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Edwards Aquifer Exception Request for New Braunfels Utilities Grandview Pump Station

Prepared for:

TCEQ-Region 13 Office

San Antonio, Texas

July 2024

Prepared by:

FREESE AND NICHOLS, INC. 10431 Morado Circle, Suite 300 Austin, Texas 78759 512-617-3100

Texas Commission on Environmental Quality Edwards Aquifer Application Cover Page

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: Grandview Pump Station | | | | 2. Regulated Entity No.: RN111023941 | | | | |
|---|---------------|------------------------|------------------|--------------------------------------|-------|--------|----------------------------|-------------------------------|
| 3. Customer Name: New Braunfe | | ls Utilities | | 4. Customer No.: CN600522957 | | | | |
| 5. Project Type: (Please circle/check one) | New | Modif | ication | 1 | Exter | ision | 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-r | residen | tial | > | 8. Sit | e (acres): | 4.5 |
| 9. Application Fee: | \$500 | 10. P | 10. Permanent BM | | BMP(s | 5): | VFS, Grassy sw | ale, Detention basin |
| 11. SCS (Linear Ft.): | N/A | 12. AST/UST (No. Tanks | | | nks): | N/A | | |
| 13. County: | Comal | 14. W | aters | hed: | | | Comal- Guadal | upe 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.

| Ausun Region | | | | |
|---|---|---|--|--|
| County: | Hays | Travis | Williamson | |
| Original (1 req.) | | _ | | |
| Region (1 req.) | | _ | | |
| County(ies) | | | | |
| 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 Georgetown Jerrell Leander Liberty Hill Pflugerville Round Rock | |

Austin Region

| San Antonio Region | | | | | |
|--|--|--|--------|------------------------------|---------------|
| County: | Bexar | Comal | Kinney | Medina | Uvalde |
| Original (1 req.) | | _X_ | | | |
| Region (1 req.) | | _X_ | | | |
| County(ies) | | _X_ | | | |
| Groundwater Conservation District(s) | Edwards Aquifer Authority Trinity-Glen Rose | _X_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 _X_New Braunfels Schertz | NA | San Antonio ETJ (SAWS) | NA |

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.

Tam Tran

Print Name of Customer/Authorized Agent

07/26/2024

Signature of Customer/Authorized Agent

Date

| **FOR TCEQ INTERNAL USE ONLY** | | | | |
|--|--|---------------------------------|------------------------------|--|
| Date(s)Reviewed: | | Date Administratively Complete: | | |
| Received From: | | Correct N | Number of Copies: | |
| Received By: | | Distribut | ion Date: | |
| EAPP File Number: | | Complex: | | |
| Admin. Review(s) (No.): | | No. AR Rounds: | | |
| Delinquent Fees (Y/N): | | Review Time Spent: | | |
| Lat./Long. Verified: | | SOS Customer 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: Tam Tran

Date: <u>07/30/2024</u>

Signature of Customer/Agent:

Project Information

- 1. Regulated Entity Name: Grandview Pump Station
- 2. County: Comal
- 3. Stream Basin: Guadalupe River Basin
- 4. Groundwater Conservation District (If applicable): Comal Trinity GCD
- 5. Edwards Aquifer Zone:

| \times | Recharge Zone |
|----------|-----------------|
| | Transition Zone |

6. Plan Type:

| WPAP |
|--------------|
| SCS |
| Modification |

AST UST Exception Request

TCEQ-0587 (Rev. 02-11-15)

7. Customer (Applicant):

Contact Person: <u>Adam Willard, PE.</u> Entity: <u>New Braunfels Utilities</u> Mailing Address: <u>355 FM 306</u> City, State: <u>New Braunfels, TX</u> Telephone: <u>(830)608-8943</u> Email Address: <u>awillard@nbutexas.com</u>

Zip: <u>78130</u> FAX: _____

8. Agent/Representative (If any):

Contact Person: <u>Tam Tran</u> Entity: <u>Freese and Nichols, Inc.</u> Mailing Address: <u>10431 Morado Circle, Suite 300</u> City, State: <u>Austin, TX</u> Telephone: <u>(512)381-1830</u> Email Address: <u>tam.tran@freese.com</u>

Zip: <u>78759</u> FAX: <u>(512)617-3101</u>

9. Project Location:

The project site is located inside the city limits of <u>New Braunfels</u>.

The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of ______.

- 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 project is located at the eastern corner of N Walnut Avenue and Grandview Avenue.</u> <u>The address is 102 Grandview Ave.</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: prior to construction: late August 2024
- 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)
 Proposed site use
 Site history
 Previous development
 - Area(s) to be demolished

15. Existing project site conditions are noted below:

| | Existing commercial site |
|-------|-------------------------------------|
| \ge | Existing industrial site |
| | Existing residential site |
| \ge | Existing paved and/or unpaved roads |
| | Undeveloped (Cleared) |
| | Undeveloped (Undisturbed/Uncleared) |
| | Other: |
| | |

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. 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.

New Braunfels Utilities (NBU)



Attachment A. Road Map



New Braunfels Utilities (NBU)



Attachment B. USGS/ Edwards Aquifer Zone Map



Attachment C

Project Description

The Grandview Pump Station (Grandview PS) project is located in New Braunfels, Comal County, Texas. Specifically, the project area is on the northwest side of the city, within Loop 337 at the intersection of North Walnut Avenue (State Highway 46) and Grandview Avenue. The project area is located at 120 Grandview Avenue on a 4.5-acre site. Grandview PS currently consists of two 1,100 gallons per minute (gpm) vertical turbine pumps and a new 1.2 million GST. The existing pump station site was built and developed before the Edwards Aquifer Protection Program in 1984. A WPAP was developed for the site in 2020. New improvements to the Grandview PS site will include a concrete pad for a natural gas generator and automatic transfer switch. The generator will be utilized to ensure reliability in the event of an electrical blackout. The generator will be powered by natural gas and will not require a fuel tank.

The existing site is developed and has been utilized as a pump station by New Braunfels Utilities and contains existing impervious cover. The surrounding area is residential development and associated roadways. The total impervious area will increase from an existing 0.443 acre (19,323 ft²) to 0.446 acre 19,473 ft², an increase of 0.003 acre or 150 ft². Temporary BMP will include silt fencing. Silt fencing will be placed downgradient of construction activity and soil disturbances. Permanent BMPs will include vegetative filter strips (VFS) and a detention basin. Disturbed land will be revegetated with engineered VFS. Vegetative filter strips will act as the preferred Best Management Practice. Vegetative filter strips would be placed on the downstream perimeter of the proposed impervious cover for a minimum of 15 feet in the direction of the flow. Vegetative filter strips will be installed post-construction in disturbed areas for erosion and sediment control. A detention basin located on the south side of the project area would receive stormwater flow from the site and contain sediments and pollutants.

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: <u>Kimberly Buckley</u>

Telephone: (817)-735-7332

Date: <u>2020-05-27</u>

Fax: _____

Representing: <u>Freese and Nichols, Inc.</u> (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Juibachy Buckley

Regulated Entity Name: Grandview Pump Station

Project Information

- 1. Date(s) Geologic Assessment was performed: 2020-03-04, 2020-05-20
- 2. Type of Project:

| \times | WPAP |
|----------|------|
| | SCS |

AST

3. Location of Project:

| \boxtimes | Rec | harg | e Zoi | ٦e |
|-------------|-----|------|-------|----|
| | | | | |

_____ 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, InfiltrationCharacteristics and Thickness

| Soil Name | Group* | Thickness(feet) |
|--------------|--------|-----------------|
| Rumple- | | |
| Comfort | | |
| rubbly | D | 0 to 6 |
| Eckrant-Rock | | |
| outcrop | D | 0 to 6 |
| | | |
| | | |

| 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'' = 400'Site Geologic Map Scale: 1'' = 400'Site Soils Map Scale (if more than 1 soil type): 1'' = 400'

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 fi | eld |
|--|-----|
| 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.

| GEOLOGIC ASSESSMENT TABLE | | | | | | PROJECT NAME: | | | | Grandview Pump Station | | | | | | | | | | |
|---------------------------|--|------------------|-----------------|-------------------------|-----------|---|---|---------|--------------------|------------------------|--------------------|--------------------|--------|----------------------------|-------|------|---------------|-----------------|------------------|------------|
| LOCATION | | | | FEATURE CHARACTERISTICS | | | | | | EVALUATION | | PHYSICAL | | 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 | DIM | ENSIONS (F | EET) | TREND (DEGREES) | DOM | DENSITY (NO/FT) | APERTURE (FEET) | INFILL | RELATIVE INFILTRATION RATE | TOTAL | SENS | ITIVITY | CATCHME (ACF | ENT AREA RES) | TOPOGRAPHY |
| | | | | | | Х | Y | Z | | 10 | | | | | | <40 | <u>>40</u> | <1.6 | <u>>1.6</u> | |
| P1 | 29°42'37.05"N | 98°8'50.24"W | CD | 5 | Ked | 0.5 | 0.5 | 0.5 | - | - | - | - | 0 | 5 - Low | 10 | 10 | | | > | Hilltop |
| P2 | 29°42'36.29"N | 98°8'49.66"W | CD | 5 | Ked | 2 | 2 | 2 | - | - | • | - | С | 5 - Low | 10 | 10 | | | > | Hilltop |
| P3 | 29°42'36.39"N | 98°8'48.93"W | CD | 5 | Ked | 2 | 4 | 20 | - | - | • | - | С | 5 - Low | 10 | 10 | | | > | Hilltop |
| P4 | 29°42'36.06"N | 98°8'49.61"W | CD | 5 | Ked | 2 | 4 | 15 | - | - | • | - | С | 5 - Low | 10 | 10 | | | > | Hilltop |
| P5 | 29°42'36.40"N | 98°8'50.33"W | SC | 20 | Ked | 0.17 | 0.17 | 1 | - | - | - | - | 0 | 15 - Low | 35 | 35 | | | < | Hilltop |
| P6 | 29°42'36.19"N | 98°8'50.85"W | 0 | 5 | Ked | 5 | 8 | - | - | - | - | - | 0 | 5 - Low | 10 | 10 | | | > | Hilltop |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| L | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | |
| * DATUN | l: | | | | | | - | | | | | | | | | | | | | |
| 2A TYPE | 2A TYPE TYPE 2B POINTS | | | | | 8A INFILLING | | | | | | | | | | | | | | |
| С | Cave | | | | 30 | | N | None, e | exposed b | edro | ck | | | | | | | | | |
| SC | Solution cavity 20 | | | | | | C Coarse - cobbles, breakdown, sand, gravel | | | | | | | | | | | | | |
| SF | Solution-enlarged fracture(s) 20 | | | | | | O Loose or soft mud or soil, organics, leaves, sticks, dark colors | | | | | | | | | | | | | |
| F | Fault 20 | | | | | | F Fines, compacted clay-rich sediment, soil profile, gray or red colors | | | | | | | | | | | | | |
| 0 | Other natural bedrock features 5 | | | | | | V Vegetation. Give details in narrative description | | | | | | | | | | | | | |
| MB | Manmade teature in bedrock 30 | | | | | | FS Flowstone, cements, cave deposits | | | | | | | | | | | | | |
| 5W | Swallow hole 30 | | | | | | X Other materials | | | | | | | | | | | | | |
| оп СП | Sinknole 20 | | | | | | | | | | | | v | | 1 | | | | | |
| 7 | Zone, clustered or aligned features 30 | | | | | Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed | | | | | | | | | | | | | | |
| | 20.10, 01000100 01 0 | ang.iou iouturoo | | | 50 | l | L` | , | | | , _ .an | | | , 510011000 | J | | | ~ | 2000 | anter |

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213. Date 5/27/2020

Juibuly Buckling

Sheet 1 of 1



TCEQ-0585-Table (Rev. 10-01-04)

Attachment B

Stratigraphic Column^{1, 2, 3}

| System | Series | Group | Formation | Member | Thickness (Feet) |
|------------|----------|-----------------|---------------|------------------------------|---------------------|
| Quaternary | Recent | Alluvium (Qal) | 0-15 ± | | |
| | Gulfian | Upper confining | | | |
| | | Navarro and Tay | 600 ± | | |
| Upper | | Austin (Ka) | 130-350 ± | | |
| Cretaceous | | Eagle Ford (Kef | 30-150 ± | | |
| | Comanche | | Buda (Kb) | 40-90 ± | |
| | | Washita | Del Rio (Kdr) | 40-110 ± | |
| | | | Georgetown (| 2-20 ± | |
| | | | | Cyclic and marine (Kpcm) | 10-100 ± |
| | | Edwards | Person | Leached and collapsed (Kplc) | 70-100 ± |
| Lower | | | 1 | Regional dense (Kprd) | 16-24 ± |
| Cretaceous | | | | Grainstone (Kkg) | 50-60 ± |
| Cretaceous | | | Kainer | Kirschberg evaporite (Kkke) | 50-60 ± |
| | | | Kamer | Dolomitic (Kkd) | $110-140 \pm$ |
| 11.1 | | | | Basal nodular (Kkbn) | 20-70 ± |
| | | Trinity | Glen Rose | Upper (Kgru) | 350-800 ± |

¹Blome, C.D., Faith, J.R., Pedraza, D.E., Ozuna, G.B., Cole, J.C., Clark, A.K., Small, T.A., and Morris, R.R. 2005. Geologic Map of the Edwards Aquifer Recharge Zone, South-Central Texas. U.S. Geological Survey, U.S. Department of the Interior. Scientific Investigations Map 2873. Version 1.1. Scale 1:200,000

²Condon, S.M. and T.S. Dyman. 2006. "Chapter 2: 2003 Geologic Assessment of Undiscovered Conventional Oil and Gas Resources in the Upper Cretaceous Navarro and Taylor Groups, Western Gulf Province, Texas" in Petroleum Systems and Geologic Assessment of Undiscovered Oil and Gas, Navarro and Taylor Groups, Western Gulf Province. Western Gulf Province Assessment Team, U.S. Geological Survey, U.S. Department of the Interior.

³Martin, K.G. 1962. Stratigraphy of the Washita Group, South-Central Texas. Contributions to Geology of South Texas, South Texas Geological Society Special Publications.



Attachment C

Narrative Description of Site-Specific Geology

Project Description

New Braunfels Utilities (NBU) is proposing to replace an existing pump station on Oak Lane in Comal County. FNI personnel performed a literature review of project site geology and performed a field survey on March 4, 2020 and on May 20, 2020.

Geological Stratigraphy and Structural Characteristics

The stratigraphy at the Grandview Pump Station site includes Cretaceous age Edwards Limestone (Ked), which also includes deposits of dolomite and chert. The thickness of the Edwards Limestone is approximately 350 to 500 feet in Comal County.

The project is located within the Balcones fault zone, so there is potential for faults and outcrops to exist within the project area. The project is also located within the recharge zone of the Edwards aquifer, where weathering and erosion have created an aquifer system of honeycomb and cave formations in the porous limestone. No faults were observed or mapped within the project site. One small solution cavity was found in exposed bedrock on the site.

Soil Profiles

The Rumple series consists of moderately deep, well drained, moderately slowly permeable soils formed in residuum and colluvium derived from limestone. These soils occur on moderate backslopes and low hills of dissected plateaus at slopes generally ranging from 1 to 8 percent.

The Comfort series consists of shallow soils to weathered limestone bedrock. They are well drained, slowly permeable soils that formed in clayey residuum derived from dolomitic limestone of the Lower Cretaceous. These soils occur on nearly level ground to moderate slopes on ridges of dissected plateaus at slopes generally ranging from 0 to 8 percent.

The Eckrant series also consists of shallow soils to weathered limestone bedrock. They are well drained, moderately slowly permeable soils formed in residuum derived from limestone. These soils occur on both nearly level ground and very steep areas of summits and backslopes of ridges on dissected plateaus. Typical slopes range greatly from 1 to 60 percent.

The above soils occur on the project site in the following associations:

Rumple-Comfort rubbly association, 1 to 8 percent slopes (RUD): This association typically consists of very gravelly clay to extremely cobbly clay with bedrock below 28-59 inches. The soil type is well-drained, moderately permeable, and is not classified as prime farmland.

Eckrant-Rock outcrop association, 8 to 30 percent slopes (ErG): This association typically consists of very cobbly clay to extremely cobbly clay with bedrock below 12-18 inches. The soil type is well-drained, has moderately low permeability, and is not classified as prime farmland.

Site Assessment

FNI personnel conducted a site visit on March 4, 2020 and additional investigation on May 20, 2020. The site visit was focused on identifying karstic features in the area of the proposed pipeline alignment and elevated storage tank location. The Edwards Formation is well known for the development of karstic features close to the Balcones fault system. The site visit was conducted to search for specific karstic or dissolution features as potential indicators of active karst.

The project site is located on a topographic high between Oak Lane and Walnut Avenue. The proposed project includes replacement of a ground storage tank and related infrastructure as well as the installation of a detention basin. Six features were identified and documented during the site assessment, including two outfalls and two drainage features. Some exposed bedrock was observed at the location of the proposed ground storage tank and detention basin. A small solution cavity was found at one of the bedrock exposures; this cavity extends 12 inches at an oblique angle into the bedrock where it encounters clayey soil. Photographs of the six features are provided below.



Feature P1. A small drainage outfall (6 inches wide) is located on the western boundary of the existing pump station. A small drainage feature extends from the outfall, which was filled with organic debris and vegetation upon initial inspection.



Feature P2. Another outfall (2 feet wide) is located at the southern boundary of the existing pump station (existing ground storage tank is visible in the background). A larger drainage feature extends from this outfall towards Walnut Avenue (Feature P4).



Feature P3. Another drainage feature extends southward toward Walnut Avenue from this gabion wall structure, which is located at the southeastern corner of the existing pump station area. The wall appears to have been placed to protect neighboring properties from runoff. The drainage feature is also made evident by surveyed topography.



Feature P4. A drainage feature extending from the southern outfall (**Feature P2**) is evident from topographic contours. It appears that this feature has been previously filled in with gravel, crushed stone, rip rap, and concrete slabs.



Feature P5. A small solution cavity (2 inches wide) was observed in exposed bedrock near the location of the proposed ground storage tank replacement. The cavity extends down into the rock for more than 6 inches. The solution cavity was filled with soil and organic debris upon initial inspection.

Further investigation of **Feature P5** was conducted on May 20, 2020. Resulting additional documentation of the feature is as follows:



The dimensions of the opening of the feature are approximately 2 inches by 2 inches.



The feature was probed using steel fish tape marked with electrical tape (above left photograph). The tape extended into the feature for approximately 12 inches (above right photograph) before encountering clayey soil (below photograph). Note that the feature extends at an oblique angle into the rock rather than straight down. Based on the angle and presence of clayey soils, the feature likely has a lower infiltration potential.





Feature P6. Additional bedrock exposure was observed near Feature P5, but no other solution cavities were observed.





Recharge and Transition Zone Exception Request Form

Texas Commission on Environmental Quality

30 TAC §213.9 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 **Recharge and Transition Zone Exception Request Form** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: <u>Tam Tran</u> Date: <u>07/31/2024</u> Signature of Customer/Agent:

Lave

Regulated Entity Name: Grandview Pump Station

Exception Request

- 1. Attachment A Nature of Exception. A narrative description of the nature of each exception requested is attached. All provisions of 30 TAC §213 Subchapter A for which an exception is being requested have been identified in the description.
- 2. X Attachment B Documentation of Equivalent Water Quality Protection. Documentation demonstrating equivalent water quality protection for the Edwards Aquifer is attached.

Administrative Information

- 3. 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.
- 4. The applicant understands that no exception will be granted for a prohibited activity in Chapter 213.
- 5. The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

Grandview Pump Station Edwards Aquifer Exception Request

ATTACHMENT A

Nature of Exception

The Grandview Pump Station project will be operated by New Braunfels Utilities (NBU). NBU is proposing to install a concrete pad for a natural gas generator and automatic transfer switch.

On July 12, 2023, Tam Tran (FNI) emailed Mr. Hunter Patterson from the TCEQ Edwards Aquifer Protection Program. Impervious cover will increase approximately 150 ft² within the project area. Mr. Patterson indicated that the generator project can be covered by an Exception Request.

During the construction process, temporary BMPs such as silt fences and VFS will be utilized downgradient of the project site to control sediment and erosion. Temporary BMPs will be installed prior to construction and meet all requirements. Permanent BMPs will include a detention basin within the site to filter and store sediments.

Tam Tran

| From: | Hunter Patterson <hunter.patterson@tceq.texas.gov></hunter.patterson@tceq.texas.gov> |
|--------------|--|
| Sent: | Monday, July 15, 2024 8:22 AM |
| То: | Tam Tran |
| Cc: | Michael Lafferty; Blaine Laechelin |
| Subject: | RE: NBU Grandview Pump Station |
| Attachments: | EAPP Intakes 2023.pdf |

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good morning Tam,

Given that the proposed increase in impervious cover for this project is negligible, we are still requesting an Exception to be submitted to our office for technical review. Please submit your application for the administrative review process when available.

Respectfully,

Hunter Patterson

Environmental Investigator Edwards Aquifer Protection Program TCEQ San Antonio Regional Office **Office:** 210-403-4026 **Email:** hunter.patterson@tceq.texas.gov



From: Tam Tran <Tam.Tran@freese.com>
Sent: Friday, July 12, 2024 3:45 PM
To: Hunter Patterson <Hunter.Patterson@tceq.texas.gov>
Cc: Michael Lafferty <Michael.Lafferty@freese.com>; Blaine Laechelin <jbl@freese.com>
Subject: RE: NBU Grandview Pump Station

Caution: This email may contain suspicious content. Please take care when clicking links or opening attachments. When in doubt, contact the TCEQ Help Desk.

Good afternoon Hunter,

Sorry for bothering you about this again but after comparing the 2020 WPAP for the NBU Grandview pumpstation we realized that the actual size of the electrical rack was much smaller than the approved design.

Proposed Electrical Room Size submitted with the approved 2020 WPAP: **648.54 SF (0.015 ac)** Actual Size of the Electrical Rack and Canopy per the Issued for Construction (IFC) plans: **343.13 SF (0.008 ac)** Added Impervious from the new Natural Gas Generator and Automatic Transfer Switch (ATS): **455.38 SF (0.01 ac)**

Net Change in impervious cover vs the 2020 approved WPAP: +149.97 SF (or 0.003 ac, per the IFC sheets)

Therefore, if the net increase in IC is approximately 150 SF, would this improvement be sufficient to be exempt from a WPAP Exception Request (ie. de minimis)? If additional treatment and EAPP coordination is required, one option our engineers have proposed is adding additional vegetated filter strip (VFS) downstream of the electrical site (table attached in email). Thank you again for your time and consideration. Have a great weekend,

Tam H. Tran

Environmental Scientist | Project Manager Western Gulf Coast Integrated Water Management Division Freese and Nichols, Inc. 10431 Morado Circle, Suite 300 Austin, TX 78759 Office: 512-381-1830 Mobile: 512-203-5701 Tam.Tran@freese.com



From: Hunter Patterson <<u>Hunter.Patterson@tceq.texas.gov</u>> Sent: Monday, July 8, 2024 3:34 PM To: Tam Tran <<u>Tam.Tran@freese.com</u>> Cc: Michael Lafferty <<u>Michael.Lafferty@freese.com</u>> Subject: NBU Grandview Pump Station

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good afternoon Tam,

I am responding to an email you sent to the EAPP inbox regarding the NBU Grandview Pump Station. According to your email, site improvements will include an additional 456 SF of impervious cover for the extension of the existing electrical pad. We are requesting that a WPAP-Exception be submitted to our office for this improvement. Please see the following link: https://www.tceq.texas.gov/permitting/eapp/except.html

Your email also states that NBU will be installing a new generator for the pump station. Please be advised that an AST facility plan will likely need to be submitted to our office for the generator dependent on the generators cumulative storage capacity. Please review the following link if needed: https://www.tceq.texas.gov/permitting/eapp/ast.html

Hope you had a great holiday.

Best regards,

Hunter Patterson Environmental Investigator Edwards Aquifer Protection Program TCEQ San Antonio Regional Office Office: 210-403-4026 Email: hunter.patterson@tceq.texas.gov



Good morning Lillian,

I am in the process of reviewing a facility project for New Braunfels Utilities (NBU) and would like to get your recommendation on permitting approaches for compliance with the TCEQ Edwards Aquifer Protection Program. NBU is currently in the process of installing generators within their new pump station site to comply with the TCEQ Emergency Preparedness Plan for safety and reliability. The site is located in Comal County within the EA Recharge Zone. A WPAP for the project facility was submitted in 2020 and approved (attached).

- Grandview Pump Station (near 120 Grandview Ave, within the EA Recharge Zone)
 - a. NBU is proposing a small extension of the existing electrical pad and adding a new natural gas generator behind the electrical rack. This area was disturbed by the Grandview PS project under which FNI developed the WPAP in 2020.
 - b. **The added permanent impervious cover is approximately 456 SF.** Existing impervious cover at the Grandview Pump Station is 15,455 SF.

Our assumption is that the projects described above would either be exempt from a WPAP due to negligible increases in impervious cover (de minimis) or require a modification to the existing WPAP and additional coordination with TCEQ EAPP. The design documents are attached. Can you please confirm that this assumption is correct? Thank you for your time and consideration,

This electronic mail message is intended exclusively for the individual or entity to which it is addressed. This message, together with any attachment, may contain the sender's organization's confidential and privileged information. The recipient is hereby notified to treat the information as confidential and privileged and to not disclose or use the information except as authorized by sender's organization. Any unauthorized review, printing, retention, copying, disclosure, distribution, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this message in error, please immediately contact the sender by reply email and delete all copies of the material from any computer. Thank you for your cooperation. **Grandview Pump Station**

Edwards Aquifer Exception Request

ATTACHMENT B

Documentation of Equivalent Water Quality Protection:

During the construction process, temporary BMPs such as silt fences will be utilized downgradient of the project site to control sediment and erosion to nearby stormwater drains. Temporary BMPs will be installed prior to construction and meet all requirements. Existing VFS and detention basin on site will treat stormwater runoff. Additional engineered VFS will be added to treat the increase in impervious cover.

Temporary BMPs are shown on the following construction plan document.

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: Tam Tran

Date: 07/30/2024

Signature of Customer/Agent:

ADC

Regulated Entity Name: Grandview Pump Station

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:

 \square The following fuels and/or hazardous substances will be stored on the site: <u>gasoline</u>, <u>diesel</u>

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.

TCEQ-0602 (Rev. 02-11-15)

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>Tributary to Dry Comal Creek</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:
| 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. |
|---|
| 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. |
| 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. |
| 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 used in combination with other erosion and sediment controls within each 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 at one time. |
| |

| 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.

Attachment A

Spill Response Actions

The TCEQ's spill response rules (30 TAC § 327.1-5) define what is considered a reportable spill and outline reporting requirements to the state, local government, and affected persons or property owners. Response and follow-up written report requirements are also identified.

The reportable quantities (RQ) for hazardous substances shall be:

(1) for spills or discharges onto land--the quantity designated as the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §302.4; or

(2) for spills or discharges into waters in the state--the quantity designated as the Final RQ in Table 302.4 in 40 CFR §302.4, except where the Final RQ is greater than 100 pounds in which case the RQ shall be 100 pounds.

The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:

(A) for spills or discharges onto land--210 gallons (five barrels); or

(B) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

The RQ for petroleum product and used oil shall be:

(A) except as noted in subparagraph (B) of this paragraph, for spills or discharges onto land--25 gallons;

(B) for spills or discharges to land from PST exempted facilities--210 gallons (five barrels); or

(C) for spills or discharges directly into water in the state--quantity sufficient to create a sheen.

Industrial solid waste or other substances. The RQ for spills or discharges into water in the state shall be 100 pounds.

Upon the determination that a reportable discharge or spill has occurred, the responsible person shall notify the agency as soon as possible but not later than 24 hours after the discovery of the spill or discharge. The responsible person shall notify the agency in any reasonable manner including by telephone, in person, or by any other method approved by the agency. In all cases, the initial notification shall provide, to the extent known, the following information:

(1) the name, address and telephone number of the person making the telephone report;

(2) the date, time, and location of the spill or discharge;

(3) a specific description or identification of the oil, petroleum product, hazardous substances or other substances discharged or spilled;

(4) an estimate of the quantity discharged or spilled;

(5) the duration of the incident;

(6) the name of the surface water or a description of the waters in the state affected or threatened by the discharge or spill;

(7) the source of the discharge or spill;

(8) a description of the extent of actual or potential water pollution or harmful impacts to the environment and an identification of any environmentally sensitive areas or natural resources at risk;

(9) if different from paragraph (1) of this subsection, the names, addresses, and telephone numbers of the responsible person and the contact person at the location of the discharge or spill;

(10) a description of any actions that have been taken, are being taken, and will be taken to contain and respond to the discharge or spill;

(11) any known or anticipated health risks;

(12) the identity of any governmental representatives, including local authorities or third parties, responding to the discharge or spill; and

(13) any other information that may be significant to the response action.

In order to satisfy the federal requirement to notify the State Emergency Response Commission in the State of Texas, the responsible person shall notify one of the following:

(1) the State of Texas Spill-Reporting Hotline at 1-800-832-8224;

(2) during normal business hours only, the regional office for the agency region in which the discharge or spill occurred; or

(3) the National Response Center at 1-800-424-8802.

The responsible person shall notify the agency as soon as possible whenever necessary to provide information that would trigger a change in the response to the spill or discharge. If the discharge or spill creates an imminent health threat, the responsible person shall immediately notify and cooperate with local emergency authorities (fire department, fire marshal, law enforcement authority, health authority, or Local Emergency Planning Committee (LEPC), as appropriate). The responsible party will cooperate with the local emergency authority in providing support to implement appropriate notification and response actions. The local emergency authority, as necessary, will implement its emergency management plan, which may include notifying and evacuating affected persons. In the absence of a local emergency authority, the responsible person shall take reasonable measures to notify potentially affected persons of the imminent health threat.

The responsible person shall immediately abate and contain the spill or discharge and cooperate fully with the executive director and the local incident command system. The responsible person shall also begin reasonable response actions which may include, but are not limited to, the following actions:

(1) arrival of the responsible person or response personnel hired by the responsible person at the site of the discharge or spill;

- (2) initiating efforts to stop the discharge or spill;
- (3) minimizing the impact to the public health and the environment;
- (4) neutralizing the effects of the incident;
- (5) removing the discharged or spilled substances; and
- (6) managing the wastes.

Texas Commission on Environmental Quality (TCEQ). 2016. 30 TAC § 327.1-5. Chapter 327: Spill Prevention and Control.

https://www.tceq.texas.gov/assets/public/legal/rules/rules/pdflib/327.pdf

Attachment B

Potential Sources of Contamination

During the proposed project, the sources of potential contamination include the diesel fuel and hydraulic fluid in the equipment that will be used for construction of the concrete pad. Fuel for construction vehicles and work trucks will be used and be stored on site in sealed containers. No contamination is expected to occur.

ATTACHMENT C

SEQUENCE OF MAJOR ACTIVITIES

| Activity | Description | Area of | BMPs |
|-------------------|----------------------------------|-------------|-------------------------------|
| | | Disturbance | |
| Install temporary | Install temporary BMPs such as | <0.01 ac | Silt Fencing |
| BMPs | silt fencing | | |
| Clearing | Remove vegetation within the | <0.01 ac | Silt fencing |
| | project area | | |
| Construction | Construction of the concrete pad | 0.003 ac | Silt fencing, detention basin |
| Revegetation | Revegetate disturbed ground | <0.01 ac | Vegetative |
| | | | filter strips |

Attachment D

| BMP | Sequence of Construction | Control Measures |
|-----------------------------|--------------------------|---|
| Debris and trash management | Pre-construction | Trash and litter control |
| Sanitary facilities | Pre-construction | Sanitary waste control |
| Silt fence | Pre-construction | Sediment control |
| Detention basin | Post construction | Sediment control |
| Vegetative filter strips | Post construction | Slope protection; channel protection; temporary stabilization |

Temporary Best Management Practices and Measures

The BMPs that will be in place during and after construction have been selected to help prevent pollution of surface water, groundwater, stormwater, the aquifer, or any other sensitive features that may be on or near the proposed project site. The measures to help prevent this pollution and maintain flow to naturally-occurring sensitive features are described below. There is no surface water on the project site.

Sanitary facilities and debris and trash management will help reduce sanitary waste and trash from littering the project site and surrounding areas.

A silt fence will be installed downslope of the disturbed area to filter sediment from water flowing over the disturbed area. The silt fence will help detain soil and sediment from leaving the construction site. By filtering water runoff, the possibility of pollution to any surface water, sensitive features, or aquifers that may be near the site is reduced.

The existing detention basin would capture stormwater run-off originating from the project site and potential overflow from the storage tank. The detention basin would be located on the northwest corner of the project site where the natural grading will flow. The basin would provide 2365 ft³ of storage.

Additional vegetative filter strips will be used for soil stabilization throughout the disturbed project area. The vegetated area provides protection from erosion and filtering from overland runoff. The filtered and reduced runoff will prevent the pollution of surface water, groundwater, or sensitive features that may be on or near the project site during and after construction activities.

Resources:

North Central Texas Council of Governments (NCTCOG). 2003. Integrated Storm Water Management Design Manual for Construction. http://www.iswm.nctcog.org/Documents/Construction/Final/pdf/Ch4_E_BMPs.pdf

Barrett, Michael. 2005. TCEQ Complying with the Edwards Aquifer Rules: Technical Guidance of Best Management Practices (RG-348).

Attachment F

Structural Practices

Use of a silt fence will filter sediment from on-site runoff, containing sediment in the disturbed area and preventing potential pollution to off-site areas. The existing detention basin will provide storage and prevent sediment-laden stormwater flows from entering groundwater and streams.

New Braunfels Utilities (NBU)



Attachment G. Drainage Area Maps



| Propo | sed WSEL R | esults |
|--------------------|------------|----------------|
| Storm Event | WSE (ft) | Freeboard (ft) |
| 100-year (clogged) | 782.9 | 0.1 |
| 100-year | 782.0 | 1.0 |
| 25-year | 781.2 | 1.8 |
| 10-year | 780.8 | 2.2 |
| 2-year | 780.2 | 2.8 |

| Existing Vs Proposed HMS Discharges | | | | | | | | | | | | | | | |
|-------------------------------------|---------|-----|--------|----------|-----|---------|----------|------|---------|----------|----------|------|----------|--|--|
| Designed Area | Area | | 2-year | | | 10-year | | | 25-year | | 100-year | | | | |
| Drainage Area | (acres) | Pre | Post | % Change | Pre | Post | % Change | Pre | Post | % Change | Pre | Post | % Change | | |
| EX-1 & Prop 1 | 1.93 | 3.2 | 3.2 | 0% | 7.2 | 7.2 | 0% | 10.1 | 10.1 | 0% | 16.4 | 16.4 | 0% | | |
| EX-2 | 2.36 | 3.7 | - | - | 8.5 | | - | 12.2 | | - | 20.0 | - | - | | |
| Prop 2.1 | 1.86 | - | 2.9 | - | - | 6.7 | - | - | 9.5 | - | - | 15.7 | - | | |
| Prop 2.2 | 0.51 | | 0.9 | - | - | 2.0 | - | - | 2.9 | - | - | 4.6 | - | | |
| Point of Analysis | | 3.7 | 3.1 | -16% | 8.5 | 7.1 | -16% | 12.2 | 10.0 | -18% | 20.0 | 19.5 | -3% | | |

| | | Drair | nage Basin Pa | aramaters | | |
|-----|---------|------------|---------------|----------------|-------|-------|
| | | | | | Soil | |
| | DA | Area acres | Area Sq. Mi | Lag Time (Min) | CN | % Imp |
| e, | EX1 | 1.93 | 0.0030 | 6.44 | 83.93 | 8.02 |
| ā | EX2 | 2.36 | 0.0037 | 6.13 | 82.78 | 5.83 |
| | PROP1 | 1.93 | 0.0030 | 6.44 | 83.93 | 8.02 |
| osi | PROP2.1 | 1.86 | 0.0029 | 6.13 | 82.62 | 3.42 |
| 1 | PROP2.2 | 0.51 | 0.0008 | 5.51 | 83.44 | 28.17 |

| | Water Outpildy Calculations | | | | | | | | | | | | | | |
|-----------|---|-----------------------|-------------|----------------|-------------------|----------------------------|--------------------------|--------------------------|------------|------------|-----------|----------------------|----------------------|---------|------|
| Discharge | Discharge Drainage Proposed Proposed Sub-basing TSS Removal Total Pre-Development Post-Development BMP Drainage Basin Information | | | | | | | | | | | | | | |
| Point No. | Basin/Outfall Area | BMP Type | BMPID | Drainingto BMP | Efficiency (%) | Contributing Area (ac.) | Impervious Area (ac.) | Impervious Area (ac.) | Ą (ac.) | Ą (ac.) | A, (ac.) | ц _м (lb.) | L _R (lb.) | Desired | F |
| | 2.1 | VFS | - | 1-VFS | 85 | 0.16 | 0.01 | 0.03 | 0.16 | 0.03 | 0.12 | 17 | 34 | 17 | 0.50 |
| 2 | 2.2 | Grassy Swale | - | 2-G | 70 | 0.15 | 0.00 | 0.10 | 0.15 | 0.10 | 0.05 | 87 | 78 | 50 | 0.64 |
| | 2.2 | VFS | - | 2-VFS | 85 | 0.29 | 0.05 | 0.06 | 0.29 | 0.06 | 0.23 | 8 | 65 | 50 | 0.77 |
| | | TOTAL | - | | | 0.60 | 0.07 | 0.19 | | | | 112 | ≤ | 117 | |
| Ц | Required TSSIo | ad (Ib.) removal fro | m the basir | 1. | | A, | Pervious area (ac. |) remaining in the BN | Pcatchm | entarea. | | | | | |
| A, | Total on-site dra | ainagearea (ac.) in | the BMP ca | tchment area. | | L _R | Maximum TSSI oad | d (lb.) available for re | emoval fro | m this cat | chment ar | ea by the p | proposed | BMP. | |
| Ą | Impervious area | a (ac.) proposed in t | the BMP cat | chment area. | | F | Fraction of annual | runoff to treat the BN | /Pcatchm | nentarea. | | | | | |
| | | | | | | | | | | | | | | | |

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| 3ASIN ID | $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | | | | S⊢ <i>V</i> _{S1} = K | $ \begin{array}{c} \text{SHALLOW CONCENTRATED FLOW #1} \\ V_{S1} = K * S_{S1}^{0.5} & T_{S1} = \frac{L_{S1}}{60 * V_{S1}} \\ \hline \hline \hline \\ \hline \hline \\ \hline \hline \\ \hline \\ \hline \\ \hline \\ \hline \\$ | | | | | CHANNELIZED FLOW #1 $V_{H1} = \frac{1.49 \times \left(\frac{A_{H1}}{WP_{H1}}\right)^{\frac{2}{3}} \times S_{H1}^{\frac{1}{2}}}{n} \qquad T_{H1} = \frac{L_{H1}}{60 * V_{H1}}$ | | | | | | | | | | CONC | TIME OF ENTRAT = $\sum T_i$ | ION | LAG TII $T_L = \sum$ | | | | | | | | | |
|----------|--|-----|-----|------|----------------------------------|---|---------------------|----------------|----------------|--------|--|---------|---------|-----------------|-----------------|-----------------|----------|-------------|-----------------|-----------------|--------------------|-----------------------------------|---------|----------------------|-----------------|----------|-----------------|-----------------|------------------|-----------|------|------|------|
| _ |] | - | 4 | | | Lo | LU | n _o | S ₀ | P2 | T ₀ | Cond. | к | S ₅₁ | L _{S1} | V _{S1} | T_{S1} | Calc. | L _{H1} | D _{H1} | rw _{h1} B | W _{H1} d | H1 AH1 | WP _{H1} | n _{H1} | S_{H1} | V _{H1} | T _{H1} | T _C i | i (in/hr) | | TL | |
| | | min | min | ас | mi ² | ft | NA | NA | ft/ft | inches | min | NA | CONST | ft/ft | ft | fps | min | NA | ft | ft | ft | ft f | t sq fi | ft | | ft/ft | fps | min | min | adj | hour | min | hour |
| EX1 | General | 5 | 120 | 1.93 | 0.0030 | 100 | Short grass prairie | 0.150 | 0.0300 | 3.34 | 8.15 | Unpaved | 16.1345 | 0.0477 | 545 | 3.52 | 2.58 | NONE | | | | | | | | | | 0.00 | 6.86 | 10.73 | 0.18 | 6.44 | 0.11 |
| EX2 | General | 5 | 120 | 2.36 | 0.0037 | 100 | Short grass prairie | 0.150 | 0.0400 | 3.34 | 7.27 | Unpaved | 16.1345 | 0.0300 | 367 | 2.79 | 2.19 | TRAPEZOIDAL | 243 | 0 | 8 | 0 | 1 4.00 | 8.25 | 0.050 | 0.0825 | 5.28 | 0.77 | 6.90 | 10.22 | 0.17 | 6.13 | 0.10 |
| PROP1 | General | 5 | 120 | 1.93 | 0.0030 | 100 | Short grass prairie | 0.150 | 0.0300 | 3.34 | 8.15 | Unpaved | 16.1345 | 0.0477 | 545 | 3.52 | 2.58 | NONE | | | | | | | | | | 0.00 | 10.73 | 10.73 | 0.18 | 6.44 | 0.11 |
| PROP2.1 | General | 5 | 120 | 1.86 | 0.0037 | 100 | Short grass prairie | 0.150 | 0.0400 | 3.34 | 7.27 | Unpaved | 16.1345 | 0.0300 | 367 | 2.79 | 2.19 | TRAPEZOIDAL | 243 | | 8 | 0 | 1 4.00 | 8.25 | 0.050 | 0.0825 | 5.28 | 0.77 | 6.90 | 10.22 | 0.17 | 6.13 | 0.10 |
| PROP2.2 | General | 5 | 120 | 0.51 | 0.0007 | 100 | Short grass prairie | 0.150 | 0.0250 | 3.34 | 8.77 | Unpaved | 16.1345 | 0.0546 | 92 | 3.77 | 0.40 | NONE | | | | | | | | | | 0.00 | 7.11 | 9.18 | 0.15 | 5.51 | 0.09 |

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| Propo: | sed Pond St | orage |
|-----------------|-------------|--------|
| flourstion (ft) | Area | Volume |
| Elevation (jt) | (sf) | (cf) |
| 779.70 | 0 | 0 |
| 780.00 | 2342 | 351 |
| 780.50 | 2701 | 1702 |
| 781.00 | 3060 | 3052 |
| 781.50 | 3438 | 4772 |
| 782.00 | 3817 | 6491 |
| 782.50 | 4233 | 8607 |
| 783.00 | 4650 | 10724 |

| Rainfall | Depths | | | | | | | | | |
|---------------------|---------------|--|--|--|--|--|--|--|--|--|
| Storm Event | | | | | | | | | | |
| Storm Event | (in) | | | | | | | | | |
| 2-year | 3.34 | | | | | | | | | |
| 10-year | 6.06 | | | | | | | | | |
| 25-year | 8.06 | | | | | | | | | |
| 100-year | 12.30 | | | | | | | | | |
| 25-year 100-year | 8.06 12.30 | | | | | | | | | |

| Freese and Nichols, Inc. | lexas Kegistered Engineering Firm F-2144 | annin | XP/E OF 12+ 7-30- | 2024 | | J. BLAINE LAECHELIN | A 103616 4 | CENSED A | CONAL ET | 1000 Addr |
|---------------------------|--|-------------------------|--|--|-------------------------------|---------------------|---|--|--|-----------|
| | | | | S ICHOUSE | 1251 Sadler Drive, Building 1 | Suite 1150 | San Marcos, lexas /8666 Phone - (512) 213-3200 | Web - www.freese.com | | |
| | | NEW BRAUNFELS UTILITIES | ENJEDCENICA DEPADENNECC DI ANI CENIEDATODO | EIVIENDEINUT FREFAREDINESS FLAIN DEINERATURS | PHASE 1 | STORMWATER | | UNAIIVAGE ANEA IVIAN | PROPOSED CONDITIONS | |
| | | DATE F&N JOB NO. | NBU23436 | DATE MAR. 2024 | DESIGNED SJL | DRAWN SJL/NO | 16/24 CHECKED NO | AME APPROVED JBL | NBU-PL-DRNG02.dwg | |
| | | BY | | | | | 170 MI | FILE P | -WS | |
| F 0.50 0.64 0.77 | | NO. ISSUE | | T | | | 1 RCP-1 | VERIFY SCALE Bar is one inch on original | 0 1 drawing. Ir not one inch on this sheet, adjust scale. | |
| 1 | 1 | SE | Q. | | SV | V- | 2 | | | |

100% SUBMITTAL

| Project: | Grandview PS |
|----------|--------------|
| County: | Comal |
| P (in.): | 33 |

| Water Quality Calculations | | | | | Calculations | | |
|---|-----------------------------------|----------------------|--------------------|-------------------------------|----------------------------------|-------------------------------------|---|
| Discharge Point No. | Drainage Basin/Outfall Area | Proposed BMP Type | Proposed BMP ID | Sub-basins Draining to BMP | TSS Removal Efficiency (%) | Total Contributing Area (ac.) | Pre-Development Impervious Area (ac.) |
| | 2.1 | VFS | - | 1-VFS | 85 | 0.16 | 0.01 |
| 2 | 2.2 | Grassy Swale | - | 2-G | 70 | 0.15 | 0.00 |
| | 2.2 | VFS | - | 2-VFS | 85 | 0.29 | 0.05 |
| TOTAL | | | | 0.60 | 0.07 | | |
| L _M Required TSS load (lb.) removal from the basin. | | | A _P | Pervious area (ac.) re | | | |
| A _c Total on-site drainage area (ac.) in the BMP catchment area. | | | L _R | Maximum TSS load (| | | |
| A _I Impervious area (ac.) proposed in the BMP catchment area. | | | F | Fraction of annual ru | | | |



FREESE AND NICHOLS, INC. TEXAS REGISTERED ENGINEERING FIRM F-2144

| Post-Development BMP Drainage Basin Information | | | | | | | |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------------|------|
| Impervious Area (ac.) | A _c (ac.) | A _I (ac.) | А _Р (ас.) | L _M (lb.) | L _R (lb.) | Desired L _M (lb.) | F |
| 0.03 | 0.16 | 0.03 | 0.12 | 17 | 34 | 17 | 0.50 |
| 0.10 | 0.15 | 0.10 | 0.05 | 87 | 78 | 50 | 0.64 |
| 0.06 | 0.29 | 0.06 | 0.23 | 8 | 65 | 50 | 0.77 |
| 0.19 | | | | 112 | ≤ | 117 | |
| emaining in the BMP catchment area. | | | | | | | |
| lb.) available for removal from this catchment area by the proposed BMP. | | | | | | | |
| noff to treat the BMP catchment area. | | | | | | | |

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Additional information is provided for cells with a red triangle in the upper right corner Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-Characters shown in red are data entry fields.

Characters shown in black (Bold) are calculated fields. Changes to these fields will r

1. The Required Load Reduction for the total project:

Page 3-29 Equation 3.3: L_M = 27.2(A_N x P)

where:

L_{M TOTAL PROJECT} = Required TSS removal result

 A_N = Net increase in impervious a

P = Average annual precipitation

| Comal 4.29 0.29 0.35 0.08 33 | acres acres acres inches |
|---|---|
| 55 | lbs. |
| 2 | |
| basin): | |
| VFS 1 | |
| 0.16 0.01 0.03 0.21 17 | acres acres acres lbs. |
| | Comal 4.29 0.29 0.35 0.08 33 55 2 2 basin): VFS 1 0.16 0.01 0.03 0.21 17 |

3. Indicate the proposed BMP Code for this basin.

| Proposed BMP = | Vegetated | Filter Strips |
|----------------------|-----------|----------------------|
| Removal efficiency = | 85 | percent |



REGISTERED

ENGINEERING FIRM

TEXAS

Calculations from RG-348

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 3

| A _C = | Total On-Site drainage area |
|------------------|--------------------------------|
| $A_{I} =$ | Impervious area proposed in |
| A _P = | Pervious area remaining in the |
| L _R = | TSS Load removed from this |
| | |

| A _C = | 0.16 | acres |
|------------------|------|-------|
| A _I = | 0.03 | acres |
| A _P = | 0.12 | acres |
| L _R = | 34 | lbs |

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

where:

| Desired $L_{M THIS BASIN}$ = | 17 | lbs. |
|------------------------------|----|------|
| | | |

F = 0.50

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

| Rainfall Depth = | 0.42 | inches |
|---------------------------------------|------|------------|
| Post Development Runoff Coefficient = | 0.21 | |
| On-site Water Quality Volume = | 50 | cubic feet |

Calculations from RG-348

| Off-site area draining to BMP = | 0.00 | acres |
|---|------|------------|
| Off-site Impervious cover draining to BMP = | 0.00 | acres |
| Impervious fraction of off-site area = | 0 | |
| Off-site Runoff Coefficient = | 0.00 | |
| Off-site Water Quality Volume = | 0 | cubic feet |

| Storage for Sediment | = 10 | |
|--|---------------------|-------------------------------|
| Total Capture Volume (required water quality volume(s) x 1.20) The following sections are used to calculate the required water quality vo | = 60 | cubic feet |
| The values for BMP Types not selected in cell C45 will show NA. | | the selected DMF |
| 7. Retention/Irrigation System | Designed | as Required in RG |
| Required Water Quality Volume for retention basin | = NA | cubic feet |
| Irrigation Area Calculations: | | |
| Soil infiltration/permeability rate Irrigation area | = 0.1 = NA NA | in/hr square feet acres |
| 8. Extended Detention Basin System | Designed | as Required in RG |
| Required Water Quality Volume for extended detention basin | = NA | cubic feet |
| 9. Filter area for Sand Filters | Designed | as Required in RG |
| 9A. Full Sedimentation and Filtration System | | |
| Water Quality Volume for sedimentation basin | = NA | cubic feet |
| Minimum filter basin area | = NA | square feet |
| Maximum sedimentation basin area Minimum sedimentation basin area | = NA = NA | square feet square feet |
| 9B. Partial Sedimentation and Filtration System | | |
| Water Quality Volume for combined basins | = NA | cubic feet |
| Minimum filter basin area | = NA | square feet |
| Maximum sedimentation basin area Minimum sedimentation basin area | = NA = NA | square feet square feet |
| 10. Bioretention System | Designed | as Required in RG |
| Required Water Quality Volume for Bioretention Basin | = NA | cubic feet |
| <u>11. Wet Basins</u> | Designed | as Required in RG |
| Required capacity of Permanent Pool Required capacity at WQV Elevation | = NA = NA | cubic feet cubic feet |

| 12. Constructed Wetlands | Designed as Ro | equired in RG |
|--|---|---|
| Required Water Quality Volume for Constructed Wetlands = | NA | cubic feet |
| <u>13. AquaLogic[™] Cartridge System</u> | Designed as R | equired in RG |
| ** 2005 Technical Guidance Manual (RG-348) does not exempt the required | 20% increase | with mainten |
| Required Sedimentation chamber capacity = Filter canisters (FCs) to treat WQV = Filter basin area (RIA _F) = | NA NA NA | cubic feet cartridges square feet |
| 14. Stormwater Management StormFilter® by CONTECH | | |
| Required Water Quality Volume for Contech StormFilter System = | NA | cubic feet |
| THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOV | <u>ALS ARE BAS</u> | <u>ED UPON FL</u> |
| 15. Grassy Swales | Designed as R | equired in RG |
| Design parameters for the swale: | | |
| Drainage Area to be Treated by the Swale = A = Impervious Cover in Drainage Area = Rainfall intensity = i = Swale Slope = Side Slope (z) = Design Water Depth = y = Weighted Runoff Coefficient = C = | 0.28 0.10 1.1 0.012 3 0.50 0.48 | acres acres in/hr ft/ft ft |
| A _{CS} = cross-sectional area of flow in Swale = P _W = Wetted Perimeter = R _H = hydraulic radius of flow cross-section = A _{CS} /P _W = n = Manning's roughness coefficient = <u>15A. Using the Method Described in the RG-348</u> | 0.29 2.24 0.13 0.2 | sf feet feet |
| Manning's Equation: $Q = 1.49 A_{CS} R_{H}^{2/3} S^{0.5}$ | i. | |

n

 $b = 0.134 \times Q$ - zy = -0.93 feet

Q = CiA = 0.15 cfs

To calculate the flow velocity in the swale:

To calculate the resulting swale length:

L = Minimum Swale Length = V (ft/sec) * 300 (sec) = 154.14 feet

If any of the resulting values do not meet the design requirement set forth in RG-348, the des

15B. Alternative Method using Excel Solver

| Design Q = CiA = | 0.15 cfs |
|------------------------|----------|
| Manning's Equation Q = | 1.69 cfs |
| Swale Width= | 6.00 ft |

Instructions are provided to the right (green comments).

| Flow Velocity | 0.51 ft/s |
|------------------|-----------|
| Minimum Length = | 154.14 ft |

Instructions are provided to the right (blue comments).

| Design Width = | <mark>5</mark> ft |
|--------------------|-------------------|
| Design Discharge = | 0.70 cfs |
| Design Depth = | 0.33 ft |
| Flow Velocity = | 0.35 cfs |
| Minimum Length = | 105.19 ft |

If any of the resulting values do not meet the design requirement set forth in RG-348, the design paran If any of the resulting values still do not meet the design requirement set forth in RG-348, widening the

16. Vegetated Filter Strips

Designed as Required in RG

There are no calculations required for determining the load or size of vegetative filter strips. The 80% removal is provided when the contributing drainage area does not exceed 72 feet (direction o the sheet flow leaving the impervious cover is directed across 15 feet of engineered filter strips with m across 50 feet of natural vegetation with a maximum slope of 10%. There can be a break in grade as lc

If vegetative filter strips are proposed for an interim permanent BMP, they may be sized as described c

17. Wet Vaults

Designed as Required in RG

| Required Load Removal Based upon Equation 3.3 = | NA | lbs |
|---|-----------------------------|------------------------------|
| First calculate the load removal at 1.1 in/hour | | |
| RG-348 Page 3-30 Equation 3.4: Q = CiA | | |
| C = runoff coefficient for the drainage area = i = design rainfall intensity = A = drainage area in acres = | 0.12 1.1 1 | in/hour acres |
| Q = flow rate in cubic feet per second = | 0.14 | cubic feet/se |
| RG-348 Page 3-31 Equation 3.5: $V_{OR} = Q/A$ | | |
| Q = Runoff rate calculated above = A = Water surface area in the wet vault = | 0.14 <mark>150</mark> | cubic feet/se square feet |
| V _{OR} = Overflow Rate = | 0.00 | feet/sec |
| Percent TSS Removal from Figure 3-1 (RG-348 Page 3-31) = | 53 | percent |
| Load removed by Wet Vault = | #VALUE! | lbs |
| If a bypass occurs at a rainfall intensity of less than 1.1 in/hours Calculate the efficiency reduction for the actual rainfall intensity rate | | |
| Actual Rainfall Intensity at which Wet Vault bypass Occurs = | 0.5 | in/hour |
| Fraction of rainfall treated from Figure 3-2 RG-348 Page 3-32 = Efficiency Reduction for Actual Rainfall Intensity = | <mark>0.75</mark> 0.83 | percent percent |
| Resultant TSS Load removed by Wet Vault = | #VALUE! | lbs |
| 18. Permeable Concrete | Designed as R | equired in RG |
| PERMEABLE CONCRETE MAY ONLY BE USED ON THE CONTRIBUTING Z | ONE | |
| <u>19. BMPs Installed in a Series</u> | Designed as R | equired in RG |
| Michael E. Barrett, Ph.D P.E. recommended that the coeffic | cient for E ₂ be | changed fror |
| $E_{TOT} = [1 - ((1 - E_4) \times (1 - 0.65E_2) \times (1 - 0.25E_2))] \times 100 =$ | 88 81 | percent |

| 88.81 percent | $E_{TOT} = [1 - ((1 - E_1) \times (1 - 0.65E_2) \times (1 - 0.25E_3))] \times 100 =$ |
|---------------|--|
| 75.00 percent | EFFICIENCY OF FIRST BMP IN THE SERIES = $E_1 =$ |
| 85.00 percent | EFFICIENCY OF THE SECOND BMP IN THE SERIES = E_2 = |
| 0.00 percent | EFFICIENCY OF THE THIRD BMP IN THE SERIES = E_3 = |

THEREFORE, THE NET LOAD REMOVAL WOULD BE: $(A_1 \text{ AND } A_P \text{ VALUES ARE FROM SECTION 3 ABOVE})$

$$L_R = E_{TOT} X P X (A_1 X 34.6 X A_P X 0.54) = 35.40$$
 lbs

20. Stormceptor Required TSS Removal in BMP Drainage Area= NA lbs Impervious Cover Overtreatment= 0.0000 ac TSS Removal for Uncaptured Area = 0.00 lbs **BMP Sizing** Effective Area = NA EA Calculated Model Size(s) = #N/A Actual Model Size (if multiple values provided in Calculated Model Size or if you are choosing a larger model size) = Model Size 0 ft² Surface Area = #N/A Overflow Rate = #VALUE! Vor Rounded Overflow Rate = #VALUE! Vor BMP Efficiency % = #VALUE! % L_R Value = #VALUE! lbs TSS Load Credit = **#VALUE!** lbs Is Sufficient Treatment Available? (TSS Credit > TSS Uncapt.) #VALUE! TSS Treatment by BMP (LM + TSS Uncapt.) = **#VALUE!** 21. Vortech Required TSS Removal in BMP Drainage Area= NA lbs Impervious Cover Overtreatment= 0.0000 ac TSS Removal for Uncaptured Area = 0.00 lbs **BMP Sizing** Effective Area = NA EA Calculated Model Size(s) = #N/A Pick Model S Actual Model Size (if choosing larger model size) = Vx1000 ft² Surface Area = 7.10 Overflow Rate = #VALUE! Vor Rounded Overflow Rate = **#VALUE!** Vor BMP Efficiency % = % #VALUE! L_R Value = **#VALUE!** lbs TSS Load Credit = **#VALUE!** lbs

Is Sufficient Treatment Available? (TSS Credit
> TSS Uncapt.) #VALUE!

TSS Treatment by BMP (LM + TSS Uncapt.) = #VALUE!

Project Name: **Grandview** Date Prepared: 4/21/2020

er. Place the cursor over the cell. .348.

emove the equations used in the spreadsheet.

Pages 3-27 to 3-30

ting from the proposed development = 80% of increased load rea for the project , inches

Aqualogic Cartridge Filter

Bioretention Contech StormFilter Constructed Wetland Extended Detention Grassy Swale Retention / Irrigation Sand Filter Stormceptor Vegetated Filter Strips Vortechs Wet Basin Wet Vault

34.6 + A_P x 0.54)

in the BMP catchment area the BMP catchment area he BMP catchment area catchment area by the proposed BMP

Calculations from RG-348

Pages 3-34 to 3-36

Pages 3-36 to 3-37

٩. -348

Pages 3-42 to 3-46

Enter determined permeability rate or assumed value of 0.1

-348 Pages 3-46 to 3-51

-348 Pages 3-58 to 3-63

For minimum water depth of 2 feet For maximum water depth of 8 feet

For minimum water depth of 2 feet For maximum water depth of 8 feet

-348 Pages 3-63 to 3-65

-348 Pages 3-66 to 3-71

Permanent Pool Capacity is 1.20 times the WQV **Total Capacity should be the Permanent Pool Capacity** plus a second WQV.

i-348 Pages 3-71 to 3-73

i-348 Pages 3-74 to 3-78

ance contract with AquaLogic[™].

OW RATES - NOT CALCULATED WATER QUALITY VOLUMES

i-348 Pages 3-51 to 3-54

ign parameters must be modified and the solver rerun.

| | | | To solve for bottom width of the Excel can simultaneously solve The required "Swale Width" occ |
|--------------|----------------|--------------------------|---|
| | Error 1 = | -1.54 | First, highlight Cell F219 (Error Then click on "Tools" and "Solv The value in the "Set Target cell The value in the "By Changing (Click on solve. |
| | | | The resulting "Swale Width" mu If the resulting "Swale Width" e |
| | | | If there is not the option for "So Click on "Tools" and "Add Ins" Then proceed as instructed abo |
| | Error 2 = | -0.55 | If you would like to increase the Excel can simultaneously solve The required "Design Depth" for |
| | u ha waadifiad | | First set the desired bottom wid Highlight Cell F232. The equation |
| swale bo | ttom value m | ay not be possible. | Click on "Tools" and "Solver". |
| -348 | Р | ages 3-55 to 3-57 | The value in the "Set Target cen The value in the "By Changing (Click on solve. |
| of flow) and | d | | The resulting "Design Depth" m |
| ong as no | slope exceed | ls 20%. | First set the desired bottom wid |
| on Page 3- | -56 of RG-348 | | Click on "Tools" and "Solver". The value in the "Set Target cell The value in the "By Changing (|
| i-348 | Р | ages 3-30 to 3-32 & 3-79 | Click on solve. |

The resulting "Design Depth" m If the resulting "Design Depth" (

C = Runoff Coefficient = $0.546 (IC)^2 + 0.328 (IC) + 0.03$

c

C

i-348 Pages 3-79 to 3-83

i-348 Pages 3-32

n 0.5 to 0.65 on May 3, 2006

NET EFFICIENCY OF THE BMPs IN THE SERIES

trapezoidal swale (b) using the Excel solver:
the "Design Q" (C217) vs "Manning's Q" (C219) by varying the "Swale Width" (C220).
urs when the "Design Q" = "Manning's Q"

1 value). The equation showing in the fx screen for Cell F219 should be "= \$C\$217-\$C\$219" ver". The "Solver Parameters" screen pops up. " should be \$F\$219 "Error 1 =" Cells" should be \$C\$220 "Swale Width"

Ist be less than 10 feet to meet the requirements of the TGM. kceeds 10 feet then the design parameters must be revised and the solver run again.

lver" under "Tools" and then check "Solver Add-in" ve.

bottom width of the trapezoidal swale (b): the "Design Q" (C217) vs "Design Discharge" (C232) by varying the "Design Depth" (C233). r a 10-foot bottom width occurs when the "Design Q" (C217) = the "Design Discharge" (C232).

th in Cell C231. on showing in the fx screen for Cell F232 should be "= \$C\$217-\$C\$232"

The "Solver Parameters" screen pops up." should be \$F\$232"Error 2"Cells" should be \$C\$233"Design Depth"

ust be equal to or less than 0.33 feet to meet the requirements of the TGM.
exceeds 0.33 feet then the design parameters must be revised and the solver run again. th in Cell C231.
on showing in the fx screen for Cell F232 should be "= \$C\$217-\$C\$232"
The "Solver Parameters" screen pops up.
" should be \$F\$232 "Error 2"
Cells" should be \$C\$233 "Design Depth"

ust be equal to or less than 0.33 feet to meet the requirements of the TGM. exceeds 0.33 feet then the design parameters must be revised and the solver run again.

Attachment I

Inspection and Maintenance for BMPs

The proposed project of trenching and pump station construction is anticipated to disturb less than five acres. Being less than five acres of disturbance, a Stormwater Pollution Prevention Plan (SW3P) without Notice of Intent (NOI) to TCEQ will be in place prior to and during construction. An Inspector's Qualifications and Inspection Form is part of the SW3P. The roles and responsibilities for implementation and maintenance of the elements of the SW3P and BMPs are also specified in the SW3P and will be agreed to by all parties involved with the construction activity who meet the definition of a primary operator. The following are inspection and maintenance guidelines for the selected temporary BMPs as stated in TCEQ RG-348:

Silt fence:

1) Inspect all fencing weekly, and after any rainfall.

2) Remove sediment when buildup reaches 6 inches.

3) Replace any torn fabric or install a second line of fencing parallel to the torn section.
4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be re-

vegetated. The fence itself should be disposed of in an approved landfill.

Detention Basin:

- 1) Basin should be inspected at least twice a year, and after any rainfall.
- Inspect the extended detention control device for evidence of clogging or rapid release.
- Upper stage, side slopes, embankment and emergency spillway should be mowed regularly to prevent the growth of woody vegetation and control weeds.
- 4) Debris and litter should be removed to prevent clogging of the control device or riser.

5) Accumulated sediment should be removed from the lower stage when sediment buildup fill 20% of the basin volume or at least every 10 years.

Vegetative Filter Strips:

1) Vegetation strips should be inspected weekly and after each rain event to locate and repair any erosion.

2) Erosion from storms or other damage should be repaired as soon as practical by regrading the area and applying new seed.

3) If the vegetated cover is less than 70%, the area should be reseeded.

Completed inspection reports will include the following information:

- scope of the inspection,
- name(s) of personnel making the inspection,
- reference to qualifications of inspection personnel,
- date of the inspection,
- observed major construction activities, and
- actions taken as a result of the inspection.

The inspection report should state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the inspector in accordance with Part III.F.7 of the TPDES general permit and filed in the SWP3. Inspection reports will be kept in the Contractor's file, along with the SWP3, for at least three years from the date that the project is completed.

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, BMPs can be removed from the construction area.

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices

| Interim and Permanent Soil Stabilization Practices | Schedule |
|---|-------------------|
| Vegetative filter strips | Post-construction |

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: Tam Tran

Date: 07/30/2024

Signature of Customer/Agent

ape

Regulated Entity Name: Grandview Pump Station

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.
| | A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached. No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached. Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached. |
|----|---|
| 7. | Attachment C - BMPs for On-site Stormwater. |
| | A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached. Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached. |
| 8. | Attachment D - BMPs for Surface Streams. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed. |
| | □ N/A |
| 9. | The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction. |
| | The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed. Attachment E - Request to Seal Features. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached. |
| 10 | Attachment F - Construction Plans. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include: |
| | Design calculations (TSS removal calculations) TCEQ construction notes All geologic features All proposed structural BMP(s) plans and specifications |
| | N/A |

| 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

Attachment B BMPs for Upgradient Stormwater

Vegetation upgradient of the project site will remain in its natural condition. Disturbed areas of the project site that are not imperviously covered will be re-vegetated upon completion of construction. With a minimal slope gradient, 0-5% slopes, runoff velocities in the project area are low. Any additional overland sheet flow originating upgradient of the project site will flow over the vegetative strips and be captured by the detention basin. Sediment laden stormwater will be filtered by the materials to prevent pollution of any surface water, groundwater, or stormwater channels. The detention basin will reduce peak flow rates. There is no observed surface water or ground water sources upgradient of the project site that is expected to flow over the site.

Attachment C BMPs for On-site Stormwater

Disturbed areas of the project site that are not imperviously covered will be re-vegetated upon completion of construction. With a minimal slope gradient, runoff velocities in the project area are low. There is a 6" cement curb with a chain-linked fence running along the entire perimeter of the site that will keep the majority of on-site stormwater within the project area. Any additional overland sheet flow originating on-site will flow over the vegetative strips and be filtered to help prevent pollution of any potential surface water, groundwater, or stormwater. There is no observed surface water or ground water on the project site that is expected to flow over the site.

Attachment D BMPs for Surface Streams

There is an ephemeral tributary to Dry Comal Creek just south of the project area, across from N. Walnut Avenue. Silt fencing running along the perimeter of the construction area and roadway storm drains will keep upgradient and on-site stormwater within the project area and prevent disturbed sediments from entering the stream. Disturbed areas of the project site that are not imperviously covered will be re-vegetated upon completion of construction. Any additional overland sheet flow originating from the project area will flow over the vegetative strips and drain towards the detention basin. There the stormwater will be filtered to prevent pollution of any potential surface water, groundwater, or stormwater, and flow rates will be reduced. New Braunfels Utilities (NBU)



Attachment F. Construction Plans



'S' -S' J-PROP Saved I ACAD Rel: 24.2s (LMS Tech) Filename: N:\WTU\Drawings\WT Last Saved: 7/19/2024 10:00 AM

NOTES:

- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 1".
- 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (E.G. PAVEMENT), THE FABRIC FLAP SHALL BE WEIGHTED DOWN WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
- 3. THE TRENCH MUST BE A MINIMUM OF 6 inches DEEP AND 6 inches WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- 4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
- 5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- 7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 inches. THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

NOTES:

- STONE SIZE: 3"-5" OPEN GRADED ROCK.
 LENGTH: AS EFFECTIVE BUT NOT LESS THAN 50'.
- 3. THICKNESS: NOT LESS THAN 8".
- 4. WIDTH: 20'
- 5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
- 6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC
- ROADWAY MUST BE REMOVED IMMEDIATELY.7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

NOTES:

- 1. WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GI CONTRACTOR MAY SUBSTITUTE A 1" X 4" BOARD SECURED WITH CO NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILT REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APP AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH SURFACE OF C
- 2. A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON T DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. F SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LC
- DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT BE REMOVED WHEN DEPTH REACHES 2".
 CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROT
- RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIC STORM-WATER BEGINS TO OVER-TOP THE CURB.
- 5. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE STABILIZED.

| B" OVERLAP AT FABRIC SPLICES | | Freese and Nichols, Inc. Texas Registered Engineering Firm F-2144 | AE OF 76 07-17 | | | ታች 118708 የ ወደ 1000 በ 118708 | AN CENSCO X | VONAL AND MARTIN |
|--|----------------|--|-------------------------------|--|-------------------------------|---------------------------------|---|--|
| 20 Ib SANDBAGS AT 3' O.C. MINIMUM 4" HIGH CLEAR OPENING - 20 Ib SANDBAGS AT 3' O.C. SEE NOTE 1 | | | | | 1251 Sadler Drive, Building 1 | Suite 1150 | 3an Iviarcos, Texas 78656 Phone - (512) 213-3200 | Web - www.freese.com |
| AUTTER, THE ONCRETE NALAS 3' O.C. TER DIKE IN PLACE. UPON PLY CHEMICAL SANDING GUITER. THIS DETAIL OR AS FABRIC MUST BE COATION. TACOUMULATION MUST TECTION DURING EACH ONS IF THE TO F SEDIMENT IS | | | NEW BRAUNFELS UTILITIES | EMERGENCY PREPAREDNESS PLAN GENERALORS | PHASE 1 | EROSION CONTROL DETAILS | | EROSION CONTROL DETAILS |
| | | | DATE F&N JOB NO. NBLJ73436 | DATE 2/2/2024 | DESIGNED MSL | DRAWN EWL | CHECKED | FILE NAME APPROVED MSL WTU-DT-E&S1.dwg |
| | | | NO. ISSUE BY | FT | | | | VERIFY SCALE Bar is one inch on original 0 1 drawing. If not one inch on this sheet, adjust scale. |
| | 100% SUBMITTAI | _ | SEQ | - ' | E8 | دS- | -1 | |

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|--|---|--|--|---|--|
| CH UNDER DRIP LINE AS | 2X4 | | FREESE 3NICHOLS 1251 Sadler Drive, Building 1 | Suite 1150 San Marcos, Texas 78666 Phone - (512) 213-3200 | Web - www.freese.com |
| NOTE: WRAP TREE TRUNK WITH 2"X4" STUDS AN IN PLACE AS NEEDED TO PROTECT TREES I | AMALAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA | | NEW BRAUNFELS UTILITIES EMERGENCY PREPAREDNESS PLAN GENERATORS PHASE 1 | EROSION CONTROL DETAILS | TREE PROTECTION DETAILS |
| A SHALL AVOID CUTTING ROOTS LARGER THAN IG NEAR EXISTING TREES. EXCAVATION IN THE AUTION. THE CONTRACTOR SHALL CONTACT THE RUNK, IN WHICH NO EQUIPMENT, VEHICLES OF EQUIRED RADIUS LENGTH IS 1 FOOT PER DIAM CH DIAMETER TREE WOULD HAVE A 5-FOOT RA E. ROOTS OR BRANCHES THAT ARE IN CONFLIC ANLY ACCORDING TO PROPER PRUNING METH , WITHIN 20 MINUTES TO PREVENT OAK WILT. | THREE INCHES IN DIAMETER VICINITY OF TREES SHALL HE INSPECTOR. REE, AS MEASURED BY A RADIUS R MATERIALS MAY OPERATE OR ETER INCH OF THE TREE. FOR ADIUS ROOT PROTECTION ZONE T WITH THE CONSTRUCTION ODS. LIVE OAK WOUNDS SHALL | | BY DATE F&N JOB NO. NBU23436 NBU23436 DATE Z/2/2024 DESIGNED MSL | DRAWN EWL CHECKED | FILE NAME APPROVED MSL WTU-DT-E&S2.dwg |
| JIRED, SHALL BE LIMITED TO A 3 INCH CUT OR F | FILL WITHIN THE FENCED ROOT | | | | on original one inch on ust scale. |
| OR LOST DUE TO CONTRACTOR'S NEGLIGENCE | DURING CONSTRUCTION SHALL | | | | is one inch wing. If not sheet, adju |
| THE ENGINEER'S SATISFACTION. HALL BE COVERED AT THE END OF EACH DAY U | ISING TECHNIQUES SUCH AS | | | | LE Bar 1 drav |
| OIL, MULCH OR WET BURLAP. | | | 0. ISSUE | | VERIFY SCA |
| | | | i≊i i Sheet E& | S-2 | - o- |
| | 100% SUBMITTAI | - | SEQ. | | |

Attachment G

Inspection, Maintenance, Repair and Retrofit Plan

The following are inspection, maintenance, repair and retrofit guidelines for the selected permanent BMPs as stated in TCEQ RG-348:

Vegetative Filter Strips and Grassy Swales:

- (1) Inspections should be made at least twice annually for erosion or damage to vegetation, checking the strips for uniformity of grass cover, debris and litter, and areas of sediment accumulation.
- (2) Trash and excess sediment accumulated on the strips should be removed during inspections.
- (3) Bare spots and areas of erosion found during inspections should be replanted and restored.
- (4) The vegetative filter strips should be mowed a minimum of twice annually if planted with native grasses.

Detention Basin:

- (1) Basin should be inspected at least twice a year, and after any rainfall.
- (2) Inspect the detention control device for evidence of clogging or rapid release.
- (3) Upper stage, side slopes, embankment and emergency spillway should be mowed regularly to prevent the growth of woody vegetation and control weeds.
- (4) Debris and litter should be removed to prevent clogging of the control device or riser.
- (5) Accumulated sediment should be removed from the lower stage when sediment buildup fill 20% of the basin volume or at least every 10 years.

Inspection Reports:

Completed inspection reports will include the following information:

- scope of the inspection,
- name(s) of personnel making the inspection,
- reference to qualifications of inspection personnel,
- date of the inspection,
- observed major construction activities, and

• actions taken as a result of the inspection.

The inspection report should state inspection report should state whether the site was in compliance or identify any incidents of non-compliance.

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, temporary BMPs can be removed from the construction area.

Owner & Responsible Party for Maintenance: Address: City, State, Zip: Telephone Number: New Braunfels Utilities 355 FM 306 New Braunfels, Texas 78130 (830) 608-8970

Signature of Responsible Party: Date: _ 8/1/24

Attachment I

Measures for Minimizing Surface Stream Contamination

There are no surface streams observed on the project site or in the adjacent surrounding areas. Therefore, no measures are necessary for minimizing surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development.

Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999 I Adam Willard, P.E. Print Name Chief Engineer of Water Systems Title - Owner/President/Other of New Braunfels Utilities Corporation/Partnership/Entity Name have authorized Tam Tran Print Name of Agent/Engineer of Freese and Nichols, 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.

SIGNATURE PAGE:

fl uttal

Applicant's Signature

THE STATE OF TERAS § County of _____Oma] 8

BEFORE ME, the undersigned authority, on this day personally appeared Adam Willard 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 __ist day of __tugust . 2024.

ALBY L. MARTINEAR Notary Public, State of Texas Comm. Expires 06-26-2028 Notary ID 132525882

A. MSCS NOTARY PUBLIC

Alby Martinear Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 6/26/2028

Application Fee Form

| Texas Commission on Environmental Quality | | | | | | | | | | |
|---|---|-------------------------|-----------------------|--|--|--|--|--|--|--|
| Name of Proposed Regulated Entity: Grandview Pump Station | | | | | | | | | | |
| Regulated Entity Location: <u>New Braunfels, Texas</u> | | | | | | | | | | |
| Name of Customer: <u>New Brunfels Utilities</u> | | | | | | | | | | |
| Contact Person: <u>Tam Tran</u> | Phon | e: <u>(512)617-3148</u> | | | | | | | | |
| Customer Reference Number (if issue | Customer Reference Number (if issued):CN <u>600522957</u> | | | | | | | | | |
| Regulated Entity Reference Number (if issued):RN | | | | | | | | | | |
| Austin Regional Office (3373) | | | | | | | | | | |
| Hays Travis Williamson | | | | | | | | | | |
| San Antonio Regional Office (3362) | | | | | | | | | | |
| Bexar | Medina | Uva | lde | | | | | | | |
| Comal | Kinnev | | | | | | | | | |
| Application fees must be paid by che | ck certified check o | r money order navabl | e to the Texas | | | | | | | |
| Commission on Environmental Quali | i ty Your canceled c | heck will serve as your | receint This | | | | | | | |
| form must be submitted with your fe | ee payment. This pa | avment is being submit | ted to: | | | | | | | |
| | ∑ C | n Antonio Dogional Of | fice | | | | | | | |
| | | an Antonio Regional Of | | | | | | | | |
| | | vernight Delivery to: T | LEQ - Cashier | | | | | | | |
| Revenues Section | 1 | 2100 Park 35 Circle | | | | | | | | |
| Mail Code 214 | В | uilding A, 3rd Floor | | | | | | | | |
| P.U. BOX 13088 | A /r | ustin, IX 78753 | | | | | | | | |
| Austin, 1X 78/11-3088 | (5 | 512)239-0357 | | | | | | | | |
| Site Location (Check All That Apply): | | | | | | | | | | |
| Recharge Zone | Contributing Zone | Transit | ion Zone | | | | | | | |
| Type of Plan | | Size | Fee Due | | | | | | | |
| Water Pollution Abatement Plan, Co | ontributing Zone | | | | | | | | | |
| Plan: One Single Family Residential I | Dwelling | Acres | \$ | | | | | | | |
| Water Pollution Abatement Plan, Co | ontributing Zone | | | | | | | | | |
| Plan: Multiple Single Family Residen | tial and Parks | Acres | \$ | | | | | | | |
| Water Pollution Abatement Plan, Co | ontributing Zone | | | | | | | | | |
| Plan: Non-residential | | Acres | \$ | | | | | | | |
| Sewage Collection System | | L.F. | Ş | | | | | | | |
| Lift Stations without sewer lines | Acres | \$ | | | | | | | | |
| Underground or Aboveground Stora | Tanks | \$ | | | | | | | | |
| Piping System(s)(only) | Each | Ş | | | | | | | | |
| Exception | 1 Each | \$ 500 | | | | | | | | |
| Extension of Time | | Each | Ş | | | | | | | |
| | | VERDE | | | | | | | | |
| Signature: | | | | | | | | | | |

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 <i>,</i> 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 on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

| 1. Reason for Submission (If other is checked please describe in space provided.) | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.) | | | | | | | | | |
| Renewal (Core Data Form should be submitted with the | Renewal (Core Data Form should be submitted with the renewal form) Other | | | | | | | | |
| 2. Customer Reference Number (if issued) | Follow this link to search | 3. Regulated Entity Reference Number (if issued) | | | | | | | |
| CN 600522957 | <u>Central Registry**</u> | RN 111023941 | | | | | | | |

SECTION II: Customer Information

| 4. General Customer Information 5. Effective Date for Custor | | | | | | r Info | ormation | Update | es (mm/dd/ | уууу) | | |
|--|--|----------------------------------|--------------------|------------------------------|---------------|------------------------------------|--------------|---------------------------------|---------------------------------|-----------|----------------------------------|----------------|
| New Custor Change in Letter | 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 Custome | r Name su | bmitted here may l | e updated au | ıtomatically | y base | d on | what is cu | ırrent | and active | with th | e Texas Secr | etary of State |
| (SOS) or Texas Comptroller of Public Accounts (CPA). | | | | | | | | | | | | |
| 6. Customer | Legal Nam | e (If an individual, prii | nt last name firs | it: eg: Doe, Jo | ohn) | | | <u>If new</u> | / Customer, | enter pre | evious Custom | er below: |
| New Braunfels | Utilities | | | | | | | | | | | |
| 7. TX SOS/CPA Filing Number 8. TX State Tax ID (1 | | | | | | | | 9. Fe (9 dig | deral Tax li its) | D | 10. DUNS I applicable) | Number (if |
| 11. Type of C | ustomer: | Corporat | ion | | | | Individ | ual | ual Partnership: 🗌 General 🗌 Li | | | eral 🗌 Limited |
| Government: | City 🗌 C | County 🗌 Federal 🗌 | Local 🗌 State | 🛛 Other | | | Sole Pr | Proprietorship 🛛 Other: Utility | | | | |
| 12. Number o | of Employe | ees | | | | | | 13. lr | ndepender | ntly Ow | ned and Ope | erated? |
| 0-20 | 21-100 | 101-250 251- | 500 🗌 501 a | and higher | | 🛛 Yes 🗌 No | | | | | | |
| 14. Customer | Role (Prop | oosed or Actual) – <i>as i</i> | t relates to the F | Regulated En | tity liste | ed on | this form. I | Please d | heck one of | the follo | wing | |
| Owner | al Licensee | Operator Responsible Par | ⊠ Owi ty □ V | ner & Operat 'CP/BSA Appl | tor licant | | | | Other: | | | |
| 15. Mailing | 305 FM 3 | 06 | | | | | | | | | | |
| Address: | | | | | | | | | | | | |
| | City | New Braunfels | | State | ТΧ | | ZIP | 78130 ZIP + 4 | | ZIP + 4 | | |
| 16. Country Mailing Information (if outside USA) | | | | | | 17. E-Mail Address (if applicable) | | | | | | |
| | | | | | | | | | | | | |
| 18. Telephone Number 19. Extension of | | | | n or Co | ode | 20. Fax Number (if applicable) | | | | | | |

| (830) | 629-8400 |
|-------|----------|
|-------|----------|

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SECTION III: Regulated Entity Information

| 21. General Regulated Entity Information (If 'New Regulated Entity" is selected, a new permit application is also required.) | | | | | | | | |
|--|--|-------------------------|------------------|---------------|------|-------|---------|--|
| New Regulated Entity Update to Regulated Entity Name 🛛 Update to Regulated Entity Information | | | | | | | | |
| The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC). | | | | | | | | |
| 22. Regulated Entity Nam | ne (Enter name | e of the site where the | regulated action | is taking pla | ce.) | | | |
| Grandview Pump Station | | | | | | | | |
| 23. Street Address of | 23. Street Address of 120 Grandview Avenue | | | | | | | |
| | | | | | | | | |
| (NO PO Boxes) | City | New Braunfels | State | тх | ZIP | 78130 | ZIP + 4 | |
| 24. County | | | | | | | | |

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

| 25. Description to | Located nea | ar the intersection of | f Grandview Avenue | e and North W | /alnut Ave. | | | |
|--|--|--------------------------------------|--------------------------------------|----------------------------|--------------|---------------------|------------|----------------|
| Physical Location: | | | | | | | | |
| 26. Nearest City | | | | | S | tate | Nea | rest ZIP Code |
| New Braunfels | | | | | ۲۲ | K | 7813 | 30 |
| Latitude/Longitude are re used to supply coordinate | equired and es where no | l may be added/u ne have been pro | pdated to meet 1 wided or to gain | TCEQ Core Do accuracy). | ata Standard | s. (Geocoding of th | e Physical | Address may be |
| 27. Latitude (N) In Decim | al: | 29.71016 | | 28. Lo | ngitude (W) | In Decimal: | -98.1473 | 9 |
| Degrees | Minutes | Se | econds | Degree | 25 | Minutes | | Seconds |
| | | | | | | | | |
| 29. Primary SIC Code | 30. Secondary SIC Code 31. Primary NAICS Code 32. Secondary NAICS Code | | | | | | | |
| (4 digits) | (4 digits) | | | (5 or 6 digits) (5 or 6 d | | | its) | |
| 4941 | | | | | | | | |
| 33. What is the Primary E | Business of t | this entity? (Do r | not repeat the SIC o | r NAICS descri | otion.) | | | |
| Water supply | | | | | | | | |
| | | | | | | | | |
| 34. Mailing | <u> </u> | | | | | | | |
| Address: | | | | | | | | |
| | City | | State | | ZIP | | ZIP + 4 | |
| 35. E-Mail Address: | | | | | | | | |
| 36. Telephone Number | | | 37. Extension or | Code | 38. Fax | Number (if applicab | le) | |
| () - | | | | | () | - | | |

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

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

SECTION IV: Preparer Information

| 40. Name: | Tam Tran | | | 41. Title: | Environmental Scientist | |
|---------------------|----------|---------------------|----------------|--------------------|-------------------------|--|
| 42. Telephone | Number | 43. Ext./Code | 44. Fax Number | 45. E-Mail Address | | |
| (512)381-1830 () - | | Tam.Tran@freese.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: | Freese and Nichols, Inc. | nental Scientist | | | |
|------------------|--------------------------|------------------|--------------------------|-------|------------|
| Name (In Print): | Tam Tran | Phone: | (512) 381- 1830 | | |
| Signature: | Froe | | | Date: | 10/01/2024 |