and location restrictions is included in Attachment 18. ~~All site traffic, except during wet weather periods, will enter the site from Covington Road between Old Ballinger Highway and 50th Street (see Attachment 2). Wet weather access will be from 50th Street. Covington Road and 50th Street are asphalt paved roads. Old Ballinger Highway is concrete.~~

~~The average annual 24-hour traffic volume for these roads is as follows:~~

- ~~50th Street, just east of Pruitt 480~~
- ~~50th Street, just west of Covington Road 100~~
- ~~Old Ballinger Highway, just east of Covington Road 1480~~

~~Current waste vehicle traffic averages 87 trucks and 85 cars per day. This traffic volume could consist of 40,000 lbs. GVW, 25yds^3 rear loaders; 46,200 lbs. GVW, 35 yds^3 front loaders; 35,000 lb. GVW, roll-off trucks, 8 yds^3 dump trucks, bobtail trucks, pick-ups and automobiles. Old Ballinger Highway has a load rated capacity of 80,000 lbs., which is adequate to handle the existing waste vehicles. Waste vehicle traffic volume is anticipated to increase proportionately with the increase in population.~~

~~Since 1975 (the opening of the landfill), Covington Road and 50th Street have proven to be adequate for carrying the waste vehicular traffic. However, based upon the results of borings taken in these roads, (see Table 1) the asphalt surfacing is deficient and future resurfacing of these roads will be required. A statement of the County's willingness to maintain these streets is provided in a letter from Tom Green County Precinct #1 Commissioner, Mr. Arley Guess, included in Attachment No. 17. A statement of the City's intent to maintain possible secondary access routes to the landfill is provided in their letter also included in Attachment No. 17.~~

~~Table 1~~
~~Results of Core Borings in 50th Street and Covington Road~~

~~Street~~	~~Asphalt Surface~~	~~Caliche Base~~
~~50th~~	~~¾ in.~~	~~7-9 ins.~~
~~Covington~~	~~½ in.~~	~~5-6 ins.~~

~~Due to the low volume of traffic on the two-lane wide 50th Street and Covington Road and the four lane width of Old Ballinger Highway, no stacking (turning) lanes or signalization are required for site access. Both landfill entrance pavements will consist of 3 inches of asphalt over 10 inches of compacted Caliche base material in order to minimize the tracking of mud and dust onto the public access roads. Detailed illustrations of the entrances are provided in Attachment No. 6.~~

2. Wet Weather Access – As noted in Section 1, a paved entrance will provide wet weather access to the site from ~~50th Street~~ Old Ballinger Highway. Internal, all-weather roads will provide access to the designated ~~wet weather~~ disposal areas. ~~The use of two entrances at the site will preclude the necessity for waste carrying vehicles to cross the Lone Star Gas Pipeline easement.~~

ATTACHMENT 18

TXDOT COORDINATION

Texas Department of Transportation

4502 KNICKERBOCKER ROAD | SAN ANGELO , TEXAS 76904 | 325.944.1501 | WWW.TXDOT.GOV

12/16/2021

Mr. Brian Danko
Environmental Manager
Republic Services
3002 Old Ballinger Highway
San Angelo, TX 76905

Subject: Traffic Study
San Angelo Landfill – TCEQ Permit No. MSW-79
Tom Green County, Texas

Dear Mr. Danko,

Based on the information provided regarding the permit amendment application for the existing landfill in Tom Green County, Texas, the Department does not anticipate any restrictions for this site regarding traffic or location.

If you have any questions, please feel free to contact myself at (325) 947-9200.

Sincerely,

DocuSigned by:
BC10B17FA709437...

Christopher M. Cowen, P.E.
District Engineer
San Angelo District

cc: Shane Kelton, City of San Angelo
Chuck R. Marsh, P.E., Weaver Consultants Group, LLC

REPUBLIC SERVICES

San Angelo Landfill – 3002 Old Ballinger Highway, San Angelo, TX 79605
m 325-518-7397 o 325-716-5650 republicservices.com

December 1, 2021

Mr. Chris Cowen, P.E.
District Engineer
Texas Department of Transportation, San Angelo District
4502 Knickerbocker Road
San Angelo, Texas

Re: Traffic Study
San Angelo Landfill – TCEQ Permit No. MSW-79
Tom Green County, Texas

Dear Mr. Cowen:

The purpose of this letter is to demonstrate coordination with the Texas Department of Transportation (TxDOT), consistent with Title 30 Texas Administrative Code (TAC) §330.61(i). This regulation requires that an owner or operator of a municipal solid waste (MSW) facility to coordinate with TxDOT regarding any potential traffic or location restrictions.

Weaver Consultants Group, LLC (WCG) is preparing a permit modification, on behalf of the City of San Angelo and Republic Waste Services of Texas, Ltd., to modify the waste acceptance rate at the San Angelo Landfill (TCEQ Permit No. MSW-79). The permit modification will be submitted to the Texas Commission of Environmental Quality (TCEQ) for review and approval. The landfill is currently permitted to accept up to 700 tons per day, which was established in the 1984 permit. The permit modification will modify the waste acceptance rate in the permit to allow the site to accept up to 1,500 tons per day to meet the current and future disposal needs of the City of San Angelo and surrounding areas.

The landfill is located at 3002 Old Ballinger Highway, San Angelo, Texas 79605. The access roads within one mile of the landfill that were analyzed in this traffic study include Old Ballinger Highway, Covington Road, South 50th Street, North U.S. Highway 277, and North U.S. Highway 67. The attached traffic study demonstrates that the facility access roads will continue to provide adequate access to the landfill throughout the life of the facility. The landfill has been in operation for over 35 years and the traffic patterns of the waste collection vehicles that use the access roads are well-established.

To verify compliance with Title 30 TAC §330.61(i), we will need to include a letter from TxDOT in the permit modification application regarding the adequacy of the site access roads and any traffic or location restrictions at or near the facility.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Brian Danko

Brian Danko
Environmental Manager

Attachments: San Angelo Landfill Traffic Study

cc: Shane Kelton, City of San Angelo
Chuck R. Marsh, P.E., Weaver Consultants Group, LLC

SAN ANGELO LANDFILL TRAFFIC STUDY

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-79

TRAFFIC STUDY

Prepared for

City of San Angelo (Owner)

And

Republic Waste Services of Texas, Ltd. (Operator)

December 2021

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-686-11-00-01

CONTENTS

1 INTRODUCTION

1.1 Purpose

Weaver Consultants Group, LLC (WCG) is in the process of developing a permit modification application, on behalf of the City of San Angelo (Owner) and Republic Waste Services of Texas, Ltd. (Operator) to authorize an increase in the permitted waste acceptance rate from 700 tons per day up to 1,500 tons per day at the San Angelo Landfill. The purpose of this study is to demonstrate that the access roads to the San Angelo Landfill (Old Ballinger Highway, Covington Road, S. 50th Street, N. U.S. Highway 277, and N. U.S. Highway 67) will continue to provide adequate access to the site now and in the future. The Traffic Study is completed consistent with the requirements listed in Title 30 TAC §330.61(i), which requires the following information.

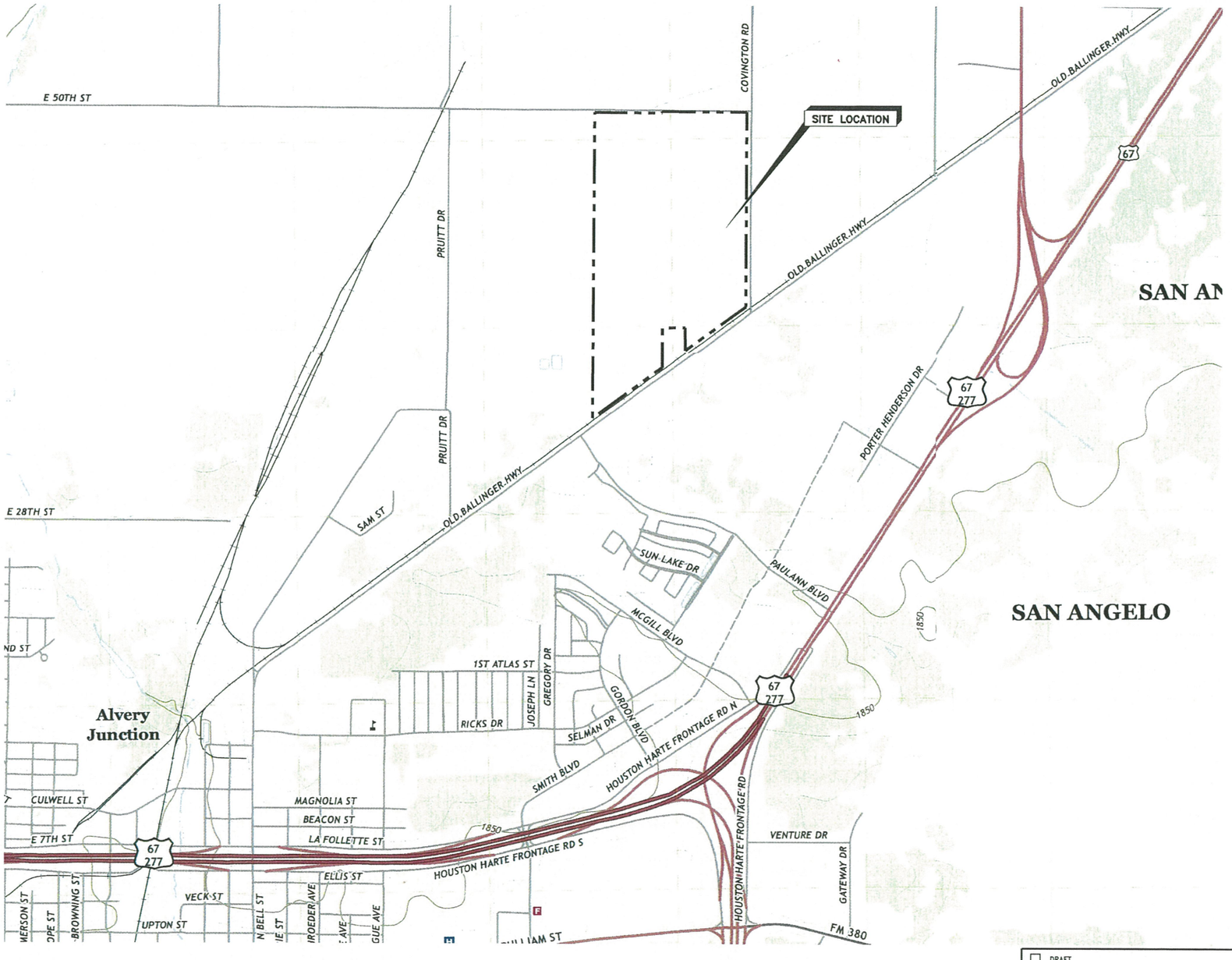
- Provide data on the availability and adequacy of roads that the owner or operator will use to access the site;
- Provide data on the volume of vehicular traffic on access roads within one mile of the proposed facility, both existing and expected, during the expected life of the proposed facility;
- Project the volume of traffic expected to be generated by the facility on the access roads within one mile of the proposed facility; and
- Submit documentation of coordination of all designs of proposed public roadway improvements such as turning lanes, storage lanes, etc., associated with site entrances with the agency exercising maintenance responsibility of the public roadway involved. In addition, the owner or operator shall submit documentation of coordination with the Texas Department of Transportation for traffic and location restrictions.

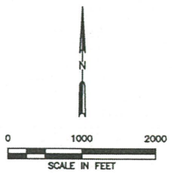
1.2 Summary of Proposed Waste Acceptance Rate Increase

San Angelo Landfill is an existing municipal solid waste landfill located at 3002 Old Ballinger Highway, San Angelo, Tom Green County, Texas, at the northwest corner of the intersection of Old Ballinger Highway and Covington Road. The landfill is currently permitted to accept up to 700 tons per day (or approximately 200,200 tons per year), which was established in the 1984 permit. According to the facility's permit, a permit modification will need to be submitted to TCEQ should the waste acceptance rate exceed that established in the approved permit. The permit modification will propose an increase to the waste acceptance rate from 700 tons per

day up to 1,500 tons per day (or approximately 429,000 tons per year) in order to meet the current and future disposal needs of the City of San Angelo and surrounding areas. The proposed waste acceptance rate of up to 1,500 tons per day is conservative and is not expected to be exceeded during the projected life of the facility. For the purpose of this traffic study, WCG analyzed the currently permitted waste acceptance rate (700 tons per day) for current traffic conditions (2021) to the proposed waste acceptance rate (1,500 tons per day) for projected traffic conditions (2030). According to the most recent aerial survey, the facility has approximately 9 years of life remaining, therefore WCG used the projected year of 2030 in this analysis.

Additionally, it should be noted that this permit modification will not change the landfill configuration or result in an increase to the permitted capacity, height, or waste limits of the facility.





LEGEND

LANDFILL PERMIT BOUNDARY

ROAD CLASSIFICATION

Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD

Interstate Route | US Route | State Route

SAN ANGELO NORTH, TX 2019

HARRIET, TX 2019

SAN ANGELO SOUTH, TX 2019

VERIBEST, TX 2019

SAN ANGELO

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, August 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2018
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002
Contours.....National Elevation Dataset, 2006
Boundaries.....Multiple sources; see metadata file 2016 - 2017

Wetlands.....FWS National Wetlands Inventory 1984 - 1985

NOTES:

1. REPRODUCED FROM 2019 USGS 7.5 QUADRANGLES: SAN ANGELO NORTH, SAN ANGELO SOUTH, HARRIET, AND VERIBEST, TEXAS.

- [ ] DRAFT
- [x] FOR INFORMATIONAL PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 1-1.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS		
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION SITE LOCATION MAP

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 1-1

2 TRAFFIC INFORMATION

2.1 Availability and Adequacy of Roads

As shown on Figure 2-1, the access roads within one mile of the site include Old Ballinger Highway (two-lane, 55 mph asphalt-paved), Covington Road (two-lane, 30 mph asphalt-paved), S. 50th Street (two-lane, 30 mph asphalt-paved), N. U.S. Highway 277 (two-lane, 75 mph asphalt-paved), and N. U.S. Highway 67 (four lane, median-divided, 55 mph freeway). Old Ballinger Road is the main access road that waste collection vehicles will use to access the site. The site access roads will be utilized for the majority of traffic in- or outbound from the landfill. Other nearby roads may be periodically used by landfill vehicles to serve residences and businesses located along or near their roadways.

The San Angelo Landfill entrance is located on the southern edge of the permit boundary via Old Ballinger Highway. Covington Road bounds the facility on the east and S. 50th Street bounds the facility on the north. N. U.S. Highway 277 intersects with Old Ballinger Highway approximately one mile east of the permit boundary. N. U.S. Highway 67 is a four-lane, median-divided, controlled access expressway. A secondary site entrance, used exclusively for landfill personnel vehicles, is located on S. 50th Street. Figure 2-2 provides an aerial of the facility and shows the two entrances.

The existing entrance to the landfill is shown on Figure 2-3. As shown on Figure 2-3, the site entrance includes an approximately 45-foot-wide concrete road to the scalehouse. The length of the entrance road is approximately 450 feet, which provides a more than ample queuing area for waste vehicles, as noted in Section 2.3.

2.2 Volume of Vehicular Traffic

The volume of vehicle traffic on the site access roads (Old Ballinger Highway, Covington Road, S. 50th Street, N. U.S. Highway 277, and N. U.S. Highway 67), are summarized on Table 2.1. As noted on Table 2.1, TxDOT traffic counts from 2020 were available for Covington Road, S. 50th Street, and N. U.S. Highway 277; and TxDOT traffic counts from 2018 were available for Old Ballinger Road and N. U.S. Highway 67. The TxDOT traffic counts were adjusted to 2021 traffic conditions to account for the additional traffic created by area growth between the time volume data was collected and 2021. The 2021 traffic counts are based on the information provided on the TxDOT Statewide Planning Map (2020) and the TxDOT District Traffic Map (2018) and projected using the area population growth rates obtained from the Texas Water Development Board 2022 State Water Plan.

Table 2.1 presents the comparison of daily and peak hour traffic volumes for the permitted and projected conditions for all access roads within one mile of the facility.

Table 2.2 presents the traffic impact assessment for the two conditions. As shown on the table, a minimal percentage of vehicle accessing the landfill uses the access roads currently and expected for the future conditions. Additionally, the Level of Service (LOS) for all access roads are currently an A and the projected LOS will also be an A, with the except of S. 50th Street, which decreases to a B. The LOS for Old Ballinger Highway, Covington Road, S. 50th Street, and N. U.S. Highway 277 were determined based on Percent of Free-Flow Speed, and the LOS for N. U.S. Highway 67 was determined based on the density (passenger cars per mile per lane).

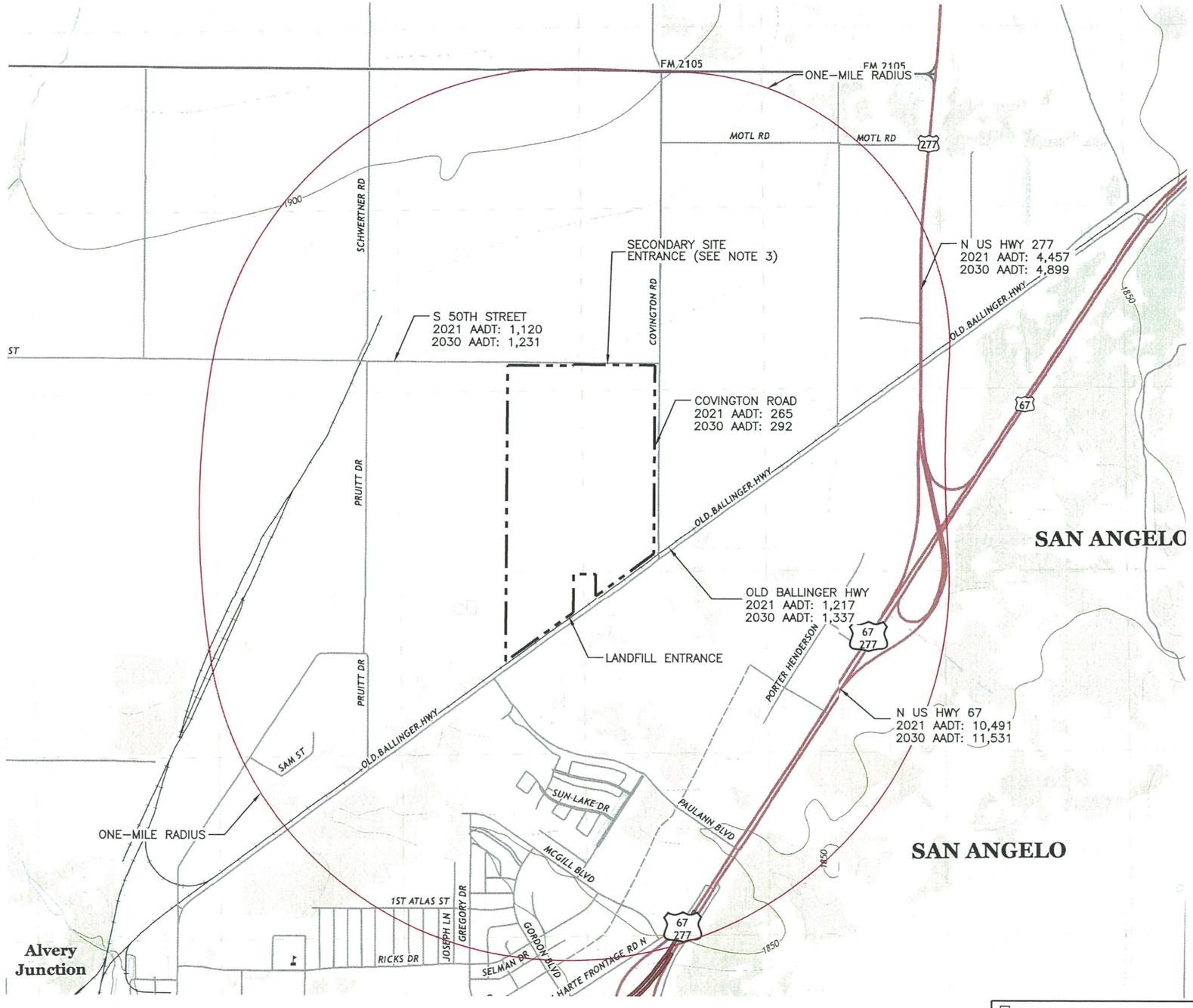
As shown, the waste acceptance rate increase will have a minimal impact on all access roads.

2.3 Queuing

As shown on Figure 2.3, the site entrance road is an approximately 45-foot wide, concrete paved road access from Old Ballinger Highway. The entrance road to the scalehouse is approximately 450 feet long, which will allow for ample queuing area within the landfill's inbound lane to avoid disturbing vehicular traffic on Old Ballinger Highway.

2.4 Summary

In summary, based on the traffic impact assessment, all access roads currently provide adequate access to the landfill and the waste acceptance rate increase will have a minimal impact on the facility access roads. Therefore, it is expected that all access roads will continue to provide adequate access to the landfill through the life of the facility.



N

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SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

1 MILE COVERAGE AREA

ROAD CLASSIFICATION

Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD

Interstate Route | US Route | State Route

SAN ANGELO NORTH, TX 2019

HARRIET, TX 2019

SAN ANGELO SOUTH, TX 2019

VERIBEST, TX 2019

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

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Imagery.....NAIP, August 2016 - November 2016
Roads..... U.S. Census Bureau, 2015 - 2018
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002
Contours.....National Elevation Dataset, 2006
Boundaries.....Multiple sources; see metadata file 2016 - 2017

Wetlands.....FWS National Wetlands Inventory 1984 - 1985

NOTES:

1. REPRODUCED FROM 2019 USGS 7.5 QUADRANGLES: SAN ANGELO NORTH, SAN ANGELO SOUTH, HARRIET, AND VERIBEST, TEXAS.
2. FACILITY ACCESS ROADS INCLUDE OLD BALLINGER HIGHWAY, COVINGTON ROAD, S 50TH STREET, N US HIGHWAY 277, AND N US HIGHWAY 67.
3. THE SECONDARY SITE ENTRANCE LOCATED ON S 50TH STREET IS USED BY LANDFILL PERSONNEL VEHICLES ONLY.
4. AADT COUNTS WERE OBTAINED FROM TXDOT SOURCES AND PROJECTED USING THE PROJECTED AREA ANNUAL POPULATION GROWTH.

- [ ] DRAFT
- [x] FOR INFORMATIONAL PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 1-1.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

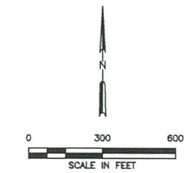
REVISIONS		
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION FACILITY ACCESS ROADS

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-1



LEGEND

LANDFILL PERMIT BOUNDARY

NOTES:

1. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH, DATED MARCH 24, 2021.
2. THE SECONDARY LANDFILL ENTRANCE IS USED BY LANDFILL PERSONNEL VEHICLES ONLY.

☐ DRAFT
☒ FOR INFORMATIONAL PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 11/2021
FILE: 0023-686-11
CAD: FIGURE 2-3.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS		
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
AERIAL PHOTOGRAPH

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-2

P:\Solid waste\Republic\San Angelo Landfill\Waste Acceptance Rate Mod\Traffic\2-2 ENTRANCE.dwg, calexander, 1:2

N

0 50 100

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

NOTES:

1. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH, DATED MARCH 24, 2021.

☐ DRAFT ☒ FOR INFORMATIONAL PURPOSES ONLY ☐ ISSUED FOR CONSTRUCTION	PREPARED FOR CITY OF SAN ANGELO	PERMIT MODIFICATION LANDFILL ENTRANCE
DATE: 10/2021 FILE: 0023-686-11 CAD: FIGURE 2-3.DWG DRAWN BY: CRA DESIGN BY: CRA REVIEWED BY: CRM	REVISIONS NO. / DATE / DESCRIPTION	SAN ANGELO LANDFILL TOM GREEN COUNTY, TEXAS
Weaver Consultants Group TBPE REGISTRATION NO. F-3727		WWW.WCGRP.COM FIGURE 2-3

Table 2.1
2-Way Traffic Volumes

Access Road	Current Traffic Conditions with 700 tons/day Waste Stream (2021)[1]						Projected Traffic Conditions with 1,500 tons/day Waste Stream (2030)[1,2,4]					
	Daily			Peak Hour[3]			Daily			Peak Hour[3]		
	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total
Old Ballinger Highway	252	964	1,217	25	96	122	536	801	1,337	54	80	134
Covington Road	252	13	265	25	1	27	536	15	551	54	2	56
50th Street	252	867	1,120	25	87	112	536	695	1,231	54	69	123
N US Highway 277	252	4,205	4,457	25	420	446	536	4,363	4,899	54	436	490
N US Highway 67	252	10,239	10,491	25	1,024	1,049	536	10,995	11,531	54	1,100	1,153

Notes:

[1] 2021 Traffic conditions are based on volumes provided on the TxDOT Statewide Planning Map (2020) for N US Highway 277 and the TXDOT District Traffic Map (2018) for Old Ballinger Highway, Covington Road, 50th Street, and N US Highway 67. These volumes are projected using population growth rates obtained from the Texas Water Development Board (TWDB) 2022 State Water Plan.

[2] The annual population growth rate is 1.07% from 2018-2020 and 1.12% from 2020-2030.

[3] Peak hour volumes are assumed to be ten percent of the total daily traffic volume.

[4] According to the most recent Aerial survey, the site has approximately 9 years remaining. Therefore, 2030 was used for projected conditions.

[5] 2021 Landfill trips were estimated from information provided by the site operator. Projected landfill trips were calculated based on the projected waste inflow rate. The number of inbound trips per day was calculated based on truck capacity, density, ton and the current breakdown of landfill vehicle types. The inbound volume was doubled to obtain the number of total daily two-way landfill trips.

18-15

24-Hour One-Way Landfill Vehicle Estimates

Vehicle Description	Current Conditions with 700 tons/day Waste Stream (2021)					Projected Conditions with 1,500 tons/day Waste Stream (2030)				
	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons)	Estimated Vehicle Counts (vehicles/day)	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons)	Estimated Vehicle Counts (vehicles/day)
Read Loader	20	500	5.0	168	34	20	500	5.0	360	72
Front Loader	40	500	10.0	192.5	19	40	500	10.0	413	41
Rolloffs	30	267	4.0	140	35	30	267	4.0	300	75
Transfer Trailers	125	400	25.0	196	8	125	400	25.0	420	17
Private Individuals	-	-	0.25	3.5	14	-	-	0.25	7	28
Subtotal:	--	--	--	700	110				1,500	233
Facility Personnel/Misc. [1]	--	--	--	--	16	-	-	-	--	35
Total:	**--**	**--**	**--**	**700**	**126**				**1,500**	**268**

Notes:

[1] Facility personnel and miscellaneous vehicle count estimates were assume to be approximately 15% of the total vehicles.

Table 2.2
Traffic Impact Assessment[1]

Location	Roadway Capacity (veh/hr)	2021 Traffic Conditions (700 tons/day of Waste)						Projected 2030 Traffic Conditions (1,500 tons/day of Waste)					
		Total Volume (vpd)	Landfill Vehicles (vpd)	Peak Hour Volume[2] (veh)	% of Roadway Capacity used	LOS[1]	% of Roadway Capacity Used by Landfill Vehicles	Total Volume (vpd)	Landfill Vehicles (vpd)	Peak Hour Volume[2] (veh)	% of Roadway Capacity used	LOS[1]	% of Roadway Capacity Used by Landfill Vehicles
Old Ballinger Highway	5,000	1,217	252	122	2.4%	A	0.5%	1,337	536	134	2.7%	A	1.1%
Covington Road	3,200	265	252	27	0.8%	A	0.8%	551	536	56	1.8%	A	1.7%
S 50th Street	3,200	1,120	252	112	3.5%	A	0.8%	1,231	536	123	3.8%	B	1.7%
N US Hwy 277	5,000	4,457	252	446	8.9%	A	0.5%	4,899	536	490	9.8%	A	1.1%
N US Hwy 67	6,400	10,491	252	1,049	16.4%	A	0.4%	11,531	536	1,153	18.0%	A	0.8%

Notes:

[1] Level of Service (LOS) is determined based on Percent of Free-Flow Speed (PFFS) for Old Ballinger Highway, Covington Road, S 50th Street, and N US Highway 277. LOS is determined based on Density (pc/mi/ln) for N US Highway 67.

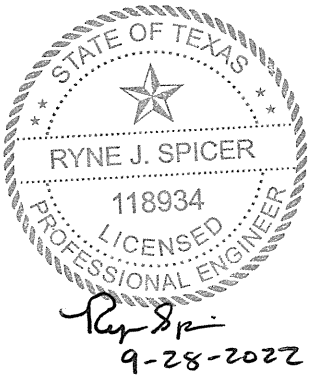
[2] Peak hour volumes are assumed to be ten percent of the total daily traffic volume.

18-16

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 79

PERMIT MODIFICATION

PART IV – SITE OPERATING PLAN



Prepared for

City of San Angelo (Owner)

And

Republic Waste Services of Texas, Ltd. (Operator)

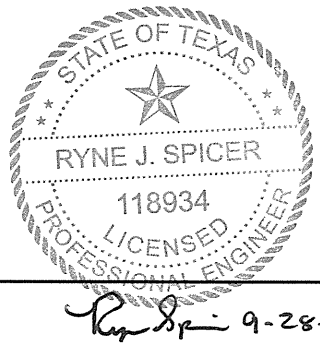
July 1994
August 2006
Revised November 2006
Revised May 2017

Revised September 2022

Prepared by

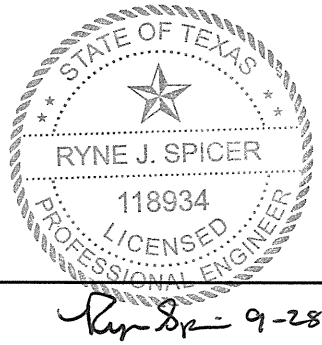
Weaver Consultants Group, LLC
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-686-11-14



9-28-2022

CONTENTS



9-28-2022

CONTENTS (CONTINUED)

1 INTRODUCTION (30 TAC §330.65)

1.1 Introduction (§330.127)

This Site Operating Plan (SOP) has been prepared for the existing San Angelo Landfill. This SOP is consistent with 30 TAC §330.65 and contains the information required by §330.127. This SOP includes provisions for site management and site operating personnel to meet the general and site-specific requirements included in Subchapter D: Operational Standards for Municipal Solid Waste Landfill Facilities for the day-to-day operation of the facility. The City of San Angelo has contracted with ~~Trashaway Waste Services, Inc.~~ Republic Waste Services of Texas, Ltd. for the day-to-day operations of the San Angelo Landfill. This SOP will be retained onsite throughout the active life of the facility and throughout the postclosure care maintenance period.

The San Angelo Landfill is an existing 257-acre, Type I Municipal Solid Waste Disposal Facility (TCEQ MSW Permit No. 79A) owned by the City of San Angelo. The San Angelo Landfill is located in Tom Green County, Texas and provides waste disposal capacity for residences and business in the City of San Angelo, Tom Green County, and surrounding areas. The facility is located approximately 3 miles northeast of the City of San Angelo on Old Ballinger Highway. The facility is located ~~outside~~ within the city limits of San Angelo~~, within unincorporated~~ in Tom Green County.

The primary function of the facility is municipal solid waste disposal. Support facilities are provided including a compost facility, liquid waste stabilization, uncontaminated wood waste processing area, large item/white goods storage area, and tire storage located within the permit boundary; and gatehouse, scales, equipment maintenance and storage area, and site entrance road located outside the permit boundary. The support facilities located outside of the permit boundary are located on property owned by ~~Trashaway Waste Services, Inc.~~ Republic Waste Services of Texas, Ltd. (the operator of the San Angelo Landfill). This property is fenced as though it is part of the permit boundary.

The existing facility provides waste disposal for individuals and communities within the City of San Angelo, Tom Green County, and surrounding areas. The San Angelo Landfill ~~has projected a~~ annual waste acceptance rate ~~that varies from 500 tons per day or approximately 143,000 tons per year increasing to a waste acceptance rate of about 700 tons per day or 200,200 tons per year~~ is described in Section 2.7 of this SOP.

The SOP provides guidance for site management and site operating personnel for daily operation of the San Angelo Landfill. This SOP also includes provisions for site management and site operating personnel to meet the general and site-specific requirements for the waste acceptance rate established in the permit.

Personnel operator licenses issued in accordance with Chapter 30, Subchapter F, relating to municipal solid waste facility supervisors. Personnel training records and personnel operator licenses will be maintained in the site operating record as listed in Table 2-1.

2.6 Alternative Schedules (§330.125(g))

The executive director, in accordance with §330.125(g), may set alternative schedules for record keeping and notification requirements as specified in §330.125(a)-(f), except for notification requirements contained in §330.541-330.563 for any proposed lateral expansion located within a six-mile radius of any airport runway end used by turbojet or piston-type aircraft or notification relating to landowners whose property overlies any part of the plume of contamination if contaminants have migrated off-site as indicated by groundwater sampling.

2.7 Annual Waste Acceptance Rate (§330.125(h))

As listed in Table 2-1, the San Angelo Landfill will maintain as part of the site operating record, documentation of the annual waste acceptance rate for the facility in accordance with §330.125(h). Records will include maintaining the quarterly solid waste summary reports and the annual solid waste summary report as required by §330.675. The annual waste acceptance rate, as established by the sum of the previous four quarterly summary reports, will be evaluated by the San Angelo Landfill to determine if the waste acceptance rate exceeds the rate estimated in the approved permit and SDP. Should an increase in waste acceptance be established, the facility will determine if the increase is due to a temporary occurrence. Should the waste acceptance rate exceed that established in the approved permit, a permit modification would be prepared in accordance with then applicable TCEQ regulations to propose changes, if required, to manage the increased waste acceptance rate.

The San Angelo Landfill anticipates that the waste acceptance rate for the facility will increase during the site life. The facility has projected a waste acceptance rate ~~that varies from~~ of approximately ~~143,000~~ 200,200 tons per year (~~500~~ 700 tons per day), increasing to an estimated ~~200,200~~ waste acceptance rate of up to 429,000 tons per year (~~700~~ 1,500 tons per day). Demonstration of coordination with the Texas Department of Transportation (TxDOT) San Angelo District, consistent with Title 30 Texas Administrative Code TAC §330.61(i), is included in Attachment 18 of Part B – Technical Report. This SOP includes provisions for site management and site operating personnel to the general and site-specific requirements for the waste acceptance rates established in the permit.

4 EQUIPMENT (30 TAC §330.127(2))

Sufficient equipment will be provided to conduct site operations in accordance with the design and permit conditions.

The following list of equipment is expected to be routinely available for use at the facility. Equipment requirements may vary in accordance with the method of landfill operations or the waste acceptance rate at any given time. Additional equipment will be provided as required for increasing volumes of incoming solid waste. Other equivalent types of equipment manufacturers will vary during site operations based on operational practices and on the annual waste acceptance rate.

The estimated waste acceptance rate for the San Angelo Landfill is described in Section 2.7 of this SOP. The site has projected a waste acceptance rate ~~that varies from~~ of approximately ~~143,000 tons per year, or 500 tons per day to a waste acceptance rate of~~ 200,200 tons per year, or 700 tons per day, increasing to a waste acceptance rate of up to 429,000 tons per year, or 1,500 tons per day. The size, number, types, and equipment manufacturers will vary during site operations based on operational practices and on the annual waste acceptance rate.

Compactors are typically used for spreading and compacting the refuse and also for compacting the cover material. Dozers are typically used for soil movement and placement and for emergency waste compaction. Scrapers and haul trucks are typically used for excavating both the cover material used in site operations and the future disposal areas. The motor grader is typically used for road maintenance, ditching, surface water control, and final grading of the completed fill areas. The water truck will be used for fire control, dust control, and moisture conditioning of soil materials as necessary. The maintenance truck(s) is used to provide service to the other site operating vehicles. A farm tractor and pickup truck(s) will be used as needed for miscellaneous maintenance, litter control, and personnel use. Backup equipment will be provided from contractors or local rental companies to obtain equipment in the event of a breakdown or maintenance to avoid interruption of waste services.

Equipment operators may perform routine cleaning of landfill equipment, using low-volume, high-pressure, spray equipment at the active area of the landfill. The equipment spraying consists of blowing landfill equipment radiators clear of dust and debris-a manufacturer's recommendation-allowing the equipment to continue operating through the day without accumulated dust and material creating overheating problems. Because the landfill is operating on a lined Subtitle D cell, liquids containing refuse will be handled in the same manner as landfill leachate is handled (see Section 8.23).

The site will be equipped with fire extinguishers of the type, size, location, and number as recommended by the City of San Angelo Fire Department. Each fire extinguisher will be fully-charged and ready for use at all times. Each extinguisher will be inspected on a monthly basis by site personnel and recharged or replaced as necessary. Annual inspections will be performed by a qualified service company, and all extinguishers will

Table 4-1
Equipment Dedicated to the San Angelo Landfill[1]

Equipment	Typical Size	Number	Number	Function
LANDFILL OPERATIONS		Less than 700 tpd	701 to ~~2,000~~ 1,500 tpd	
Compactor(s)	CAT 826, 836	1	2	Trash compaction
Dozer(s)	CAT D6, D7	1	1	Soil movement and placement
~~Scraper(s)[2] or Track Hoe[2]~~	~~CAT 621F~~ ~~CAT 963B~~	~~1~~ ~~1~~	~~1~~ ~~1~~	~~Soil excavation and hauling~~ ~~Soil excavation~~
Haul Truck(s)[2]	30 cy	1	2	Soil hauling
Loader[5]	3 cy bucket	1	1	Soil movement
Motor Grader[5]	CAT 120A, 12G	1	1	Roadway maintenance
Farm Tractor	35 HP	1	1	Miscellaneous maintenance (contract equipment)
Maintenance Truck(s)	½ ton	1	1	Facility equipment maintenance
Pickup Truck(s)	½ ton	1	4	Personnel use, liter control, maintenance
Water Truck(s)[5]	1,000 gallons	1	1	Fire control, dust control, earthfill compaction
Pump(s)	10 to 500 gpm	1	1	Stormwater pumping
~~**COMPOST OPERATORS**~~				
~~Chipper and/or Tub Grinder[6]~~	~~500 tons per hour~~	~~1~~	~~1~~	~~Grinding feedstock and uncontaminated wood waste processing, chipping~~
~~Window Turner[6]~~	~~1,200 cy per hour~~	~~1~~	~~1~~	~~Mix compost windows~~
~~Trommel Screen[6]~~		~~1~~	~~1~~	~~Screen material~~

[1] Size, number, types and equipment manufacturers of the heavy equipment and miscellaneous vehicles and equipment may vary based on operational needs and annual waste acceptance rate.
[2] Soil excavation will be conducted with ~~scraper(s) or track hoe(s)~~ loader(s), dozer(s), and haul truck(s). The landfill will determine appropriate excavation equipment as landfill is developed.
[3] Backup equipment will be provided from contractors or local rental companies to obtain equipment in the event of equipment breakdown or maintenance to avoid interruption of waste services.
[4] Typical size is minimum size to be provided.
~~[5] Equipment may also be used in composting operations. Loader may be used in compost operations to move compost and/or deliver feedstock. The water truck may be used for dust suppression around the composting operations and the motor grader may be used for road maintenance of site roads accessing the compost operations.~~
~~[6] Chipper and/or tub grinder, windrow turner, and trammel screen are only used during woodwaste processing or if composting is being conducted. This equipment may be provided by contract operations.~~

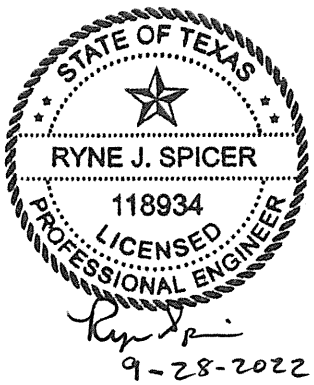
ATTACHMENT 2

PART B AND SOP REPLACEMENT PAGES
(CLEAN VERSION)

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 79

PERMIT MODIFICATION

PART B – TECHNICAL REPORT



Prepared for

City of San Angelo (Owner)

and

Republic Waste Services of Texas, Ltd. (Operator)

August 1983

Revised September 2022

Prepared by

Weaver Consultants Group, LLC
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-686-11-31

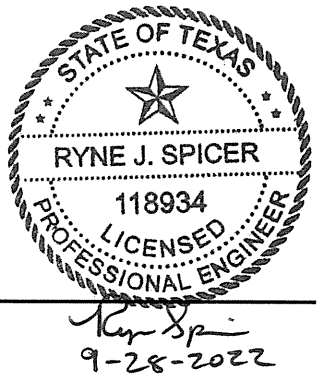
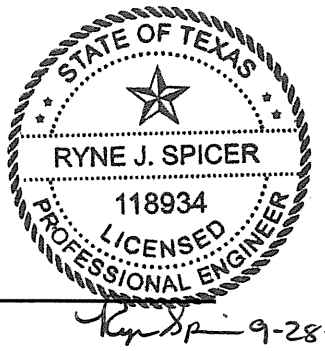


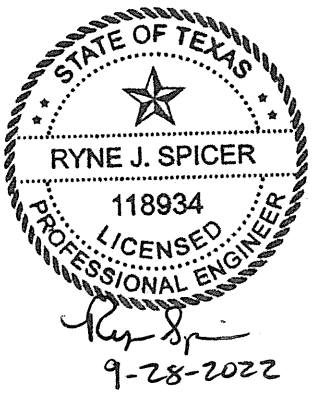
TABLE OF CONTENTS



9-28-2022

TABLE OF CONTENTS (continued)

LIST OF ATTACHMENTS



3.2 Access

1. Public Roads – The public site access roads within one mile of the facility include Old Ballinger Highway (two-lane, asphalt-paved), Covington Road (two-lane, asphalt-paved), South 50th Street (two-lane, asphalt-paved), North U.S. Highway 277 (four lane, asphalt-paved highway), and North U.S. Highway 67 (four lane, asphalt-paved expressway). The site entrance to the landfill is located on Old Ballinger Highway.

The San Angelo Landfill is bound to the south by Old Ballinger Highway, to the east by Covington Road, and to the north by S. 50th Street. N. U.S. Highway 277 intersects with Old Ballinger Highway approximately one mile east of the permit boundary. In general, the majority of landfill vehicles originating from the east, south, or west will utilize N. U.S. Highway 67 to access the facility.

A traffic impact assessment was prepared by Weaver Consultants Group in December 2021 to evaluate the continued operation of the San Angelo Landfill on local roadways and traffic. In summary, the traffic study concludes that existing access roads within one mile of the landfill will continue to provide adequate access to the facility. Coordination with TxDOT regarding the traffic study and location restrictions is included in Attachment 18.

2. Wet Weather Access – As noted in Section 1, a paved entrance will provide wet weather access to the site from Old Ballinger Highway. Internal, all-weather roads will provide access to the designated disposal areas.

ATTACHMENT 18

TXDOT COORDINATION

Texas Department of Transportation

4502 KNICKERBOCKER ROAD | SAN ANGELO , TEXAS 76904 | 325.944.1501 | WWW.TXDOT.GOV

12/16/2021

Mr. Brian Danko
Environmental Manager
Republic Services
3002 Old Ballinger Highway
San Angelo, TX 76905

Subject: Traffic Study
San Angelo Landfill – TCEQ Permit No. MSW-79
Tom Green County, Texas

Dear Mr. Danko,

Based on the information provided regarding the permit amendment application for the existing landfill in Tom Green County, Texas, the Department does not anticipate any restrictions for this site regarding traffic or location.

If you have any questions, please feel free to contact myself at (325) 947-9200.

Sincerely,

DocuSigned by:
BC10B17FA709437...

Christopher M. Cowen, P.E.
District Engineer
San Angelo District

cc: Shane Kelton, City of San Angelo
Chuck R. Marsh, P.E., Weaver Consultants Group, LLC

REPUBLIC SERVICES

San Angelo Landfill – 3002 Old Ballinger Highway, San Angelo, TX 79605
m 325-518-7397 o 325-716-5650 republicservices.com

December 1, 2021

Mr. Chris Cowen, P.E.
District Engineer
Texas Department of Transportation, San Angelo District
4502 Knickerbocker Road
San Angelo, Texas

Re: Traffic Study
San Angelo Landfill – TCEQ Permit No. MSW-79
Tom Green County, Texas

Dear Mr. Cowen:

The purpose of this letter is to demonstrate coordination with the Texas Department of Transportation (TxDOT), consistent with Title 30 Texas Administrative Code (TAC) §330.61(i). This regulation requires that an owner or operator of a municipal solid waste (MSW) facility to coordinate with TxDOT regarding any potential traffic or location restrictions.

Weaver Consultants Group, LLC (WCG) is preparing a permit modification, on behalf of the City of San Angelo and Republic Waste Services of Texas, Ltd., to modify the waste acceptance rate at the San Angelo Landfill (TCEQ Permit No. MSW-79). The permit modification will be submitted to the Texas Commission of Environmental Quality (TCEQ) for review and approval. The landfill is currently permitted to accept up to 700 tons per day, which was established in the 1984 permit. The permit modification will modify the waste acceptance rate in the permit to allow the site to accept up to 1,500 tons per day to meet the current and future disposal needs of the City of San Angelo and surrounding areas.

The landfill is located at 3002 Old Ballinger Highway, San Angelo, Texas 79605. The access roads within one mile of the landfill that were analyzed in this traffic study include Old Ballinger Highway, Covington Road, South 50th Street, North U.S. Highway 277, and North U.S. Highway 67. The attached traffic study demonstrates that the facility access roads will continue to provide adequate access to the landfill throughout the life of the facility. The landfill has been in operation for over 35 years and the traffic patterns of the waste collection vehicles that use the access roads are well-established.

To verify compliance with Title 30 TAC §330.61(i), we will need to include a letter from TxDOT in the permit modification application regarding the adequacy of the site access roads and any traffic or location restrictions at or near the facility.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Brian Danko

Brian Danko
Environmental Manager

Attachments: San Angelo Landfill Traffic Study

cc: Shane Kelton, City of San Angelo
Chuck R. Marsh, P.E., Weaver Consultants Group, LLC

SAN ANGELO LANDFILL TRAFFIC STUDY

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-79

TRAFFIC STUDY

Prepared for

City of San Angelo (Owner)

And

Republic Waste Services of Texas, Ltd. (Operator)

December 2021

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-686-11-00-01

CONTENTS

1 INTRODUCTION

1.1 Purpose

Weaver Consultants Group, LLC (WCG) is in the process of developing a permit modification application, on behalf of the City of San Angelo (Owner) and Republic Waste Services of Texas, Ltd. (Operator) to authorize an increase in the permitted waste acceptance rate from 700 tons per day up to 1,500 tons per day at the San Angelo Landfill. The purpose of this study is to demonstrate that the access roads to the San Angelo Landfill (Old Ballinger Highway, Covington Road, S. 50th Street, N. U.S. Highway 277, and N. U.S. Highway 67) will continue to provide adequate access to the site now and in the future. The Traffic Study is completed consistent with the requirements listed in Title 30 TAC §330.61(i), which requires the following information.

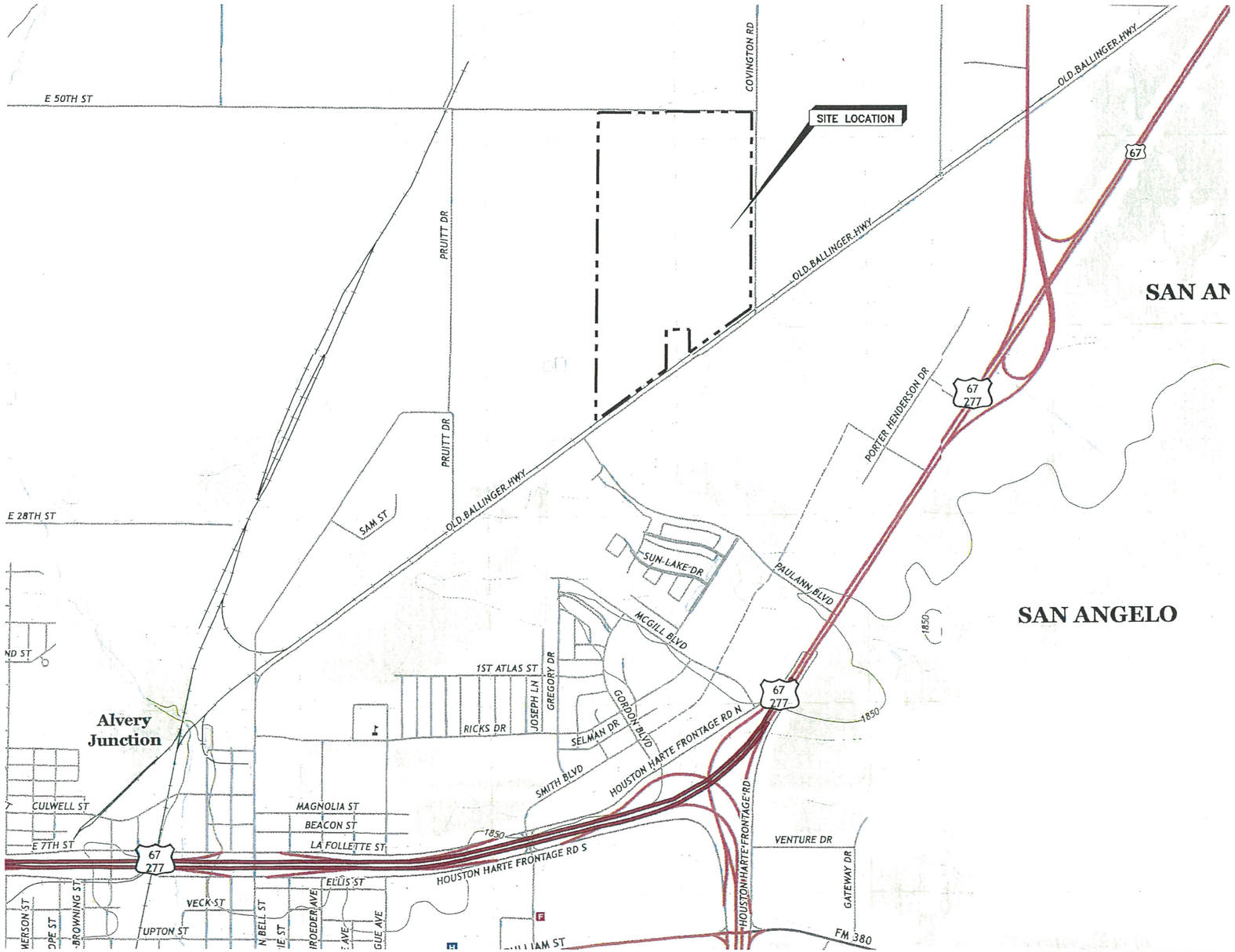
- Provide data on the availability and adequacy of roads that the owner or operator will use to access the site;
- Provide data on the volume of vehicular traffic on access roads within one mile of the proposed facility, both existing and expected, during the expected life of the proposed facility;
- Project the volume of traffic expected to be generated by the facility on the access roads within one mile of the proposed facility; and
- Submit documentation of coordination of all designs of proposed public roadway improvements such as turning lanes, storage lanes, etc., associated with site entrances with the agency exercising maintenance responsibility of the public roadway involved. In addition, the owner or operator shall submit documentation of coordination with the Texas Department of Transportation for traffic and location restrictions.

1.2 Summary of Proposed Waste Acceptance Rate Increase

San Angelo Landfill is an existing municipal solid waste landfill located at 3002 Old Ballinger Highway, San Angelo, Tom Green County, Texas, at the northwest corner of the intersection of Old Ballinger Highway and Covington Road. The landfill is currently permitted to accept up to 700 tons per day (or approximately 200,200 tons per year), which was established in the 1984 permit. According to the facility's permit, a permit modification will need to be submitted to TCEQ should the waste acceptance rate exceed that established in the approved permit. The permit modification will propose an increase to the waste acceptance rate from 700 tons per

day up to 1,500 tons per day (or approximately 429,000 tons per year) in order to meet the current and future disposal needs of the City of San Angelo and surrounding areas. The proposed waste acceptance rate of up to 1,500 tons per day is conservative and is not expected to be exceeded during the projected life of the facility. For the purpose of this traffic study, WCG analyzed the currently permitted waste acceptance rate (700 tons per day) for current traffic conditions (2021) to the proposed waste acceptance rate (1,500 tons per day) for projected traffic conditions (2030). According to the most recent aerial survey, the facility has approximately 9 years of life remaining, therefore WCG used the projected year of 2030 in this analysis.

Additionally, it should be noted that this permit modification will not change the landfill configuration or result in an increase to the permitted capacity, height, or waste limits of the facility.



0 1000 2000
SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

ROAD CLASSIFICATION

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

SAN ANGELO NORTH, TX 2019

HARRIET, TX 2019

SAN ANGELO SOUTH, TX 2019

VERIBEST, TX 2019

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and 1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, August 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2018
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002
Contours.....National Elevation Dataset, 2006
Boundaries.....Multiple sources; see metadata file 2016 - 2017

Wetlands.....FWS National Wetlands Inventory 1984 - 1985

NOTES:

1. REPRODUCED FROM 2019 USGS 7.5 QUADRANGLES: SAN ANGELO NORTH, SAN ANGELO SOUTH, HARRIET, AND VERIBEST, TEXAS.

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☒ FOR INFORMATIONAL PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 1-1.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS

NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
SITE LOCATION MAP

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 1-1

2 TRAFFIC INFORMATION

2.1 Availability and Adequacy of Roads

As shown on Figure 2-1, the access roads within one mile of the site include Old Ballinger Highway (two-lane, 55 mph asphalt-paved), Covington Road (two-lane, 30 mph asphalt-paved), S. 50th Street (two-lane, 30 mph asphalt-paved), N. U.S. Highway 277 (two-lane, 75 mph asphalt-paved), and N. U.S. Highway 67 (four lane, median-divided, 55 mph freeway). Old Ballinger Road is the main access road that waste collection vehicles will use to access the site. The site access roads will be utilized for the majority of traffic in- or outbound from the landfill. Other nearby roads may be periodically used by landfill vehicles to serve residences and businesses located along or near their roadways.

The San Angelo Landfill entrance is located on the southern edge of the permit boundary via Old Ballinger Highway. Covington Road bounds the facility on the east and S. 50th Street bounds the facility on the north. N. U.S. Highway 277 intersects with Old Ballinger Highway approximately one mile east of the permit boundary. N. U.S. Highway 67 is a four-lane, median-divided, controlled access expressway. A secondary site entrance, used exclusively for landfill personnel vehicles, is located on S. 50th Street. Figure 2-2 provides an aerial of the facility and shows the two entrances.

The existing entrance to the landfill is shown on Figure 2-3. As shown on Figure 2-3, the site entrance includes an approximately 45-foot-wide concrete road to the scalehouse. The length of the entrance road is approximately 450 feet, which provides a more than ample queuing area for waste vehicles, as noted in Section 2.3.

2.2 Volume of Vehicular Traffic

The volume of vehicle traffic on the site access roads (Old Ballinger Highway, Covington Road, S. 50th Street, N. U.S. Highway 277, and N. U.S. Highway 67), are summarized on Table 2.1. As noted on Table 2.1, TxDOT traffic counts from 2020 were available for Covington Road, S. 50th Street, and N. U.S. Highway 277; and TxDOT traffic counts from 2018 were available for Old Ballinger Road and N. U.S. Highway 67. The TxDOT traffic counts were adjusted to 2021 traffic conditions to account for the additional traffic created by area growth between the time volume data was collected and 2021. The 2021 traffic counts are based on the information provided on the TxDOT Statewide Planning Map (2020) and the TxDOT District Traffic Map (2018) and projected using the area population growth rates obtained from the Texas Water Development Board 2022 State Water Plan.

Table 2.1 presents the comparison of daily and peak hour traffic volumes for the permitted and projected conditions for all access roads within one mile of the facility.

Table 2.2 presents the traffic impact assessment for the two conditions. As shown on the table, a minimal percentage of vehicle accessing the landfill uses the access roads currently and expected for the future conditions. Additionally, the Level of Service (LOS) for all access roads are currently an A and the projected LOS will also be an A, with the except of S. 50th Street, which decreases to a B. The LOS for Old Ballinger Highway, Covington Road, S. 50th Street, and N. U.S. Highway 277 were determined based on Percent of Free-Flow Speed, and the LOS for N. U.S. Highway 67 was determined based on the density (passenger cars per mile per lane).

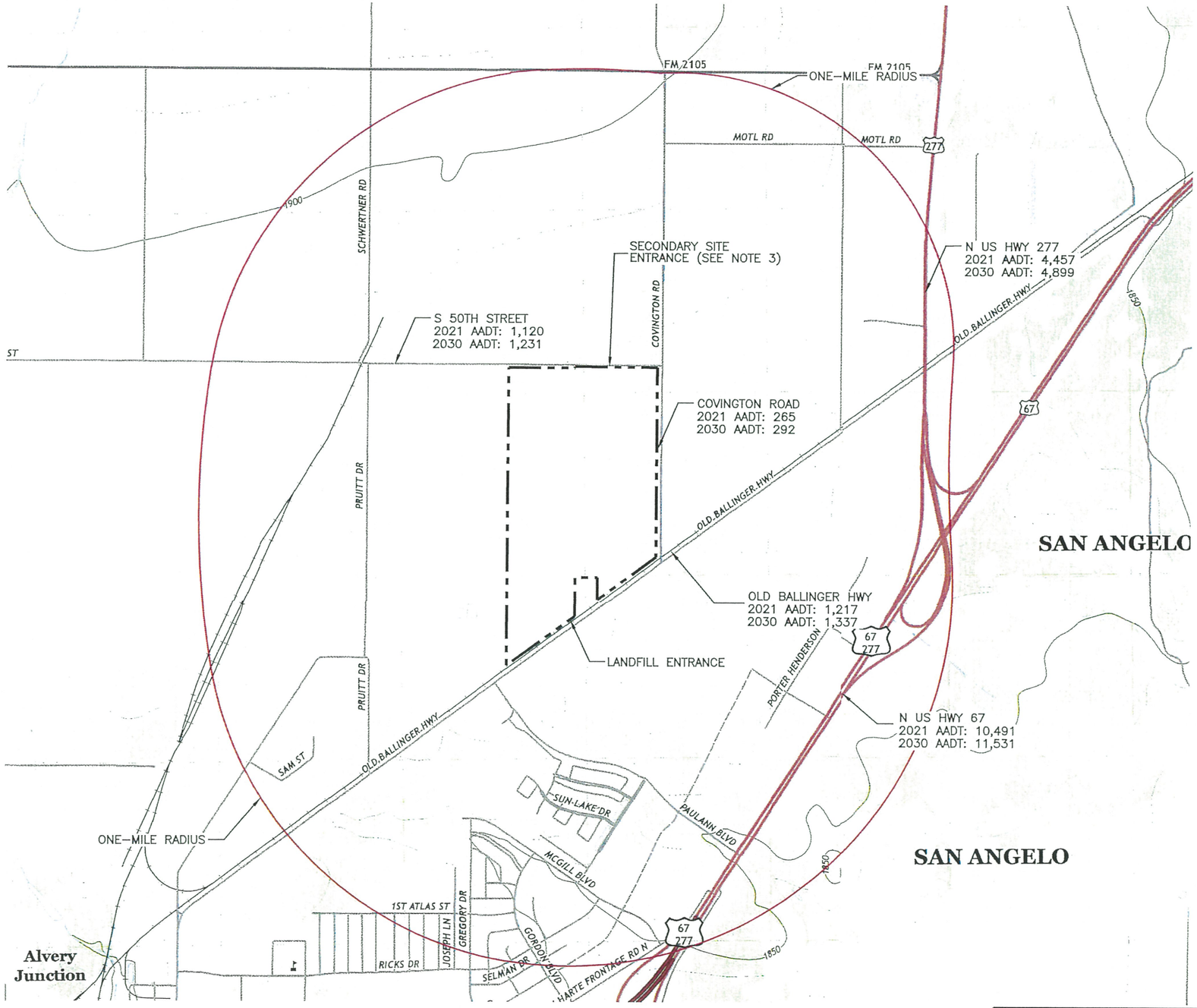
As shown, the waste acceptance rate increase will have a minimal impact on all access roads.

2.3 Queuing

As shown on Figure 2.3, the site entrance road is an approximately 45-foot wide, concrete paved road access from Old Ballinger Highway. The entrance road to the scalehouse is approximately 450 feet long, which will allow for ample queuing area within the landfill's inbound lane to avoid disturbing vehicular traffic on Old Ballinger Highway.

2.4 Summary

In summary, based on the traffic impact assessment, all access roads currently provide adequate access to the landfill and the waste acceptance rate increase will have a minimal impact on the facility access roads. Therefore, it is expected that all access roads will continue to provide adequate access to the landfill through the life of the facility.



N

0 1000 2000

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

1 MILE COVERAGE AREA

ROAD CLASSIFICATION

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

SAN ANGELO NORTH, TX
2019

HARRIET, TX
2019

SAN ANGELO SOUTH, TX
2019

VERIBEST, TX
2019

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, August 2016 - November 2016
Roads..... U.S. Census Bureau, 2015 - 2018
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002
Contours.....National Elevation Dataset, 2006
Boundaries.....Multiple sources; see metadata file 2016 - 2017

Wetlands.....FWS National Wetlands Inventory 1984 - 1985

NOTES:

1. REPRODUCED FROM 2019 USGS 7.5 QUADRANGLES: SAN ANGELO NORTH, SAN ANGELO SOUTH, HARRIET, AND VERIBEST, TEXAS.
2. FACILITY ACCESS ROADS INCLUDE OLD BALLINGER HIGHWAY, COVINGTON ROAD, S 50TH STREET, N US HIGHWAY 277, AND N US HIGHWAY 67.
3. THE SECONDARY SITE ENTRANCE LOCATED ON S 50TH STREET IS USED BY LANDFILL PERSONNEL VEHICLES ONLY.
4. AADT COUNTS WERE OBTAINED FROM TXDOT SOURCES AND PROJECTED USING THE PROJECTED AREA ANNUAL POPULATION GROWTH.

- [ ] DRAFT
- [x] FOR INFORMATIONAL PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 1-1.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS

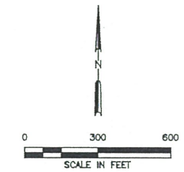
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
FACILITY ACCESS ROADS

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-1



LEGEND

LANDFILL PERMIT BOUNDARY

NOTES:

1. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH, DATED MARCH 24, 2021.
2. THE SECONDARY LANDFILL ENTRANCE IS USED BY LANDFILL PERSONNEL VEHICLES ONLY.

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☒ FOR INFORMATIONAL PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 11/2021
FILE: 0023-686-11
CAD: FIGURE 2-3.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS		
NO.	DATE	DESCRIPTION

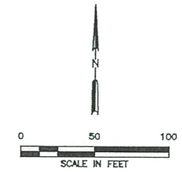
PERMIT MODIFICATION
AERIAL PHOTOGRAPH

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-2

P:\Solid waste\Republic\San Angelo Landfill\Waste Acceptance Rate Mod\Traffic\2-2 ENTRANCE.dwg, calexander, 1:2



LEGEND

LANDFILL PERMIT BOUNDARY

NOTES:

1. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH, DATED MARCH 24, 2021.

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☒ FOR INFORMATIONAL PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 2-3.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS		
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
LANDFILL ENTRANCE

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

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FIGURE 2-3

Table 2.1
2-Way Traffic Volumes

Access Road	Current Traffic Conditions with 700 tons/day Waste Stream (2021)[1]						Projected Traffic Conditions with 1,500 tons/day Waste Stream (2030)[1,2,4]					
	Daily			Peak Hour[3]			Daily			Peak Hour[3]		
	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total
Old Ballinger Highway	252	964	1,217	25	96	122	536	801	1,337	54	80	134
Covington Road	252	13	265	25	1	27	536	15	551	54	2	56
50th Street	252	867	1,120	25	87	112	536	695	1,231	54	69	123
N US Highway 277	252	4,205	4,457	25	420	446	536	4,363	4,899	54	436	490
N US Highway 67	252	10,239	10,491	25	1,024	1,049	536	10,995	11,531	54	1,100	1,153

Notes:

[1] 2021 Traffic conditions are based on volumes provided on the TxDOT Statewide Planning Map (2020) for N US Highway 277 and the TXDOT District Traffic Map (2018) for Old Ballinger Highway, Covington Road, 50th Street, and N US Highway 67. These volumes are projected using population growth rates obtained from the Texas Water Development Board (TWDB) 2022 State Water Plan.

[2] The annual population growth rate is 1.07% from 2018-2020 and 1.12% from 2020-2030.

[3] Peak hour volumes are assumed to be ten percent of the total daily traffic volume.

[4] According to the most recent Aerial survey, the site has approximately 9 years remaining. Therefore, 2030 was used for projected conditions.

[5] 2021 Landfill trips were estimated from information provided by the site operator. Projected landfill trips were calculated based on the projected waste inflow rate. The number of inbound trips per day was calculated based on truck capacity, density, ton and the current breakdown of landfill vehicle types. The inbound volume was doubled to obtain the number of total daily two-way landfill trips.

18-15

24-Hour One-Way Landfill Vehicle Estimates

Vehicle Description	Current Conditions with 700 tons/day Waste Stream (2021)					Projected Conditions with 1,500 tons/day Waste Stream (2030)				
	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons)	Estimated Vehicle Counts (vehicles/day)	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons)	Estimated Vehicle Counts (vehicles/day)
Read Loader	20	500	5.0	168	34	20	500	5.0	360	72
Front Loader	40	500	10.0	192.5	19	40	500	10.0	413	41
Rolloffs	30	267	4.0	140	35	30	267	4.0	300	75
Transfer Trailers	125	400	25.0	196	8	125	400	25.0	420	17
Private Individuals	-	-	0.25	3.5	14	-	-	0.25	7	28
Subtotal:	--	--	--	700	110				1,500	233
Facility Personnel/Misc.[1]	--	--	--	--	16	-	-	-	--	35
Total:	**--**	**--**	**--**	**700**	**126**				**1,500**	**268**

Notes:

[1] Facility personnel and miscellaneous vehicle count estimates were assume to be approximately 15% of the total vehicles.

Table 2.2
Traffic Impact Assessment[1]

Location	Roadway Capacity (veh/hr)	2021 Traffic Conditions (700 tons/day of Waste)						Projected 2030 Traffic Conditions (1,500 tons/day of Waste)					
		Total Volume (vpd)	Landfill Vehicles (vpd)	Peak Hour Volume[2] (veh)	% of Roadway Capacity used	LOS[1]	% of Roadway Capacity Used by Landfill Vehicles	Total Volume (vpd)	Landfill Vehicles (vpd)	Peak Hour Volume[2] (veh)	% of Roadway Capacity used	LOS[1]	% of Roadway Capacity Used by Landfill Vehicles
Old Ballinger Highway	5,000	1,217	252	122	2.4%	A	0.5%	1,337	536	134	2.7%	A	1.1%
Covington Road	3,200	265	252	27	0.8%	A	0.8%	551	536	56	1.8%	A	1.7%
S 50th Street	3,200	1,120	252	112	3.5%	A	0.8%	1,231	536	123	3.8%	B	1.7%
N US Hwy 277	5,000	4,457	252	446	8.9%	A	0.5%	4,899	536	490	9.8%	A	1.1%
N US Hwy 67	6,400	10,491	252	1,049	16.4%	A	0.4%	11,531	536	1,153	18.0%	A	0.8%

Notes:

[1] Level of Service (LOS) is determined based on Percent of Free-Flow Speed (PFFS) for Old Ballinger Highway, Covington Road, S 50th Street, and N US Highway 277. LOS is determined based on Density (pc/mi/ln) for N US Highway 67.

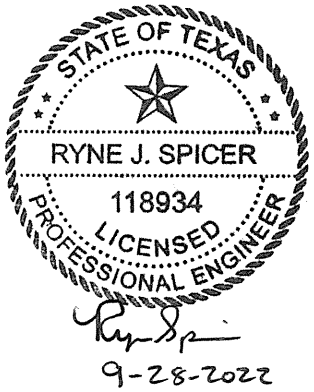
[2] Peak hour volumes are assumed to be ten percent of the total daily traffic volume.

18-16

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 79

PERMIT MODIFICATION

PART IV – SITE OPERATING PLAN



Prepared for

City of San Angelo (Owner)

And

Republic Waste Services of Texas, Ltd. (Operator)

July 1994
August 2006
Revised November 2006
Revised May 2017

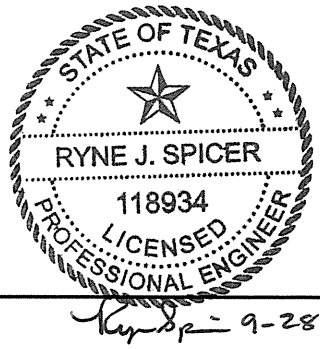
Revised September 2022

Prepared by

Weaver Consultants Group, LLC
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

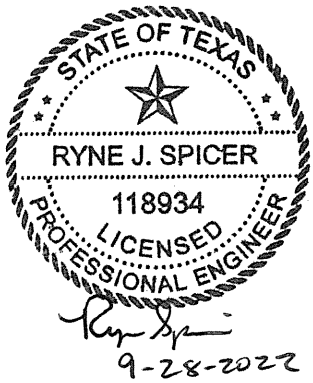
WCG Project No. 0120-686-11-14

CONTENTS



9-28-2022

CONTENTS (CONTINUED)



1 INTRODUCTION (30 TAC §330.65)

1.1 Introduction (§330.127)

This Site Operating Plan (SOP) has been prepared for the existing San Angelo Landfill. This SOP is consistent with 30 TAC §330.65 and contains the information required by §330.127. This SOP includes provisions for site management and site operating personnel to meet the general and site-specific requirements included in Subchapter D: Operational Standards for Municipal Solid Waste Landfill Facilities for the day-to-day operation of the facility. The City of San Angelo has contracted with Republic Waste Services of Texas, Ltd. for the day-to-day operations of the San Angelo Landfill. This SOP will be retained onsite throughout the active life of the facility and throughout the postclosure care maintenance period.

The San Angelo Landfill is an existing 257-acre, Type I Municipal Solid Waste Disposal Facility (TCEQ MSW Permit No. 79A) owned by the City of San Angelo. The San Angelo Landfill is located in Tom Green County, Texas and provides waste disposal capacity for residences and business in the City of San Angelo, Tom Green County, and surrounding areas. The facility is located approximately 3 miles northeast of the City of San Angelo on Old Ballinger Highway. The facility is located within the city limits of San Angelo in Tom Green County.

The primary function of the facility is municipal solid waste disposal. Support facilities are provided including a compost facility, liquid waste stabilization, uncontaminated wood waste processing area, large item/white goods storage area, and tire storage located within the permit boundary; and gatehouse, scales, equipment maintenance and storage area, and site entrance road located outside the permit boundary. The support facilities located outside of the permit boundary are located on property owned by Republic Waste Services of Texas, Ltd. (the operator of the San Angelo Landfill). This property is fenced as though it is part of the permit boundary.

The existing facility provides waste disposal for individuals and communities within the City of San Angelo, Tom Green County, and surrounding areas. The San Angelo Landfill annual waste acceptance rate is described in Section 2.7 of this SOP.

The SOP provides guidance for site management and site operating personnel for daily operation of the San Angelo Landfill. This SOP also includes provisions for site management and site operating personnel to meet the general and site-specific requirements for the waste acceptance rate established in the permit.

Personnel operator licenses issued in accordance with Chapter 30, Subchapter F, relating to municipal solid waste facility supervisors. Personnel training records and personnel operator licenses will be maintained in the site operating record as listed in Table 2-1.

2.6 Alternative Schedules (§330.125(g))

The executive director, in accordance with §330.125(g), may set alternative schedules for record keeping and notification requirements as specified in §330.125(a)-(f), except for notification requirements contained in §330.541-330.563 for any proposed lateral expansion located within a six-mile radius of any airport runway end used by turbojet or piston-type aircraft or notification relating to landowners whose property overlies any part of the plume of contamination if contaminants have migrated off-site as indicated by groundwater sampling.

2.7 Annual Waste Acceptance Rate (§330.125(h))

As listed in Table 2-1, the San Angelo Landfill will maintain as part of the site operating record, documentation of the annual waste acceptance rate for the facility in accordance with §330.125(h). Records will include maintaining the quarterly solid waste summary reports and the annual solid waste summary report as required by §330.675. The annual waste acceptance rate, as established by the sum of the previous four quarterly summary reports, will be evaluated by the San Angelo Landfill to determine if the waste acceptance rate exceeds the rate estimated in the approved permit and SDP. Should an increase in waste acceptance be established, the facility will determine if the increase is due to a temporary occurrence. Should the waste acceptance rate exceed that established in the approved permit, a permit modification would be prepared in accordance with then applicable TCEQ regulations to propose changes, if required, to manage the increased waste acceptance rate.

The San Angelo Landfill anticipates that the waste acceptance rate for the facility will increase during the site life. The facility has projected a waste acceptance rate of approximately 200,200 tons per year (700 tons per day), increasing to an estimated waste acceptance rate of up to 429,000 tons per year (1,500 tons per day). Demonstration of coordination with the Texas Department of Transportation (TxDOT) San Angelo District, consistent with Title 30 Texas Administrative Code TAC §330.61(i), is included in Attachment 18 of Part B – Technical Report. This SOP includes provisions for site management and site operating personnel to the general and site-specific requirements for the waste acceptance rates established in the permit.

4 EQUIPMENT (30 TAC §330.127(2))

Sufficient equipment will be provided to conduct site operations in accordance with the design and permit conditions.

The following list of equipment is expected to be routinely available for use at the facility. Equipment requirements may vary in accordance with the method of landfill operations or the waste acceptance rate at any given time. Additional equipment will be provided as required for increasing volumes of incoming solid waste. Other equivalent types of equipment manufacturers will vary during site operations based on operational practices and on the annual waste acceptance rate.

The estimated waste acceptance rate for the San Angelo Landfill is described in Section 2.7 of this SOP. The site has projected a waste acceptance rate of approximately 200,200 tons per year, or 700 tons per day, increasing to a waste acceptance rate of up to 429,000 tons per year, or 1,500 tons per day. The size, number, types, and equipment manufacturers will vary during site operations based on operational practices and on the annual waste acceptance rate.

Compactors are typically used for spreading and compacting the refuse and also for compacting the cover material. Dozers are typically used for soil movement and placement and for emergency waste compaction. Scrapers and haul trucks are typically used for excavating both the cover material used in site operations and the future disposal areas. The motor grader is typically used for road maintenance, ditching, surface water control, and final grading of the completed fill areas. The water truck will be used for fire control, dust control, and moisture conditioning of soil materials as necessary. The maintenance truck(s) is used to provide service to the other site operating vehicles. A farm tractor and pickup truck(s) will be used as needed for miscellaneous maintenance, litter control, and personnel use. Backup equipment will be provided from contractors or local rental companies to obtain equipment in the event of a breakdown or maintenance to avoid interruption of waste services.

Equipment operators may perform routine cleaning of landfill equipment, using low-volume, high-pressure, spray equipment at the active area of the landfill. The equipment spraying consists of blowing landfill equipment radiators clear of dust and debris-a manufacturer's recommendation-allowing the equipment to continue operating through the day without accumulated dust and material creating overheating problems. Because the landfill is operating on a lined Subtitle D cell, liquids containing refuse will be handled in the same manner as landfill leachate is handled (see Section 8.23).

The site will be equipped with fire extinguishers of the type, size, location, and number as recommended by the City of San Angelo Fire Department. Each fire extinguisher will be fully-charged and ready for use at all times. Each extinguisher will be inspected on a monthly basis by site personnel and recharged or replaced as necessary. Annual inspections will be performed by a qualified service company, and all extinguishers will

Table 4-1
Equipment Dedicated to the San Angelo Landfill[1]

Equipment	Typical Size	Number	Number	Function
LANDFILL OPERATIONS		Less than 700 tpd	701 to 1,500 tpd	
Compactor(s)	CAT 826, 836	1	2	Trash compaction
Dozer(s)	CAT D6, D7	1	1	Soil movement and placement
Haul Truck(s)[2]	30 cy	1	2	Soil hauling
Loader	3 cy bucket	1	1	Soil movement
Motor Grader	CAT 120A, 12G	1	1	Roadway maintenance
Farm Tractor	35 HP	1	1	Miscellaneous maintenance (contract equipment)
Maintenance Truck(s)	½ ton	1	1	Facility equipment maintenance
Pickup Truck(s)	½ ton	1	4	Personnel use, liter control, maintenance
Water Truck(s)	1,000 gallons	1	1	Fire control, dust control, earthfill compaction
Pump(s)	10 to 500 gpm	1	1	Stormwater pumping

(1) Size, number, types and equipment manufacturers of the heavy equipment and miscellaneous vehicles and equipment may vary based on operational needs and annual waste acceptance rate.
(2) Soil excavation will be conducted with loader(s), dozer(s), and haul truck(s). The landfill will determine appropriate excavation equipment as landfill is developed.
(3) Backup equipment will be provided from contractors or local rental companies to obtain equipment in the event of equipment breakdown or maintenance to avoid interruption of waste services.
(4) Typical size is minimum size to be provided.

ATTACHMENT 3

TCEQ-20650 FORM

Texas Commission on Environmental Quality

Application Form for Municipal Solid Waste Permit or Registration Modification or Temporary Authorization

Application Tracking Information

Facility Name: San Angelo Landfill

Permittee or Registrant Name: City of San Angelo

MSW Authorization Number: 79

Initial Submission Date: 09/2022

Revision Date: _____

Instructions for completing this form are provided in form TCEQ-20650-instr[1]. If you have questions, contact the Municipal Solid Waste Permits Section by email to mswper@tceq.texas.gov, or by phone at 512-239-2335.

Application Data

1. Submission Type

☒ Initial Submission ☐ Notice of Deficiency (NOD) Response

2. Authorization Type

☒ Permit ☐ Registration

3. Application Type

☒ Modification with Public Notice ☐ Modification without Public Notice

☐ Temporary Authorization (TA) ☐ Modification for Name Change or Transfer

4. Application Fee

Amount

The application fee for a modification or temporary authorization is $150.

Payment Method

☐ Check

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

If paid online, enter ePay Trace Number: 582EA000504764

[1] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20650-instr.pdf

5. Application URL

For modifications that require notice (other than those for arid exempt landfills), provide the URL address of a publicly accessible internet web site where the application and all revisions to the application will be posted:

ftwweaverboos.com

6. Party Responsible for Mailing Notice

For modifications that require notice, indicate who will be responsible for mailing notice:

☐ Applicant ☐ Agent in Service ☒ Consultant

Contact Name: Ryne Spicer, P.E.

Title: Project Director

Email Address: rspicer@wcgrp.com

7. 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."

8. Facility General Information

Facility Name: San Angelo Landfill

Contact Name: Adolph D. Mascorro Title: Operations Manager

MSW Authorization Number (if existing): 79

Regulated Entity Reference Number: **RN** 102289576

Physical or Street Address: 3002 Old Ballinger Highway

City: San Angelo County: Tom Green State: TX Zip Code: 79605

Phone Number: 325-655-6869

Latitude (Degrees, Minutes Seconds): 30° 30' 4.88"

Longitude (Degrees, Minutes Seconds): 100° 23' 11.55"

9. Facility Types

☒ Type I ☐ Type IV ☐ Type V

☐ Type IAE ☐ Type IVAE ☐ Type VI

10. Description of the Revisions to the Facility

Provide a brief description of revisions to permit or registration conditions and supporting documents referred to by the permit or registration, and a reference to the specific provisions under which the modification or temporary authorization application is being made. Also, provide an explanation of why the modification or temporary authorization is needed:

The purpose of this permit modification is to increase the annual waste acceptance rate established for the facility as required by Title 30 Texas Administrative Code §330.125 (h).

11. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: City of San Angelo

Customer Reference Number: **CN** 600351615

Contact Name: Shane Kelton Title: Director of Operations

Mailing Address: 72 West College

City: San Angelo County: Tom Green State: TX Zip Code: 79605

Phone Number: 325-267-9931

Email Address: shane.kelton@cosatx.us

Texas Secretary of State (SOS) Filing Number: _____

Operator (if different from *Site Operator*)

Name: Republic Waste Services of Texas, Ltd.

Customer Reference Number: **CN** 600132534

Contact Name: Brian Danko Title: Environmental Manager

Mailing Address: 1408 N MLK Boulevard

City: Lubbock County: Lubbock State: TX Zip Code: 79403

Phone Number: 325-716-5650

Email Address: bdanko@republicservices.com

Texas Secretary of State (SOS) Filing Number: 0012916510

Consultant (if applicable)

Firm Name: Weaver Consultants Group, LLC

Consultant Name: Ryne Spicer, P.E.

Texas Board of Professional Engineers Firm Registration Number: F-3727

Contact Name: Ryne Spicer, P.E. Title: Project Director

Mailing Address: 6420 Southwest Blvd., Ste. 206

City: Fort Worth County: Tarrant State: TX Zip Code: 76109

Phone Number: 817-735-9770

Email Address: rspicer@wcgrp.com

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

Name: _____

Mailing Address: _____

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

Phone Number: _____

Email Address: _____

12. Ownership Status of the Facility

Is this a modification that changes the legal description, the property owner, or the Site Operator (Permittee or Registrant)?

☐ Yes ■ No

If the answer is "No", skip this section.

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

☐ Yes ☐ No

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

Owner Name: _____

Mailing Address: _____

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

Phone Number: _____

Email Address: _____

Signature Page

Site Operator or Authorized Signatory

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

Name: Shane Kelton Title: Director of Operations

Email Address: shane.kelton@cosatx.us

Signature: _____ Date: 9-29-22

Operator or Principal Executive Officer Designation of Authorized Signatory

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

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

Operator or Principal Executive Officer Name: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said Shane Kelton

On this 28th day of Sept, 2022

My commission expires on the 19th day of Oct, 2022

Ann M. Pierce

Notary Public in and for

Tom Green County, Texas

ANN M PIERCE
Notary ID #128420440
My Commission Expires
October 19, 2022

Note: Application Must Bear Signature and Seal of Notary Public

Attachments for Permit or Registration Modification with Public Notice

Refer to instruction document **200650-instr** for professional engineer seal requirements.

Attachments Table 1. Required attachments.

Required Attachments	Attachment Number
Land Ownership Map	5
Landowners List	5
Marked (Redline/Strikeout) Pages	1
Unmarked Revised Pages	2

Attachments Table 2. Additional attachments as applicable.

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
☐ TCEQ Core Data Form(s)	
☐ Signatory Authority Delegation	
☐ Fee Payment Receipt	
☐ Confidential Documents	

Attachments for Permit or Registration Modification without Public Notice, or Temporary Authorization

Refer to instruction document **200650-instr** for professional engineer seal requirements.

Attachments Table 3. Required attachments for modifications.

Required Attachments for Modification	Attachment Number
Marked (Redline/Strikeout) Pages	
Unmarked Revised Pages	

Attachments Table 4. Additional attachments for modifications and temporary authorizations, as applicable.

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
☐ TCEQ Core Data Form(s)	
☐ Signatory Authority Delegation	
☐ Fee Payment Receipt	
☐ Confidential Documents	

Attachments for Permit or Registration Name Change or Transfer Modification

Refer to instruction document **200650-instr** for professional engineer seal requirements.

Attachments Table 5. Required attachments.

Required Attachments	Attachment Number
TCEQ Core Data Form(s)	
Property Legal Description	
Property Metes and Bounds Description	
Metes and Bounds Drawings	
On-Site Easements Drawing	
Land Ownership Map	
Land Ownership List	
Property Owner Affidavit	
Verification of Legal Status	
Evidence of Competency	

Attachments Table 6. Additional attachments as applicable.

Additional Attachments as Applicable (select all that apply and add others as needed)	Attachment Number
☐ Signatory Authority Delegation	
☐ Fee Payment Receipt	
☐ Confidential Documents	
☐ Final Plat Record of Property	
☐ Assumed Name Certificate	

ATTACHMENT 4

TXDOT COORDINATION

Texas Department of Transportation

4502 KNICKERBOCKER ROAD | SAN ANGELO , TEXAS 76904 | 325.944.1501 | WWW.TXDOT.GOV

12/16/2021

Mr. Brian Danko
Environmental Manager
Republic Services
3002 Old Ballinger Highway
San Angelo, TX 76905

Subject: Traffic Study
San Angelo Landfill – TCEQ Permit No. MSW-79
Tom Green County, Texas

Dear Mr. Danko,

Based on the information provided regarding the permit amendment application for the existing landfill in Tom Green County, Texas, the Department does not anticipate any restrictions for this site regarding traffic or location.

If you have any questions, please feel free to contact myself at (325) 947-9200.

Sincerely,

DocuSigned by:
BC10B17FA709437...

Christopher M. Cowen, P.E.
District Engineer
San Angelo District

cc: Shane Kelton, City of San Angelo
Chuck R. Marsh, P.E., Weaver Consultants Group, LLC

REPUBLIC SERVICES

San Angelo Landfill – 3002 Old Ballinger Highway, San Angelo, TX 79605
m 325-518-7397 o 325-716-5650 republicservices.com

December 1, 2021

Mr. Chris Cowen, P.E.
District Engineer
Texas Department of Transportation, San Angelo District
4502 Knickerbocker Road
San Angelo, Texas

Re: Traffic Study
San Angelo Landfill – TCEQ Permit No. MSW-79
Tom Green County, Texas

Dear Mr. Cowen:

The purpose of this letter is to demonstrate coordination with the Texas Department of Transportation (TxDOT), consistent with Title 30 Texas Administrative Code (TAC) §330.61(i). This regulation requires that an owner or operator of a municipal solid waste (MSW) facility to coordinate with TxDOT regarding any potential traffic or location restrictions.

Weaver Consultants Group, LLC (WCG) is preparing a permit modification, on behalf of the City of San Angelo and Republic Waste Services of Texas, Ltd., to modify the waste acceptance rate at the San Angelo Landfill (TCEQ Permit No. MSW-79). The permit modification will be submitted to the Texas Commission of Environmental Quality (TCEQ) for review and approval. The landfill is currently permitted to accept up to 700 tons per day, which was established in the 1984 permit. The permit modification will modify the waste acceptance rate in the permit to allow the site to accept up to 1,500 tons per day to meet the current and future disposal needs of the City of San Angelo and surrounding areas.

The landfill is located at 3002 Old Ballinger Highway, San Angelo, Texas 79605. The access roads within one mile of the landfill that were analyzed in this traffic study include Old Ballinger Highway, Covington Road, South 50th Street, North U.S. Highway 277, and North U.S. Highway 67. The attached traffic study demonstrates that the facility access roads will continue to provide adequate access to the landfill throughout the life of the facility. The landfill has been in operation for over 35 years and the traffic patterns of the waste collection vehicles that use the access roads are well-established.

To verify compliance with Title 30 TAC §330.61(i), we will need to include a letter from TxDOT in the permit modification application regarding the adequacy of the site access roads and any traffic or location restrictions at or near the facility.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Brian Danko

Brian Danko
Environmental Manager

Attachments: San Angelo Landfill Traffic Study

cc: Shane Kelton, City of San Angelo
Chuck R. Marsh, P.E., Weaver Consultants Group, LLC

SAN ANGELO LANDFILL TRAFFIC STUDY

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS
TCEQ PERMIT NO. MSW-79

TRAFFIC STUDY

Prepared for

City of San Angelo (Owner)

And

Republic Waste Services of Texas, Ltd. (Operator)

December 2021

Prepared by

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Blvd., Suite 206
Fort Worth, Texas 76109
817-735-9770

WCG Project No. 0120-686-11-00-01

CONTENTS

1 INTRODUCTION

1.1 Purpose

Weaver Consultants Group, LLC (WCG) is in the process of developing a permit modification application, on behalf of the City of San Angelo (Owner) and Republic Waste Services of Texas, Ltd. (Operator) to authorize an increase in the permitted waste acceptance rate from 700 tons per day up to 1,500 tons per day at the San Angelo Landfill. The purpose of this study is to demonstrate that the access roads to the San Angelo Landfill (Old Ballinger Highway, Covington Road, S. 50th Street, N. U.S. Highway 277, and N. U.S. Highway 67) will continue to provide adequate access to the site now and in the future. The Traffic Study is completed consistent with the requirements listed in Title 30 TAC §330.61(i), which requires the following information.

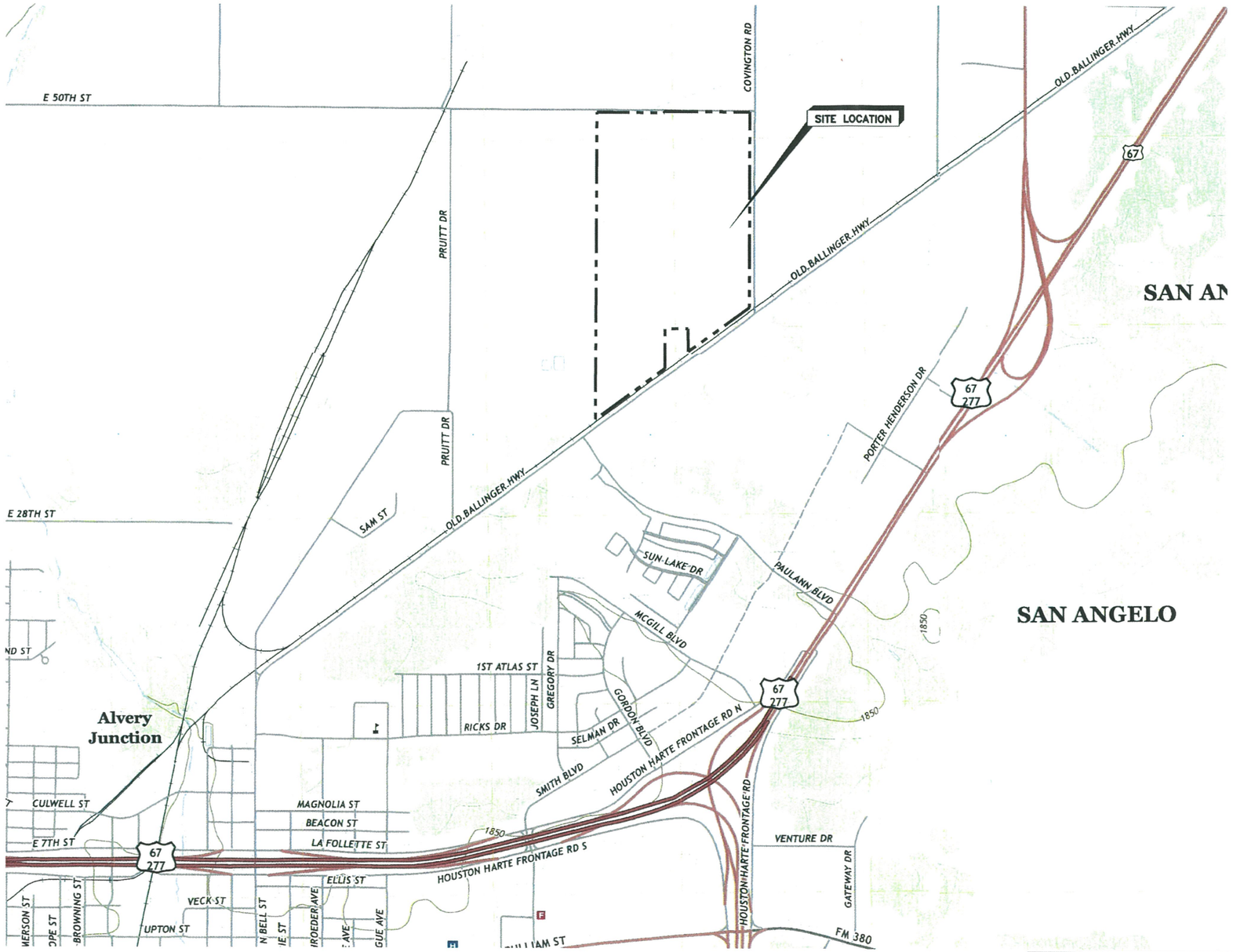
- Provide data on the availability and adequacy of roads that the owner or operator will use to access the site;
- Provide data on the volume of vehicular traffic on access roads within one mile of the proposed facility, both existing and expected, during the expected life of the proposed facility;
- Project the volume of traffic expected to be generated by the facility on the access roads within one mile of the proposed facility; and
- Submit documentation of coordination of all designs of proposed public roadway improvements such as turning lanes, storage lanes, etc., associated with site entrances with the agency exercising maintenance responsibility of the public roadway involved. In addition, the owner or operator shall submit documentation of coordination with the Texas Department of Transportation for traffic and location restrictions.

1.2 Summary of Proposed Waste Acceptance Rate Increase

San Angelo Landfill is an existing municipal solid waste landfill located at 3002 Old Ballinger Highway, San Angelo, Tom Green County, Texas, at the northwest corner of the intersection of Old Ballinger Highway and Covington Road. The landfill is currently permitted to accept up to 700 tons per day (or approximately 200,200 tons per year), which was established in the 1984 permit. According to the facility's permit, a permit modification will need to be submitted to TCEQ should the waste acceptance rate exceed that established in the approved permit. The permit modification will propose an increase to the waste acceptance rate from 700 tons per

day up to 1,500 tons per day (or approximately 429,000 tons per year) in order to meet the current and future disposal needs of the City of San Angelo and surrounding areas. The proposed waste acceptance rate of up to 1,500 tons per day is conservative and is not expected to be exceeded during the projected life of the facility. For the purpose of this traffic study, WCG analyzed the currently permitted waste acceptance rate (700 tons per day) for current traffic conditions (2021) to the proposed waste acceptance rate (1,500 tons per day) for projected traffic conditions (2030). According to the most recent aerial survey, the facility has approximately 9 years of life remaining, therefore WCG used the projected year of 2030 in this analysis.

Additionally, it should be noted that this permit modification will not change the landfill configuration or result in an increase to the permitted capacity, height, or waste limits of the facility.



N

0 1000 2000

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

ROAD CLASSIFICATION

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

SAN ANGELO NORTH, TX 2019

HARRIET, TX 2019

SAN ANGELO SOUTH, TX 2019

VERIBEST, TX 2019

SAN ANGELO

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, August 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2018
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002
Contours.....National Elevation Dataset, 2006
Boundaries.....Multiple sources; see metadata file 2016 - 2017

Wetlands.....FWS National Wetlands Inventory 1984 - 1985

NOTES:

1. REPRODUCED FROM 2019 USGS 7.5 QUADRANGLES: SAN ANGELO NORTH, SAN ANGELO SOUTH, HARRIET, AND VERIBEST, TEXAS.

- [ ] DRAFT
- [x] FOR INFORMATIONAL PURPOSES ONLY
- [ ] ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 1-1.DWG
DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS		
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
SITE LOCATION MAP

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 1-1

2 TRAFFIC INFORMATION

2.1 Availability and Adequacy of Roads

As shown on Figure 2-1, the access roads within one mile of the site include Old Ballinger Highway (two-lane, 55 mph asphalt-paved), Covington Road (two-lane, 30 mph asphalt-paved), S. 50th Street (two-lane, 30 mph asphalt-paved), N. U.S. Highway 277 (two-lane, 75 mph asphalt-paved), and N. U.S. Highway 67 (four lane, median-divided, 55 mph freeway). Old Ballinger Road is the main access road that waste collection vehicles will use to access the site. The site access roads will be utilized for the majority of traffic in- or outbound from the landfill. Other nearby roads may be periodically used by landfill vehicles to serve residences and businesses located along or near their roadways.

The San Angelo Landfill entrance is located on the southern edge of the permit boundary via Old Ballinger Highway. Covington Road bounds the facility on the east and S. 50th Street bounds the facility on the north. N. U.S. Highway 277 intersects with Old Ballinger Highway approximately one mile east of the permit boundary. N. U.S. Highway 67 is a four-lane, median-divided, controlled access expressway. A secondary site entrance, used exclusively for landfill personnel vehicles, is located on S. 50th Street. Figure 2-2 provides an aerial of the facility and shows the two entrances.

The existing entrance to the landfill is shown on Figure 2-3. As shown on Figure 2-3, the site entrance includes an approximately 45-foot-wide concrete road to the scalehouse. The length of the entrance road is approximately 450 feet, which provides a more than ample queuing area for waste vehicles, as noted in Section 2.3.

2.2 Volume of Vehicular Traffic

The volume of vehicle traffic on the site access roads (Old Ballinger Highway, Covington Road, S. 50th Street, N. U.S. Highway 277, and N. U.S. Highway 67), are summarized on Table 2.1. As noted on Table 2.1, TxDOT traffic counts from 2020 were available for Covington Road, S. 50th Street, and N. U.S. Highway 277; and TxDOT traffic counts from 2018 were available for Old Ballinger Road and N. U.S. Highway 67. The TxDOT traffic counts were adjusted to 2021 traffic conditions to account for the additional traffic created by area growth between the time volume data was collected and 2021. The 2021 traffic counts are based on the information provided on the TxDOT Statewide Planning Map (2020) and the TxDOT District Traffic Map (2018) and projected using the area population growth rates obtained from the Texas Water Development Board 2022 State Water Plan.

Table 2.1 presents the comparison of daily and peak hour traffic volumes for the permitted and projected conditions for all access roads within one mile of the facility.

Table 2.2 presents the traffic impact assessment for the two conditions. As shown on the table, a minimal percentage of vehicle accessing the landfill uses the access roads currently and expected for the future conditions. Additionally, the Level of Service (LOS) for all access roads are currently an A and the projected LOS will also be an A, with the except of S. 50th Street, which decreases to a B. The LOS for Old Ballinger Highway, Covington Road, S. 50th Street, and N. U.S. Highway 277 were determined based on Percent of Free-Flow Speed, and the LOS for N. U.S. Highway 67 was determined based on the density (passenger cars per mile per lane).

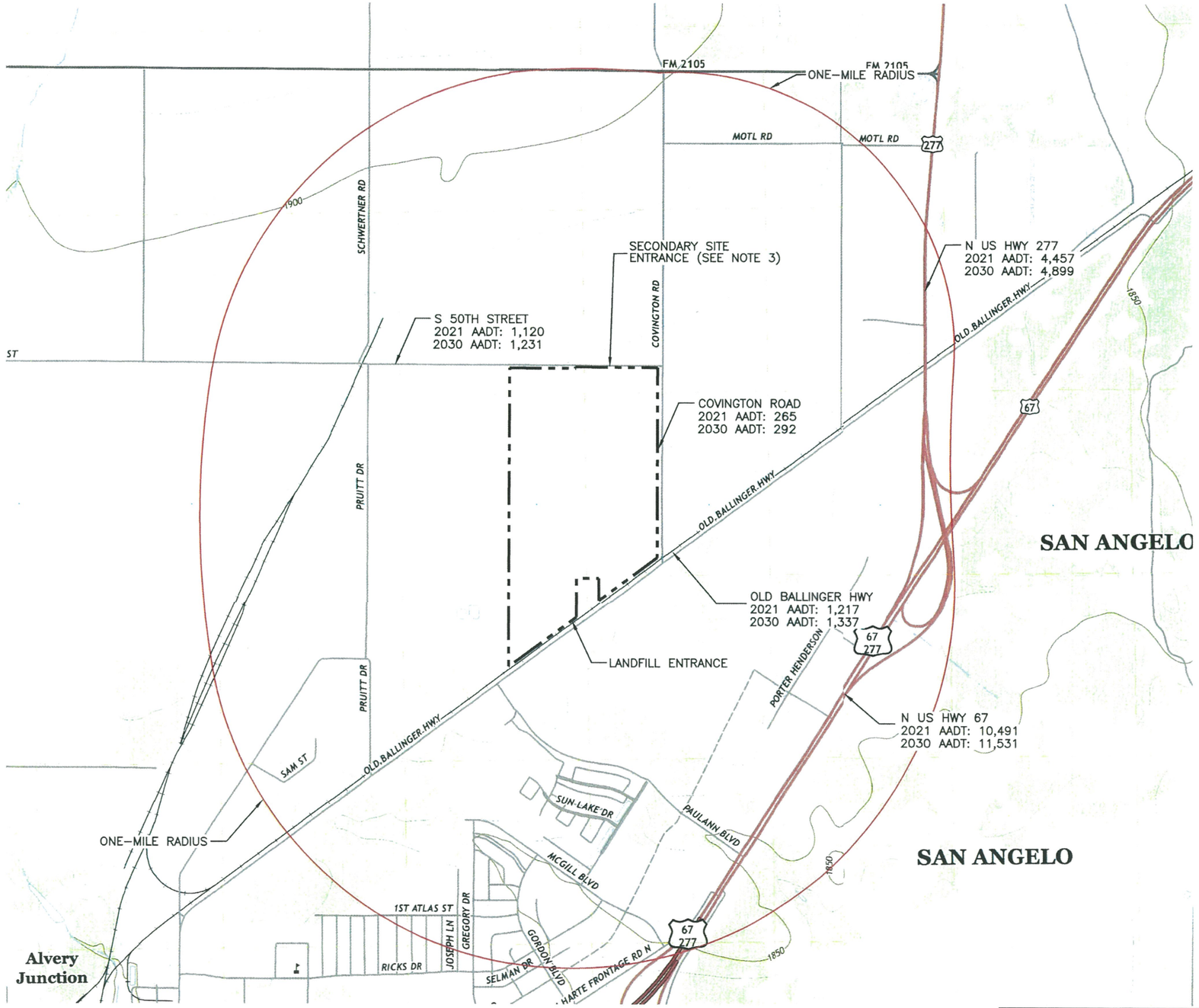
As shown, the waste acceptance rate increase will have a minimal impact on all access roads.

2.3 Queuing

As shown on Figure 2.3, the site entrance road is an approximately 45-foot wide, concrete paved road access from Old Ballinger Highway. The entrance road to the scalehouse is approximately 450 feet long, which will allow for ample queuing area within the landfill's inbound lane to avoid disturbing vehicular traffic on Old Ballinger Highway.

2.4 Summary

In summary, based on the traffic impact assessment, all access roads currently provide adequate access to the landfill and the waste acceptance rate increase will have a minimal impact on the facility access roads. Therefore, it is expected that all access roads will continue to provide adequate access to the landfill through the life of the facility.



N

0 1000 2000

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

1 MILE COVERAGE AREA

ROAD CLASSIFICATION

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

SAN ANGELO NORTH, TX
2019

HARRIET, TX
2019

SAN ANGELO SOUTH, TX
2019

VERIBEST, TX
2019

Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

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Roads..... U.S. Census Bureau, 2015 - 2018
Names.....GNIS, 1979 - 2018
Hydrography.....National Hydrography Dataset, 2002
Contours.....National Elevation Dataset, 2006
Boundaries.....Multiple sources; see metadata file 2016 - 2017

Wetlands.....FWS National Wetlands Inventory 1984 - 1985

NOTES:

1. REPRODUCED FROM 2019 USGS 7.5 QUADRANGLES: SAN ANGELO NORTH, SAN ANGELO SOUTH, HARRIET, AND VERIBEST, TEXAS.
2. FACILITY ACCESS ROADS INCLUDE OLD BALLINGER HIGHWAY, COVINGTON ROAD, S 50TH STREET, N US HIGHWAY 277, AND N US HIGHWAY 67.
3. THE SECONDARY SITE ENTRANCE LOCATED ON S 50TH STREET IS USED BY LANDFILL PERSONNEL VEHICLES ONLY.
4. AADT COUNTS WERE OBTAINED FROM TXDOT SOURCES AND PROJECTED USING THE PROJECTED AREA ANNUAL POPULATION GROWTH.

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- [x] FOR INFORMATIONAL PURPOSES ONLY
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DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 1-1.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS

NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
FACILITY ACCESS ROADS

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-1

N

0 300 600

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

NOTES:

1. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH, DATED MARCH 24, 2021.
2. THE SECONDARY LANDFILL ENTRANCE IS USED BY LANDFILL PERSONNEL VEHICLES ONLY.

P:\Solid waste\Republic\San Angelo landfill\Waste Acceptance Rate Mod\Traffic\2-2 ENTRANCE.dwg, calexander, 1:2

☐ DRAFT
☒ FOR INFORMATIONAL PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 11/2021
FILE: 0023-686-11
CAD: FIGURE 2-3.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS		
NO.	DATE	DESCRIPTION

PERMIT MODIFICATION AERIAL PHOTOGRAPH

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 2-2

N

0 50 100

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

NOTES:

1. AERIAL IMAGERY PROVIDED BY GOOGLE EARTH, DATED MARCH 24, 2021.

☐ DRAFT
☒ FOR INFORMATIONAL PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 10/2021
FILE: 0023-686-11
CAD: FIGURE 2-3.DWG

DRAWN BY: CRA
DESIGN BY: CRA
REVIEWED BY: CRM

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
CITY OF SAN ANGELO

REVISIONS

NO.	DATE	DESCRIPTION

PERMIT MODIFICATION
LANDFILL ENTRANCE

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

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FIGURE 2-3

SAN ANGELO LANDFILL
TRAFFIC STUDY

Table 2.1
2-Way Traffic Volumes

Access Road	Current Traffic Conditions with 700 tons/day Waste Stream (2021)[1]						Projected Traffic Conditions with 1,500 tons/day Waste Stream (2030)[1,2,4]					
	Daily			Peak Hour[3]			Daily			Peak Hour[3]		
	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total	Landfill Trips[5]	Non-Landfill Trips	Total
Old Ballinger Highway	252	964	1,217	25	96	122	536	801	1,337	54	80	134
Covington Road	252	13	265	25	1	27	536	15	551	54	2	56
50th Street	252	867	1,120	25	87	112	536	695	1,231	54	69	123
N US Highway 277	252	4,205	4,457	25	420	446	536	4,363	4,899	54	436	490
N US Highway 67	252	10,239	10,491	25	1,024	1,049	536	10,995	11,531	54	1,100	1,153

Notes:

[1] 2021 Traffic conditions are based on volumes provided on the TxDOT Statewide Planning Map (2020) for N US Highway 277 and the TXDOT District Traffic Map (2018) for Old Ballinger Highway, Covington Road, 50th Street, and N US Highway 67. These volumes are projected using population growth rates obtained from the Texas Water Development Board (TWDB) 2022 State Water Plan.

[2] The annual population growth rate is 1.07% from 2018-2020 and 1.12% from 2020-2030.

[3] Peak hour volumes are assumed to be ten percent of the total daily traffic volume.

[4] According to the most recent Aerial survey, the site has approximately 9 years remaining. Therefore, 2030 was used for projected conditions.

[5] 2021 Landfill trips were estimated from information provided by the site operator. Projected landfill trips were calculated based on the projected waste inflow rate. The number of inbound trips per day was calculated based on truck capacity, density, ton and the current breakdown of landfill vehicle types. The inbound volume was doubled to obtain the number of total daily two-way landfill trips.

24-Hour One-Way Landfill Vehicle Estimates

Vehicle Description	Current Conditions with 700 tons/day Waste Stream (2021)					Projected Conditions with 1,500 tons/day Waste Stream (2030)				
	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons)	Estimated Vehicle Counts (vehicles/day)	Truck Capacity (yd^3)	Waste Density (lb/yd^3)	Truck Capacity (tons)	Distribution of Waste Stream (tons)	Estimated Vehicle Counts (vehicles/day)
Read Loader	20	500	5.0	168	34	20	500	5.0	360	72
Front Loader	40	500	10.0	192.5	19	40	500	10.0	413	41
Rolloffs	30	267	4.0	140	35	30	267	4.0	300	75
Transfer Trailers	125	400	25.0	196	8	125	400	25.0	420	17
Private Individuals	-	-	0.25	3.5	14	-	-	0.25	7	28
Subtotal:	--	--	--	700	110				1,500	233
Facility Personnel/Misc. [1]	--	--	--	--	16	-	-	-	--	35
Total:	--	--	--	**700**	**126**				**1,500**	**268**

Notes:

[1] Facility personnel and miscellaneous vehicle count estimates were assume to be approximately 15% of the total vehicles.

Table 2.2
Traffic Impact Assessment[1]

Location	Roadway Capacity (veh/hr)	2021 Traffic Conditions (700 tons/day of Waste)						Projected 2030 Traffic Conditions (1,500 tons/day of Waste)					
		Total Volume (vpd)	Landfill Vehicles (vpd)	Peak Hour Volume[2] (veh)	% of Roadway Capacity used	LOS[1]	% of Roadway Capacity Used by Landfill Vehicles	Total Volume (vpd)	Landfill Vehicles (vpd)	Peak Hour Volume[2] (veh)	% of Roadway Capacity used	LOS[1]	% of Roadway Capacity Used by Landfill Vehicles
Old Ballinger Highway	5,000	1,217	252	122	2.4%	A	0.5%	1,337	536	134	2.7%	A	1.1%
Covington Road	3,200	265	252	27	0.8%	A	0.8%	551	536	56	1.8%	A	1.7%
S 50th Street	3,200	1,120	252	112	3.5%	A	0.8%	1,231	536	123	3.8%	B	1.7%
N US Hwy 277	5,000	4,457	252	446	8.9%	A	0.5%	4,899	536	490	9.8%	A	1.1%
N US Hwy 67	6,400	10,491	252	1,049	16.4%	A	0.4%	11,531	536	1,153	18.0%	A	0.8%

Notes:

[1] Level of Service (LOS) is determined based on Percent of Free-Flow Speed (PFFS) for Old Ballinger Highway, Covington Road, S 50th Street, and N US Highway 277. LOS is determined based on Density (pc/mi/ln) for N US Highway 67.

[2] Peak hour volumes are assumed to be ten percent of the total daily traffic volume.

ATTACHMENT 5

ADJACENT PROPERTY OWNERS' INFORMATION

ADJACENT PROPERTY OWNERS LIST AND MAP

The following list in Table 5-1 and map on Figure 5-1 provide the names, mailing addresses, and locations of the "Adjacent and Potentially Affected Landowners" within ¼ mile of the San Angelo Landfill. The numbers on the property owners list correspond to the numbers listed on Figure 5-1. The list is based on records of the Tom Green County Appraisal District as of September 2022. Refer to Figure 5-1 for location of the properties. In accordance with Title 30 Texas Administrative Code §330.59(c)(3), the availability of mineral ownership beneath the facility has been investigated. The real property appraisal records do not show any mineral rights owners.

TABLE 5-1
PROPERTY OWNERS LIST

1. SCHNIERS BROTHERS
6959 HILTON HEAD BLVD
SAN ANGELO TX 76904-3322

2. CITY OF SAN ANGELO
72 W COLLEGE AVE
SAN ANGELO TX 76903-5814

3. MICHAEL J BLOCK & JEAN ANN LEGRAND & DIANA HULING
4101 SCHWARTZ RD
SAN ANGELO TX 76904-4128

4. MARTIN SPROCKET & GEAR INC
3100 SPROCKET DR
ARLINGTON TX 76015-2828

5. 88 RANCH TRUST
ARNOLD FELTS
20038 S US HIGHWAY 377
DUBLIN TX 76446-5190

6. CSA MATERIALS INC
PO BOX 62030
SAN ANGELO TX 76906-2030

7. ROY DON SCOTT
3929 OLD BALLINGER HWY
SAN ANGELO TX 76905-6813

8. PEYTON HINDS
1217 LIVE OAK ST
SAN ANGELO TX 76901-4144

9. JOHN CONN & CHARLES BECKER & CURT GARRISON/J YEARWOOD
PO BOX 62266
SAN ANGELO TX 76906

10. ALEJANDRO J CABRERA
PO BOX 5936
SAN ANGELO TX 76902-5936

11. JOSE FELIX CABRERA
3809 OLD BALLINGER HWY UNIT A
SAN ANGELO TX 76905-6812

12. DAVID WAYNE MILLER & KAY KAREN
3750 OLD BALLINGER HWY
SAN ANGELO TX 76905-8360

13. MARTIFER-HIRSCHFELD ENERGY SYSTEMS
PO BOX 3768
SAN ANGELO TX 76902-3768

14. IVAN & GABRIELA CASTELLANOS
3314 CEDARHILL DR
SAN ANGELO TX 76904-7308

15. TRASHAWAY SERVICES INC
REPUBLIC SERVICES INC
PO BOX 29246
PHOENIX AZ 85038-9246

16. ABEL LOREDO
872 WHISPERING WINDS RD
BANDERA TX 78003-4306

17. ALMA L & GASTON SAUCEDO
3601 OLD BALLINGER HWY
SAN ANGELO TX 76905-6810

18. ERIC CRUZ
1951 FREELAND AVE
SAN ANGELO TX 76901

19. GUNTER & JACOBS HOLDINGS CO LLC
26 W CONCHO AVE
SAN ANGELO TX 76903-6414

20. SUN LAKE MHP LLC
1450 W PEACHTREE ST NW #200
PMB99344
ATLANTA GA 30309

TABLE 5-1
PROPERTY OWNERS LIST (CONTINUED)

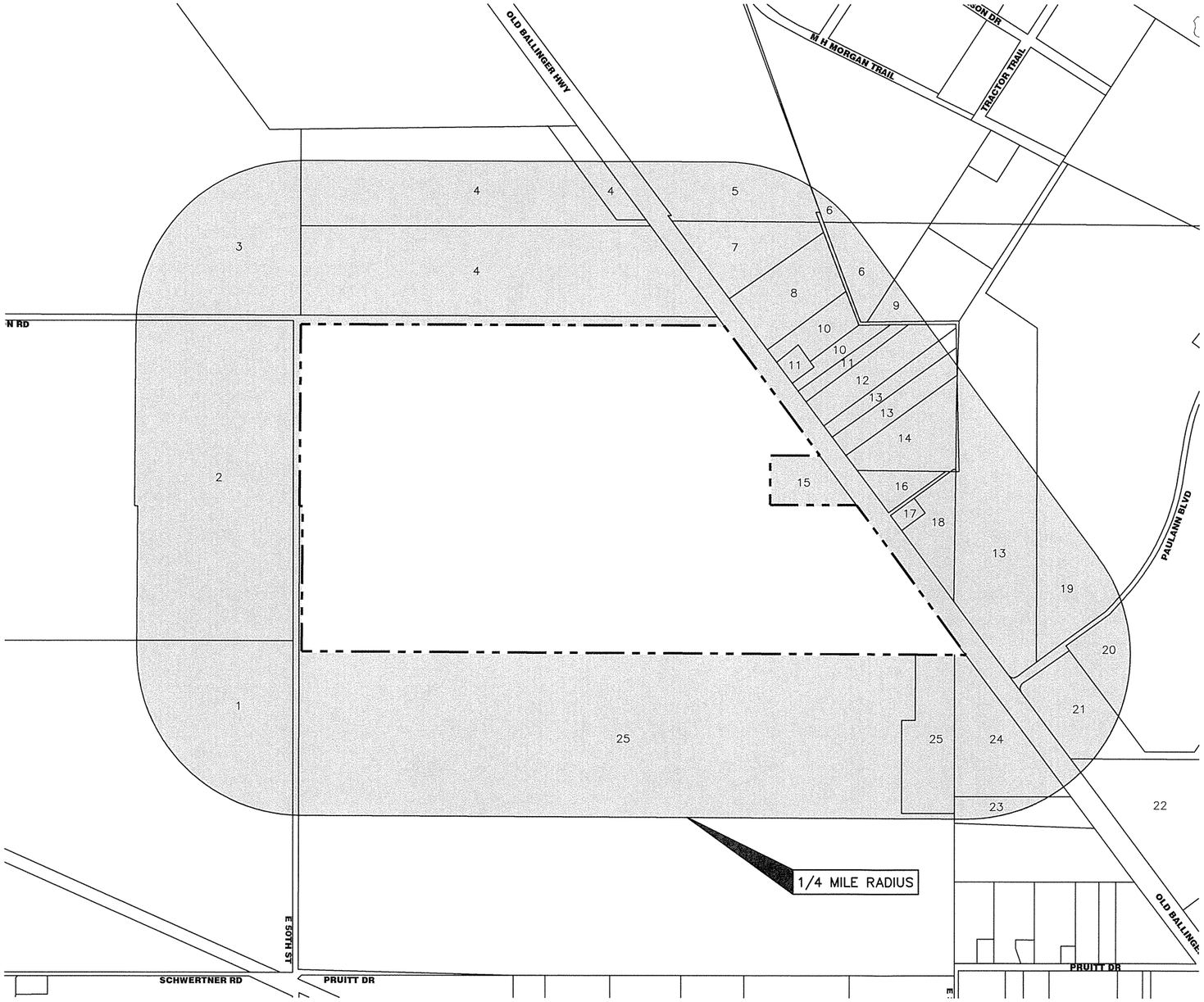
21. LJDJH LLC
200 N LORAINE ST STE 1450
MIDLAND TX 79701-4736

22. EARNEST ROBERTS
5008 STATE HIGHWAY 70
SWEETWATER TX 79556-8520

23. TERESO CARDENAS
2630 OLD BALLINGER HWY
SAN ANGELO TX 76905-8358

24. HOUSLEY COMMUNICATIONS INC
TAX DEPARTMENT
3350 S BRYANT BLVD
SAN ANGELO TX 76903-9310

25. 50'S GROUP PROPERTIES LTD
2150 E 37TH ST
SAN ANGELO TX 76903-3415



0 500 1000

SCALE IN FEET

LEGEND

LANDFILL PERMIT BOUNDARY

43 PARCEL NUMBER (SEE NOTES 1 AND 2)

1/4 MILE COVERAGE AREA (SEE NOTE 3)

NOTES:

1. REFERS TO PROPERTY OWNERS LIST ON PAGES 5–2 THROUGH THROUGH 5–3.
2. PROPERTY OWNERS LIST AND PARCEL LOCATIONS WERE OBTAINED FROM TOM GREEN COUNTY APPRAISAL DISTRICT RECORDS IN SEPTEMBER 2022.
3. THE HATCH SHOWN REPRESENTS A ¼ MILE DISTANCE FROM THE LANDFILL PERMIT BOUNDARY.

STATE OF TEXAS
RYNE J. SPICER
118934
LICENSED
PROFESSIONAL ENGINEER
9-28-2022

☐ DRAFT
☒ FOR PERMITTING PURPOSES ONLY
☐ ISSUED FOR CONSTRUCTION

DATE: 09/2022
FILE: 0120-686-11
CAD: FIG 5-1-PROPERTY OWNERS MAP.DWG

DRAWN BY: RAA
DESIGN BY: SDS
REVIEWED BY: CRA

Weaver Consultants Group
TBPE REGISTRATION NO. F-3727

PREPARED FOR
REPUBLIC WASTE SERVICES OF TEXAS, LTD.

REVISIONS		
NO.	DATE	DESCRIPTION

WASTE ACCEPTANCE RATE PERMIT MODIFICATION PROPERTY OWNERS MAP

SAN ANGELO LANDFILL
TOM GREEN COUNTY, TEXAS

WWW.WCGRP.COM

FIGURE 5-1

P:\Solid waste\Republic\San Angelo Landfill\Waste Acceptance Rate Mod\Property Owner Info\FIG 5-1-PROPERTY OWNERS MAP.dwg, rarrington, 1:2