Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- 6. If the geologic assessment was completed before October 1, 2004 and the **site contains "possibly sensitive"** features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- 2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied the application fee will be forfeited.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your **Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-**Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact **TCEQ's Austin Regional Office at 512**-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact **TCEQ's San Antonio Regional Office at 210**-490-3096

Please fill out all required fields below and submit with your application.

 Regulated Entity Name: South Lake Water Treatment Plant 					2. Regulated Entity No.: RN111368536			
3. Customer Name: City of Georgetown				4. Customer No.: 600412043				
5. Project Type: (Please circle/check one)	New	Modif	Modification		Extension		Exception	
6. Plan Type: (Please circle/check one)	(VPAP) CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential	Non-r	Non-residential		>	8. Sit	e (acres):	18.66
9. Application Fee:	\$6,500	10. P€	10. Permanent BMP(s):			3):	Sand Filter, Ve	getated Filter Strips
11. SCS (Linear Ft.):		12. AST/UST (No. Tanks):			ıks):			
13. County:	Williamson	14. W	'aters	hed:			San Gabriel Riv	ver

Application Distribution

Г

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the **EAPP Boundaries**" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

	Austin	Region	
County:	Hays	Travis	Williamson
Original (1 req.)	_	_	_1_
Region (1 req.)	_	_	_1_
County(ies)			_1_
Groundwater Conservation District(s)	Edwards Aquifer Authority Barton Springs/ Edwards Aquifer Hays Trinity Plum Creek	Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	Austin Buda Dripping Springs Kyle Mountain City San Marcos Wimberley Woodcreek	Austin Bee Cave Pflugerville Rollingwood Round Rock Sunset Valley West Lake Hills	Austin Cedar Park Florence 1_Georgetown Jerrell Leander Liberty Hill Pflugerville Round Rock

	Sa	an Antonio Region			
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)					
Region (1 req.)					
County(ies)					
Groundwater Conservation District(s)	Edwards Aquifer Authority Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde
City(ies) Jurisdiction	Castle Hills Fair Oaks Ranch Helotes Hill Country Village Hollywood Park San Antonio (SAWS) Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	San Antonio ETJ (SAWS)	NA

Austin Region

I certify that to the best of my knowledge, that the application is complete and accurate. This	
application is hereby submitted to TCEQ for administrative review and technical review.	

Sign here

Ana Marie Karamalegos, PE

Print Name of Customer/Authorized Agent

01/06/25

Signature of Customer/Authorized Agent

Date

FOR TCEQ INTERNAL USE ONL	_Y		
Date(s)Reviewed:		Date Administratively Complete:	
Received From:		Correct Number of Copies:	
Received By:		Distribut	ion Date:
EAPP File Number:		Complex	:
Admin. Review(s) (No.):		No. AR R	Rounds:
Delinquent Fees (Y/N):		Review T	ime Spent:
Lat./Long. Verified:		SOS Cust	tomer Verification:
Agent Authorization Complete/Notarized (Y/N):		Fee	Payable to TCEQ (Y/N):
Core Data Form Complete (Y/N):		Check:	Signed (Y/N):
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent:

vallacharab

Project Information

- 1. Regulated Entity Name: South Lake Water Treatment Plant
- 2. County: Williamson
- 3. Stream Basin: San Gabriel River
- 4. Groundwater Conservation District (If applicable):
- 5. Edwards Aquifer Zone:



6. Plan Type:

X WPAP	AST
SCS	UST
Modification	Exception Request

7. Customer (Applicant):

Contact Person: <u>Chris Pousson</u> Entity: <u>City of Georgetown</u> Mailing Address: <u>300-1 Industrial Ave</u> City, State: <u>Georgetown, Texas</u> Telephone: <u>(512) 930-8162</u> Email Address: chris.pousson@georgetowntexas.gov

8. Agent/Representative (If any):

Contact Person: Ana Marie KaramalegosEntity: CDM Smith, Inc.Mailing Address: 8310-1 N Capital of Texas Hwy, Suite 250City, State: Austin, TexasTelephone: (512) 346-1100Email Address: karamalegosam@cdmsmith.com

9. Project Location:

The project site is located inside the city limits of _____

The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of <u>Georgetown, TX</u>.

- The project site is not located within any city's limits or ETJ.
- 10. The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

<u>The South Lake Water Treatment Plant is located at 1010 Crockett Gardens Road,</u> <u>Georgetown, Texas, 78628. The plant is approximately 820 feet west of the</u> <u>intersection of Cedar Breaks Park Road and Cedar Breaks Road on Crockett Gardens</u> <u>Road.</u>

- 11. Attachment A Road Map. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.
- 12. Attachment B USGS / Edwards Recharge Zone Map. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

Project site boundaries.

USGS Quadrangle Name(s).

Boundaries of the Recharge Zone (and Transition Zone, if applicable).

Drainage path from the project site to the boundary of the Recharge Zone.

13. The TCEQ must be able to inspect the project site or the application will be returned. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

- Survey staking will be completed by this date: <u>April 9, 2018 (Please contact City of</u> <u>Georgetown for access to site before inspection)</u>
- 14. Attachment C Project Description. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:
 - Area of the site
 - Offsite areas
 - Impervious cover
 - Permanent BMP(s)

 - Site history
 - Previous development
 - Area(s) to be demolished
- 15. Existing project site conditions are noted below:
 - Existing commercial site
 - Existing industrial site
 - Existing residential site
 - Existing paved and/or unpaved roads
 - Undeveloped (Cleared)
 - Undeveloped (Undisturbed/Uncleared)
 - Other: <u>Water Treatment Plant</u>

Prohibited Activities

- 16. I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:
 - (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
 - (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
 - (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
 - (4) The use of sewage holding tanks as parts of organized collection systems; and
 - (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
 - (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

- 17. I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:
 - (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
 - (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and
 - (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

- 18. The fee for the plan(s) is based on:
 - For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
 - For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
 - For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
 - A request for an exception to any substantive portion of the regulations related to the protection of water quality.
 - A request for an extension to a previously approved plan.
- 19. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

TCEQ cashier

 Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
 San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

- 20. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 21. \square No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.



Attachment B: Edwards Aquifer Recharge Zone Map South Lake Water Treatment Plant Williamson County, Texas



City of Georgetown

South Lake Water Treatment Plant

Water Pollution Abatement Plan

The South Lake Water Treatment project will create a new 44 million gallon per day (MGD) water treatment plant off of Crockett Garden Road in Georgetown, Texas. The modification to the South Lake Water Treatment project will include a new control building, 1,700 gallon back-up generator, and associated improvements. The site is 18.66 acres with an impervious cover of 4.65 acres (24.9%). The new improvements will add 0.18 ac (1.0%) of impervious cover to the site for a total of 4.83 acres of impervious cover (25.9%). Permanent best practices will remain the same as a sand filter and a vegetated filter strip that will treat over 80% of the TSS that will be generated. These BMPs will be able to handle the increased load generated from the new impervious cover.



GEOLOGIC ASSESSMENT FOR THE APPROXIMATELY 18.522-ACRE SOUTH LAKE WATER TREATMENT PLANT

Williamson County, Texas

October 2021

Submitted to:

CDM Smith, Inc. 9430 Research Blvd., Suite 1-200 Austin, Texas 78759

Prepared by:

aci Group, LLC 1001 Mopac Circle Austin, Texas 78746 TBPG Firm License No. 50260

aci project #: 05-20-006

aci consulting

a division of aci group, LLC

Austin (512) 347.9000 • Denver (720) 440.5320

www.aci-consulting.net

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

 Print Name of Geologist: Mark T. Adams
 Telephone: (512) 347-9000

 Date: 10/20/2021
 Fax: (512) 306-0974

 Representing: aci Group LIC TBPC License No. 50260 (Name of Company and TBPG or TBPE registration number)
 Signature of Geologist:

 Signature of Geologist:
 MARK T. ADAMS

 GEOLOGY
 No. 1835

 Regulated Entity Name: South ace water Treatment Plant

Project Information

- 1. Date(s) Geologic Assessment was performed: 8/30/2017, 06/10/2020
- 2. Type of Project:

\times	WPAP
	SCS

\times	AST
	UST

3. Location of Project:

imes	Re	char	ge	Zone	9
	_			_	

Transition Zone

Contributing Zone within the Transition Zone

- 4. X Attachment A Geologic Assessment Table. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
- 5. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant stony clay, 0 to 3 percent slopes, stony		
(EeB)	D	6.66
Eckrant-Rock outcrop association, 1 to 10 percent slopes (ErE)	D	6.66
Georgetown stony clay loam, 1 to 3 percent slopes (GsB)	D	5

Soil Name	Group*	Thickness(feet)

- * Soil Group Definitions (Abbreviated) A. Soils having a high infiltration rate when thoroughly wetted.
 - B. Soils having a moderate infiltration rate when thoroughly wetted.
 - C. Soils having a slow infiltration rate when thoroughly wetted.
 - D. Soils having a very slow infiltration rate when thoroughly wetted.

- 6. Attachment B Stratigraphic Column. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
- 7. Attachment C Site Geology. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
- 8. Attachment D Site Geologic Map(s). The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

Applicant's Site Plan Scale: 1" = <u>50</u>' Site Geologic Map Scale: 1" = <u>50</u>' Site Soils Map Scale (if more than 1 soil type): 1" = <u>200</u>'

- 9. Method of collecting positional data:
 - Global Positioning System (GPS) technology.
 - Other method(s). Please describe method of data collection: _____
- 10. The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
- 11. Surface geologic units are shown and labeled on the Site Geologic Map.
- 12. Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
 - Geologic or manmade features were not discovered on the project site during the field investigation.
- 13. The Recharge Zone boundary is shown and labeled, if appropriate.
- 14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)

The wells are not in use and have been properly abandoned.

The wells are not in use and will be properly abandoned.

] The wells are in use and comply with 16 TAC Chapter 76.

 \boxtimes There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.



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October 2021

Geologic Assessment for the South Lake Water Treatment Plant located in Williamson County, Texas

1.0 INTRODUCTION

The Texas Commission on the Environmental Quality (TCEQ) regulates activities that have the potential to pollute the Edwards Aquifer through the Edwards Aquifer Protection Program. Projects meeting a certain criterion over the Edwards Aquifer Recharge Zone must submit an Edwards Aquifer Protection Plan (EAPP).

The purpose of this report is to identify all potential pathways for contaminant movement to the Edwards Aquifer and provide sufficient geologic information so that the appropriate Best Management Practices (BMPs) can be proposed in the EAPP. This report complies with the requirements of Title 30, Texas Administrative Code (TAC) Chapter 213 relating to the protection of the Edwards Aquifer Recharge Zone. Per the Rules, the Geologic Assessment must be completed by a Geologist licensed according to the Texas Geoscience Practice Act.

2.0 PROJECT INFORMATION

The proposed South Lake Water Treatment Plant is located 0.1 mile southeast of the intersection at Crockett Gardens Road (Rd) and Cedar Breaks Rd in the City of Georgetown extraterritorial jurisdiction (ETJ) in Williamson County, Texas (**Attachment A, Figure 1**). Pedestrian investigations of the 18.522-acre tract were performed on June 10, 2020, by Kara Posso, G.I.T., Joey Okeefe, Sarah King, and Erin Mathison, under the supervision of Mark Adams, P.G. with **aci consulting**. The site was previously surveyed by aci consulting personnel on August 30, 2017; some data from this previous survey has been relied upon for the purposes of this report.

This report is intended to satisfy the requirements for a Geologic Assessment, which shall be included as a component of a Water Pollution Abatement Plan (WPAP) and Aboveground Storage Tank (AST) plan. The site is approximately 18.522 acres in total. The proposed site use is for the South Lake Water Treatment Plant. The scope of the report consists of a site reconnaissance, field survey, and review of existing data and



reports. Features identified during the field survey were ranked utilizing the TCEQ matrix for Edwards Aquifer Recharge Zone features. The ranking of the features will determine their viability as "sensitive" features.

3.0 INVESTIGATION METHODS

The following investigation methods and activities were used to develop this report:

- Review of existing files and literature to determine the regional geology and any known caves associated with the project area;
- Review of past geological field reports, cave studies, and correspondence regarding the existing geologic features on the project area, if available;
- Site reconnaissance by a registered professional geologist to identify and examine caves, recharge features, and other significant geological structures;
- Evaluation of collected field data and a ranking of features using the TCEQ Ranking Table 0585 for the Edwards Aquifer Recharge Zone; and
- Review of historic aerial photographs to determine if there are any structural features present, and to determine any past disturbances on the subject property.

4.0 SOILS AND GEOLOGY

The following includes a site-specific description of the soils, geologic stratigraphy, geologic structure, and karstic characteristics as they relate to the Edwards aquifer. Also included in this section is a review of historic aerials for presence of geologic changes or changes to manmade features in bedrock.

<u>Soils</u>

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (2021), three soil units occur within the project alignment (**Attachment A, Figure 2**):

• EeB—Eckrant stony clay, 0 to 3 percent slopes, stony

The Eckrant, stony component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is found on ridges of dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, or lithic, is 4 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or



restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 6 percent. This soil does not meet hydric criteria. Hydric Soil Group: D

Georgetown (8%) and Doss (7%) components make up the remaining 15% of the soil map unit.

• ErE—Eckrant-Rock outcrop association, 1 to 10 percent slopes

The Eckrant component makes up 58 percent of the map unit. Slopes are 1 to 10 percent. This component is found on ridges of dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 4 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 6 percent. This soil does not meet hydric criteria. Hydrologic Soil Group: D.

Rock outcrop (16%), Tarpley (11%), Real (6%), Brackett (5%), and Pratley (4%) components make up the remaining 42% of the map unit.

• GsB—Georgetown stony clay loam, 1 to 3 percent slopes

The Georgetown component makes up 90 percent of the map unit. Slopes are 1 to 3 percent. This component is found on broad ridges of dissected plateaus. The parent material consists of clayey residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria. Hydrologic Soil Group: D.

Tarpley (5%), Eckrant (3%), and Farlie (2%) componets make up the remaining 10% of the map unit.

4



Geologic Stratigraphy

According to the *Geologic Map of the Georgetown Quadrangle, Texas,* one geologic unit, Edwards Limestone (Ked) occurs within the project alignment (**Attachment A, Figure 3**). A description of the Edwards Limestone (Ked) unit by Collins (1997) is as follows:

• Edwards Limestone (Ked)

"Limestone, dolomitic limestone and marl. Massive to thin beds, chert, and fossiliferous; fossils include rudistids. Shallow subtidal to tidal-flat cycles. Honeycomb textures, voids in collapsed breccias, and cavern systems. Accounts for most of the Edwards aquifer strata. Thickness is between 100ft to 300ft; thins northward."

Site-Specific Stratigraphic Column

Formation	Members	Thickness (Collins, 1997)					
Edwards Limestone	Edwards Limestone	Approximately 80-130 feet (mapped from contours)					

Geologic Structure

The geologic strata associated with the Edwards Aquifer include the Georgetown Limestone Formation of the Washita Group, the Edwards Limestone Group, which is interfingered with the Comanche Peak Formation, followed by the Walnut formation, and finally the Glen Rose Formation of the Trinity Group. These Groups dip gently to the southeast and are a characterized by the Balcones Fault Escarpment, a zone of en echelon normal faults downthrown to the southeast. Locally, the dominant structural trend of faults within the area is 15°, as evidenced by the mapped fault patterns (**Attachment A**, **Figure 4**). Thus, all features that have a trend ranging from 0° to 30° are considered "on trend" and were awarded the additional 10 points in the Geologic Assessment Table.

The geology on the site and surrounding tracts up to the border of Lake Georgetown is all Edwards Limestone (Ked), however the Comanche Peak (Kc) is present along the border of Lake Georgetown, suggesting the site is within the lower section of the Edwards Limestone (Collins 1997).



Karstic Characteristics

In limestone landscapes, karst is expressed by erratically developed cavernous porosity from dissolution of bedrock as water combined with weak acids moves through the subsurface. Karst terrains are typical of the Edwards Limestone, occurring across a vast region of Central Texas, including the Balcones Fault Escarpment. The features produced by karst processes include, but are not limited to, sinkholes, solution cavities, solution enlarged fractures, and caves. These features can eventually provide conduits for fluid movement such as surface water runoff, as "point recharge" to the Edwards Aquifer. Faults and manmade features within bedrock can also provide conduits for point recharge in many cases.

According to Edwards aquifer zone map produced by the TCEQ (2005), the entire subject area is within the northern segment of the Edwards Aquifer Recharge Zone (**Attachment A, Figure 3**). Thus, all karst features identified as sensitive within the project limits have the potential to be point recharge features into the Edwards Aquifer.

Review of Historic Aerials

Aerial photographs from 1941, 1953, 1962, 1964, 1974, 1988, 1995, 2004, 2008, 2012, and 2016 were reviewed for the site. It was determined that ranching and agricultural activities occurred on the site since the first aerial image dated 1941 (**Attachment C**). The 1988 aerial shows the first occurrence of Crockett Gardens Rd to the south of the site. Also visible in the 1988 aerial is a small structure located on-site near the road, however this structure is no longer present in the 2004 aerials and beyond. There are no other apparent changes to the site throughout the historic aerial collection. The site remains cleared of densely vegetated woodlands throughout the aerial history, suggesting regular maintenance has been occurring on the site.

5.0 SUMMARY OF FINDINGS

This report documents the findings of a geologic assessment conducted by **aci consulting** personnel on June 10, 2020, and August 30, 2017. Five karst features and one manmade feature in bedrock were noted on the site. Comprehensive descriptions for each feature can be found in **Attachment B**. Based on assessment of each karst feature, it was determined that none of the five features identified on the property would be considered



sensitive recharge features. The manmade feature in bedrock is a monitoring well and has been designated as sensitive to call the attention of the project engineers.



6.0 REFERENCES

- Collins, E.W., 1997. *Geologic Map of the Georgetown Quadrangle, Texas*. Bureau of Economic Geology. Austin, Texas.
- (SCS) Soil Conservation Survey. 1983. Soil Survey of Williamson County, Texas. United States Department of Agriculture. Texas Agriculture Experiment Station.
- (TCEQ) Texas Commission on Environmental Quality. 2004. Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones. October 1, 2004. Austin, Texas.
- (TCEQ) Texas Commission on Environmental Quality. 2005. "Edwards Aquifer Protection Program, Chapter 213 Rules - Recharge Zone, Transition Zone, Contributing Zone, and Contributing Zone within the Transition Zone." Map. Digital data. September 1, 2005. Austin, Texas.
- (TWDB) Texas Water Development Board. 2020. Water Data Interactive Groundwater Data Viewer. Accessed on August 09, 2021. Available at: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer
- (USDA NRCS) U.S. Department of Agriculture Natural Resources Conservation Service. 2021. WebSoilSurvey.com. Soil Survey Area: Williamson County, Texas. Date accessed: August 09, 2021.



ATTACHMENT A

Site Maps



Figure 1: Site Location

October 2021



Figure 2: Site Soils

October 2021



South Lake Water Treatment Plant

Figure 3: Site Geology

aci Project No.: 05-20-006 October 2021



South Lake Water Treatment Plant Figure 4: Regional Trend aci Project No.: 05-20-006 October 2021



ATTACHMENT B

Geologic Table Geologic and Manmade Feature Map (Figure 5) Feature Descriptions and Recommendations

GEOLOGIC ASSESSMENT TABLE								PROJECT NAME: South Lake Water Treatment Plant												
LOCATION					FEATURE CHARACTERISTICS									EVALUATION PHYSICA			SICA	L SETTING		
1A	1B *	1C*	2A	2B	3		4		5	5A	6	7	8A	8B	9	1	10	1	1	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIME	DIMENSIONS (FEET)		TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENS	SITIVITY CATCHMENT AREA (ACRES)		TOPOGRAPHY	
						х	Y	Z		10						<40	<u>>40</u>	<1.6	<u>>1.6</u>	
SL-01	30.666633	-97.740981	0	5	Ked	1	2.5	1	-	-	-	-	O,F,V	10	15	Х		Х		Hillside
SL-02	30.667939	-97.740608	SF	20	Ked	3	3.5	0.75	285/350	-	-	-	O,F,V,C	15	35	Х		Х		Hillside
SL-03	30.668406	-97.740027	0	5	Ked	1	1	2.5	-	-	-	-	O,F,C,V	10	15	Х		Х		Hillside
SL-04	30.66848	-97.741966	0	5	Ked	4	4	1	-	-	-	-	C,V,F	15	20	Х		Х		Hillside
SL-05	30.667972	-97.741633	SF	20	Ked	2	2	1.5	-	-	-	-	C,F	15	35	Х		Х		Hillside
SL-06	30.668434	-97.741028	MB	30	Ked	0.5	0.5	160	-	-	-	-	Х	10	40		Х	Х		Hillside
* D/	ATUM: NAD 1983	State Plane 4203				i i														
2A TYPE	0	TYPE		2B POINTS 8A INFILLING																
	Cave				30		N None, exposed bedrock													
SC	Solution cavity				20		С	Coarse	e - cobbles,	brea	kdown,	sand, gra	vel							
SF	Solution-enlarge	d fracture(s)			20		O Loose or soft mud or soil, organics, leaves, sticks, dark colors													
F	Fault				20		F	Fines,	compacted	l clay	-rich seo	diment, so	oil profile, gra	ay or red colo	ors					
0	Other natural be	drock features			5		V Vegetation. Give details in narrative description													
MB	Manmade featur	e in bedrock			30		FS	Flowst	one, cemer	nts, c	ave dep	osits								
SW	Swallow hole				30		Х	Other	materials											
SH	Sinkhole				20							10 70							1	
CD	Non-karst closed	a depression			5	12 TOPOGRAPHY														
Z	Zone, clustered	or aligned features			30		Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed													

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The







SL-01 GPS: 30.666633, -97.740981

This feature is a 'other naturally occurring feature' within the CGTM site. The feature consists of epikarst float rock that was subject to animal burrowing, as evidenced by mounding opposite of the feature aperture. The feature is 1 foot wide by 1 foot deep and extended laterally beneath the epikarst rock for approximately 2.5 feet. Infill material consists of organic materials, moderately compacted soil, and roots. The feature is located in the Edwards Limestone and positioned on a hillside. The drainage area is less than 1.6 acres. The feature was assigned low probability of rapid infiltration (10 pts) due to the moderately compacted soil infill material, rapid lateral and horizontal termination, and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.



Photo of SL-01.



SL-02 GPS: 30.667939, -97.740608

This feature is a solution enlarged fracture in epikarst bedrock within the CGTM site. The feature is a triangular slab of rock that has been separated from the larger host rock. The dominate fracture is oriented at 285° and extends for approximately 3.5 feet with a width of 2 inches and depth of 0.75 feet. The secondary fracture is at 350° and extends for 3 feet with a width of 3 inches and a depth of 0.5 feet. The overall dimensions of the feature are 3 feet by 3.5 feet with a depth measured to 0.75 feet. No portions of the fracture exhibited cleaned washed rock. Infill material consists of leaves, loose soil, roots, and some angular limestone cobbles. The feature is located in the Edwards Limestone and positioned on a hillside. The drainage area is less than 1.6 acres. The feature was assigned a low probability of rapid infiltration (15 pts) due to the moderately compacted soils infilling the fracture and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.



View of SL-02.



SL-03 GPS: 30.668406, -97.740027

This feature is a 'other naturally occurring feature', within the CGTM site, consisting of epikarst float rock that was subject to animal burrowing, as evidenced by mounding opposite of the feature aperture. The feature is 1 foot wide by 1 foot deep and extends 2.5 feet laterally below the topsoil. The feature is located in the Edwards Limestone and positioned on a hillside. Infill material consists of leaves, moderately compacted soil, cobbles, and vegetation. The drainage area is less than 1.6 acres. The feature was assigned a low probability of rapid infiltration (10 pts) due to the moderately compacted soil infill material, rapid lateral and vertical termination, and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.



View of SL-03.



SL-04 GPS: 30.66848, -97.741966

This feature is a 'other naturally occurring feature', within the CGTM site, consisting of vuggy epikarst float rock that was subject to animal burrowing, as evidenced by mounding opposite of the main feature aperture. The feature is approximately 4 feet wide and 1 foot deep, extending laterally below the float rock for approximately 4 feet. Infill material consists of float rock, roots, and moderately compacted clay-rich soils. The feature is located in the Edwards Limestone and positioned on a hillside with a drainage area of less than 1.6 acres. The feature was assigned a low probability of rapid infiltration (15 pts) due to epikarstic nature of the feature, rapid vertical termination, and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.



View of SL-04 from above, main aperture is along left edge of float rock.





View of SL-04 looking at main aperture; mounding from animal burrow evident in foreground of photo across from aperture.


SL-05 GPS: 30.667972, -97.741633

This feature was initially noted as a small sinkhole within the CGTM site. This feature had an approximate length and width of 1.2 feet and a depth of 1.5 feet, however after some hand excavation, loose rock cobbles were removed and revealed bedrock with a 0.5-inch-wide fracture that extends approximately 5 inches. The fracture did not exhibit clean washed rock or have other indications of water flow. The overall dimensions of the feature were 2 feet by 2 feet with a depth of 1.5 feet. The feature is located in the Edwards Limestone and positioned on a gentle hillside. Infill material consists of loose cobbles, boulders, and moderately compacted soils. The feature has a drainage area of less than 1.6 acres. Based on the moderately compact soils under the loose cobbles and rapid termination, the probability of rapid infiltration has been designated as low (15 pts).

Recommendation: No action required.



View of SL-05 upon discovery and light hand excavation.





View of SL-05 after more extensive hand excavation. Epikarst has been removed and a thin fracture exists in the host rock.



SL-06 GPS: 30.668434, -97.741028

This feature is a manmade feature in bedrock (monitoring well #460295) within the CGTM site. The well was installed in September of 2017 and has a diameter of 6 inches and a total depth of 160 feet. The well report indicates that water was encountered at a depth of 62 feet below the land surface. The feature is located on a gently sloping hillside in the Edwards Limestone Formation. This feature has been designated as sensitive in order to call the attention of the project engineers.

Recommendation: The well should be properly plugged and abandoned by a licensed professional in accordance with all local and state laws.



View of Sl-06, monitoring well cap.



ATTACHMENT C

Historic Aerial Photographs

ACI CONSULTING 1001 Mopac Circle Austin, TX 78746



Historical South Lake Georgetown WTP Aerial Photographs

Williamson County, TX PO #: 32-17-116 ES-125478 Wednesday, August 30, 2017



Date: 2016	
Source: USDA	





Date: 2012 Source: USDA





Date: 2008
Source: USDA





Date: 2004	
Source: USDA	





Date: 1995
Source: USGS







Date: 1974	_			
Source: USGS	0	250	500	1,000





Date: 1964 Source: Fairchild

0 250 500

Feet 1,000









Date: 1941
Source: ASCS





AERIAL SOURCE DEFINITIONS

Acronym	Agency
AerialOK	Aerial Oklahoma
AMS	Army Mapping Service
ASCS	Agricultural Stabilization & Conservation Service
EDAC	Earth Data Analysis Center
Fairchild	Fairchild Aerial Surveys
LDOT	Louisiana Department of Transportation
TXDOT	Texas Department of Transportation
USNavy	United States Navy
USAF	United States Air Force
USCOE	United States Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WALLACE	Wallace-Zingery Aerial Surveys
WSDOT	Washington State Department of Transportation

HISTORICAL AERIA	AL PHOTOGRAPHS
ES-125478	August 30, 2017



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Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25 Signature of Customer/Agent:

Vallacharaf

Project Information

 Current Regulated Entity Name: <u>South Lake Water Treatment Plant</u> Original Regulated Entity Name: <u>South Lake Water Treatment Plant</u> Regulated Entity Number(s) (RN): <u>RN111368536</u>

Edwards Aquifer Protection Program ID Number(s): 11002764

The applicant has not changed and the Customer Number (CN) is: 600412043

- The applicant or Regulated Entity has changed. A new Core Data Form has been provided.
- 2. Attachment A: Original Approval Letter and Approved Modification Letters. A copy of the original approval letter and copies of any modification approval letters are attached.

- 3. A modification of a previously approved plan is requested for (check all that apply):
 - Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
 - Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
 - Development of land previously identified as undeveloped in the original water pollution abatement plan;
 - Physical modification of the approved organized sewage collection system;
 - Physical modification of the approved underground storage tank system;
 - Physical modification of the approved aboveground storage tank system.
- 4. Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification	Approved Project	Proposed Modification
Summary		
Acres	<u>18.66</u>	<u>18.66</u>
Type of Development		
Number of Residential		
Lots		
Impervious Cover (acres)	<u>4.65</u>	<u>4.83</u>
Impervious Cover (%	<u>24.9</u>	<u>25.9</u>
Permanent BMPs	<u>2</u>	<u>2</u>
Other		
SCS Modification	Approved Project	Proposed Modification
Summary		
Linear Feet		
Pipe Diameter		
Other		

AST Modification	Approved Project	Proposed Modification
Summary		
Number of ASTs		
Volume of ASTs		
Other		
UST Modification	Approved Project	Proposed Modification
UST Modification Summary	Approved Project	Proposed Modification
UST Modification Summary Number of USTs	Approved Project	Proposed Modification
UST Modification Summary Number of USTs Volume of USTs	Approved Project	Proposed Modification

- 5. Attachment B: Narrative of Proposed Modification. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.
- 6. Attachment C: Current Site Plan of the Approved Project. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
 - The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
 - The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
 - The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.

The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.

- The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.
- 7. The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
 - Acreage has not been added to or removed from the approved plan.
- 8. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Jon Niermann, *Chairman* Emily Lindley, *Commissioner* Bobby Janecka, *Commissioner* Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 21, 2022

Mr. Chris Pousson City of Georgetown 300-1 Industrial Ave. Georgetown, Texas 78626

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: South Lake Water Treatment Plant; Located Northwest of Cedar Breaks Road and Crockett Gardens Road; Georgetown, Texas

TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Edwards Aquifer Protection Program ID No. 11002763; Regulated Entity No. RN111368536

Dear Mr. Pousson:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the above-referenced project submitted to the Austin Regional Office by CDM Smith, Inc. on behalf of City of Georgetown on November 5, 2021. Final review of the WPAP was completed after additional material was received on January 13, 2022. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected, and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.

PROJECT DESCRIPTION

The proposed non-residential project will have an area of approximately 18.66 acres. It will include water treatment structures, buildings, parking lot and roads. The impervious cover will be 4.65 acres (24.9 percent). Project wastewater will be disposed of by conveyance to the existing Dove Springs Wastewater Treatment Plant.

TCEQ Region 11 • P.O. Box 13087 • Austin, Texas 78711-3087 • 512-339-2929 • Fax 512-339-3795

Mr. Chris Pousson Page 2 January 21, 2022

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a partial sedimentation/filtration pond and nine (9) engineered vegetative filter strips, designed using the TCEQ technical guidance document, <u>Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005)</u>, will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 4,047 pounds of TSS generated from the 4.65 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

GEOLOGY

According to the Geologic Assessment (GA) included with the application, the site includes Eckrant-Rock Outcrop association, Eckrant extremely stony clay and Georgetown stony clay. The surficial geologic unit is the Edwards Limestone formation. No sensitive features were identified on site. The TCEQ site assessment conducted on January 3, 2022, revealed the site to be generally in accordance with the description included in the GA.

SPECIAL CONDITIONS

- I. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.
- II. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

STANDARD CONDITIONS

- 1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
- 2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
- 3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.

Mr. Chris Pousson Page 3 January 21, 2022

- 5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
- 6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
- 7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
- 8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
- 9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

- 10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
- 11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
- 12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

Mr. Chris Pousson Page 4 January 21, 2022

- 13. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
- 14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
- 15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
- 16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

- 18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the Austin Regional Office within 30 days of site completion.
- 19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
- 20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
- 21. An Edwards Aquifer protection plan approval or extension will expire, and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

Mr. Chris Pousson Page 5 January 21, 2022

22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Bob Castro, P.E. of the Edwards Aquifer Protection Program of the Austin Regional Office at (512) 339-2929.

Sincerely, Lillian Butles

Lillian Butler, Section Manager Edwards Aquifer Protection Program Texas Commission on Environmental Quality

LIB/rbc

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625 Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Ana Karamalegos, P.E., CDM Smith, Inc.

City of Georgetown

South Lake Water Treatment Plant

Water Pollution Abatement Plan

The South Lake Water Treatment Plant (WTP) is located at 1010 Crockett Gardens Road, which lies approximately 820 feet west of the intersection of Cedar Breaks Park Road and Cedar Breaks Road along Crockett Gardens Road. The project site is located on relatively flat land that slopes gently from the south to the north. The site's topography and site boundaries minimize the potential for off-site runoff to flow into and across the Lake WTP site. Vegetated filter strips and a sand filter will act as the primary permanent BMPs for the site.

1. Approved WPAP Plan

The Water Pollution Prevention Plan (WPAP) was submitted for review to TCEQ by CDM Smith on behalf of the City of Georgetown on November 5th, 2021. The WPAP permit was approved by TCEQ on January 21st, 2022. The items associated with the approved permit included:

- A total project area of 18.66 acres with an impervious cover of 4.65 acres (24.9%) was approved.
- A partial sedimentation/filtration pond and nine (9) engineered vegetated filter strips were approved to treat stormwater runoff. The required (TSS) generated from the 4.65 acres of impervious cover is 4,047 lbs/year. The BMPs provide a total of 4,556 lbs/year of TSS removal, greater than the required amount.

2. Proposed Modifications to Approved WPAP Plan

The items associated with the modification permit include the addition of the following:

- A total project area remains 18.66 acres with a new impervious cover of 4.83 acres (25.9%). This is a 0.18 acre (1.0%) increase from the previously approved plan.
- No additional BMPs are being added. The current partial sedimentation/filtration pond and the nine (9) engineered vegetated filter strips provide enough treatment for the additional runoff. The new required (TSS) generated from the 4.83 acres of impervious cover is 4,204 lbs/year. The current BMPs will provide a total of 4,722 lbs/year of TSS removal with the addition of the new impervious cover, greater than the required amount.



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KEY MAP

NOTE:

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Attachment C

New Site Plan

- 1. CHEMICAL LINES, SAMPLE LINES AND TEPID WATER LINES SHALL BE FIELD ROUTED WITH MINIMAL ELEVATION BENDS AND SHALL HAVE A MINIMUM COVER OF 3 FEET UNLESS OTHERWISE NOTED.
- 2. ENCASE SANITARY LINE IN A 20-FT STICK OF 8-INCH DIAMETER C-900 PIPE, CENTERED UNDER THE WATERLINE CROSSING. WATER LINE SHALL BE ROUTED OVER THE ENCASEMENT PIPE WITH A MINIMUM 6-INCH SEPARATION. CASING SPACERS SHALL BE PROVIDED ON A MAXIMUM INTERVAL OF 5-FEET AND ENDS OF CASING SHOULD BE SEALED WITH WATERTIGHT SEALS. MINIMUM COVER OF WATER LINE AT CROSSING SHALL BE 24-INCHES.



WATER TREATMENT PLANT YARD PIPING PLAN DETAIL

CY-20

SHEET NO.

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent:

allanhora

Regulated Entity Name: South Lake Water Treatment Plant

Regulated Entity Information

- 1. The type of project is:
 - Residential: Number of Lots:
 Residential: Number of Living Unit Equivalents:
 Commercial
 Industrial
 Other: Water Treatment Plant
- 2. Total site acreage (size of property): 18.66
- 3. Estimated projected population: NA
- 4. The amount and type of impervious cover expected after construction are shown below:

Table I - Impervious cover Table	Table 1	-	mpervious	Cover	Table
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Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	102,882	÷ 43,560 =	2.36
Parking	87,620	÷ 43,560 =	2.01
Other paved surfaces	19,684	÷ 43,560 =	0.45
Total Impervious Cover	210,186	÷ 43,560 =	4.83

Total Impervious Cover <u>4.83</u> ÷ Total Acreage <u>18.66</u> X 100 = <u>25.9</u>% Impervious Cover

- 5. Attachment A Factors Affecting Surface Water Quality. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.
- 6. Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. Type of project:

TXDOT road project.

County road or roads built to county specifications.

City thoroughfare or roads to be dedicated to a municipality.

Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

Concrete Asphaltic concrete pavement Other:

9. Length of Right of Way (R.O.W.): _____ feet.

Width of R.O.W.: _____ feet. L x W = _____ $Ft^2 \div 43,560 Ft^2/Acre = _____ acres.$

10. Length of pavement area: _____ feet.

Width of pavement area:feet.L x W = $Ft^2 \div 43,560 Ft^2/Acre =$ acres.Pavement areaacres ÷ R.O.W. areaacres x 100 =% impervious cover.

11. A rest stop will be included in this project.

A rest stop will not be included in this project.

12. Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

13. Attachment B - Volume and Character of Stormwater. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

<u>%</u> Domestic	Gallons/day
% Industrial	Gallons/day
% Commingled	Gallons/day
TOTAL gallons/day <u>NA</u>	

15. Wastewater will be disposed of by:

On-Site Sewage Facility (OSSF/Septic Tank):

Attachment C - Suitability Letter from Authorized Agent. An on-site sewage facility
will be used to treat and dispose of the wastewater from this site. The appropriate
licensing authority's (authorized agent) written approval is attached. It states that
the land is suitable for the use of private sewage facilities and will meet or exceed
the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285
relating to On-site Sewage Facilities.

Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

Sewage Collection System (Sewer Lines):

- Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

The SCS was previously submitted on_____.

] The SCS was submitted with this application.

] The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

The sewage collection system will convey the wastewater to the _____ (name) Treatment Plant. The treatment facility is:

Existing.
Proposed.

16. All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. \square The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = <u>50</u>'.

18. 100-year floodplain boundaries:

Some part(s) of the project site is located within the 100-year floodplain.	The floodplain
is shown and labeled.	

 \boxtimes No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of
material) sources(s): <u>FEMA FIRM 48491C0290E Effective 9/26/2008</u>

19. The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

There are	(#) wells present on the project site and the locations are shown and
labeled. (Check	all of the following that apply)

The wells are not in use and have been properly abandoned.

The wells are not in use and will be properly abandoned.

The wells are in use and comply with 16 TAC §76.

There are no wells or test holes of any kind known to exist on the project site.

- 21. Geologic or manmade features which are on the site:
 - All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
 - No sensitive geologic or manmade features were identified in the Geologic Assessment.
 - Attachment D Exception to the Required Geologic Assessment. A request and justification for an exception to a portion of the Geologic Assessment is attached.

- 22. The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. \square Areas of soil disturbance and areas which will not be disturbed.
- 24. 🔀 Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. \boxtimes Locations where soil stabilization practices are expected to occur.
- 26. Surface waters (including wetlands).

🛛 N/A

- 27. Locations where stormwater discharges to surface water or sensitive features are to occur.
 - There will be no discharges to surface water or sensitive features.
- 28. \boxtimes Legal boundaries of the site are shown.

Administrative Information

- 29. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 30. Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

City of Georgetown South Lake Water Treatment Plant

Water Pollution Abatement Plan

The construction activities associated with the South Lake WTP project have the potential to create additional total suspended solids (TSS) loadings during the construction. This potential increase in loading will be mitigated with the use of silt fencing and rock berms that will be placed downgradient of the active construction areas and placement of a stabilized construction entrance (SCE) at the entrance of the WTP construction area. Silt fencing will also be placed around storm drain inlets when installed. These measures will help minimize TSS impacts during storm events.

The WTP site's overall impervious cover will increase 0.18 acres (1.0%) from 4.65 acres (24.9%) to 4.83 acres (25.9%). **Table 1** below shows a breakdown of the impervious cover calculations. A portion of the South Lake WTP site's impervious cover is due to open basins and tanks that are part of the water treatment process. These areas do not generate runoff nor are they recharge features and have been subtracted from the overall impervious cover calculations. The proposed open basin cover is 2.31 acres and is shown on the construction plan set as open on the drainage sheets. Post-construction stormwater controls will include a sand filter to the north west of the site and vegetated filter strips along several key areas of the site, including around the clear well basins and on the northwest portion of the site. The VFS located to the northwest will include a flow spreader to allow uniform flow of water across the entire length of the strip. The total removal of TSS due to the impervious cover is 87% and these measures will protect surface water quality before discharging offsite to Lake Georgetown and the San Gabriel Watershed. See Attachment B – Volume and Character of Stormwater for TSS loading calculations.

	Area (sq. ft.)	Area (acres)
Total WTP Site:	813,039	18.66
Pavement*	87,656	2.01
Administrative Building	6,655	0.15
Storage Building	2,970	0.07
Chemical Facility	7,940	0.18
Treatment Structure (Open Basin)	86,416	(1.98)
Treatment Structure Filter Gallery (IC)	8,485	0.19
Dewatering Building	5,600	0.13
Gravity Thickener (Open Basin)	3,421	(0.08)
Wash Water Recovery Basin (Open Basin)	5,877	(0.13)
Decant Basin (Open Basin)	6,013	(0.14)
Disinfection Basin	9,517	0.22
Clearwell (2)	54,636	1.25
High Surface Pump Station	2,616	0.06
Electrical Building	3,755	0.09
Lift Station	272	0.01
Generators	2,083	0.05
Miscellaneous Pump Stations and IC	3,279	0.08
Miscellaneous Open Basin	832	(0.02)
Sidewalk*	10,514	0.24
Gravel Sidewalk	884	0.02
Control Center*	3,324	0.08
Total IC:	210,186	4.83

Table 1. Impervious Cover Summary - WTP

*Added or changed as a part of the modified improvements.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

The project site is on relatively flat land and high elevation ground. The site's topography and site boundaries minimize the potential for off-site runoff to flow onto and across the project site. There is a small portion of upstream flow to the site off of Crockett Garden Road that will flow across the site, though is undeveloped land.

The modification of the WTP will add 0.18 acres (1.0%) of impervious cover to the site. The project construction impervious cover will increase to 4.83 acres (25.9%). This increase will be due to the construction of the new control center building.

Site-generated runoff that discharges from the site will generally flow in a northwest and northeast direction divided by the treatment structures in the middle of the site. There is a small portion of runoff that will flow to the east. This portion will flow as overland flow and be treated by vegetated filter strips. The runoff that is flowing to the northeast will flow to a flow spreader and then be distributed evenly over a VFS before exiting the site. The runoff to the northwest will be picked up by several stormwater inlets and then to a sand filter before being treated and existing the site. All proposed modifications will flow to the VFS. The proposed improvements will not affect the impervious cover or flow to the sand filter.

Impervious Cover Impact

The South Lake WTP site is 18.66 acres with 4.73 acres of upstream undeveloped land flowing across the site. The proposed project will add 0.18 acres of impervious cover to the site. A portion of the South Lake WTP site's impervious cover is due to open basins and tanks that are part of the water treatment process. These areas do not generate runoff nor are they recharge features and have been subtracted from the overall impervious cover calculations. The proposed open basin cover is 2.31 acres.

Water Quality Impacts (Post Development)

The volume of on-site generated stormwater runoff is determined from the size of the drainage area, average annual rainfall, and percent impervious cover.

 $Pv = DA \times Pd \times Rv$ Where: Pv = annual runoff volume (cubic feet) DA = drainage area (sq ft)Pd = average annual precipitation depth (in) $Rv = runoff coefficient = 0.546(IC)^2 + 0.328 (IC) + 0.030$

Runoff Coefficients (Rv):

 $Rv = 0.546 (0.249)^2 + 0.328 (0.249) + 0.030 = 0.146$ (pre-development) $Rv = 0.546 (0.259)^2 + 0.328 (0.259) + 0.030 = 0.152$ (post-development)

<u>Existing Annual Runoff Volume (PreV)</u> Pv = 18.66*(43,560) x 32/12 x 0.146 = 316,462 cf/yr

<u>Proposed Annual Runoff Volume (PostV)</u> Pv = 18.66*(43,560) x 32/12 x 0.152 = 329,467 cf/yr

Increase in annual runoff volume is: (329,467 – 316,462)/316,462 x 100 = 4.1% increase

Water Quality Impacts

<u>Required Load Reduction</u> L=27.2*(An*P) P=Precipitation (inches) An=Net Increase in Impervious Area (acres)

Total Required Load Reduction

L = 27.2*(4.83*32) = 4,204 lbs/yr TSS (new total required load reduction) L = 27.2*(0.18*32) = 157 lbs/yr TSS (net increase from previously approved WPAP)

The project's design calculations estimate the water quantity and water quality impacts that will be caused by the proposed project's construction. These impacts will be addressed through adequate permanent best management practices (BMPs). Prescribed BMPs are presented in Attachment F of the Permanent Stormwater Section and also within the Temporary Stormwater Section of this WPAP request.

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent:

Regulated Entity Name: South Lake Water Treatment Plant

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

The following fuels and/or hazardous substances will be stored on the site: _____

These fuels and/or hazardous substances will be stored in:

Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

- Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2. Attachment A Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. Attachment B Potential Sources of Contamination. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

- 5. Attachment C Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: <u>stormwater will flow from the project site through stormwater quality structural controls thence to Lake Georgetown thence to the San Gabriel River.</u>

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. X Attachment D – Temporary Best Management Practices and Measures. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

\boxtimes	A description of how BMPs and measures will prevent pollution of surface water,
	groundwater or stormwater that originates upgradient from the site and flows
	across the site.

- A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
- A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
- A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
- 8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
 - Attachment E Request to Temporarily Seal a Feature. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
 - There will be no temporary sealing of naturally-occurring sensitive features on the site.
- 9. Attachment F Structural Practices. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
- 10. Attachment G Drainage Area Map. A drainage area map supporting the following requirements is attached:
 - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

- 11. Attachment H Temporary Sediment Pond(s) Plans and Calculations. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
 - 🛛 N/A
- 12. Attachment I Inspection and Maintenance for BMPs. A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
- 13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
- 14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
- 15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
- 16. 🖂 Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices. A schedule of the interim and permanent soil stabilization practices for the site is attached.

- 18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

- 20. \square All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

No hazardous substances or hydrocarbons will be stored or used in excess on the construction site. Reportable contaminant quantities will be determined and based on 30 TAC §327. In the event of any spill of hydrocarbon products or hazardous substances of reportable quantities the following spill response actions will be taken:

- 1. City of Georgetown Fire Department will be notified of the nature and extent of the spill via telephone (911 or 512-930-3600).
- 2. TCEQ Spill Reporting 24-hour Hotline will be notified of the nature and extent of the spill via telephone (800-832-8224).
- 3. The source of the spill will be stopped and confined before spill response cleanup activities take place.
- 4. Absorbent materials will be used to contain small scale spill incidents.
- 5. Absorbent containment booms will be used to contain the discharge of larger scale spill incidents.
- 6. Any spill response action will follow applicable OSHA health and safety regulations.
- 7. Any water materials generated by spill response actions will be properly stored and disposed, in accordance with local, state, and federal regulations.
- 8. Onsite personal will be trained to follow the spill response actions for the site.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

Potential sources of contamination related to this project include:

- Sediment from spoil piles transported during stormwater events
- Accidental leakage of fuels from vehicles or equipment during construction activities

All necessary actions to minimize impacts of contamination will be taken before, during, and after the proposed project and in coordination with Attachment A, Spill Response Actions. Other than a potential incidental leak from construction vehicles or equipment, all additional runoff will be from natural sources.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

The sequence for the construction of the proposed South Lake Water Treatment Plant site is planned as follows:

- Following issuance of notice-to-proceed, Contractor installs silt fencing, tree protection, and stabilized construction entrance.
- Contractor clears site areas and prepares site for construction. (18.66 acres)
- Contractor constructs temporary construction access roads.
- Contractor performs excavation for control center building and associated improvements (road, drainage, electrical)
- Contractor constructs the buildings, concrete slabs and pads, and treatment structures.
- Contractor installs yard piping and stormsewer.
- Contractor installs all the process mechanical equipment, piping and electrical improvements in the buildings and structures.
- Contractor installs concrete pavement.
- Contractor completes site construction and initiates site clean-up. (18.66 acres)
- Contractor inspects and maintains temporary erosion and sedimentation controls throughout the term of the project.
- Contractor restores disturbed soil areas with loaming and hydro-seeding and establishes vegetated filter strips.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

Temporary erosion and sedimentation control measures will include:

- Silt fencing;
- Rock berms;
- Concrete wash down area;
- Tree protection;
- Stabilized Construction Entrance (SCE);

Silt fencing shall be placed downgradient from the proposed site areas to control and filter any stormwater that may be generated from the proposed project site. Silt fencing shall also be placed around the perimeter of any storm drain inlets located on or downgradient of the proposed project area when installed. No significant runon from upgradient stormwater flows are anticipated due to the silt fencing. The silt fencing will further serve to control any stormwater generated by the proposed project site before it is allowed to discharge as stormwater-sediment flow from the site.

Rock berms shall be placed downgradient of proposed site areas to control and filter any concentrated stormwater that may be generated from the proposed project site.

A concrete wash out area will be placed on site in order to wash out trucks onto a designated area and not into storm drains or streams. It will also prevent excess concrete to be dumped onsite.

Tree protection will be placed around the critical root zone (CRZ) of protected trees on the proposed project site. This control measure will prevent erosion near the roots and protect the roots from being damaged by construction activities.

A stabilized construction entrance will be installed at the entrance of the construction area to minimize the tracking of sediments from the project site. All access to the construction site will use this SCE.

The area will remain vegetated where possible.

These temporary erosion and sedimentation control measures are indicated on the site drawings and will be put in place before the start of construction and shall remain in place for the duration of site construction activities.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

Structural Practices that will be used to limit the runoff discharge of sediments and pollutants from exposed areas of the proposed project include the following practices:

- Silt fencing;
- Rock berms;
- Concrete wash down area;
- Stabilized Construction Entrance (SCE);

These practices are described in Attachment D, Temporary BMPs and Measures. No temporary structural facilities, such as sedimentation ponds, will be constructed or used during construction activities. A sedimentation pond will be constructed as a permanent BMP and was already approved under the existing application. No changes are anticipated for the permanent BMPs for the site.



South Lake Water Treatment Plant

Water Pollution Abatement Plan

Silt fencing, rock berms, inlet protection, and the stabilized construction entrance shall be inspected once per week and following every significant rainfall event (of at least 0.1 inch or greater). If such inspections reveal that additional measurements are needed to prevent movement of sedimentation to offsite areas, the Contractor shall promptly install additional erosion control devices as may be required.

Silt fences shall be maintained and repaired as follows:

- Remove accumulated sediment once build up reaches 6 inches
- Replace torn or damaged filter fabric
- Make any other repairs or adjustments, as needed, to ensure the silt fencing is functioning properly

Rock berms shall be maintained and repaired as follows:

- Remove accumulated sediment once build up reaches 6 inches
- Repair any loose wire sheathing or reshape as needed
- Make any other repairs or adjustments, as needed, to ensure the rock berm is functioning properly

Inlet protection shall be maintained and repaired as follows:

- Repair any damaged fabric, or patch with a two (2) foot minimum overlap
- Replace any damaged sandbags
- Remove accumulated sediment once build up of reaches 3 inches
- Check placement of device to prevent gaps between device and curb

The stabilized construction entrance will also be inspected following precipitation events and stone will be replaced if silt accumulation is found to hinder the role of this BMP to minimize the off-site tracking of sediment.

Concrete washout areas shall be inspected daily and after every significant rainfall event (of at least 0.1 inch or greater) to check for leaks, identify any plastic linings and sidewalls have been damaged by construction activities or if they are over 75% capacity. When the washout area is over 75% capacity the wash water shall be removed or allowed to evaporate to avoid overflows. The hardened cement solids shall be removed and recycled.

Note that the inspections of the temporary BMPs will be documented in an inspection report. The inspection reports will document maintenance activities, sediment removal, and modifications to the sediment and erosion controls as necessary.

City of Georgetown South Lake Water Treatment Plant Water Pollution Abatement Plan

Temporary soil stabilization practices will include minimizing soil disturbance during construction and hydroseeding of temporary vegetation in disturbed areas. These temporary soil stabilization practices will be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. These interim measures will be inspected, maintained, and will remain in place for the duration of the construction phase of the project. These control measures will be planned and implemented in accordance with the Edwards Aquifer

Technical Guidance Manual.

Permanent soil stabilization and site restoration will occur prior to project completion. Permanent soil stabilization measures will include the loaming, hydroseeding, and re-vegetation of the disturbed areas using a native grass mix that is properly monitored and managed until long-term vegetation stabilization has occurred. Permanent vegetated filter strips will also be established in places shown on the construction plan sheets.

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent

Regulated Entity Name: South Lake Water Treatment Plant

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.



- 2. These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
 - The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

N/A

3. Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

_____N/A

- 4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
 - The site will be used for low density single-family residential development and has 20% or less impervious cover.
 - The site will be used for low density single-family residential development but has more than 20% impervious cover.
 - The site will not be used for low density single-family residential development.
- 5. The executive director may waive the requirement for other permanent BMPs for multifamily residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
 - Attachment A 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
 - The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
 - The site will not be used for multi-family residential developments, schools, or small business sites.
- 6. Attachment B BMPs for Upgradient Stormwater.

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N/A No changes are presented from the previously approved BMPs for this site. Not included in this modification permit.

11. Attachment G - Inspection, Maintenance, Repair and Retrofit Plan. A plan for the inspection, maintenance, repairs, and if necessary, retrofit of the permanent BMPs and
measures is attached. The plan includes all of the following:
Prepared and certified by the engineer designing the permanent BMPs and measures
Signed by the owner or responsible party
Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
A discussion of record keeping procedures
⊠ N/A
12. Attachment H - Pilot-Scale Field Testing Plan. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.
⊠ N/A
13. Attachment I -Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.
□ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. 🖂 The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

N/A

15. \square A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

N/A

City of Georgetown South Lake Water Treatment Plant Water Pollution Abatement Plan

There is a slight amount of undeveloped land upgradient of the South Lake WTP that will generate stormwater towards the storm during storm events. The site is relatively flat and a ditch on the south side of Crockett Gardens Road will act as a divide for further upgradient flow. The upgradient flows for the intended 4.73 acres of upstream undeveloped land has been factored into the water quality calculations for flow across the site. Upgradient flow is split in to three directions – east, northeast, and northwest. The runoff flowing east will be picked up by vegetated filter strips. Runoff flowing northeast will flow to a flow spreader that will spread flow uniformly over a VFS and then offsite. Runoff to the northwest will be picked up by storm inlets and thence to a sand filter before being treated and discharged offsite. The VFS and sand filter have been sized with the upgradient flows in mind and were approved under the existing application. No changes are anticipated for the permanent BMPs for the site.

South Lake Water Treatment Plant

Water Pollution Abatement Plan

The construction drawings are provided as part of this South Lake WTP Improvements design set. The permanent BMPs were approved under the previous application. No changes to the BMPs are proposed for the site. The narrative below shows that the approved BMPs are sufficient for the additional impervious added due to the site modification. The project's design drawings provide the civil and environmental drawings including grading, erosion control, staging, and fencing plans. The following permanent BMPs are detailed and specified:

- Vegetative Filter Strips
- Sand Filter

Vegetative filter strips will serve as one of the primary permanent stormwater control for the site's longterm period. It will be installed downgradient of the disturbed area to protect flooding, erosion, and water quality for offsite areas. All other disturbed sites will be re-vegetated and hydroseeded that will act as a linear vegetation strip in the long term to further help water quality from the site.

A sand filter to the northwest will serve and the second primary permanent stormwater control for the site's long-term period. It will be installed downgradient of the plant and storm inlet will pick up runoff draining to the pond. A splitter box will divert the water quality volume to the pond and the rest will overflow from the site.

Based on calculations from the WPAP application Attachment B: Volume and Character of Stormwater the required load reduction for the site has increased from 4,047 to 4,204 lbs/yr of TSS. Vegetative filter strips have a removal efficiency of 85% and sand filters have a removal efficiency of 89%. Based on this and equation 3.7 on page 3-33 of RG-348 the maximum load removal for each BMP is:

 L_R = (BMP efficiency) x P x (A₁ x 34.6 + A_P x 0.54)

- $A_{\rm c}$ = Total onsite drainage area in the BMP catchment area
- A_I = Impervious area proposed in the BMP catchment area
- A_P = Pervious area remaining in the BMP catchment area
- L_R = TSS Load removed from this catchment area by the proposed BMP

 $L_{R, VFS} = (0.85) \times 32 \times (2.88 \times 34.6 + (3.14 - 2.88) \times 0.54) = 2,714 \text{ lbs/yr}$ $L_{R, Sand filter} = (0.89) \times 32 \times (1.95 \times 34.6 + (7.58 - 1.95) \times 0.54) = 2,008 \text{ lbs/yr}$

These calculations show that vegetative filter strips remove 2,714 lbs/yr of TSS and the sand filter removes 2,008 lbs/yr of TSS for a total of 4,722 lbs/year of TSS removal. The site requires a reduction of 4,204 lbs/yr of TSS. The existing vegetative filters strips and sand filter are sufficient permanent BMPs to reduce the required TSS load.

City of Georgetown South Lake Water Treatment Plant Water Pollution Abatement Plan

There is a potential for stormwater from the proposed construction area to reach Lake Georgetown and thence the San Gabriel River after being treated by recommended control measures. Vegetated filter strips and a sand filter will act as the primary BMPs for the site and will reduce TSS by more than 80%. All other areas will be hydroseeded and re-vegetated and will act as a linear vegetation strip in the long run that will provide erosion and sediment control. The project will add 1.0% impervious cover to the site. The permanent BMPs described will provide sufficient reduction in erosion, runoff velocities, and TSS loading to surface streams.

Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

I Chris Pousson	
Print Name	
CIP Manager	
Title - Owner/President/Other	
of City of Georgetown	_;
Corporation/Partnership/Entity Name	
have authorized Ana Marie Karamalegos	
Print Name of Agent/Engineer	
of CDM Smith, Inc	_
Print Name of Firm	

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- 2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- 3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

Applicant's Signature

-25-21

Date

THE STATE OF § County of Williamson Ş

BEFORE ME, the undersigned authority, on this day personally appeared <u>Uns POUSSON</u> known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 25 day of 000000, 2021

CINDY GILBERT Notary ID #2953478 My Commission Expires January 21, 2023

2023

Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

TCEQ-0599 (Rev:04/01/2010)

Application Fee Form

Name of Proposed Regulated Entity: <u>South Lake Water Treatment Plant</u> Regulated Entity Location: <u>1010 Crockett Garden Road, Georgetown, Texas 78628</u> Name of Customer: <u>City of Georgetown</u> Contact Person: <u>Chris Pousson</u> Customer Reference Number (if issued):CN <u>600412043</u> Regulated Entity Reference Number (if issued):RN Austin Regional Office (3373) Hays Villiamson	
Regulated Entity Location: 1010 Crockett Garden Road, Georgetown, Texas 78628 Name of Customer: City of Georgetown Contact Person: Chris Pousson Phone: (512) 930-8162 Customer Reference Number (if issued):CN 600412043 Regulated Entity Reference Number (if issued):RN Austin Regional Office (3373) Hays Travis	
Name of Customer: <u>City of Georgetown</u> Contact Person: <u>Chris Pousson</u> Phone: <u>(512) 930-8162</u> Customer Reference Number (if issued):CN <u>600412043</u> Regulated Entity Reference Number (if issued):RN Austin Regional Office (3373) Hays Travis Williamson	
Contact Person: Chris Pousson Phone: (512) 930-8162 Customer Reference Number (if issued):CN 600412043 Regulated Entity Reference Number (if issued):RN Austin Regional Office (3373) Hays Travis	
Customer Reference Number (if issued):CN <u>600412043</u> Regulated Entity Reference Number (if issued):RN Austin Regional Office (3373)	
Regulated Entity Reference Number (if issued):RN Austin Regional Office (3373) Hays Travis Williamson	
Austin Regional Office (3373) Hays Travis	
Hays Travis Williamson	
San Antonio Regional Office (3362)	
Bexar Medina Uvalde	
Comal Kinney	
Application fees must be paid by check, certified check, or money order, payable to the Texas	
Commission on Environmental Quality . Your canceled check will serve as your receipt. This	
form must be submitted with your fee payment. This payment is being submitted to:	
🖂 Austin Regional Office	
Mailed to: TCEQ - Cashier Overnight Delivery to: TCEQ - Cashier	
Revenues Section 12100 Park 35 Circle	
Mail Code 214 Building A, 3rd Floor	
P.O. Box 13088 Austin, TX 78753	
Austin, TX 78711-3088 (512)239-0357	
Site Location (Check All That Apply):	
Recharge Zone Contributing Zone Transition Zone	
Type of PlanSizeFee Due	
Water Pollution Abatement Plan, Contributing Zone	
Plan: One Single Family Residential DwellingAcres\$	
Water Pollution Abatement Plan, Contributing Zone	
Plan: Multiple Single Family Residential and Parks Acres	
Water Pollution Abatement Plan, Contributing Zone	
Plan: Non-residential 18.66 Acres \$ 6,500	
Sewage Collection System L.F. S	
Lift Stations without sewer lines Acres \$	
Underground or Aboveground Storage Tank Facility Tanks \$	
Piping System(s)(only) Each \$	
Exception Each \$	
Extension of Time Each \$	

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

	Project Area in	
Project	Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6 <i>,</i> 500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial,	< 1	\$3,000
institutional, multi-family residential, schools, and	1 < 5	\$4,000
other sites where regulated activities will occur)	5 < 10	\$5 <i>,</i> 000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

Project	Cost per Linear Foot	Minimum Fee- Maximum Fee
Sewage Collection Systems	\$0.50	\$650 - \$6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	Cost per Tank or Piping System	Minimum Fee- Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150


TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175. **SECTION I: General Information**

SECTION	I. Gel		nauon									
1. Reason fo	1. Reason for Submission (If other is checked please describe in space provided.)											
🛛 New Pe	New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)											
Renewa	al <i>(Core Da</i>	ata Form should L	pe submitted v	vith the	renewa	al form	n)		Other			
2. Customer	r Referenc	ce Number (if iss	sued)	Follow	v this lin	ik to se	arch	3. Re	egulated	Entity Referenc	e Number <i>(i</i>	f issued)
CN 6004	12043			for CN Ce	<u>l or RN</u> entral Re	numbe egistry*	<u>ers in</u> **	R١	J			
SECTION	II: Cu	stomer Info	ormation									
4. General C	ustomer I	Information	5. Effective	e Date f	or Cus	stomer	r Inforr	natior	n Updat	es (mm/dd/yyyy)		
New Cus	tomer			Update	to Cus	stomer	Inform	ation		Change in	Regulated E	Entity Ownership
Change in	n Legal Na	me (Verifiable wit	h the Texas S	Secretar	y of Sta	ate or	Texas	Comp	troller o	f Public Accounts)		
The Custo	omer Nai	me submitted	here may	be upo	dated	auto	omatic	ally	based	on what is cu	rrent and	active with the
Texas Sec	cretary o	f State (SOS)	or Texas (Compt	roller	of Pl	ublic ,	Acco	ounts ((CPA).		
6. Customer	Legal Na	me (If an individua	II, print last nam	ne first: e	eg: Doe,	John)		<u>li</u>	f new Cu	stomer, enter prev	ious Custome	er below:
City of Ge	City of Georgetown											
7. TX SOS/C	PA Filing	Number	8. TX State	e Tax ID (11 digits)			9	9. Federal Tax ID (9 digits) 10. DUNS Numl			S Number (if applicable)	
					74-60				74-600	00974 89592372		
11. Type of (Customer	: Corporat	ion		🗌 Individual 🛛 🛛 Pa			artnership: 🗖 General 🗖 Limited				
Government:	🛛 City 🗖	County 🗖 Federal 🕻	🛾 State 🗖 Othe	r		Sole F	Propriet	torship Other:				
12. Number	of Employ 21-100	yees X 101-250	251-500		□ 501 and higher □			13. Independently Owned and Operated? ☑ Yes ☐ No				
14. Custome	er Role (Pr	oposed or Actual) -	- as it relates to	the Reg	gulated	Entity I	listed on	this fo	orm. Plea	se check one of the	following	
⊠Owner		🗌 Opera	tor		0	wner 8	k Opera	ator				
Occupatio	onal Licens	see 🗌 Respo	onsible Party			oluntar	y Clear	nup A	pplicant	Other:		
	300-1 Industrial Ave											
15. Mailing												
City Georgetown State TX						ZIP 78626 ZIP + 4 8445			8445			
16. Country	Mailing In	formation (if outs	ide USA)				17. E	. E-Mail Address (if applicable)				
18. Telephor	ne Numbe	r		19. Ex	xtensio	on or (Code	20. Fax Number (if applicable)				
(512)930-3555								(512)930-3559				
1				L						I		

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)					
🔀 New Regulated Entity 🔲 Update to Regulated Entity Name 🔄 Update to Regulated Entity Information					
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).					
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)					
South Lake Water Treatment Plant					

23 Street Address of	1010 Crockett Gardens Road											
the Regulated Entity:												
<u>(No PO Boxes)</u>	City		Georgeto	wn	State	Т	X	ZIP	786	528	ZIP + 4	
24. County	Wil	liam	son		I			1				
		E	nter Physical	Loca	tion Descripti	on if	no stre	eet address	s is pro	ovided.		
25. Description to Physical Location: The WTP is located approximately 820 feet west of the intersection of Cedar Breaks Park Road and Cedar Breaks Road on Crockett Gardens Road.												
26. Nearest City									State		Nea	rest ZIP Code
Georgetown									ΤX		78	528
27. Latitude (N) In Decim	nal:		30.6678				28. L	ongitude (\	N) In E	Decimal:	-97.7401	
Degrees	Minute	S		Seco	nds		Degree	es		Minutes		Seconds
29 Primary SIC Code (4)	31. Primary NAICS Code (1978) 32. Secondary NAICS Code							ICS Code				
				0.00	(5 or 6 digits) (5 or 6						digits)	
4941						21	1310					
33. What is the Primary	Busine	ess of	f this entity?	(Do r	not repeat the SIC	or NA	NCS desc	cription.)				
Water Treatment Pl	ant											
34 Mailing	<u> </u>											
Address:												
	City				State			ZIP			ZIP + 4	
35. E-Mail Address:												
36. Telepho	one Nu	mber	-		37. Extensio	n or	Code		38. Fax Number <i>(if applicable)</i>			
()	-									() -	
39. TCEQ Programs and ID form. See the Core Data Form in	Numb	oers (ons fo	Check all Program r additional guida	ms an ance.	d write in the pe	mits/	/registrat	ion numbers	that wi	II be affected	by the updates	submitted on this
🔲 Dam Safety		istrict	S		Edwards Aqu	ifer		Emissi	ons Inv	entory Air	🗌 Industria	l Hazardous Waste
Municipal Solid Waste		lew So	ource Review Air	r [OSSF		Petroleum Storage Tank		rage Tank	PWS		
Sludge	Storm Water			Title V Air			Tires			Used Oil		
_												
Voluntary Cleanup	U V	Vaste	Water		Wastewater Agriculture			e 🔲 Water Rights			Other:	

SECTION IV: Preparer Information

40. Name:	James Gallagher		41. Title:	Civil Engineer	
42. Tele	phone Number 43. Ext./Code	44. Fax Number	45. E-Mail Address		
(312)	870-8707	() -	gallaghe	rjp@cdmsmith.com	

SECTION V: Authorized Signature

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

Company:	CDM Smith, Inc.	Job Title:	Environmental Engineer			
Name (In Print):	Ana Marie Karamalegos, PE	Phone:	(512) 346- 1100			
Signature:	antrach			Date:	01/06/25	

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with <u>30 TAC 213</u>.

Administrative Review

1. <u>Edwards Aquifer applications</u> must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
- 3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
- 4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

- 5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
- 6. If the geologic assessment was completed before October 1, 2004 and the **site contains "possibly sensitive"** features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

- 1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
- 2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

- 3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied the application fee will be forfeited.
- 4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your **Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-**Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact **TCEQ's Austin Regional Office at 512**-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact **TCEQ's San Antonio Regional Office at 210**-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: South Lake Water Treatment Plant							2. Regulated Entity No.: RN111368536				
3. Customer Name: City of Georgetown						4. Customer No.: 600412043					
5. Project Type: (Please circle/check one)	New		Modification)	Extension		Exception			
6. Plan Type: (Please circle/check one)	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures		
7. Land Use: (Please circle/check one)	Residential		Non-residential) 8. Sit		e (acres):	18.66			
9. Application Fee:	\$650		10. Permanent E			BMP(s):		Sand Filter, Vegetated Filter Strips			
11. SCS (Linear Ft.):		12. AST/UST (No			o. Tanks):		1				
13. County:	William	Ison	14. W	'aters	shed:			San Gabriel River			

Application Distribution

Г

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the **EAPP Boundaries**" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

	Austin Region							
County:	Hays	Travis	Williamson					
Original (1 req.)	_	—	_1_					
Region (1 req.)	_	_	_1_					
County(ies)			_1_					
Groundwater Conservation District(s)	Edwards Aquifer Authority Barton Springs/ Edwards Aquifer Hays Trinity Plum Creek	Barton Springs/ Edwards Aquifer	NA					
City(ies) Jurisdiction	Austin Buda Dripping Springs Kyle Mountain City San Marcos Wimberley Woodcreek	Austin Bee Cave Pflugerville Rollingwood Round Rock Sunset Valley West Lake Hills	Austin Cedar Park Florence 1_Georgetown Jerrell Leander Liberty Hill Pflugerville Round Rock					

	Sa	an Antonio Region			
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)					
Region (1 req.)					
County(ies)					
Groundwater Conservation District(s)	Edwards Aquifer Authority Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde
City(ies) Jurisdiction	Castle Hills Fair Oaks Ranch Helotes Hill Country Village Hollywood Park San Antonio (SAWS) Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	San Antonio ETJ (SAWS)	NA

Austin Region

I certify that to the best of my knowledge, that the application is complete and accurate. This	
application is hereby submitted to TCEQ for administrative review and technical review.	

Sign here

Ana Marie Karamalegos, PE

Print Name of Customer/Authorized Agent

01/06/25

Signature of Customer/Authorized Agent

Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:	(s)Reviewed: Date Administratively Complete:			
Received From:	Correct Nu	Correct Number of Copies:		
Received By:	Distributio	Distribution Date:		
EAPP File Number:	Complex:	Complex:		
Admin. Review(s) (No.):	No. AR Ro	No. AR Rounds:		
Delinquent Fees (Y/N):	Review Tir	me Spent:		
Lat./Long. Verified:	SOS Custo	omer Verification:		
Agent Authorization Complete/Notarized (Y/N):	Fee	Payable to TCEQ (Y/N):		
Core Data Form Complete (Y/N):	Check:	Signed (Y/N):		
Core Data Form Incomplete Nos.:		Less than 90 days old (Y/N):		

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent:

ralla have

Project Information

- 1. Regulated Entity Name: South Lake Water Treatment Plant
- 2. County: Williamson
- 3. Stream Basin: San Gabriel River
- 4. Groundwater Conservation District (If applicable):
- 5. Edwards Aquifer Zone:



6. Plan Type:

WPAP	🖂 AST
SCS	
Modification	Exception Request

7. Customer (Applicant):

Contact Person: <u>Chris Pousson</u> Entity: <u>City of Georgetown</u> Mailing Address: <u>300-1 Industrial Ave</u> City, State: <u>Georgetown, Texas</u> Telephone: <u>(512) 930-8162</u> Email Address: chris.pousson@georgetowntexas.gov

8. Agent/Representative (If any):

Contact Person: Ana Marie KaramalegosEntity: CDM Smith, Inc.Mailing Address: 8310-1 N Capital of Texas Hwy, Suite 250City, State: Austin, TexasTelephone: (512) 346-1100Email Address: karamalegosam@cdmsmith.com

9. Project Location:

The project site is located inside the city limits of _____

The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of <u>Georgetown, TX</u>.

- The project site is not located within any city's limits or ETJ.
- 10. The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

<u>The South Lake Water Treatment Plant is located at 1010 Crockett Gardens Road,</u> <u>Georgetown, Texas, 78628. The plant is approximately 820 feet west of the</u> <u>intersection of Cedar Breaks Park Road and Cedar Breaks Road on Crockett Gardens</u> <u>Road.</u>

- 11. Attachment A Road Map. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.
- 12. Attachment B USGS / Edwards Recharge Zone Map. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

Project site boundaries.

USGS Quadrangle Name(s).

Boundaries of the Recharge Zone (and Transition Zone, if applicable).

Drainage path from the project site to the boundary of the Recharge Zone.

13. The TCEQ must be able to inspect the project site or the application will be returned. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

- Survey staking will be completed by this date: <u>April 9, 2018 (Please contact City of</u> <u>Georgetown for access to site before inspection)</u>
- 14. Attachment C Project Description. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:
 - Area of the site
 - Offsite areas
 - Impervious cover
 - Permanent BMP(s)
 - Site history
 - Site history
 - Previous development
 - Area(s) to be demolished
- 15. Existing project site conditions are noted below:
 - Existing commercial site
 - Existing industrial site
 - Existing residential site
 - Existing paved and/or unpaved roads
 - Undeveloped (Cleared)
 - Undeveloped (Undisturbed/Uncleared)
 - Other: <u>Water Treatment Plant</u>

Prohibited Activities

- 16. I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:
 - (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
 - (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
 - (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
 - (4) The use of sewage holding tanks as parts of organized collection systems; and
 - (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
 - (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

- 17. I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:
 - (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
 - (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and
 - (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

- 18. The fee for the plan(s) is based on:
 - For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
 - For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
 - For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
 - A request for an exception to any substantive portion of the regulations related to the protection of water quality.
 - A request for an extension to a previously approved plan.
- 19. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

TCEQ cashier

 Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
 San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

- 20. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 21. \square No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.



Attachment B: Edwards Aquifer Recharge Zone Map South Lake Water Treatment Plant Williamson County, Texas



City of Georgetown

South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

The South Lake Water Treatment project will create a new 44 million gallon per day (MGD) water treatment plant off of Crockett Garden Road in Georgetown, Texas. The modification to the South Lake Water Treatment project will include a new control building, 1,700 gallon back-up generator, and associated improvements. The site is 18.66 acres with an impervious cover of 4.65 acres (24.9%). The new improvements will add 0.18 ac (1.0%) of impervious cover to the site for a total of 4.83 acres of impervious cover (25.9%). Permanent best practices will remain the same as a sand filter and a vegetated filter strip that will treat over 80% of the TSS that will be generated. These BMPs will be able to handle the increased load generated from the new impervious cover.



GEOLOGIC ASSESSMENT FOR THE APPROXIMATELY 18.522-ACRE SOUTH LAKE WATER TREATMENT PLANT

Williamson County, Texas

October 2021

Submitted to:

CDM Smith, Inc. 9430 Research Blvd., Suite 1-200 Austin, Texas 78759

Prepared by:

aci Group, LLC 1001 Mopac Circle Austin, Texas 78746 TBPG Firm License No. 50260

aci project #: 05-20-006

aci consulting

a division of aci group, LLC

Austin (512) 347.9000 • Denver (720) 440.5320

www.aci-consulting.net

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

 Print Name of Geologist: Mark T. Adams
 Telephone: (512) 347-9000

 Date: 10/20/2021
 Fax: (512) 306-0974

 Representing: aci Group LIC TBPC License No. 50260 (Name of Company and TBPG or TBPE registration number)
 Signature of Geologist:

 Signature of Geologist:
 MARK T. ADAMS

 GEOLOGY
 No. 1835

 Regulated Entity Name: South adde water Treatment Plant

Project Information

- 1. Date(s) Geologic Assessment was performed: 8/30/2017, 06/10/2020
- 2. Type of Project:

\times	WPAP
	SCS

\times	AST
	UST

3. Location of Project:

imes	Re	char	ge	Zone	9
	_			_	

Transition Zone

Contributing Zone within the Transition Zone

- 4. X Attachment A Geologic Assessment Table. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
- 5. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Eckrant stony clay, 0 to 3 percent slopes, stony		
(EeB)	D	6.66
Eckrant-Rock outcrop association, 1 to 10 percent slopes (ErE)	D	6.66
Georgetown stony clay loam, 1 to 3 percent slopes (GsB)	D	5

Soil Name	Group*	Thickness(feet)						

- * Soil Group Definitions (Abbreviated) A. Soils having a high infiltration rate when thoroughly wetted.
 - B. Soils having a moderate infiltration rate when thoroughly wetted.
 - C. Soils having a slow infiltration rate when thoroughly wetted.
 - D. Soils having a very slow infiltration rate when thoroughly wetted.

- 6. Attachment B Stratigraphic Column. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
- 7. Attachment C Site Geology. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
- 8. Attachment D Site Geologic Map(s). The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

Applicant's Site Plan Scale: 1" = <u>50</u>' Site Geologic Map Scale: 1" = <u>50</u>' Site Soils Map Scale (if more than 1 soil type): 1" = <u>200</u>'

- 9. Method of collecting positional data:
 - Global Positioning System (GPS) technology.
 - Other method(s). Please describe method of data collection: _____
- 10. The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
- 11. Surface geologic units are shown and labeled on the Site Geologic Map.
- 12. Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
 - Geologic or manmade features were not discovered on the project site during the field investigation.
- 13. The Recharge Zone boundary is shown and labeled, if appropriate.
- 14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)

The wells are not in use and have been properly abandoned.

The wells are not in use and will be properly abandoned.

] The wells are in use and comply with 16 TAC Chapter 76.

 \boxtimes There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.



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October 2021

Geologic Assessment for the South Lake Water Treatment Plant located in Williamson County, Texas

1.0 INTRODUCTION

The Texas Commission on the Environmental Quality (TCEQ) regulates activities that have the potential to pollute the Edwards Aquifer through the Edwards Aquifer Protection Program. Projects meeting a certain criterion over the Edwards Aquifer Recharge Zone must submit an Edwards Aquifer Protection Plan (EAPP).

The purpose of this report is to identify all potential pathways for contaminant movement to the Edwards Aquifer and provide sufficient geologic information so that the appropriate Best Management Practices (BMPs) can be proposed in the EAPP. This report complies with the requirements of Title 30, Texas Administrative Code (TAC) Chapter 213 relating to the protection of the Edwards Aquifer Recharge Zone. Per the Rules, the Geologic Assessment must be completed by a Geologist licensed according to the Texas Geoscience Practice Act.

2.0 PROJECT INFORMATION

The proposed South Lake Water Treatment Plant is located 0.1 mile southeast of the intersection at Crockett Gardens Road (Rd) and Cedar Breaks Rd in the City of Georgetown extraterritorial jurisdiction (ETJ) in Williamson County, Texas (**Attachment A, Figure 1**). Pedestrian investigations of the 18.522-acre tract were performed on June 10, 2020, by Kara Posso, G.I.T., Joey Okeefe, Sarah King, and Erin Mathison, under the supervision of Mark Adams, P.G. with **aci consulting**. The site was previously surveyed by aci consulting personnel on August 30, 2017; some data from this previous survey has been relied upon for the purposes of this report.

This report is intended to satisfy the requirements for a Geologic Assessment, which shall be included as a component of a Water Pollution Abatement Plan (WPAP) and Aboveground Storage Tank (AST) plan. The site is approximately 18.522 acres in total. The proposed site use is for the South Lake Water Treatment Plant. The scope of the report consists of a site reconnaissance, field survey, and review of existing data and



reports. Features identified during the field survey were ranked utilizing the TCEQ matrix for Edwards Aquifer Recharge Zone features. The ranking of the features will determine their viability as "sensitive" features.

3.0 INVESTIGATION METHODS

The following investigation methods and activities were used to develop this report:

- Review of existing files and literature to determine the regional geology and any known caves associated with the project area;
- Review of past geological field reports, cave studies, and correspondence regarding the existing geologic features on the project area, if available;
- Site reconnaissance by a registered professional geologist to identify and examine caves, recharge features, and other significant geological structures;
- Evaluation of collected field data and a ranking of features using the TCEQ Ranking Table 0585 for the Edwards Aquifer Recharge Zone; and
- Review of historic aerial photographs to determine if there are any structural features present, and to determine any past disturbances on the subject property.

4.0 SOILS AND GEOLOGY

The following includes a site-specific description of the soils, geologic stratigraphy, geologic structure, and karstic characteristics as they relate to the Edwards aquifer. Also included in this section is a review of historic aerials for presence of geologic changes or changes to manmade features in bedrock.

<u>Soils</u>

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (2021), three soil units occur within the project alignment (**Attachment A, Figure 2**):

• EeB—Eckrant stony clay, 0 to 3 percent slopes, stony

The Eckrant, stony component makes up 85 percent of the map unit. Slopes are 0 to 3 percent. This component is found on ridges of dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, or lithic, is 4 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or



restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 6 percent. This soil does not meet hydric criteria. Hydric Soil Group: D

Georgetown (8%) and Doss (7%) components make up the remaining 15% of the soil map unit.

• ErE—Eckrant-Rock outcrop association, 1 to 10 percent slopes

The Eckrant component makes up 58 percent of the map unit. Slopes are 1 to 10 percent. This component is found on ridges of dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 4 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 6 percent. This soil does not meet hydric criteria. Hydrologic Soil Group: D.

Rock outcrop (16%), Tarpley (11%), Real (6%), Brackett (5%), and Pratley (4%) components make up the remaining 42% of the map unit.

• GsB—Georgetown stony clay loam, 1 to 3 percent slopes

The Georgetown component makes up 90 percent of the map unit. Slopes are 1 to 3 percent. This component is found on broad ridges of dissected plateaus. The parent material consists of clayey residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This soil does not meet hydric criteria. Hydrologic Soil Group: D.

Tarpley (5%), Eckrant (3%), and Farlie (2%) componets make up the remaining 10% of the map unit.

4



Geologic Stratigraphy

According to the *Geologic Map of the Georgetown Quadrangle, Texas,* one geologic unit, Edwards Limestone (Ked) occurs within the project alignment (**Attachment A, Figure 3**). A description of the Edwards Limestone (Ked) unit by Collins (1997) is as follows:

• Edwards Limestone (Ked)

"Limestone, dolomitic limestone and marl. Massive to thin beds, chert, and fossiliferous; fossils include rudistids. Shallow subtidal to tidal-flat cycles. Honeycomb textures, voids in collapsed breccias, and cavern systems. Accounts for most of the Edwards aquifer strata. Thickness is between 100ft to 300ft; thins northward."

Site-Specific Stratigraphic Column

Formation	Members	Thickness (Collins, 1997)					
Edwards Limestone	Edwards Limestone	Approximately 80-130 feet (mapped from contours)					

Geologic Structure

The geologic strata associated with the Edwards Aquifer include the Georgetown Limestone Formation of the Washita Group, the Edwards Limestone Group, which is interfingered with the Comanche Peak Formation, followed by the Walnut formation, and finally the Glen Rose Formation of the Trinity Group. These Groups dip gently to the southeast and are a characterized by the Balcones Fault Escarpment, a zone of en echelon normal faults downthrown to the southeast. Locally, the dominant structural trend of faults within the area is 15°, as evidenced by the mapped fault patterns (**Attachment A**, **Figure 4**). Thus, all features that have a trend ranging from 0° to 30° are considered "on trend" and were awarded the additional 10 points in the Geologic Assessment Table.

The geology on the site and surrounding tracts up to the border of Lake Georgetown is all Edwards Limestone (Ked), however the Comanche Peak (Kc) is present along the border of Lake Georgetown, suggesting the site is within the lower section of the Edwards Limestone (Collins 1997).



Karstic Characteristics

In limestone landscapes, karst is expressed by erratically developed cavernous porosity from dissolution of bedrock as water combined with weak acids moves through the subsurface. Karst terrains are typical of the Edwards Limestone, occurring across a vast region of Central Texas, including the Balcones Fault Escarpment. The features produced by karst processes include, but are not limited to, sinkholes, solution cavities, solution enlarged fractures, and caves. These features can eventually provide conduits for fluid movement such as surface water runoff, as "point recharge" to the Edwards Aquifer. Faults and manmade features within bedrock can also provide conduits for point recharge in many cases.

According to Edwards aquifer zone map produced by the TCEQ (2005), the entire subject area is within the northern segment of the Edwards Aquifer Recharge Zone (**Attachment A, Figure 3**). Thus, all karst features identified as sensitive within the project limits have the potential to be point recharge features into the Edwards Aquifer.

Review of Historic Aerials

Aerial photographs from 1941, 1953, 1962, 1964, 1974, 1988, 1995, 2004, 2008, 2012, and 2016 were reviewed for the site. It was determined that ranching and agricultural activities occurred on the site since the first aerial image dated 1941 (**Attachment C**). The 1988 aerial shows the first occurrence of Crockett Gardens Rd to the south of the site. Also visible in the 1988 aerial is a small structure located on-site near the road, however this structure is no longer present in the 2004 aerials and beyond. There are no other apparent changes to the site throughout the historic aerial collection. The site remains cleared of densely vegetated woodlands throughout the aerial history, suggesting regular maintenance has been occurring on the site.

5.0 SUMMARY OF FINDINGS

This report documents the findings of a geologic assessment conducted by **aci consulting** personnel on June 10, 2020, and August 30, 2017. Five karst features and one manmade feature in bedrock were noted on the site. Comprehensive descriptions for each feature can be found in **Attachment B**. Based on assessment of each karst feature, it was determined that none of the five features identified on the property would be considered



sensitive recharge features. The manmade feature in bedrock is a monitoring well and has been designated as sensitive to call the attention of the project engineers.



6.0 REFERENCES

- Collins, E.W., 1997. *Geologic Map of the Georgetown Quadrangle, Texas*. Bureau of Economic Geology. Austin, Texas.
- (SCS) Soil Conservation Survey. 1983. Soil Survey of Williamson County, Texas. United States Department of Agriculture. Texas Agriculture Experiment Station.
- (TCEQ) Texas Commission on Environmental Quality. 2004. Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones. October 1, 2004. Austin, Texas.
- (TCEQ) Texas Commission on Environmental Quality. 2005. "Edwards Aquifer Protection Program, Chapter 213 Rules - Recharge Zone, Transition Zone, Contributing Zone, and Contributing Zone within the Transition Zone." Map. Digital data. September 1, 2005. Austin, Texas.
- (TWDB) Texas Water Development Board. 2020. Water Data Interactive Groundwater Data Viewer. Accessed on August 09, 2021. Available at: http://www2.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer
- (USDA NRCS) U.S. Department of Agriculture Natural Resources Conservation Service. 2021. WebSoilSurvey.com. Soil Survey Area: Williamson County, Texas. Date accessed: August 09, 2021.



ATTACHMENT A

Site Maps



Figure 1: Site Location

October 2021



Figure 2: Site Soils

October 2021



South Lake Water Treatment Plant

Figure 3: Site Geology

aci Project No.: 05-20-006 October 2021



South Lake Water Treatment Plant Figure 4: Regional Trend aci Project No.: 05-20-006 October 2021



ATTACHMENT B

Geologic Table Geologic and Manmade Feature Map (Figure 5) Feature Descriptions and Recommendations

GEOLOGIC ASSESSMENT TABLE PROJECT NAME: South Lake Water Treatment Plant																				
	LOCATION	N				F	ΕΑΤΙ	JRE C	HARAC	TEF	RISTIC	S			EVAL	LUAT	ION	PHY	SICA	L SETTING
1A	1B *	1C*	2A	2B	3		4		5	5A	6	7	8A	8B	9	1	10	1	1	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIME	NSIONS (FEET)	TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENS	ITIVITY	CATCHMI (ACI	ENT AREA RES)	TOPOGRAPHY
						х	Y	Z		10						<40	<u>>40</u>	<1.6	<u>>1.6</u>	
SL-01	30.666633	-97.740981	0	5	Ked	1	2.5	1	-	-	-	-	O,F,V	10	15	Х		Х		Hillside
SL-02	30.667939	-97.740608	SF	20	Ked	3	3.5	0.75	285/350	-	-	-	O,F,V,C	15	35	Х		Х		Hillside
SL-03	30.668406	-97.740027	0	5	Ked	1	1	2.5	-	-	-	-	O,F,C,V	10	15	Х		Х		Hillside
SL-04	30.66848	-97.741966	0	5	Ked	4	4	1	-	-	-	-	C,V,F	15	20	Х		Х		Hillside
SL-05	30.667972	-97.741633	SF	20	Ked	2	2	1.5	-	-	-	-	C,F	15	35	Х		Х		Hillside
SL-06	30.668434	-97.741028	MB	30	Ked	0.5	0.5	160	-	-	-	-	Х	10	40		Х	Х		Hillside
* D/	ATUM: NAD 1983	State Plane 4203				i i														
2A TYPE	0	TYPE		21				N			8	A INFILLI	NG							
C	Cave				30		IN	None,	exposed be	earoc	К									
SC	Solution cavity				20		С	Coarse	e - cobbles,	brea	kdown,	sand, gra	vel							
SF	Solution-enlarge	d fracture(s)			20		0	Loose	or soft muc	d or s	oil, orga	inics, leav	es, sticks, d	ark colors						
F	Fault				20		F Fines, compacted clay-rich sediment, soil profile, gray or red colors													
0	Other natural be	drock features			5		V Vegetation. Give details in narrative description													
MB	Manmade featur	e in bedrock			30		FS Flowstone, cements, cave deposits													
SW	Swallow hole				30		X Other materials													
SH	Sinkhole				20							10							1	
CD	Non-karst closed	d depression			5		12 TOPOGRAPHY													
Z	Zone, clustered	or aligned features			30		Cli	it, Hil	itop, Hi	IISIC	ie, Dr	ainage	e, Flood	biain, Str	eamb	bed			l	

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The







SL-01 GPS: 30.666633, -97.740981

This feature is a 'other naturally occurring feature' within the CGTM site. The feature consists of epikarst float rock that was subject to animal burrowing, as evidenced by mounding opposite of the feature aperture. The feature is 1 foot wide by 1 foot deep and extended laterally beneath the epikarst rock for approximately 2.5 feet. Infill material consists of organic materials, moderately compacted soil, and roots. The feature is located in the Edwards Limestone and positioned on a hillside. The drainage area is less than 1.6 acres. The feature was assigned low probability of rapid infiltration (10 pts) due to the moderately compacted soil infill material, rapid lateral and horizontal termination, and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.

Recommendation: No action required.



Photo of SL-01.



SL-02 GPS: 30.667939, -97.740608

This feature is a solution enlarged fracture in epikarst bedrock within the CGTM site. The feature is a triangular slab of rock that has been separated from the larger host rock. The dominate fracture is oriented at 285° and extends for approximately 3.5 feet with a width of 2 inches and depth of 0.75 feet. The secondary fracture is at 350° and extends for 3 feet with a width of 3 inches and a depth of 0.5 feet. The overall dimensions of the feature are 3 feet by 3.5 feet with a depth measured to 0.75 feet. No portions of the fracture exhibited cleaned washed rock. Infill material consists of leaves, loose soil, roots, and some angular limestone cobbles. The feature is located in the Edwards Limestone and positioned on a hillside. The drainage area is less than 1.6 acres. The feature was assigned a low probability of rapid infiltration (15 pts) due to the moderately compacted soils infilling the fracture and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.

Recommendation: No action required.



View of SL-02.



SL-03 GPS: 30.668406, -97.740027

This feature is a 'other naturally occurring feature', within the CGTM site, consisting of epikarst float rock that was subject to animal burrowing, as evidenced by mounding opposite of the feature aperture. The feature is 1 foot wide by 1 foot deep and extends 2.5 feet laterally below the topsoil. The feature is located in the Edwards Limestone and positioned on a hillside. Infill material consists of leaves, moderately compacted soil, cobbles, and vegetation. The drainage area is less than 1.6 acres. The feature was assigned a low probability of rapid infiltration (10 pts) due to the moderately compacted soil infill material, rapid lateral and vertical termination, and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.

Recommendation: No action required.



View of SL-03.


SL-04 GPS: 30.66848, -97.741966

This feature is a 'other naturally occurring feature', within the CGTM site, consisting of vuggy epikarst float rock that was subject to animal burrowing, as evidenced by mounding opposite of the main feature aperture. The feature is approximately 4 feet wide and 1 foot deep, extending laterally below the float rock for approximately 4 feet. Infill material consists of float rock, roots, and moderately compacted clay-rich soils. The feature is located in the Edwards Limestone and positioned on a hillside with a drainage area of less than 1.6 acres. The feature was assigned a low probability of rapid infiltration (15 pts) due to epikarstic nature of the feature, rapid vertical termination, and the lack of a prominent catchment area. This feature does not classify as a sensitive karst feature.

Recommendation: No action required.



View of SL-04 from above, main aperture is along left edge of float rock.





View of SL-04 looking at main aperture; mounding from animal burrow evident in foreground of photo across from aperture.



SL-05 GPS: 30.667972, -97.741633

This feature was initially noted as a small sinkhole within the CGTM site. This feature had an approximate length and width of 1.2 feet and a depth of 1.5 feet, however after some hand excavation, loose rock cobbles were removed and revealed bedrock with a 0.5-inch-wide fracture that extends approximately 5 inches. The fracture did not exhibit clean washed rock or have other indications of water flow. The overall dimensions of the feature were 2 feet by 2 feet with a depth of 1.5 feet. The feature is located in the Edwards Limestone and positioned on a gentle hillside. Infill material consists of loose cobbles, boulders, and moderately compacted soils. The feature has a drainage area of less than 1.6 acres. Based on the moderately compact soils under the loose cobbles and rapid termination, the probability of rapid infiltration has been designated as low (15 pts).

Recommendation: No action required.



View of SL-05 upon discovery and light hand excavation.





View of SL-05 after more extensive hand excavation. Epikarst has been removed and a thin fracture exists in the host rock.



SL-06 GPS: 30.668434, -97.741028

This feature is a manmade feature in bedrock (monitoring well #460295) within the CGTM site. The well was installed in September of 2017 and has a diameter of 6 inches and a total depth of 160 feet. The well report indicates that water was encountered at a depth of 62 feet below the land surface. The feature is located on a gently sloping hillside in the Edwards Limestone Formation. This feature has been designated as sensitive in order to call the attention of the project engineers.

Recommendation: The well should be properly plugged and abandoned by a licensed professional in accordance with all local and state laws.



View of Sl-06, monitoring well cap.



ATTACHMENT C

Historic Aerial Photographs

ACI CONSULTING 1001 Mopac Circle Austin, TX 78746



Historical South Lake Georgetown WTP Aerial Photographs

Williamson County, TX PO #: 32-17-116 ES-125478 Wednesday, August 30, 2017



Date: 2016	
Source: USDA	





Date: 2012 Source: USDA





Date: 2008
Source: USDA





Date: 2004					
Source: USDA					





Date: 1995
Source: USGS







Date: 1974	_			
Source: USGS	0	250	500	1,000





Date: 1964 Source: Fairchild

0 250 500

Feet 1,000









Date: 1941
Source: ASCS





AERIAL SOURCE DEFINITIONS

Acronym	Agency
AerialOK	Aerial Oklahoma
AMS	Army Mapping Service
ASCS	Agricultural Stabilization & Conservation Service
EDAC	Earth Data Analysis Center
Fairchild	Fairchild Aerial Surveys
LDOT	Louisiana Department of Transportation
TXDOT	Texas Department of Transportation
USNavy	United States Navy
USAF	United States Air Force
USCOE	United States Corps of Engineers
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WALLACE	Wallace-Zingery Aerial Surveys
WSDOT	Washington State Department of Transportation

HISTORICAL AERIA	AL PHOTOGRAPHS
ES-125478	August 30, 2017



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Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25 Signature of Customer/Agent:

Waltacharaf

Project Information

1. Current Regulated Entity Name: <u>South Lake Water Treatment Plant</u> Original Regulated Entity Name: <u>South Lake Water Treatment Plant</u> Regulated Entity Number(s) (RN): <u>RN111368536</u>

Edwards Aquifer Protection Program ID Number(s): 11002764

The applicant has not changed and the Customer Number (CN) is: 600412043

- The applicant or Regulated Entity has changed. A new Core Data Form has been provided.
- 2. Attachment A: Original Approval Letter and Approved Modification Letters. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):

Physical or operational modification of any water pollution abatement structure(s)
including but not limited to ponds, dams, berms, sewage treatment plants, and
diversionary structures;

Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

Development of land previously identified as undeveloped in the original water pollution abatement plan;

Physical modification of the approved organized sewage collection system;

Physical modification of the approved underground storage tank system;

Physical modification of the approved aboveground storage tank system.

4. Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification	Approved Project	Proposed Modification
Summary		
Acres		
Type of Development		
Number of Residential		
Lots		
Impervious Cover (acres)		
Impervious Cover (%		
Permanent BMPs		
Other		
SCS Modification	Approved Project	Proposed Modification
Summary		
Linear Feet		
Pipe Diameter		
Other		

AST Modification	Approved Project	Proposed Modification
Summary		
Number of ASTs	<u>15 ASTs</u>	<u> 16 ASTs (Total)</u>
Volume of ASTs	<u>94,300 gal</u>	<u>96,000 gal (Total)</u>
Other		
UST Modification	Approved Project	Proposed Modification
UST Modification Summary	Approved Project	Proposed Modification
UST Modification Summary Number of USTs	Approved Project	Proposed Modification
UST Modification Summary Number of USTs Volume of USTs	Approved Project	Proposed Modification

- 5. Attachment B: Narrative of Proposed Modification. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.
- 6. Attachment C: Current Site Plan of the Approved Project. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
 - The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
 - The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.

The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.

The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.

- The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.
- 7. The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
 - Acreage has not been added to or removed from the approved plan.
- 8. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Jon Niermann, *Chairman* Emily Lindley, *Commissioner* Bobby Janecka, *Commissioner* Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 21, 2022

Mr. Chris Pousson City of Georgetown 300-1 Industrial Ave. Georgetown, Texas 78626

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: South Lake Water Treatment Plant; Located Northwest of Cedar Breaks Road and Crockett Gardens Road; Georgetown, Texas

TYPE OF PLAN: Request for Approval of an Aboveground Storage Tank Facility (AST); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Edwards Aquifer Protection Program ID No. 11002764; Regulated Entity No. RN111368536

Dear Mr. Pousson:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the AST application for the above-referenced project submitted to the Austin Regional Office by CDM Smith, Inc. on behalf of City of Georgetown on November 5, 2021. Final review of the AST was completed after additional material was received on January 13, 2022. As presented to the TCEQ, the AST Facility Plan proposed in the application was prepared to be in general compliance with the requirements of 30 TAC §213.5(e). Therefore, based on the applicant's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this approval letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The project site is located on the Edwards Aquifer Recharge Zone. The proposed AST Facility Plan includes the items listed in the table below.

TCEQ Region 11 • P.O. Box 13087 • Austin, Texas 78711-3087 • 512-339-2929 • Fax 512-339-3795

AST	Gallons	Tank Material	Contents of Tank
1	8,500	Sodium Hypochlorite	HDPE
2	8,500	Sodium Hypochlorite	HDPE
3	8,500	Sodium Hypochlorite	HDPE
4	8,500	Sodium Hypochlorite	HDPE
5	6,600	Liquid Ammonium Sulfate	HDPE
6	6,600	Liquid Ammonium Sulfate	HDPE
7	7,300	Alum	HDPE
8	7,300	Alum	HDPE
9	7,300	Alum	HDPE
10	7,300	Alum	HDPE
11	2,050	Polymer	HDPE
12	2,050	Polymer	HDPE
Total	80,500		

ASTs 1-4 are to be placed within the containment area with inside dimensions of 37.5 feet in length by 43 feet in width by 4.75 feet in depth. ASTs 1-5 are to be placed within the containment area with inside dimensions of 66.6 feet in length by 43 feet in width by 3.75 feet in depth. Each containment area has a total containment of greater than 150 percent of the total storage capacity of each system. Any spillage will be directed to a convenient point within the containment structure for collection and recovery.

The planned spill response that will take place at the facility is provided in Attachment "E" (enclosed) of the AST Facility Plan Application (Response Actions to Spills). In the event of a release or an accumulation of contaminated stormwater, the contained stormwater will be disposed of in accordance with TCEQ requirements.

GEOLOGY

According to the Geologic Assessment (GA) included with the application, the site includes Eckrant-Rock Outcrop association, Eckrant extremely stony clay and Georgetown stony clay. The surficial geologic unit is the Edwards Limestone formation. No sensitive features were identified on site. The TCEQ site assessment conducted on January 3, 2022, revealed the site to be generally in accordance with the description included in the GA.

STANDARD CONDITIONS

- 1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
- 2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC, PST) can be required depending on the specifics of the plan.
- 3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

- 4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved AST Facility Plan is enclosed.
- 5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved AST Facility Plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.
- 6. Prior to commencing construction, the applicant shall submit any modifications to this approved AST Facility Plan required by some other regulating authority or desired by the applicant.
- 7. Modification to the activities described in the referenced AST Facility Plan, including Attachment "E" of the AST Facility Plan application (Response Actions to Spills), following the date of approval may require the submittal of an Edwards Aquifer Protection Plan application to modify this approval. The payment of appropriate fees and all information necessary must be provided for its review and approval prior to initiating construction of the modifications.
- 8. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
- 9. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved AST Facility Plan, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

Mr. Chris Pousson Page 4 January 21, 2022

10. All borings with depths greater than or equal to 20 feet must be plugged with a non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

- 11. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
- 12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
- 13. One well exists on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
- 14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
- 15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
- 16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. Attachment "E" of the AST Facility Plan application (Response Actions to Spills) shall be located on-site (copy enclosed).

Mr. Chris Pousson Page 5 January 21, 2022

- 19. In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly. The applicant must comply with 30 TAC Chapter 334, Subchapter D, pertaining to Release Reporting and Corrective Action.
- 20. During the life of the AST facility, the owner shall comply with all applicable provisions of 30 TAC §213.5(e). Additionally, the owner, Mr. Chris Pousson shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity, upon which that person or entity shall assume all responsibility for provisions and specific conditions of this approval.
- 21. An "as-built" site plan for the facility shall be drawn to scale and in sufficient detail to depict the specific locations and dimensions of all major components of the storage system. A copy of such "as-built" site plan and construction drawings, as well as operating instructions for all major system components shall be maintained in a secure location at the site of the proposed facility. This information shall be available for examination by TCEQ personnel upon request.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Bob Castro, P.E. of the Edwards Aquifer Protection Program of the Austin Regional Office at (512) 339-2929.

Sincerely, Lillian Butles

Lillian Butler, Section Manager Edwards Aquifer Protection Program Texas Commission on Environmental Quality

LIB/rbc

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625 Attachment "E" of AST Facility Plan application (Response Actions to Spills)

cc: Ana Karamalegos, P.E., CDM Smith, Inc.

Jon Niermann, *Chairman* Emily Lindley, *Commissioner* Bobby Janecka, *Commissioner* Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 12, 2022

Chris Pousson City of Georgetown 300-1 Industrial Ave. Georgetown, TX 78626

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: South Lake Water Treatment Plant; Located at 1010 Crocket Gardens Rd.; Georgetown, Texas

TYPE OF PLAN: Request for Modification of an Approved Aboveground Storage Tank Facility (AST-MOD); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Edwards Aquifer Protection Program ID No. 11003102; Regulated Entity No. RN111368536

Dear Mr. Pousson:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the AST Modification for the above-referenced project submitted to the Austin Regional Office by CDM Smith, Inc. on behalf of the City of Georgetown on May 16, 2022. Final review of the application was completed after additional material was received on August 8, 2022. As presented to the TCEQ, the AST-MOD Facility Plan proposed in the application was prepared to be in general compliance with the requirements of 30 TAC §213.5(e). Therefore, based on the applicant's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this approval letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

An AST Facility Plan (EAPP ID No. 11002764) was approved by letter dated January 21, 2022. This plan included 12 storage tanks.

PROJECT DESCRIPTION

The project site is located on the Edwards Aquifer Recharge Zone. The proposed AST Facility Plan modification includes the addition of the new items listed in the table below.

TCEQ Region 11 • P.O. Box 13087 • Austin, Texas 78711-3087 • 512-339-2929 • Fax 512-339-3795

AST	Gallons	Tank Material	Contents of Tank
13	4,600	UL-142 Welded Steel	No. 2 Diesel
14	4,600	UL-142 Welded Steel	No. 2 Diesel
15	4,600	UL-142 Welded Steel	No. 2 Diesel
Total	13,800		

The described AST is double walled UL-142 welded steel tank. The tank consists of a primary tank within a sealed secondary tank. The outer tank dimensions will be 12 feet in width and 42 feet in length. Any spillage will be directed to a convenient point within the containment structure for collection and recovery.

The planned spill response that will take place at the facility is provided in Attachment "E" (enclosed) of the AST Facility Plan Application (Response Actions to Spills). In the event of a release or an accumulation of contaminated stormwater, the contained stormwater will be disposed of in accordance with TCEQ requirements

GEOLOGY

According to the geologic assessment included with the application, the surficial unit on site is Edwards Limestone (Ked). The soils present on site are Eckrant stony clay, Eckrant-Rock outcrop association, and Georgetown stony clay loam. The Austin Regional Office site assessment conducted on June 14, 2022, determined the site to be generally as described.

SPECIAL CONDITIONS

I. This modification is subject to all Special and Standard Conditions listed in the AST approval letter dated January 21, 2022.

STANDARD CONDITIONS

- 1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
- 2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC, PST) can be required depending on the specifics of the plan.
- 3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved AST Facility Plan is enclosed.

Mr. Chris Pousson Page 3 August 12, 2022

- 5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved AST Facility Plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.
- 6. Prior to commencing construction, the applicant shall submit any modifications to this approved AST Facility Plan required by some other regulating authority or desired by the applicant.
- 7. Modification to the activities described in the referenced AST Facility Plan, including Attachment "E" of the AST Facility Plan application (Response Actions to Spills), following the date of approval may require the submittal of an Edwards Aquifer Protection Plan application to modify this approval. The payment of appropriate fees and all information necessary must be provided for its review and approval prior to initiating construction of the modifications.
- 8. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
- 9. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved AST Facility Plan, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
- 10. All borings with depths greater than or equal to 20 feet must be plugged with a non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

- 11. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
- 12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
- 13. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
- 14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being

Mr. Chris Pousson Page 4 August 12, 2022

> washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

- 15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
- 16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

- 18. Attachment "E" of the AST Facility Plan application (Response Actions to Spills) shall be located on-site (copy enclosed).
- 19. In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly. The applicant must comply with 30 TAC Chapter 334, Subchapter D, pertaining to Release Reporting and Corrective Action.
- 20. During the life of the AST facility, the owner shall comply with all applicable provisions of 30 TAC §213.5(e). Additionally, the owner, the City of Georgetown, shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity, upon which that person or entity shall assume all responsibility for provisions and specific conditions of this approval.
- 21. An "as-built" site plan for the facility shall be drawn to scale and in sufficient detail to depict the specific locations and dimensions of all major components of the storage system. A copy of such "as-built" site plan and construction drawings, as well as operating instructions for all major system components shall be maintained in a secure location at the site of the proposed facility. This information shall be available for examination by TCEQ personnel upon request.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Savannah Finger of the Edwards Aquifer Protection Program of the Austin Regional Office at 512-339-2929.

Sincerely,

Xillian Buth

Lillian Butler, Section Manager Edwards Aquifer Protection Program Texas Commission on Environmental Quality LIB/sjf

Enclosures: Deed Recordation Affidavit, Form TCEQ-0625 Attachment "E" of AST Facility Plan application (Response Actions to Spills)

City of Georgetown

South Lake Water Treatment Plant

Aboveground Storage Tanks Facility Plan

The South Lake Water Treatment Plant (WTP) is located at 1010 Crockett Gardens Road, which lies approximately 820 feet west of the intersection of Cedar Breaks Park Road and Cedar Breaks Road along Crockett Gardens Road. The project site is located on relatively flat land that slopes gently from the south to the north. The site's topography and site boundaries minimize the potential for off-site runoff to flow into and across the Lake WTP site. Vegetated filter strips and a sand filter will act as the primary permanent BMPs for the site.

1. Approved AST Plan

The Aboveground Storage Facility (AST) Plan was submitted for review to TCEQ by CDM Smith on behalf of the City of Georgetown on May 16th, 2022. The AST permit was approved by TCEQ on August 12th, 2022. The items associated with the approved permit included:

• Construction of 15 new aboveground storage tanks that will contain a variety of chemicals for the treatment of water at the South Lake Water Treatment Plant.

A summary of the 15 tanks included in the approved AST permit is as follows in Table 1-1.

AST Number	Size (gallons) ⁽¹⁾	Substance Stored	Tank Material
1	8,500	Sodium Hypochlorite	HDPE
2	8,500	Sodium Hypochlorite	HDPE
3	8,500	Sodium Hypochlorite	HDPE
4	8,500	Sodium Hypochlorite	HDPE
5	6,600	LAS	HDPE
6	6,600	LAS	HDPE
7	7,300	Alum	HDPE
8	7,300	Alum	HDPE
9	7,300	Alum	HDPE
10	7,300	Alum	HDPE
11	2,050	Polymer	HDPE
12	2,050	Polymer	HDPE
13	4,600	No.2 Diesel	Welded Steel
14	4,600	No.2 Diesel	Welded Steel
15	4,600	No.2 Diesel	Welded Steel

Table 1-1 Aboveground Storage Tanks approved in AST Permit

Notes:

(1) The sizes listed are representative of the largest possible tank size that a vendor may supply. Actual tank sizes may vary depending on which vendor is selected.

A summary of the tank containment structures included in the approved AST permit is described as follows:

• All tanks will either placed within concrete containment structures that are sized to capture 150% of the storage capacity of the tanks located within the containment structure or will have a double-wall design sized at a minimum of 110% of the tank capacity. The tanks and secondary containment structures are shown on the construction plans attached with this submittal. The total storage is 94,300 gallons. **Table 1-2** below summarizes the location of the tanks and the volume in each containment area. Each of the containment areas will provide greater than 150% of the total tank volume stored in the associated containment area and the double wall tanks provide over 110% capacity.

AST Number	Chemical	Tank Size (gallons) ⁽¹⁾	Total Tank Volume (gallons)	Containment Volume (gallons) ⁽²⁾	Ratio Containment Volume to Total Tank	References
		Containme	ent Area 1: Base S	Lorage Area	Volume	
1	Sodium Hypochlorite	8,500	34,000	52,957	1.56	MF-1, MF-2,
2	Sodium Hypochlorite	8,500				MF-3, SF-1,
3	Sodium Hypochlorite	8,500				SF-2
4	Sodium Hypochlorite	8,500				
		Containme	ent Area 2: Acid S	torage Area		
5	LAS	6,600	46,500	73,021	1.57	MF-1, MF-5,
6	LAS	6,600				MF-6, SF-1,
7	Alum	7,300				SF-2
8	Alum	7,300				
9	Alum	7,300				
10	Alum	7,300				
11	Polymer	2,050				
12	Polymer	2,050				
Containment Area 3: Diesel Storage Area						
13	No.2 Diesel	4,600	13,800	Double-Wall Tank		
14	No.2 Diesel	4,600				
15	No.2 Diesel	4,600				

Table 1-2 Approved Tank Locations and Total Containment in Each Area

Notes:

(1) The sizes listed are representative of the largest possible tank size that a vendor may supply. Actual tank sizes may vary depending on which vendor is selected.

(2) Containment volumes are based on the total volume available. These volumes consider structural impediments such as tank pads and tank pad support piers.

2. Proposed Modifications to Approved AST Plan

The items associated with the modification permit include the addition of the following:

• Construction of a new aboveground storage tank (in addition to the 15 already approved tanks), that will contain No. 2 Diesel used to power the electrical generator located at the control center.

A summary of the new additional tank to be installed on the site is as follows in Table 2-1.

Table 2-1 Additional Aboveground Storage Tanks

AST	Size (gallons) ⁽¹⁾	Substance Stored	Tank Material	Sheet References
Number				
16	1,700	No.2 Diesel	Welded Steel	

Notes:

(1) The sizes listed are representative of the largest possible tank size that a vendor may supply. Actual tank sizes may vary depending on which vendor is selected.

Alternative methods other than a containment structure sized to capture one and one-half times the storage capacity of the system for the proposed fuel tank is proposed. The proposed generator fuel tank is double-wall subbase design carbon steel construction tanks complying with UL-142 Standard. The inner tanks serve as the primary fuel storage container while the outer tank serves as secondary containment. The subbase tanks include a welded steel containment basin, sized at a minimum of 110 percent of the tank capacity to prevent the escape of fuel into the environment in the event of a tank rupture. **Table 2- 2** below summarizes the approximate tank dimensions.

Table 2-2 UL -142 Double-Wall Tanks Dimensions

Chemical	Tank Size (gallons)	Number of Tanks	Length (t)) ⁽¹⁾	Width (ft)) ⁽¹⁾	Height (ft)) ⁽¹⁾
No. 2 Diesel	1,885	1	20	7.2	1.75

Notes:

(1) The sizes are approximate and are subject to change depending on which manufacturer is selected.

The tank is shown on the construction plans attached with this submittal.






Aboveground Storage Tank Facility Plan Application

Texas Commission on Environmental Quality

For Permanent Storage on The Edwards Aquifer Recharge and Transition Zones And Relating to 30 TAC §213.5(e), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Aboveground Storage Tank Facility Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent:

Vallacharaf

Regulated Entity Name: South Lake Water Treatment Plant

Aboveground Storage Tank (AST) Facility Information

1. Tanks and substance stored:

Table 1 - Tank and Substance Storage

AST Number	Size (Gallons)	Substance to be Stored	Tank Material
1	1,700	No. 2 Diesel	Welded Steel
2			
3			
4			

AST Number	Size (Gallons)	Substance to be Stored	Tank Material	
5				

Total x 1.5 = 2,550 Gallons

- 2. The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.
 - Attachment A Alternative Methods of Secondary Containment. Alternative methods for providing secondary containment are proposed. Specifications that show equivalent protection for the Edwards Aquifer are attached.
- 3. Inside dimensions and capacity of containment structure(s):

Table 2 - Secondary Containment

Length (L) (Ft.)	Width (W) (Ft.)	Height (H) (Ft.)	L x W x H = (Ft3)	Gallons
20	7.2	1.5	216	1885

Total: 1,885 Gallons

4. All piping, hoses, and dispensers will be located inside the containment structure.

Some of the piping to dispensers or equipment will extend outside the containment structure.

The piping will be aboveground

The piping will be underground

- 5. The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of <u>UL-142 double-wall carbon steel</u>.
- 6. Attachment B Scaled Drawing(s) of Containment Structure. A scaled drawing of the containment structure that shows the following is attached:
 - Interior dimensions (length, width, depth and wall and floor thickness).
 - Internal drainage to a point convenient for the collection of any spillage.

 \boxtimes Tanks clearly labeled.

Piping clearly labeled.

Dispenser clearly labeled.

Site Plan Requirements

Items 7 - 18 must be included on the Site Plan.

7. The Site Plan must have a minimum scale of 1'' = 400'.

Site Plan Scale: 1" = <u>50</u>'.

- 8. 100-year floodplain boundaries:
 - Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
 - \boxtimes No part of the project site is located within the 100-year floodplain.
 - The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA FIRM 48491C0290E Effective 9/26/2008.
- 9. The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.
 - The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.
- 10. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
 - There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply):
 - The wells are not in use and have been properly abandoned.
 - The wells are not in use and will be properly abandoned.
 - The wells are in use and comply with 16 TAC § 76.
 - There are no wells or test holes of any kind known to exist on the project site.
- 11. Geologic or manmade features which are on the site:
 - All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
 - No sensitive geologic or manmade features were identified in the Geologic Assessment.
 - Attachment C Exception to the Geologic Assessment. A request and justification for an exception to a portion of the Geologic Assessment is attached.
- 12. The drainage patterns and approximate slopes anticipated after major grading activities.
- 13. \square Areas of soil disturbance and areas which will not be disturbed.
- 14. 🛛 Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

15. 🛛 Locations where soil stabilization practices are expected to occu	ır.
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16. Surface waters (including wetlands).

🛛 N/A

17. Locations where stormwater discharges to surface water or sensitive features.

There will be no discharges to surface water or sensitive features.

18. \boxtimes Legal boundaries of the site are shown.

Best Management Practices

- 19. Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.
 - In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

20. All stormwater accumulating inside the containment structure will be disposed of through an authorized waste disposal contractor.

Containment area will be covered by a roof.

Containment area will not be covered by a roof.

A description of the alternate method of stormwater disposal is submitted for the executive director's review and approval and is attached.

- 21. Attachment D Spill and Overfill Control. A site-specific description of the methods to be used at the facility for spill and overfill control is attached.
- 22. Attachment E Response Actions to Spills. A site-specific description of the planned response actions to spills that will take place at the facility is attached.

Administrative Information

23. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

The WPAP application for this project was approved by letter dated <u>January 21</u>, <u>2022</u>. A copy of the approval letter is attached at the end of this application.

The WPAP application for this project was submitted to the TCEQ on _____, but has not been approved.

A WPAP application is required for an associated project, but it has not been submitted.

There will be no building or structure associated with this project. In the event a building or structure is needed in the future, the required WPAP will be submitted to the TCEQ.

The proposed AST is located on the Transition Zone and a WPAP is not required. Information requested in 30 TAC 213.5 subsection (b) (4)(B) and (C) and (5) is provided with this application. (Forms TCEQ-0600 Permanent Stormwater Section and TCEQ-0602 Temporary Stormwater Section or Stormwater Pollution Prevention Plan/SW3P).

- 24. This facility is subject to the requirements for the reporting and cleanup of surface spills and overfills pursuant to 30 TAC 334 Subchapter D relating to Release Reporting and Corrective Action.
- 25. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 26. Any modification of this AST Facility Plan application will require executive director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

City of Georgetown

South Lake Water Treatment Plant

Aboveground Storage Tanks Facility Plan

Alternative methods other than a containment structure sized to capture one and one-half times the storage capacity of the system for the three proposed fuel tanks are proposed. The three proposed generator fuel tanks are double-wall subbase design carbon steel construction tanks complying with UL-142 Standard, as indicated by the National Fire Protection Association (NFPA) 30 – Flammable and Combustible Liquids Code. The inner tanks serve as the primary fuel storage container while the outer tank serves as secondary containment.

According to the Texas Administrative Code (TAC), double-wall tanks may be used to comply with the secondary containment requirements of TAC 30, §334.45, provided that the tanks meet the following additional provisions:

- The secondary wall of such double-wall tanks shall be structurally designed to contain and support the full-load capacity of the primary tank without failure.
- The double-wall tank (including both the primary and secondary tank walls) shall be protected from corrosion in accordance with one or more of the allowable methods included in TAC 30 §334.49 -Corrosion Protection.
- The double-wall tank shall be designed, installed, operated, and maintained in accordance with the applicable codes or standards of practice developed by a nationally recognized association or independent testing laboratory that has been reviewed and determined by the agency to be no less protective of human health and safety, and the environment than the standards described in accordance with procedures in TAC 30 §334.43 and TAC 30§334.45.

The subbase tank will include a welded steel containment basin, sized at a minimum of 110 percent of the tank capacity to prevent the escape of fuel into the environment in the event of a tank rupture. The generator fill ports will be equipped with a an overfill prevention valve as well as a leak detection system for the interstitial space to alert for any potential leaks. The tanks will also have a tank level indicator, with high and low-level switches to indicate fuel level at all times. Refer to **Attachment D** for spill and overfill response procedures. Specifications for the generator fuel tanks are attached to this document to show compliance with containment provisions in order to prevent leaks into the Edward's Aquifer.

A scaled drawing of the generators and fuel tanks is provided in **Attachment B.** Please note that the shop drawings for the generator and fuel tanks have not yet been submitted to the Engineer for review. Shop drawings of the generators and generator fuel tanks will be reviewed for compliance of the specified standards and provisions upon receival from Contractor. A sample cut sheet from a similar generator fuel tank is attached to Appendix B for reference.

SECTION 263213.13 - DIESEL EMERGENCY ENGINE GENERATORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes packaged diesel engine generators for emergency use with the following features:
 - 1. Diesel engine.
 - 2. Diesel fuel-oil system.
 - 3. Control and monitoring.
 - 4. Generator overcurrent and fault protection.
 - 5. Generator, exciter, and voltage regulator.
 - 6. Outdoor engine generator enclosure.
 - 7. Vibration isolation devices.
 - 8. Finishes.
 - 9. Generator Neutral Grounding equipment.
- B. Related Requirements:
 - 1. Section 261327 "Medium-Voltage Metal-Clad Paralleling Switchgear" for controls and paralleling equipment for large or multiple parallel engine generators.

1.3 DEFINITIONS

- A. EPS: Emergency power supply.
- B. EPSS: Emergency power supply system.
- C. Operational Bandwidth: The total variation, from the lowest to highest value of a parameter over the range of conditions indicated, expressed as a percentage of the nominal value of the parameter.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
 - 2. Include thermal damage curve for generator.

- 3. Include time-current characteristic curves for generator protective device.
- 4. Include fuel consumption in gallons per hour at 0.8 power factor at 0.5, 0.75, and 1.0 times generator capacity.
- 5. Include generator efficiency at 0.8 power factor at 0.5, 0.75, and 1.0 times generator capacity.
- 6. Include airflow requirements for cooling and combustion air in cubic feet per minute at 0.8 power factor, with air-supply temperature of 95, 80, 70, and 50 deg F. Provide Drawings indicating requirements and limitations for location of air intake and exhausts.
- 7. Include generator characteristics, including, but not limited to, kilowatt rating, efficiency, reactances, and short-circuit current capability.
- 8. Sound test data, based on a free field requirement.
- B. Shop Drawings:
 - 1. Include plans and elevations for engine generator and other components specified. Indicate access requirements affected by height of subbase fuel tank.
 - 2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 3. Identify fluid drain ports and clearance requirements for proper fluid drain.
 - 4. Design calculations for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.
 - 5. Vibration Isolation Base Details: Detail fabrication, including anchorages and attachments to structure and supported equipment. Include base weights.
 - 6. Include diagrams for power, signal, and control wiring. Complete schematic, wiring, and interconnection diagrams showing terminal markings for EPS equipment and functional relationship between all electrical components.
 - 7. Design loading calculations to support the recommended size of the engine generator based upon actual facility loads and specified maximum allowable voltage drop. Provide detailed sizing analysis. Clearly identify assumptions made for loads being started/operated by the generator(s). When conducting the generator sizing analysis, set the maximum voltage drop of the generator to a maximum of 20 percent. The generator manufacturer and Contractor shall be responsible for obtaining all information to run the generator sizing analysis. Notify Engineer of any changes to the generator size. Submit the sizing analysis with the generator's initial submittal.
- C. Submit a copy of this specification confirming compliance with each paragraph. For deviations, provide detailed commentary to explain the deviation.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer and testing agency.
- B. Seismic Qualification Data: Certificates for engine generator, accessories, and components, from manufacturer.
 - 1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
 - 2. Dimensioned Outline Drawings of Equipment Unit: With engine and generator mounted on rails, identify center of gravity and total weight, including full fuel tank, supplied

enclosure, subbase-mounted fuel tank, and each piece of equipment not integral to the engine generator, and locate and describe mounting and anchorage provisions.

- 3. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
- C. Source Quality-Control Reports: Including, but not limited to, the following:
 - 1. Certified summary of prototype-unit test report.
 - 2. Certified Test Reports: For components and accessories that are equivalent, but not identical, to those tested on prototype unit.
 - 3. Certified Summary of Performance Tests: Certify compliance with specified requirement to meet performance criteria for sensitive loads.
 - 4. Report of factory test on units to be shipped for this Project, showing evidence of compliance with specified requirements.
 - 5. Report of sound generation.
 - 6. Report of exhaust emissions showing compliance with applicable regulations.
 - 7. Certified Torsional Vibration Compatibility: Comply with NFPA 110.
- D. Field quality-control reports.
- E. Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For engine generators to include in emergency, operation, and maintenance manuals.
 - 1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
 - a. List of tools and replacement items recommended to be stored at Project for ready access. Include part and drawing numbers, current unit prices, and source of supply.
 - b. Operating instructions laminated and mounted adjacent to generator location.
 - c. Training plan.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Fuses: One for every 10 of each type and rating, but no fewer than one of each.
 - 2. Indicator Lamps: Two for every six of each type used, but no fewer than two of each.
 - 3. Filters: One set each of lubricating oil, fuel, and combustion-air filters.
 - 4. Tools: Each tool listed by part number in operations and maintenance manual.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.
- B. Testing Agency Qualifications: Accredited by NETA.
 - 1. Testing Agency's Field Supervisor: Certified by NETA to supervise on-site testing.

1.9 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. <u>Manufacturers:</u> Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - 1. <u>Caterpillar Inc.</u>
 - 2. <u>Cummins Power Generation.</u>
 - 3. <u>Kohler Power Systems.</u>
- B. Source Limitations: Obtain packaged engine generators and auxiliary components from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Engine generator housing, subbase fuel tank, engine generator, batteries, battery racks, silencers, sound attenuating equipment, accessories, and components shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
 - 1. The term "withstand" means "the unit will remain in place without separation of any parts when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."
 - 2. Shake-table testing shall comply with ICC-ES AC156. Testing shall be performed with all fluids at worst-case normal levels. Water shall be substituted for diesel fuel in fuel tank during test.
 - 3. Component Importance Factor: 1.25.
- B. B11 Compliance: Comply with B11.19.
- C. NFPA Compliance:

- 1. Comply with NFPA 37.
- 2. Comply with NFPA 70.
- 3. Comply with NFPA 99.
- 4. Comply with NFPA 110 requirements for Level 2 EPSS.
- D. UL Compliance: Comply with UL 2200.
- E. Engine Exhaust Emissions: Comply with EPA Tier 2 requirements and applicable state and local government requirements.
- F. Noise Emission: Comply with applicable state and local government requirements for maximum noise level at adjacent property boundaries due to sound emitted by engine generator, including engine, engine exhaust, engine cooling-air intake and discharge, and other components of installation.
- G. Environmental Conditions: Engine generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
 - 1. Ambient Temperature: 5 to 122 deg F.
 - 2. Relative Humidity: Zero to 95 percent.
 - 3. Altitude: Sea level to 1000 feet.

2.3 ENGINE GENERATOR ASSEMBLY DESCRIPTION

- A. Factory-assembled and -tested, water-cooled engine, with brushless generator and accessories.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. EPSS Class: Engine generator shall be classified as a Class 24 according to NFPA 110.
- D. Power Output Ratings: Not less than as shown on the Drawings.
- E. Power Factor: 0.8, lagging.
- F. Frequency: 60 Hz
- G. Voltage: 4160 V ac.
- H. Phase: Three-phase, four-wire wye.
- I. Induction Method: Turbocharged.
- J. Governor: Adjustable isochronous, with speed sensing.
- K. Mounting Frame: Structural steel framework to maintain alignment of mounted components without depending on concrete foundation. Provide lifting attachments sized and spaced to prevent deflection of base during lifting and moving.

- 1. Rigging Diagram: Inscribed on metal plate permanently attached to mounting frame to indicate location and lifting capacity of each lifting attachment and engine generator center of gravity.
- L. Capacities and Characteristics:
 - 1. Power Output Ratings: Electrical output power rating for Standby operation, nominal ratings as indicated at 0.8 power factor excluding power required for the continued and repeated operation of the unit and auxiliaries.
 - 2. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of component.
- M. Engine Generator Performance for Sensitive Loads:
 - 1. Oversizing generator compared with the rated power output of the engine is permissible to meet specified performance.
 - a. Nameplate Data for Oversized Generator: Show ratings required by the Contract Documents rather than ratings that would normally be applied to generator size installed.
 - 2. Steady-State Voltage Operational Bandwidth: 1 percent of rated output voltage, from no load to full load.
 - 3. Transient Voltage Performance: Not more than 10 percent variation for 50 percent stepload increase or decrease. Voltage shall recover and remain within the steady-state operating band within 0.5 second.
 - 4. Steady-State Frequency Operational Bandwidth: Plus or minus 0.25 percent of rated frequency, from no load to full load.
 - 5. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
 - 6. Transient Frequency Performance: Less than 2-Hz variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within three seconds.
 - 7. Output Waveform: At no load, harmonic content, measured line to neutral, shall not exceed 2 percent total with no slot ripple. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent.
 - 8. Sustained Short-Circuit Current: For a three-phase, bolted short circuit at system output terminals, system shall supply a minimum of 300 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to winding insulation or other generator system components.
 - 9. Excitation System: Performance shall be unaffected by voltage distortion caused by nonlinear load.
 - a. Provide permanent magnet excitation for power source to voltage regulator.
 - 10. Start Time: Comply with NFPA 110, Type 60, system requirements.
- N. Parallel Engine Generators:

- 1. Automatic reactive output power control and load sharing between engine generators operated in parallel.
- 2. Automatic regulation, automatic connection to a common bus, and automatic synchronization, with manual controls and instruments to monitor and control paralleling functions.
- 3. Protective relays required for equipment and personnel safety.
- 4. Paralleling suppressors to protect excitation systems.
- 5. Reverse power protection.
- 6. Loss of field protection.

2.4 DIESEL ENGINE

- A. Fuel: ASTM D 975 diesel fuel oil, Grade 2-D S15.
- B. Rated Engine Speed: 1800 rpm.
- C. Lubrication System: Engine or skid mounted.
 - 1. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow.
 - 2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
 - 3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.
- D. Jacket Coolant Heater: Electric-immersion type, factory installed in coolant jacket system. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity and with UL 499.
- E. Cooling System: Closed loop, liquid cooled, with radiator factory mounted on engine generator mounting frame and integral engine-driven coolant pump.
 - 1. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.
 - 2. Size of Radiator: Adequate to contain expansion of total system coolant, from cold start to 110 percent load condition to an ambient temperature for 122 deg F ambient.
 - 3. Expansion Tank: Constructed of welded steel plate and rated to withstand maximum closed-loop coolant-system pressure for engine used. Equip with gage glass and petcock.
 - 4. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.
 - 5. Coolant Hose: Flexible assembly with inside surface of nonporous rubber and outer covering of aging-, UV-, and abrasion-resistant fabric.
 - a. Rating: 50-psig maximum working pressure with coolant at 180 deg F, and noncollapsible under vacuum.
 - b. End Fittings: Flanges or steel pipe nipples with clamps to suit piping and equipment connections.

- F. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.
 - 1. Minimum sound attenuation of 25 dB at 500 Hz.
 - 2. Sound level measured at a distance of 23 feet from exhaust discharge after installation is complete shall be 75 dBA or less.
- G. Air-Intake Filter: Heavy-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.
- H. Starting System: 24 V electric, with negative ground.
 - 1. Components: Sized so they are not damaged during a full engine-cranking cycle, with ambient temperature at maximum specified in "Performance Requirements" Article.
 - 2. Cranking Motor: Heavy-duty unit that automatically engages and releases from engine flywheel without binding.
 - 3. Cranking Cycle: As required by NFPA 110 for system level specified.
 - 4. Battery: Lead acid], with capacity within ambient temperature range specified in "Performance Requirements" Article to provide specified cranking cycle at least three times without recharging.
 - 5. Battery Cable: Size as recommended by engine manufacturer for cable length indicated. Include required interconnecting conductors and connection accessories.
 - 6. Battery Stand: Factory-fabricated, two-tier metal with acid-resistant finish designed to hold the quantity of battery cells required and to maintain the arrangement to minimize lengths of battery interconnections.
 - 7. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation and 35-A minimum continuous rating.
 - 8. Battery Charger: Current-limiting, automatic-equalizing, and float-charging type designed for lead-acid] batteries. Unit shall comply with UL 1236 and include the following features:
 - a. Operation: Equalizing-charging rate of 10 A shall be initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit shall then be automatically switched to a lower float-charging mode and shall continue to operate in that mode until battery is discharged again.
 - b. Automatic Temperature Compensation: Adjust float and equalize voltages for variations in ambient temperature from minus 40 deg F to 140 deg F to prevent overcharging at high temperatures and undercharging at low temperatures.
 - c. Automatic Voltage Regulation: Maintain constant output voltage regardless of input voltage variations up to plus or minus 10 percent.
 - d. Ammeter and Voltmeter: Flush mounted in door. Meters shall indicate charging rates.
 - e. Safety Functions: Sense abnormally low battery voltage and close contacts providing low battery voltage indication on control and monitoring panel. Sense high battery voltage and loss of ac input or dc output of battery charger. Either condition shall close contacts that provide a battery-charger malfunction indication at system control and monitoring panel.
 - f. Enclosure and Mounting: NEMA 250, Type 1 wall-mounted cabinet.

2.5 DIESEL FUEL-OIL SYSTEM

- A. Comply with NFPA 30.
- B. Main Fuel Pump: Mounted on engine to provide primary fuel flow under starting and load conditions.
- C. Fuel Filtering: Remove water and contaminants larger than 1 micron.
- D. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.
- E. Subbase-Mounted, Double-Wall, Fuel-Oil Tank: Factory installed and piped, complying with UL 142 fuel-oil tank. Features include the following:
 - 1. Tank level indicator.
 - 2. Fuel-Tank Capacity:
 - a. Control Center Emergency Generator: Fuel for 48 hour(s) continuous operation at 100 percent rated power output.
 - b. Plant Emergency Generators: Fuel for 24 hour(s) continuous operation at 100 percent rated power output.
 - 3. Leak detection in interstitial space.
 - 4. Vandal-resistant, lockable fill cap.
 - 5. Tank rails and lifting yes shall be rated for the full dry weight of the tank, genset, and enclosure.
 - 6. Electrical stub up(s).
 - 7. Sub-base tank shall include a welded steel containment basin, sized at a minimum of 110 percent of the tank capacity to prevent escape of fuel into the environment in the event of a tank rupture.
 - 8. Normal and emergency vents.
 - 9. Mechanical fuel level gauge.
 - 10. Fill port with overfill prevention valve (OFPV).
 - 11. High and low-level switches to indicate fuel level.
 - 12. Containment Provisions: Comply with requirements of authorities having jurisdiction.

2.6 CONTROL AND MONITORING

- A. Automatic-Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of engine generator. When mode-selector switch is switched to the on position, engine generator starts. The off position of same switch initiates engine generator shutdown. When engine generator is running, specified system or equipment failures or derangements automatically shut down engine generator and initiate alarms.
- B. Provide minimum run time control set for 30 minutes, with override only by operation of a remote emergency-stop switch.
- C. Comply with UL 508A.

- D. Configuration: Operating and safety indications, protective devices, basic system controls, and engine gages shall be grouped in a common control and monitoring panel mounted on the engine generator. Mounting method shall isolate the control panel from engine generator vibration. Panel shall be powered from the engine generator battery.
- E. Control and Monitoring Panel:
 - 1. Digital controller with integrated LCD display, controls, and microprocessor, capable of local and remote control, monitoring, and programming, with battery backup.
 - 2. Controller Face Ingress Protection: IP 65.
 - 3. Operating Temperature: Minus 40 to plus 70 deg F.
 - 4. Maximum Operating Humidity: 95 percent non-condensing.
 - 5. Corrosion Resistant: Tested in accordance with ASTM B117 (salt spray test).
 - 6. Controller Features:
 - a. Mode Selector: Allowing selection of one of the following modes:
 - 1) Off/Reset: Prohibits the generator from starting and resets shutdowns. In this mode controller does not respond to remote start and stop commands.
 - 2) Manual: Allows user to locally start and stop to operate the generator. In this mode controller does not respond to remote start and stop commands.
 - 3) Auto: Allows generator to start and stop based on remote commands. In this mode generator does not respond to manual start and stop commands.
 - b. Emergency Stop Switch: Latch-type remote stop switch, red in color with mushroom-type head. Depressing stop button will immediately stop the generator set and lock out any automatic remote starting.
 - c. Audible Alarm: Horn sounds for specific warning and shutdown conditions.
 - d. Alarm Reset Switch: Dedicated control switch to reset/clear fault conditions.
 - e. Alarm Silence/Lamp Test Pushbutton: Silences audible alarm when depressed. All controller indicating lights are simultaneously illuminated while actuated.
 - f. Fault Light: LED indicating abnormal conditions:
 - 1) Yellow: Active warning condition or mode selector switch not in automatic.
 - 2) Red: Active shutdown condition.
 - g. Real-time clock and calendar for time stamping events.
 - h. Engine Control Features:
 - 1) Programmable engine start delay.
 - 2) Programmable engine cool-down delay.
 - 3) Programmable warm-up delay based on time or engine temperature.
 - 4) Programmable idle speed.
 - 5) Programmable cyclic cranking with adjustable on time, off time, and number of cycles.
 - i. Event Logging:
 - 1) Maintain record of a minimum of 1,000 events with date and time locally for warning and shutdown faults.
 - 2) Event log easily available for download onto USB storage device or PC.

- 3) Event Snapshot: Capture 15 seconds of critical data around the time of a fault or warning. Data to be viewable on the controller and downloadable.
- j. Data Logging: Capable of time-based recording of customized parameters.
 - 1) Parameters selectable from all monitored parameters.
 - 2) Sample period configurable from one second to one day.
 - 3) Collected data stored on USB storage device plugged into the control panel.
- k. Password protection to prevent unauthorized modification to system parameters.
- 7. Instruments: Located on the control and monitoring panel and viewable during operation.
 - a. Engine lubricating-oil pressure.
 - b. Engine lubricating-oil temperature.
 - c. Engine-coolant temperature.
 - d. DC voltmeter (alternator battery charging).
 - e. Running-time meter.
 - f. Engine speed (RPM).
 - g. Fuel pressure.
 - h. Fuel temperature.
 - i. Fuel consumption rate.
 - j. Intake air temperature.
 - k. Exhaust temperature.
 - l. AC voltmeter, for each phase.
 - m. AC ammeter, for each phase.
 - n. AC frequency meter.
 - o. AC kW output, total and for each phase (indicate power flow direction).
 - p. AC kVA output, total and for each phase (indicate power flow direction).
 - q. AC kVAR output, total and for each phase.
 - r. AC power factor, total and for each phase (indicate leading or lagging condition).
 - s. Generator duty level (actual kW loading divided by kW nameplate).
 - t. Generator-voltage-adjusting rheostat.
- 8. Controls and Protective Devices: Controls, shutdown devices, and common visual alarm indication as required by NFPA 110 for Level 2 system, including the following:
 - a. Cranking control equipment.
 - b. Run-Off-Auto switch.
 - c. Control switch not in automatic position alarm.
 - d. Overcrank alarm.
 - e. Overcrank shutdown device.
 - f. Low water temperature alarm.
 - g. High engine temperature pre-alarm.
 - h. High engine temperature.
 - i. High engine temperature shutdown device.
 - j. Overspeed alarm.
 - k. Overspeed shutdown device.
 - l. Low-fuel main tank.
 - 1) Low-fuel-level alarm shall be initiated when the level falls below that required for operation for the duration required for the indicated EPSS class.

- m. Coolant low-level alarm.
- n. Coolant low-level shutdown device.
- o. Coolant high-temperature pre-alarm.
- p. Coolant high-temperature alarm.
- q. Coolant low-temperature alarm.
- r. Coolant high-temperature shutdown device.
- s. EPS load indicator.
- t. Battery high-voltage alarm.
- u. Low-cranking voltage alarm.
- v. Battery-charger malfunction alarm.
- w. Battery low-voltage alarm.
- x. Lamp test.
- y. Contacts for local and remote common alarm.
- z. Generator overcurrent-protective-device not-closed alarm.
- F. Connection to Datalink:
 - 1. A separate terminal block, factory wired to Form C dry contacts, for each alarm and status indication.
 - 2. Provide connections for datalink transmission of indications to remote data terminals via Ethernet. Data system connections to terminals are covered in Section 260913 "Electrical Power Monitoring and Control."
- G. Common Remote Panel with Common Audible Alarm: Comply with NFPA 110 requirements for Level 2 systems. Include necessary contacts and terminals in control and monitoring panel. Remote panel shall be powered from the engine generator battery.
- H. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator unless otherwise indicated.

2.7 GENERATOR OVERCURRENT AND FAULT PROTECTION

- A. Overcurrent protective devices for the entire EPSS shall be coordinated to optimize selective tripping when a short circuit occurs. Coordination of protective devices shall consider both utility and EPSS as the voltage source.
 - 1. Overcurrent protective devices for the EPSS shall be accessible only to authorized personnel.
- B. Generator Protector: Microprocessor-based unit shall continuously monitor current level in each phase of generator output, integrate generator heating effect over time, and predict when thermal damage of alternator will occur. When signaled by generator protector or other engine generator protective devices, a shunt-trip device in the generator disconnect switch shall open the switch to disconnect the generator from load circuits. Protector performs the following functions:
 - 1. Initiates a generator overload alarm when generator has operated at an overload equivalent to 110 percent of full-rated load for 60 seconds. Indication for this alarm is

integrated with other engine generator malfunction alarms. Contacts shall be available for load shed functions.

- 2. Under single- or three-phase fault conditions, regulates generator to 300 percent of rated full-load current for up to 10 seconds.
- 3. As overcurrent heating effect on the generator approaches the thermal damage point of the unit, protector switches the excitation system off, opens the generator disconnect device, and shuts down the engine generator.
- 4. Senses clearing of a fault by other overcurrent devices and controls recovery of rated voltage to avoid overshoot.
- C. Ground-Fault Indication: Comply with NFPA 70, "Emergency System" signals for ground fault.
 - 1. Trip generator protective device on ground fault.

2.8 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

- A. Comply with NEMA MG 1.
- B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.
- C. Electrical Insulation: Class H.
- D. Temperature Rise: 105/Class F environment.
- E. Stator-Winding Leads: Brought out to terminal box to permit future reconnection for other voltages if required. Provide six-lead alternator.
- F. Range: Provide limited range of output voltage by adjusting the excitation level.
- G. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, overspeed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.
- H. Enclosure: Dripproof.
- I. Instrument Transformers: Mounted within generator enclosure.
- J. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified and as required by NFPA 110.
 - 1. Adjusting Rheostat on Control and Monitoring Panel: Provide plus or minus 5 percent adjustment of output-voltage operating band.
 - 2. Maintain voltage within 20 percent on one step, full load.
 - 3. Provide anti-hunt provision to stabilize voltage.
 - 4. Maintain frequency within 15 percent and stabilize at rated frequency within five seconds.
- K. Strip Heater: Thermostatically controlled unit arranged to maintain stator windings above dew point.

- L. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding.
- M. Subtransient Reactance: 12 percent, maximum.
- N. Provide and monitor six (6) temperature sensors (RTD's), two (2) in each winding in the generator control panel specified herein. Provide monitors and relays.

2.9 OUTDOOR ENGINE GENERATOR ENCLOSURE

- A. Description: Vandal-resistant, sound-attenuating, weatherproof steel housing. Multiple panels shall be lockable and provide adequate access to components requiring maintenance. Access to controller in accordance with NFPA 70. Panels shall be removable by one person without tools. Instruments and control shall be mounted within enclosure.
- B. Sound Performance: Reduce the sound level of the engine generator while operating at full rated load to a maximum of 75 dBA measured at any location 23 ft from the engine generator in a free field environment.
- C. Structural Design and Anchorage: Comply with ASCE/SEI 7 for wind loads as follow:
 - 1. Wind Rating:
 - a. Ultimate Wind Speed, V_{ult}: 120 MPH
 - b. Nominal Wind Speed, V_{nom}: 93 MPH
- D. Seismic Design: Comply with seismic requirements in Section 260548.16 "Seismic Controls for Electrical Systems."
- E. Mounting Base: Suitable for mounting on sub-base fuel tank.
- F. Hinged Doors: With padlocking provisions. Restraint/Hold back hardware to keep door open at 180 degrees during maintenance. Rain lips over all doors.
- G. Space Heater: Thermostatically controlled and sized to prevent condensation.
- H. Load Center: 200 A, three-phase, 120/208 VAC, 12 space with main circuit breaker.
- I. Convenience Outlets: Two 20A, 125 VAC, GFCI-protected duplex receptacles.
- J. Lighting: Provide weather-resistant LED lighting with 30-fc average maintained with control switches at each access door.
- K. Thermal Insulation: Manufacturer's standard materials and thickness selected in coordination with space heater to maintain winter interior temperature within operating limits required by engine generator components.
- L. Insulation Flammability Classification: UL 94 HF1.
- M. Muffler Location: Within enclosure.

- N. Hardware: Stainless steel latches, hinges, and hardware.
- O. Engine-Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for two hours with ambient temperature at top of range specified in system service conditions.
 - 1. Automatic Dampers: At engine cooling-air inlet and discharge. Dampers shall be closed to reduce enclosure heat loss in cold weather when unit is not operating. Dampers shall be of a "fail open" design to allow airflow in the event of failure.
- P. Interior Lights with Switch: Factory-wired, vapor-proof luminaires within housing; arranged to illuminate controls and accessible interior.
- Q. Convenience Outlets: Factory-wired GFCI.
- R. Electrical Provisions:
 - 1. Compliance with NEC: Package shall comply with the requirements of the National Electrical Code for all wiring materials and component spacing.
 - 2. External Electrical Connections: All power and control interconnections shall be made within the perimeter of the enclosure.
- S. Catwalk: Full-length catwalk with stairs and railings for access to all doors along both sides level with the bottom of the enclosure is required for maintenance. Treads to be slip-resistant. Comply with 29 CFR 1910.23.
- Т. С

2.10 VIBRATION ISOLATION DEVICES

- A. Vibration Isolation: Generators installed on grade shall be provided with elastomeric isolator pads integral to the generator, unless the engine manufacturer requires use of spring isolation.
- B. IBC Compliance: Isolators complying with IBC requirements shall be specified in the equipment documentation, as well as the installation requirements for the unit.
- C. Vibration isolation devices shall not be used to accommodate misalignments or to make bends.

2.11 FINISHES

A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

2.12 NEUTRAL GROUNDING RESISTORS

- A. Furnish one neutral grounding resistor with each generator, to connect to the generator neutral to limit ground fault currents.
- B. Grounding resistors and enclosures shall be designed, manufactured and tested in conformance with IEEE 32 standards for neutral grounding devices and in accordance with the latest applicable sections of NEMA, ANSI and UL.

- C. The resistor elements shall consist of an edge wound helix strap wound around a ceramic core on a longitudinal steel bar. Support elements individually at each end by glazed ceramic insulators in such a manner that permits expansion and contraction. Join elements electrically by stainless steel connectors welded to stainless steel terminals. Resistors shall be rated 2400 Volts line-to-neutral (4160 Volt system), 200 Amperes, ten second rating without exceeding 760 degrees C temperature rise up through one minute duty in conformance with IEEE Standard 32.
- D. Provide each resistor with a current transformer mounted on the input end of the resistor to measure current flow through the resistor. The current transformer shall be protective relay class and the secondary shall be wired to a shorting type terminal block mounted in the junction box on the resistor support frame. Relaying to sense current flow and trip the appropriate circuit breaker will be furnished under Section . Resistors shall be rated based on 50 degrees C ambient.
- E. Porcelain base insulators shall be of pin and cap type construction for the applicable voltage, and conform to ANSI Standard C29.8.
- F. Provide a floor mounted, free standing hot-dip galvanized steel framed, screened enclosure, suitable for outdoor installation, complete with lifting lugs for the resistor. The screened enclosure shall completely enclose the resistors, bushing terminals, and current transformer. The screen material shall be hot-dip galvanized steel with openings no greater than 0.5-inch square. Screens shall be removable. Insulate the resistor from the frame with porcelain insulators and provide a ground pad on the frame. The resistor shall have a bushing connection at one end for the generator neutral and the ground connection at the other end separate from the frame ground.
- G. Grounding resistors shall be complete with mounting hardware and brackets for current transformers, stand-off insulators, entrance bushings and terminal lugs.
- H. Grounding resistors and enclosure shall be as manufactured by Post Glover Resistors, Inc. or equal.
- I. Each resistor shall be completely factory assembled, wired, tested, and shipped complete. Standard factory tests shall include over potential tests for the resistor element, ohmic value and circuit continuity.

2.13 SOURCE QUALITY CONTROL

- A. Prototype Testing: Factory test engine generator using same engine model, constructed of identical or equivalent components and equipped with identical or equivalent accessories.
 - 1. Tests: Comply with NFPA 110, Level 1 Energy Converters and with IEEE 115.
- B. Project-Specific Equipment Tests: Before shipment, factory test engine generator and other system components and accessories manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:
 - 1. Test components and accessories furnished with installed unit that are not identical to those on tested prototype to demonstrate compatibility and reliability.
 - 2. Test generator, exciter, and voltage regulator as a unit.

- 3. Full-load run.
- 4. Maximum power.
- 5. Voltage regulation.
- 6. Transient and steady-state governing.
- 7. Single-step load pickup.
- 8. Safety shutdown.
- 9. Provide 14 days' advance notice of tests and opportunity for observation of tests by Owner's representative.
- 10. Report factory test results within 10 days of completion of test.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, equipment bases, and conditions, with Installer present, for compliance with requirements for installation and other conditions affecting packaged engine generator performance.
- B. Examine roughing-in for piping systems and electrical connections. Verify actual locations of connections before packaged engine generator installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with NECA 1 and NECA 404.
- B. Comply with packaged engine generator manufacturers' written installation and alignment instructions and with NFPA 110.
- C. Equipment Mounting:
 - 1. Install packaged engine generators on cast-in-place concrete equipment bases. Comply with requirements for equipment bases and foundations specified in Section 033000 "Cast-in-Place Concrete."
 - 2. Coordinate size and location of concrete bases for packaged engine generators. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified with concrete.
 - 3. Install packaged engine generator with elastomeric isolator pads or restrained spring isolators having a minimum deflection of 1 inch on 4-inch- high concrete base. Secure enclosure to anchor bolts installed in concrete bases. Concrete base construction is specified in Section 260548.16 "Seismic Controls for Electrical Systems."
- D. Install packaged engine generator to provide access, without removing connections or accessories, for periodic maintenance.
- E. Exhaust System: Install Schedule 40 black steel piping with welded joints and connect to engine muffler. Install thimble at wall. Piping shall be same diameter as muffler outlet.

- 1. Piping materials and installation requirements are specified in Section 232113 "Hydronic Piping."
- 2. Install flexible connectors and steel piping materials according to requirements in Section 232116 "Hydronic Piping Specialties."
- 3. Insulate muffler/silencer and exhaust system components according to requirements in Section 230719 "HVAC Piping Insulation."
- 4. Install isolating thimbles where exhaust piping penetrates combustible surfaces with a minimum of 9 inches of clearance from combustibles.
- F. Drain Piping: Install condensate drain piping to muffler drain outlet with a shutoff valve, stainless-steel flexible connector, and Schedule 40 black steel pipe with welded joints.
 - 1. Piping materials and installation requirements are specified in Section 232113 "Hydronic Piping."
 - 2. Drain piping valves, connectors, and installation requirements are specified in Section 232116 "Hydronic Piping Specialties."
- G. Electrical Wiring: Install electrical devices furnished by equipment manufacturers but not specified to be factory mounted.

3.3 CONNECTIONS

- A. Piping installation requirements are specified in other Sections. Drawings indicate general arrangement of piping and specialties.
- B. Connect cooling-system water piping to engine generator with flexible connectors.
- C. Connect engine exhaust pipe to engine with flexible connector.
- D. Connect fuel piping to engines with a gate valve and union and flexible connector.
 - 1. Additional requirements for diesel storage tanks, tank accessories, piping, valves, and specialties for fuel systems are specified in Section 231113 "Facility Fuel-Oil Piping."
- E. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
- F. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables." Provide a minimum of one 90-degree bend in flexible conduit routed to the engine generator from a stationary element.
- G. Balance single-phase loads to obtain a maximum of 10 percent unbalance between any two phases.

3.4 IDENTIFICATION

A. Identify system components according to Section 230553 "Identification for HVAC Piping and Equipment" and Section 260553 "Identification for Electrical Systems."

3.5 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified testing agency to perform tests and inspections.
- B. Perform tests and inspections with the assistance of a factory-authorized service representative.
- C. Tests and Inspections:
 - 1. Perform tests recommended by manufacturer and in "Visual and Mechanical Inspection" and "Electrical and Mechanical Tests" subparagraphs below, as specified in the NETA ATS. Certify compliance with test parameters.
 - a. Visual and Mechanical Inspection:
 - 1) Compare equipment nameplate data with Drawings and the Specifications.
 - 2) Inspect physical and mechanical condition.
 - 3) Inspect anchorage, alignment, and grounding.
 - 4) Verify that the unit is clean.
 - b. Electrical and Mechanical Tests:
 - 1) Perform insulation-resistance tests according to IEEE 43.
 - a) Machines Larger Than 200 hp: Test duration shall be 10 minutes. Calculate polarization index.
 - b) Machines 200 hp or Less: Test duration shall be one minute. Calculate the dielectric-absorption ratio.
 - 2) Test protective relay devices.
 - 3) Verify phase rotation, phasing, and synchronized operation as required by the application.
 - 4) Functionally test engine shutdown for low oil pressure, overtemperature, overspeed, and other protection features as applicable.
 - 5) Perform vibration test for each main bearing cap.
 - 6) Conduct performance test according to NFPA 110.
 - 7) Verify correct functioning of the governor and regulator.
 - 2. NFPA 110 Acceptance Tests: Perform tests required by NFPA 110 that are additional to those specified here, including, but not limited to, single-step full-load pickup test.
 - 3. Battery Tests: Equalize charging of battery cells according to manufacturer's written instructions. Record individual cell voltages.
 - a. Measure charging voltage and voltages between available battery terminals for full-charging and float-charging conditions. Check electrolyte level and specific gravity under both conditions.
 - b. Test for contact integrity of all connectors. Perform an integrity load test and a capacity load test for the battery.
 - c. Verify acceptance of charge for each element of the battery after discharge.
 - d. Verify that measurements are within manufacturer's specifications.

- 4. Battery-Charger Tests: Verify specified rates of charge for both equalizing and floatcharging conditions.
- 5. System Integrity Tests: Methodically verify proper installation, connection, and integrity of each element of engine generator system before and during system operation. Check for air, exhaust, and fluid leaks.
- 6. Exhaust-System Back-Pressure Test: Use a manometer with a scale exceeding 40-inch wg. Connect to exhaust line close to engine exhaust manifold. Verify that back pressure at full-rated load is within manufacturer's written allowable limits for the engine.
- 7. Exhaust Emissions Test: Comply with applicable government test criteria.
- 8. Voltage and Frequency Transient Stability Tests: Use recording oscilloscope to measure voltage and frequency transients for 50 and 100 percent step-load increases and decreases, and verify that performance is as specified.
- 9. Harmonic-Content Tests: Measure harmonic content of output voltage at 25 percent and 100 percent of rated linear load. Verify that harmonic content is within specified limits.
- 10. Noise-Level Tests: Measure A-weighted level of noise emanating from engine generator installation, including engine exhaust and cooling-air intake and discharge, at four locations 25 feet from edge of the generator enclosure, and compare measured levels with required values.
- D. Coordinate tests with tests for transfer switches, and run them concurrently.
- E. Test instruments shall have been calibrated within the past 12 months, traceable to NIST Calibration Services, and adequate for making positive observation of test results. Make calibration records available for examination on request.
- F. Leak Test: After installation, charge exhaust, coolant, and fuel systems and test for leaks. Repair leaks and retest until no leaks exist.
- G. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation for generator and associated equipment.
- H. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- I. Remove and replace malfunctioning units and retest, reinspect as specified above.
- J. Retest: Correct deficiencies identified by tests and observations, and retest until specified requirements are met.
- K. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation resistances, time delays, and other values and observations. Attach a label or tag to each tested component, indicating satisfactory completion of tests.
- L. Infrared Scanning: After Substantial Completion, but not more than 60 days after final acceptance, perform an infrared scan of each power wiring termination and each bus connection while running with maximum load. Remove all access panels, so terminations and connections are accessible to portable scanner.
 - 1. Follow-up Infrared Scanning: Perform an additional follow-up infrared scan 11 months after date of Substantial Completion.

- 2. Instrument: Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
- 3. Record of Infrared Scanning: Prepare a certified report that identifies terminations and connections checked and that describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.6 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of manufacturer's authorized service representative. Include quarterly preventive maintenance and exercising to check for proper starting, load transfer, and running under load. Include routine preventive maintenance as recommended by manufacturer and adjusting as required for proper operation. Parts shall be manufacturer's authorized replacement parts and supplies.

3.7 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators.

END OF SECTION 263213.13

 \overline{A}

B

1

2

POINT TABLE

10217618.21

EASTING

3112326.47

10217630.63 | 3112319.85

POINT NO. ELEVATION NORTHING

909.00

908.00

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WALL PANEL - PRECAST WIND PRESSURES (PSF) (ASCE 7-16) (1.0W)				
DIRECTION	WIND PERPENDICULAR TO LENGTH (L)		WIND PERPENDICULAR TO WIDTH (B)	
SURFACE	+GCpi	-GCpi	+GCpi	-GCpi
WINDWARD WALL (WW)	10.7	94.1	11.6	95.0
LEEWARD WALL (LW)	-74.4	8.96	-63.2	20.2
SIDE WALL (SW)	-87.5	-4.14	-88.3	-4.93
PARAPET (P)	-118 (WW)	-78.5 (LW)	-118 (WW)	-78.5 (LW)

86 0 0

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-1 N. CAPITAL OF TEXAS HIGHWAY, SUITE 250
in, TX 78731
(512) 652-5324
E Firm Registration No. F-3043

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Image shown may not reflect actual package

SUB BASE FUEL TANK for C27 and C32 ENCLOSURE

Diesel Generator Set

Dual Wall sub base fuel tanks offer an integrated fuel solution for your Cat[®] diesel generator set.

FEATURES

- UL 142 (US) and ULC S601 (Canada) Listed
- NFPA 30, 37 and 110 installation compliant
- CSA C282-09 and B139-04 installation compliant
- Dual wall, secondary containment (minimum of 110% of primary tank capacity)
- Tank design provides capacity for thermal expansion of fuel
- Direct reading fuel level gauge
- Fuel supply dip tube is positioned so as not to pick up fuel sediment
- Fuel return and supply dip tubes are separated by an internal baffle to prevent recirculation of heated return fuel
- Fuel fill 101.6 mm (4 in), lockable flip top cap
- Primary tank level detection switch in containment basin
- Primary and secondary tanks are leak tested at 20.7 kPa (3 psi) minimum
- Interior tank surfaces coated with a solventbased thin-film rust preventative
- Heavy gauge steel gussets suitable for lifting package
- Gloss black polyester alkyd acrylic enamel exterior paint over epoxy based primer
- Primary tanks are equipped with customer connections for remote fuel transfer, return, and vent. Additional ports provided for customer use.
- 2" Atmospheric screened vent cap

- Lockable 2" raised fuel fill with optional seven gallon spill containment
- Leak detection switch
- Port for access to containment tank
- Removable engine supply and return dip tubes
- Fittings for opt fuel levels or auxiliary fuel pump
- Excellent stub-up access beneath circuit breaker (within fuel tank)
- Emergency vents on primary and secondary tanks are sized in accordance with NFPA 30, external to enclosure.
- Compatible with factory enclosures only
- Optional installed fuel level indication at the generator set control panel.
- Seismic certification per applicable building codes: IBC 2000, IBC 2003, IBC 2006, IBC 2009, CBC 2007
- Tested and analyzed in accordance with: ASCE 7-98, ASCE 7-02, ASCE 7-05, ICC-ES AC-156
- Anchoring details are site specific, and are dependant on many factors such as generator set size, weight, and concrete strength. IBC Certification requires that the anchoring system used is reviewed and approved by a Professional Engineer.

ATTACHMENTS

Rating			Enging	Stratogy	Run Time @ 100% Load (Hrs)				
ekW	kVA	SB/PP/CN	Engine	Strategy	1000 gal	2000 gal	3600 gal		
1000	1250	SB	C32	Low BSFC	14.4	28.8	51.9		
910	1138	PP	C32	Low BSFC	15.9	31.7	57.1		
830	1038	CN	C32	Low BSFC	17.4	34.7	62.5		
800	1000	SB	C27	Low BSFC	17.8	35.5	63.9		
725	906	PP	C27	Low BSFC	19.3	38.6	69.5		
750	938	SB	C27	Low BSFC	18.9	37.8	68.1		
680	850	PP	C27	Low BSFC	20.7	41.3	74.4		

Rating			Engino	Stratogy	Run Time @ 100% Load (Hrs)				
ekW	kVA	SB/PP/CN	Engine	Strategy	1000 gal	2000 gal	3600 gal		
1000	1250	SB	C32	ESE (Tier 2)	13.9	27.8	50.1		
910	1138	PP	C32	ESE (Tier 2)	15.2	30.4	54.8		
830	1038	CN	C32	ESE (Tier 2)	16.3	32.6	58.7		
800	1000	SB	C27	ESE (Tier 2)	17.5	34.9	62.8		
725	906	PP	C27	ESE (Tier 2)	19.0	38.0	68.3		
750	938	SB	C27	ESE (Tier 2)	18.7	37.3	67.2		
680	850	PP	C27	ESE (Tier 2)	20.2	40.4	72.7		

Rating			Engine Strategy		Run Time @ 100% Load (Hrs)				
ekW	kVA	SB/PP/CN	Ligine	Strategy	1000 gal	2000 gal	3600 gal		
800	640	SB	C27	Tier 4 Interim	17.0	34.0	61.1		
725	580	PP	C27	Tier 4 Interim	18.8	37.6	67.7		

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South Lake Water Treatment Plant

Aboveground Storage Tanks Facility Plan

In order to prevent spill and overfill of hydrocarbon products or hazardous substances the following spill and overfill control actions will be taken:

- 1. The use of UL-142 listed double-wall subbase design carbon steel construction tanks sized with a minimum of 110 percent of the tank capacity to prevent the escape of fuel into the environment in the event of a tank rupture will be provided to contain spills and overflows.
- 2. The generator fill ports will be equipped with a an overfill prevention valve and tank level indicators, with high and low-level switches to indicate fuel level at all times in order to ensure minimal risk of overfill.
- 3. Each Generator fuel tank will be equipped with a leak detection system for the interstitial space to alert for any potential leaks.
- 4. In order to avoid overfills there will always be an attendant present during deliveries.
- 5. Standard Operating Procedures (SOP) will be developed for filling the fuel storage tanks to minimize the risk of overfilling and spilling. The SOP will be shared with operators and delivery personnel.
- 6. Operators will continue to be trained on the proper methods of filling tanks and monitoring the tank levels. Instrumentation and control training will be provided by the system supplier.

South Lake Water Treatment Plant

Aboveground Storage Tanks Facility Plan

No hazardous substances or hydrocarbons will be stored or used in excess on the construction site. Reportable contaminant quantities will be determined and based on 30 TAC §327. In the event of any spill of hydrocarbon products or hazardous substances of reportable quantities the following spill response actions will be taken:

- 1. City of Georgetown Fire Department will be notified of the nature and extent of the spill via telephone (911 or 512-930-3600).
- 2. TCEQ Spill Reporting 24-hour Hotline will be notified of the nature and extent of the spill via telephone (800-832-8224).
- 3. The source of the spill will be stopped and confined before spill response cleanup activities take place.
- 4. Absorbent materials will be used to contain small scale spill incidents.
- 5. Absorbent containment booms will be used to contain the discharge of larger scale spill incidents.
- 6. Any spill response action will follow applicable OSHA health and safety regulations.
- 7. Any water materials generated by spill response actions will be properly stored and disposed, in accordance with local, state, and federal regulations.
- 8. Onsite personal will be trained to follow the spill response actions for the site.

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Ana Marie Karamalegos, PE

Date: 01/06/25

Signature of Customer/Agent:

rathanharaf

Regulated Entity Name: South Lake Water Treatment Plant

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

The following fuels and/or hazardous substances will be stored on the site: _____

These fuels and/or hazardous substances will be stored in:

Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

- Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2. Attachment A Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. Attachment B Potential Sources of Contamination. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

- 5. Attachment C Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: <u>stormwater will flow from the project site through stormwater quality structural controls thence to Lake Georgetown thence to the San Gabriel River.</u>

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. Attachment D – Temporary Best Management Practices and Measures. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

\boxtimes	A description of how BMPs and measures will prevent pollution of surface water,
	groundwater or stormwater that originates upgradient from the site and flows
	across the site.

- A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
- A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
- A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
- 8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
 - Attachment E Request to Temporarily Seal a Feature. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
 - There will be no temporary sealing of naturally-occurring sensitive features on the site.
- 9. Attachment F Structural Practices. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
- 10. Attachment G Drainage Area Map. A drainage area map supporting the following requirements is attached:
 - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

- 11. Attachment H Temporary Sediment Pond(s) Plans and Calculations. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
 - 🛛 N/A
- 12. Attachment I Inspection and Maintenance for BMPs. A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
- 13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
- 14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
- 15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
- 16. 🖂 Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices. A schedule of the interim and permanent soil stabilization practices for the site is attached.

- 18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

- 20. \square All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

No hazardous substances or hydrocarbons will be stored or used in excess on the construction site. Reportable contaminant quantities will be determined and based on 30 TAC §327. In the event of any spill of hydrocarbon products or hazardous substances of reportable quantities the following spill response actions will be taken:

- 1. City of Georgetown Fire Department will be notified of the nature and extent of the spill via telephone (911 or 512-930-3600).
- 2. TCEQ Spill Reporting 24-hour Hotline will be notified of the nature and extent of the spill via telephone (800-832-8224).
- 3. The source of the spill will be stopped and confined before spill response cleanup activities take place.
- 4. Absorbent materials will be used to contain small scale spill incidents.
- 5. Absorbent containment booms will be used to contain the discharge of larger scale spill incidents.
- 6. Any spill response action will follow applicable OSHA health and safety regulations.
- 7. Any water materials generated by spill response actions will be properly stored and disposed, in accordance with local, state, and federal regulations.
- 8. Onsite personal will be trained to follow the spill response actions for the site.

South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

Potential sources of contamination related to this project include:

- Sediment from spoil piles transported during stormwater events
- Accidental leakage of fuels from vehicles or equipment during construction activities

All necessary actions to minimize impacts of contamination will be taken before, during, and after the proposed project and in coordination with Attachment A, Spill Response Actions. Other than a potential incidental leak from construction vehicles or equipment, all additional runoff will be from natural sources.

South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

The sequence for the construction of the proposed South Lake Water Treatment Plant site is planned as follows:

- Following issuance of notice-to-proceed, Contractor installs silt fencing, tree protection, and stabilized construction entrance.
- Contractor clears site areas and prepares site for construction. (18.66 acres)
- Contractor constructs temporary construction access roads.
- Contractor performs excavation for control center building and associated improvements (road, drainage, electrical)
- Contractor constructs the buildings, concrete slabs and pads, and treatment structures.
- Contractor installs yard piping and stormsewer.
- Contractor installs all the process mechanical equipment, piping and electrical improvements in the buildings and structures.
- Contractor installs concrete pavement.
- Contractor completes site construction and initiates site clean-up. (18.66 acres)
- Contractor inspects and maintains temporary erosion and sedimentation controls throughout the term of the project.
- Contractor restores disturbed soil areas with loaming and hydro-seeding and establishes vegetated filter strips.

South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

Temporary erosion and sedimentation control measures will include:

- Silt fencing;
- Rock berms;
- Concrete wash down area;
- Tree protection;
- Stabilized Construction Entrance (SCE);

Silt fencing shall be placed downgradient from the proposed site areas to control and filter any stormwater that may be generated from the proposed project site. Silt fencing shall also be placed around the perimeter of any storm drain inlets located on or downgradient of the proposed project area when installed. No significant runoff from upgradient stormwater flows is anticipated due to the silt fencing. The silt fencing will further serve to control any stormwater generated by the proposed project site before it is allowed to discharge as stormwater-sediment flow from the site.

Rock berms shall be placed downgradient of proposed site areas to control and filter any concentrated stormwater that may be generated from the proposed project site.

A concrete wash out area will be placed on site in order to wash out trucks onto a designated area and not into storm drains or streams. It will also prevent excess concrete to be dumped onsite.

Tree protection will be placed around the critical root zone (CRZ) of protected trees on the proposed project site. This control measure will prevent erosion near the roots and protect the roots from being damaged by construction activities.

A stabilized construction entrance will be installed at the entrance of the construction area to minimize the tracking of sediments from the project site. All access to the construction site will use this SCE.

The area will remain vegetated where possible.

These temporary erosion and sedimentation control measures are indicated on the site drawings and will be put in place before the start of construction and shall remain in place for the duration of site construction activities.

South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

Structural Practices that will be used to limit the runoff discharge of sediments and pollutants from exposed areas of the proposed project include the following practices:

- Silt fencing;
- Rock berms;
- Concrete wash down area;
- Stabilized Construction Entrance (SCE);

These practices are described in Attachment D, Temporary BMPs and Measures. No temporary structural facilities, such as sedimentation ponds, will be constructed or used during construction activities. A sedimentation pond will be constructed as a permanent BMP and was already approved under the existing application. No changes are anticipated for the permanent BMPs for the site. See WPAP application for permanent BMPs and construction plans for proposed sedimentation pond and VFS design.



South Lake Water Treatment Plant

Aboveground Storage Tank Facility Plan

Silt fencing, rock berms, inlet protection, and the stabilized construction entrance shall be inspected once per week and following every significant rainfall event (of at least 0.1 inch or greater). If such inspections reveal that additional measurements are needed to prevent movement of sedimentation to offsite areas, the Contractor shall promptly install additional erosion control devices as may be required.

Silt fences shall be maintained and repaired as follows:

- Remove accumulated sediment once build up reaches 6 inches
- Replace torn or damaged filter fabric
- Make any other repairs or adjustments, as needed, to ensure the silt fencing is functioning properly

Rock berms shall be maintained and repaired as follows:

- Remove accumulated sediment once build up reaches 6 inches
- Repair any loose wire sheathing or reshape as needed
- Make any other repairs or adjustments, as needed, to ensure the rock berm is functioning properly

Inlet Protections shall be maintained and repaired as follows:

- Repair any damaged fabric, or patch with a two (2) foot minimum overlap
- Replace any damaged sandbags
- Removed accumulated sediment once build up reaches 3 inches
- Check placement of device to prevent gaps between device and curb

The stabilized construction entrance will also be inspected following precipitation events and stone will be replaced if silt accumulation is found to hinder the role of this BMP to minimize the off-site tracking of sediment.

Concrete washout areas shall be inspected daily and after every significant rainfall event (of at least 0.1 inch or greater) to check for leaks, identify any plastic linings and sidewalls have been damaged by construction activities or if they are over 75% capacity. When the washout area is over 75% capacity the wash water shall be removed or allowed to evaporate to avoid overflows. The hardened cement solids shall be removed and recycled.

Note that the inspections of the temporary BMPs will be documents in an inspection report. The inspect reports will document maintenance activities, sediment removal, and modifications to the sediment and erosion controls as necessary.

City of Georgetown South Lake Water Treatment Plant Aboveground Storage Tank Facility Plan

Temporary soil stabilization practices will include minimizing soil disturbance during construction and hydroseeding of temporary vegetation in disturbed areas. These temporary soil stabilization practices will be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. These interim measures will be inspected, maintained, and will remain in place for the duration of the construction phase of the project. These control measures will be planned and implemented in accordance with the Edwards Aquifer Technical Guidance Manual.

Permanent soil stabilization and site restoration will occur prior to project completion. Permanent soil stabilization measures will include the loaming, hydroseeding, and re-vegetation of the disturbed areas using a native grass mix that is properly monitored and managed until long-term vegetation stabilization has occurred. Permanent vegetated filter strips will also be established in places shown on the construction plan sheets.

Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

I Chris Pousson	
Print Name	
CIP Manager	
Title - Owner/President/Other	
of City of Georgetown	_;
Corporation/Partnership/Entity Name	
have authorized Ana Marie Karamalegos	
Print Name of Agent/Engineer	
of CDM Smith, Inc	_
Print Name of Firm	

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

- 1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
- 2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
- 3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

Applicant's Signature

-25-21

Date

THE STATE OF § County of Williamson Ş

BEFORE ME, the undersigned authority, on this day personally appeared <u>Uns POUSSON</u> known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 25 day of 000000, 2021

CINDY GILBERT Notary ID #2953478 My Commission Expires January 21, 2023

2023

Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

TCEQ-0599 (Rev:04/01/2010)

Application Fee Form

			Texas Commission on Environmental Quality								
Name of Proposed Regulated Entity: South Lake Water Treatment Plant											
Regulated Entity Location: 1010 Crockett Garden Road, Georgetown, Texas 78628											
Name of Customer: <u>City of Georgetown</u>											
Contact Person: <u>Chris Pousson</u>	Phone	e: <u>(512) 930-8162</u>									
Customer Reference Number (if issue	Customer Reference Number (if issued):CN <u>600412043</u>										
Regulated Entity Reference Number (if issued):RN <u>RN111368536</u>											
Austin Regional Office (3373)											
🗌 Hays 👘 Travis 🕅 Williamson											
San Antonio Regional Office (3362)											
Bexar	Medina	Uva	lde								
Comal	 Kinney										
Application fees must be paid by che	ck, certified check, or	r money order, payable	e to the Texas								
Commission on Environmental Qual	ity. Your canceled ch	eck will serve as your	receipt. This								
form must be submitted with your f	ee payment. This pa	, yment is being submit	ted to:								
🔀 Austin Regional Office	Sa	n Antonio Regional Of	fice								
Mailed to: TCEQ - Cashier	0	ernight Delivery to: TCEQ - Cashier									
Revenues Section	12	100 Park 35 Circle									
Mail Code 214	Bu	uilding A, 3rd Floor									
P.O. Box 13088	Au	ıstin, TX 78753									
Austin, TX 78711-3088	(5	12)239-0357									
Site Location (Check All That Apply):											
Recharge Zone	Contributing Zone	Transition Zone									
Type of Plan		Size	Fee Due								
Water Pollution Abatement Plan, Co	ontributing Zone										
Plan: One Single Family Residential											
Fian. One single Family Residential	Dwelling	Acres	\$								
Water Pollution Abatement Plan, Co	Dwelling ontributing Zone	Acres	\$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Residen	Dwelling ontributing Zone itial and Parks	Acres Acres	\$ \$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Resident Water Pollution Abatement Plan, Co	Dwelling ontributing Zone utial and Parks ontributing Zone	Acres Acres	\$ \$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Residen Water Pollution Abatement Plan, Co Plan: Non-residential	Dwelling ontributing Zone itial and Parks ontributing Zone	Acres Acres Acres	\$ \$ \$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Resident Water Pollution Abatement Plan, Co Plan: Non-residential Sewage Collection System	Dwelling ontributing Zone otial and Parks ontributing Zone	Acres Acres Acres L.F.	\$ \$ \$ \$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Resident Water Pollution Abatement Plan, Co Plan: Non-residential Sewage Collection System Lift Stations without sewer lines	Dwelling Ontributing Zone Itial and Parks Ontributing Zone	Acres Acres Acres L.F. Acres	\$ \$ \$ \$ \$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Resident Water Pollution Abatement Plan, Co Plan: Non-residential Sewage Collection System Lift Stations without sewer lines Underground or Aboveground Stora	Dwelling ontributing Zone otial and Parks ontributing Zone age Tank Facility	Acres Acres Acres L.F. Acres 1 Tanks	\$ \$ \$ \$ \$ \$ \$650								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Resident Water Pollution Abatement Plan, Co Plan: Non-residential Sewage Collection System Lift Stations without sewer lines Underground or Aboveground Stora Piping System(s)(only)	Dwelling ontributing Zone atial and Parks ontributing Zone age Tank Facility	Acres Acres Acres L.F. Acres 1 Tanks Each	\$ \$ \$ \$ \$ 650 \$								
Water Pollution Abatement Plan, Co Plan: Multiple Single Family Resident Water Pollution Abatement Plan, Co Plan: Non-residential Sewage Collection System Lift Stations without sewer lines Underground or Aboveground Stora Piping System(s)(only) Exception	Dwelling ontributing Zone otial and Parks ontributing Zone age Tank Facility	Acres Acres Acres L.F. Acres 1 Tanks Each Each	\$ \$ \$ \$ \$650 \$ \$								

Signature: Anthankonf 01/06/25

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

	Project Area in	
Project	Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6 <i>,</i> 500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial,	< 1	\$3,000
institutional, multi-family residential, schools, and	1 < 5	\$4,000
other sites where regulated activities will occur)	5 < 10	\$5 <i>,</i> 000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

Project	Cost per Linear Foot	Minimum Fee- Maximum Fee		
Sewage Collection Systems	\$0.50	\$650 - \$6,500		

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	Cost per Tank or Piping System	Minimum Fee- Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason fo	r Submis	sion (<i>If other is</i> a	checked pleas	e descri	ibe in s	space	orovid	ed.)				
New Per	mit, Regis	tration or Author	ization (Core I	Data Fo	rm sha	ould be	e subr	nitted v	vith the	e program applicatio	n.)	
Renewal	l (Core Da	ta Form should l	be submitted v	vith the	renewa	al form	ı)	Other				
2. Customer	2. Customer Reference Number (<i>if issued</i>)				w this link to sea		arch	3. Re	egulate	ed Entity Reference	e Number <i>(i</i>	if issued)
CN 600412043				<u>Central Registry**</u>		<u>rs in</u> * -	RN	111	368536			
SECTION	II: Cu	stomer Inf	ormation									
4. General Cu	ustomer li	nformation	5. Effective	e Date fo	or Cus	stomer	r Infor	matio	n Upd	ates (mm/dd/yyyy)		
New Cust	New Customer Update to Customer Information Change in Regulated Entity Ownership Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)											
The Custor Texas Sect	mer Nar retary oi	ne submitted f State (SOS)	here may l or Texas C	be upo Compti	dated roller	l auto [.] of Pi	mati ublic	cally Acco	base ounts	d on what is cu s (CPA).	rrent and	active with the
6. Customer	Legal Nar	me (If an individua	al, print last nam	ne first: e	g: Doe,	John)		<u> </u>	f new (Customer, enter prev	ious Custome	er below:
City of Ge	orgetov	vn										
7. TX SOS/CF	PA Filing	Number	8. TX State	Tax ID (11 digits)			(9. Fede 7 4-6 (ederal Tax ID (9 digits) 10. DUNS Number (if app 89592372		S Number (if applicable) 372	
11. Type of C	Customer:		ion			Individ	lual		F	Partnership: 🗖 Gener	ral 🔲 Limited	
Government:	🛛 City 🗖 (County 🔲 Federal [🗌 State 🔲 Othe	r		Sole F	roprie	torshi) [Other:		
12. Number of 0-20	of Employ] 21-100	rees 🔀 101-250	251-500		501 ar	nd high	ner	13. Independently Owned and Operated? X Yes □ No				
14. Customer	r Role (Pro	oposed or Actual) ·	– as it relates to	the Reg	ulated	Entity I	isted o	n this f	orm. Ple	ease check one of the	following	
Owner	nal Licens	ee 🗌 Respo	tor onsible Party			wner 8 oluntar	₁ Oper y Clea	ator anup A	pplica	nt Other:		
	300-1	Industrial Av	ve									
15. Mailing Address [,]												
	City	Georgetow	n	St	tate	TX		ZIP	78	626	ZIP + 4	8445
16. Country M	Mailing In	formation (if outs	ide USA)	•			17. [E-Mail	Addre	ess (if applicable)	• 	·
18. Telephon	e Numbei	ſ		19. E>	ktensi	on or (Code			20. Fax Numbe	er (if applicat	ole)
(512)930-3555 (512)930-3559												

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)					
New Regulated Entity Update to Regulated Entity Name Update to Regulated Entity Information					
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).					
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)					
South Lake Water Treatment Plant					

23 Street Address of	101) Cr	ockett Gard	ens	Road							
the Regulated Entity:												
<u>(No PO Boxes)</u>	City		Georgetov	vn	State	T	X	ZIP	786	528	ZIP + 4	
24. County	Will	iam	son									
		Ei	nter Physical L	ocat	tion Descripti	on if	no stre	eet address	s is pro	ovided.		
25. Description to Physical Location:	The Roa	WT d an	P is located d Cedar Bre	app eaks	proximately Road on C	y 82 Croc	20 fee ckett (t west of Gardens	the i Road	ntersectio	on of Ceo	lar Breaks Park
26. Nearest City									State		N	earest ZIP Code
Georgetown									ΤX		7	8628
27. Latitude (N) In Decim	nal:		30.6678				28. L	ongitude (\	N) In C	Decimal:	-97.740	1
Degrees	Minute	ŝ		Seco	nds		Degree	2S		Minutes		Seconds
29. Primary SIC Code (4 digits) 30. Secondary SIC Code (4 digits) 31. Primary NAICS Code (5 or 6 digits) 32. Secondary NAICS Code (5 or 6 digits)							AICS Code					
4941						21	1310					
33. What is the Primary I	Busine	ess of	f this entity?	(Do r	not repeat the SIC	or NA	NCS desc	cription.)				
Water Treatment Pl	ant											
24 Mailing												
Address			-									
7.001033.	Ci	ty			State			ZIP			ZIP + 4	l l
35. E-Mail Address:									•			·
36. Telepho	ne Nu	mber		-	37. Extensio	n or	Code			38. Fax Nur	mber <i>(if ap</i>	plicable)
()	-									() -	
39. TCEQ Programs and ID form. See the Core Data Form in	Numb	ers (ons fo	Check all Program	ns and nce.	d write in the per	mits/	registrat	ion numbers	that wi	ll be affected	by the updat	es submitted on this
Dam Safety		istrict	S	Ľ	Edwards Aqu	ifer		🗌 Emissi	ons Inve	entory Air	🗌 Industi	ial Hazardous Waste
Municipal Solid Waste		ew So	ource Review Air	C	OSSF			Petrole	um Sto	rage Tank	D PWS	
Sludge	S	torm \	Water	Ľ	Title V Air			🗌 Tires			Used (Dil
Voluntary Cleanup	V	/aste	Water		Wastewater A	gricu	ilture	U Water	Rights		Other:	

SECTION IV: Preparer Information

40. Name:	James Gallagher		41. Title:	Civil Engineer
42. Telep	ohone Number 43. Ext./Code	44. Fax Number	45. E-Mail A	Address
(312)	870-8707	() -	gallagher	rjp@cdmsmith.com

SECTION V: Authorized Signature

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

Company:	CDM Smith, Inc.	Job Title:	Environm	nental Enginee	er
Name (In Print):	Ana Marie Karamalegos, PE				(512) 346- 1100
Signature:	Ovalla too of	-		Date:	01/06/25

Signature:	Date:	
0		

Special Exemptions EX - Exempt Property

TAXING ENTITY	EXEMPTIONS	EXEMPTIONS AMOUNT	TAXABLE VALUE	TAX RATE PER 100	TAX CEILING
CAD- Williamson CAD		-	\$0	0	0
CGT- City of <u>Georgetown</u>		-	\$0	0.374	0
CO <u>GWI- Williamson</u>		-	\$0	0.333116	0
C <u>RFM- Wmsn CO</u> <u>FM/RD</u>		-	\$0	0.044329	0
🔁 <u>SGT-</u> <u>Georgetown ISD</u>		-	\$0	1.0467	0
TOTALS				1.798145	

2024 IMPROVEMENTS

℅ Expand/Collapse All

Improvement	mprovement #1 State Code		Homesite		Total Mai	n Area (Exterior Meas	sured) Market Value	
-		XV - Other Exemptions	5	No		-		\$7,000,000
RECORD		ТҮРЕ	YEAR BUILT		SQ. FT		VALUE	ADD'L INFO
1		See Comments		2024		-	\$7,000,000	× Details

2024 LAND SEGMENTS

LAND SEGMENT TYPE	STATE CODE	HOMESITE	MARKET VALUE	AG USE	TIM USE	LAND SIZE
1 - Commercial	XV - Other Exemptions	No	\$5,557	\$0	\$0	18.522000 acres
TOTALS						806,818 Sq. ft / 18.522000 acres

VALUE HISTORY

YEAR	IMPROVEME	ENT LAND	MARKET	AG MARKET	AG USE	TIM MARKET	TIM USE	APPRAISED	HS CAP LOSS	CBL CAP LOSS	ASSESSED
2023	\$0	\$5,557	\$5,557	\$0	\$0	\$0	\$0	\$5,557	\$0	\$	0 \$5,557
2022	\$0	\$5,557	\$5,557	\$0	\$0	\$0	\$0	\$5,557	\$0		- \$5,557
2021	\$0	\$5,557	\$5,557	\$0	\$0	\$0	\$0	\$5,557	\$0		- \$5,557
2020	\$0	\$879,795	\$879,795	\$0	\$0	\$0	\$0	\$879,795	\$0		- \$879,795
2019	\$0	\$926,100	\$926,100	\$0	\$0	\$0	\$0	\$926,100	\$0		\$926,100

SALES HISTORY

DEED DATE	SELLER	BUYER	INSTR #	VOLUME/PAGE
10/26/2018	AVANT, JIM F & JEFF W & JAMIE AVANT DEYHLE	CITY OF GEORGETOWN	2018097168	

WCAD				
Property R576369	<mark>Owner</mark> CITY OF GEORGETOWN	Property Address 1010 CROCKETT GARDENS RD, GEORGETOWN, TX 78628	Tax Year 2024 ✔	2024 Market Value \$7,005,557
Page: Property D	etails			~

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2024 GENERAL INFORMATION

Property Status	Active	MARKET VALUE	
Property Type	Land	Improvement Homesite Value	\$0
Legal Description	AW0232 AW0232 - Fish, J. Sur., ACRES 18.522	Improvement Non-Homesite Value	\$7,000,000
Neighborhood	G80 - WEST GEORGETOWN VACANT	Total Improvement Market	
Account	R-20-0232-0000-0001E	Value	\$7,000,000
Related Properties	<u>R039514</u>		
Map Number	3-0307,1-0105,4-0408,4-1208	Land Homesite Value	\$0
Effective Acres	-	Land Non-Homesite Value	\$5,557
2024 OWNER IN	FORMATION	Land Agricultural Market Value	\$0
Owner Name	CITY OF GEORGETOWN	Land Timber Market Value	\$0
Owner ID		Total Land Market Value	\$5,557
Exemptions	Exempt Property (Active)		
Percent Ownership	100%	Total Market Value	\$7,005,557
Mailing Address	C/O CITY MANAGER PO BOX 409 GEORGETOWN, TX 78627	ASSESSED VALUE	
Agent	-	Total Improvement Market Value	\$7,000,000

Land Homesite Value \$0

\$5,557 Land Non-Homesite Value

2024 VALUE INFORMATION

- Agricultural Use \$0
- Timber Use \$0
- Total Appraised Value \$7,005,557
- Homestead Cap Loss 🚱 -\$0
- Circuit Breaker Limit Cap Loss -\$0 ?