TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 10, 2011

Mr. Franklin Houser
Dry Comal Creek Vineyards, Inc.
1741 Herblin Rd.
New Braunfels, Texas 78132

Re: Edwards Aquifer, Comal County

Name of Project: Dry Comal Creek Vineyards; Located at 1741 Herblin Rd., approximately 0.30 miles south of the Herblin Rd and SH 46 intersection near Cranes Mill Rd; Comal County, Texas

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

Edwards Aquifer Protection Program San Antonio File No. 3000.00; Investigation No. 948278; Regulated Entity No. RN106201189

Dear Mr. Houser:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP Application for the above-referenced project submitted to the San Antonio Regional Office by HMT Engineering & Surveying on behalf of Mr. Franklin Houser on August 1, 2011. Final review of the WPAP was completed after additional material was received on October 10, October 20, and November 10, 2011. As presented to the TCEQ, the Temporary Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

Background

The above referenced site is an 18.44 acre commercial vineyard and event center containing an existing residential structure and driveway built in the 1950's. The commercial winery contains four buildings with associated access drives, parking areas, on-site sewage facility, and vineyard area all constructed between the 1970's to the present. Prior approval for the construction of the

commercial winery was not obtained in accordance with applicable Edwards Aquifer Recharge Zone rules. The submitted WPAP, approved by this letter, addresses the unauthorized activities.

Project Description

The proposed commercial project is located in the 18.44 acre site. It will include the construction and installation of an on-site sewage facility and associated utility lines. This approval also includes the existing structures and other impervious cover constructed without prior approval. The total impervious cover for the site will be 2.39 acres (12.95 percent). According to a letter dated, May 31, 2011, signed by Mr. Robert Boyd, P.E., with Comal County, the site in the development is acceptable for the use of on-site sewage facilities.

Permanent Pollution Abatement Measures

This small business will not have more than 20 percent impervious cover.

Geology

According to the geologic assessment included with the application, the site is located on the Dolomitic Member of the Edwards Kainer Formation with a northeast portion of the site located on the Quaternary Alluvium. The geologic assessment noted five geologic and four man-made features, of which, Feature S-2 (cave) was assessed as sensitive. The San Antonio Regional Office site assessment conducted on October 4, 2011 revealed no new features and that the site was generally as described in the application.

Sensitive Features

Feature S-2 is located on a cliff face within a portion of the site that is shown as not to be disturbed.

Special Conditions

1. The applicant requested a waiver to the requirement for other permanent BMPs for this commercial project because the development will have less than 20 percent impervious cover. Based on the TCEQ's Review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20 percent or the land use changes, the exemption for the whole site as described in the Water Pollution Abatement Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.

2. This approval letter is being issued for regulated activities (as defined in Chapter 213) and for best management practices presented in the application. This approval does not constitute a water right permit or authorization from the TCEQ Dam Safety Program. Failure to obtain all necessary authorizations could result in enforcement actions. For more information on Water Rights Permits, please refer to:
http://www.tceq.texas.gov/permitting/water_rights/wr_amiregulated.html

For more information on the Dam Safety program, please refer to:
http://www.tceq.texas.gov/field/damsafetyprog.html

3. Any subsequent modification of this plan that includes development near Feature S-2 must include appropriate protection measures for the feature.

4. Activities observed during the site assessment investigations, conducted on October 4, 2011, are alleged to constitute construction without prior approval of a water pollution abatement plan as required by Commission rules (30 TAC Chapter 213, Sub-Chapter A). Therefore, the applicant is hereby advised that the after-the-fact approval of the development, as provided by this letter, shall not absolve the applicant of any prior violations of Commission rules related to this project, and shall not necessarily preclude the Commission from pursuing appropriate enforcement actions and administrative penalties associated with such violations, as provided in 30 TAC §213.10 of Commission rules.

Standard Conditions

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.

3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

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

5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to

the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

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

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.

12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

13. Two wells exist on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.

14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be

removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

15. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

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

If you have any questions or require additional information, please contact Mr. Javier Anguiano of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 490-3096.

Sincerely,

Mark R. Vickery, P.G., Executive Director
Texas Commission on Environmental Quality

MRV/JA/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625

cc: Mr. Stephen W. Hanz, P.E., HMT Engineering & Surveying
Mr. Thomas H. Hornseth, P.E., Comal County
Mr. Karl J. Dreher, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 2, 2011

Mr. Thomas H. Hornseth, P.E.
Comal County Engineer
195 David Jonas Drive
New Braunfels TX 78132-3710

Re: Edwards Aquifer, Comal County
PROJECT NAME: Dry Comal Creek Vineyards, located at 1741 Herbelin Rd, New Braunfels, Texas

PLAN TYPE: Application for Approval of a Water Pollution Abatement Plan (WPAP) 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program
EAPP File No.: 3000.00

Dear Mr. Hornseth:

The referenced application is being forwarded to you pursuant to the Edwards Aquifer Rules. The Texas Commission on Environmental Quality (TCEQ) is required by 30 TAC Chapter 213 to provide copies of all applications to affected incorporated cities and underground water conservation districts for their comments prior to TCEQ approval.

Please forward your comments to this office by September 1, 2011.

The Texas Commission on Environmental Quality appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact the San Antonio Region Office at (210) 490-3096.

Sincerely

Todd Jones

Todd Jones
Water Section Work Leader
San Antonio Regional Office

TJ/eg

WATER POLLUTION ABATEMENT PLAN

FOR

Dry Comal Creek Vineyards Inc.

PREPARED FOR

Texas Commission on Environmental Quality

Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233
210-490-3096 (office)
210-545-4329 (fax)

Stephen W. Hanz, PE
07/18/11
F-10961

PREPARED BY

HMT
ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
F-10961

Stephen W. Hanz, P.E.
410 N. Seguin St
New Braunfels, TX 78130

Submitted
July 2011

Water Pollution Abatement Plan Checklist

_X_ General Information Form (*TCEQ-0587*)
- ATTACHMENT A - Road Map
- ATTACHMENT B - USGS / Edwards Recharge Zone Map
- ATTACHMENT C - Project Description

_X_ Geologic Assessment Form (*TCEQ-0585*)
- ATTACHMENT A - Geologic Assessment Table (*TCEQ-0585-Table*)
- Comments to the Geologic Assessment Table
- ATTACHMENT B - Soil Profile and Narrative of Soil Units
- ATTACHMENT C - Stratigraphic Column
- ATTACHMENT D - Narrative of Site Specific Geology
- Site Geologic Map(s)
- Table or list for the position of features' latitude/longitude (if mapped using GPS)

_X_ Water Pollution Abatement Plan Application Form (*TCEQ-0584*)
- ATTACHMENT A - Factors Affecting Water Quality
- ATTACHMENT B - Volume and Character of Stormwater
- ATTACHMENT C - Suitability Letter from Authorized Agent (if OSSF is proposed)
- ATTACHMENT D - Exception to the Required Geologic Assessment (if requesting an exception)
- Site Plan

_X_ Temporary Stormwater Section (*TCEQ-0602*)
- ATTACHMENT A - Spill Response Actions
- ATTACHMENT B - Potential Sources of Contamination
- ATTACHMENT C - Sequence of Major Activities
- ATTACHMENT D - Temporary Best Management Practices and Measures
- ATTACHMENT E - Request to Temporarily Seal a Feature, if sealing a feature
- ATTACHMENT F - Structural Practices
- ATTACHMENT G - Drainage Area Map
- ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations
- ATTACHMENT I - Inspection and Maintenance for BMPs
- ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices

_X_ Permanent Stormwater Section (*TCEQ-0600*)
- ATTACHMENT A - 20% or Less Impervious Cover Waiver, if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site
- ATTACHMENT B - BMPs for Upgradient Stormwater
- ATTACHMENT C - BMPs for On-site Stormwater
- ATTACHMENT D - BMPs for Surface Streams
- ATTACHMENT E - Request to Seal Features (if sealing a feature)
- ATTACHMENT F - Construction Plans
- ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan
- ATTACHMENT H - Pilot-Scale Field Testing Plan, if BMPs not based on *Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs*
- ATTACHMENT I -Measures for Minimizing Surface Stream Contamination

_X_ Agent Authorization Form (*TCEQ-0599*), if application submitted by agent

_X_ Application Fee Form (*TCEQ-0574*)

_X_ Check Payable to the "Texas Commission on Environmental Quality"

_X_ Core Data Form (*TCEQ-10400*)

General Information Form
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

REGULATED ENTITY NAME: Dry Comal Creek Vineyards Inc.
COUNTY: Comal STREAM BASIN: Upper Dry Comal Creek

EDWARDS AQUIFER: _X_ RECHARGE ZONE
___ TRANSITION ZONE

PLAN TYPE: _X_ WPAP __ AST __ EXCEPTION
___ SCS __ UST __ MODIFICATION

CUSTOMER INFORMATION

1. Customer (Applicant):

Contact Person: Franklin Houser
Entity: Dry Comal Creek Vineyards Inc.
Mailing Address: 1741 Herbelin Rd
City, State: New Braunfels, TX Zip: 78132
Telephone: (830) 456-2787 FAX: (830) 855-4124

Agent/Representative (If any):

Contact Person: Stephen W. Hanz, P.E.
Entity: HMT Engineering & Surveying
Mailing Address: 410 N. Seguin St
City, State: New Braunfels, TX Zip: 78130
Telephone: (830) 625-8555 FAX: (830) 625-8556

2. ___ This project is inside the city limits of _____.
___ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
_X_ This project is not located within any city's limits or ETJ.

3. 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.

Located approximately 1,500 feet to the east of the intersection of State Highway 46 and Herbelin Road; Along the south frontage of Herbelin Road

4. _X_ **ATTACHMENT A - ROAD MAP**. A road map showing directions to and the location of the project site is attached at the end of this form.

5. _X_ **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 behind this sheet. The map(s) should clearly show:

_X_ Project site.
_X_ USGS Quadrangle Name(s).
_X_ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
_X_ Drainage path from the project to the boundary of the Recharge Zone.

6. _X_ 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. **The TCEQ must be able to inspect the project site or the application will be returned.**

7. _X_ **ATTACHMENT C - PROJECT DESCRIPTION**. Attached at the end of this form is a detailed narrative description of the proposed project.

8. Existing project site conditions are noted below:
_X_ Existing commercial site
___ Existing industrial site
_X_ Existing residential site
_X_ Existing paved and/or unpaved roads
___ Undeveloped (Cleared)
_X_ Undeveloped (Undisturbed/Uncleared)
___ Other: _____

PROHIBITED ACTIVITIES

9. _X_ 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).

10. _X_ 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

11. The fee for the plan(s) is based on:

_X_ For a Water Pollution Abatement Plan and Modifications, the total acreage of the site where regulated activities will occur.
___ For an Organized Sewage Collection System Plans and Modifications, the total linear

footage of all collection system lines.

___ For a UST Facility Plan or an AST Facility Plan, 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.

12. 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)

_X_ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

13. _X_ 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.

14. _X_ 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.

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:

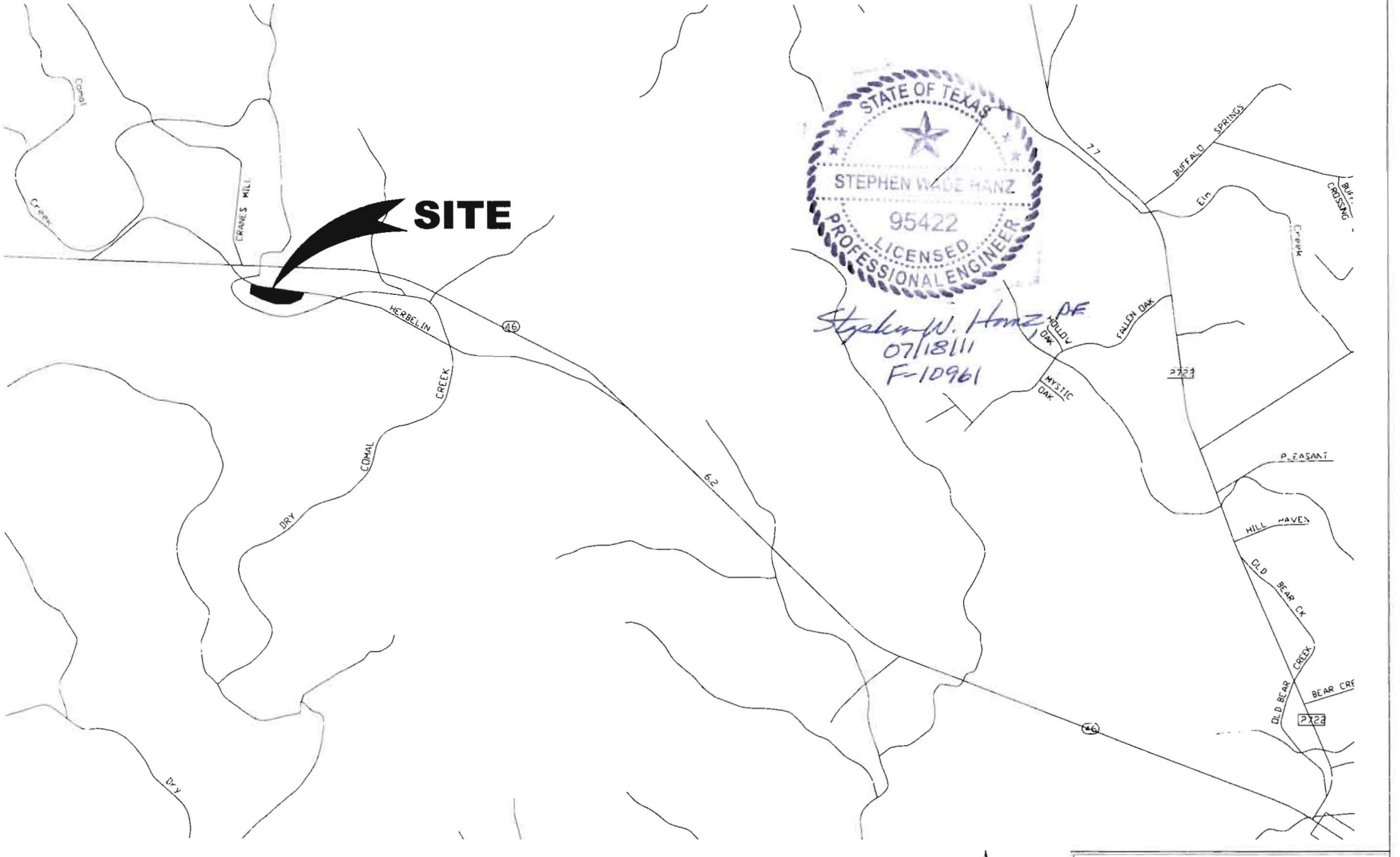
Stephen W. Hanz, P.E.
Print Name of Customer/Agent

Stephen W. Hanz, PE
Signature of Customer/Agent

07/18/11
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.



SITE LOCATION MAP

SCALE: 1" = 3000'

410 N. SEGUIN ST
NEW BRAUNFELS
TEXAS, 78130

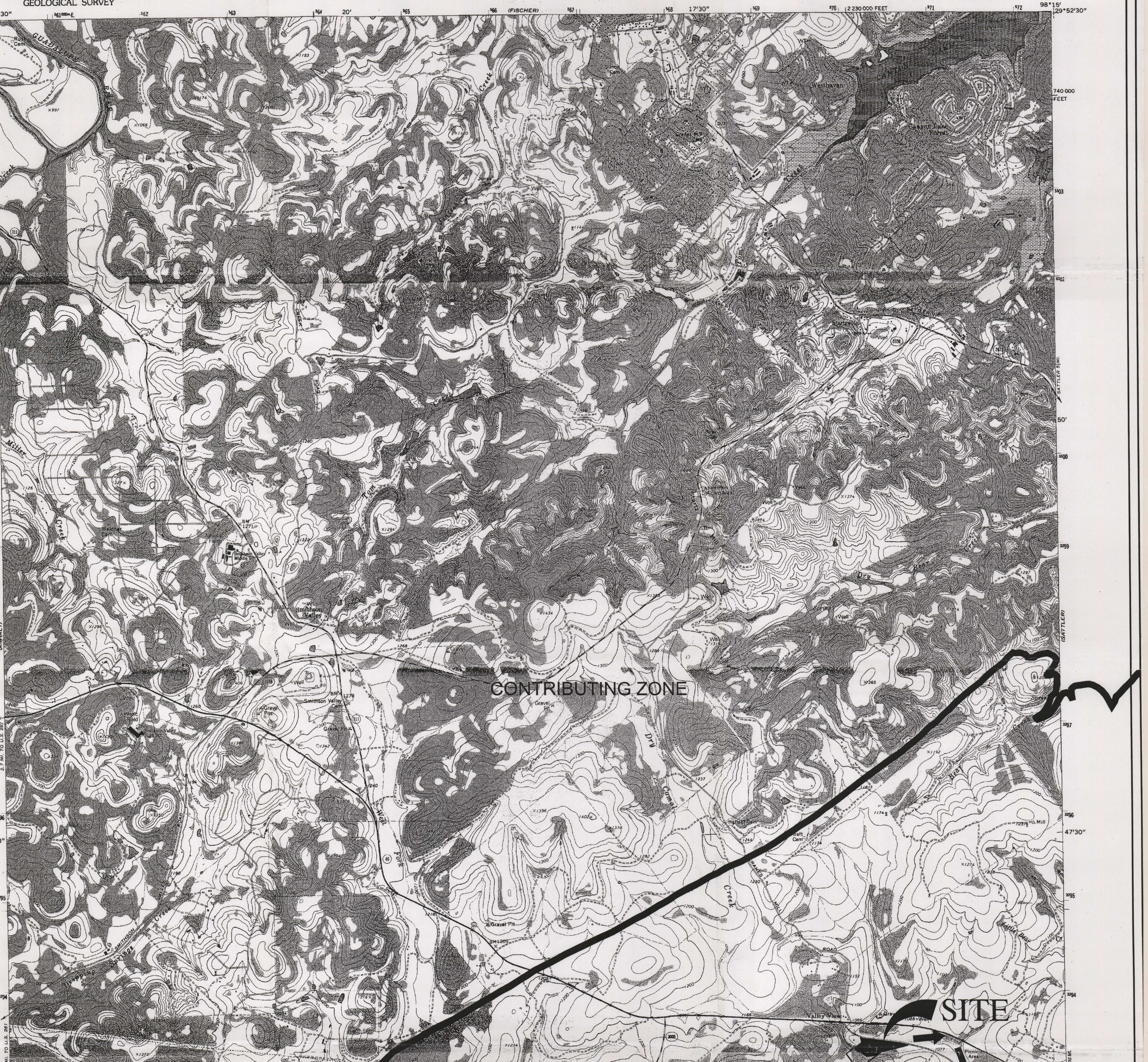
TBPE Firm F-10961
www.hmtnb.com
PH: 830-625-8555
Fax: 830-625-8556

HMT ENGINEERING & SURVEYING
HOLLM.G • MOELLER • THORNHILL

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SMITHSON VALLEY QUADRANGLE
TEXAS–COMAL CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

(SPRING BRANCH) (DEVILS BACKBONE)



(BULVERDE) (NEW BRAUNFELS WEST)

Produced by the United States Geological Survey
in cooperation with the Texas Water Development Board

Control by USGS and NOS/NOAA

Compiled from aerial photographs taken 1963. Revisions shown in purple compiled from aerial photographs taken 1986 and other sources and has been field checked. Map edited 1994
Conflicts may exist between some updated features and previously mapped contours

North American Datum of 1927 (NAD 27). Projection and 10 000-foot ticks: Texas Coordinate System, south central zone (Lambert Conformal Conic)
Blue 1000-meter Universal Transverse Mercator ticks, zone 14

North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

Fine red dashed lines indicate selected fence lines

MN GN 0°21' 6 MILS 6½° 116 MILS

UTM GRID AND 1994 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Stephen W. Hanz, PE
07/18/11
F-10961

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

TEXAS
QUADRANGLE LOCATION

2998-431

ROAD CLASSIFICATION

Primary highway, hard surface
Light-duty road, hard or improved surface
Secondary highway, hard surface
Unimproved road
Interstate Route U. S. Route State Route

SMITHSON VALLEY, TEX.
29098-G3-TF-024

1964
REVISED 1994
DMA 6343 IV SE–SERIES V882

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

NEW BRAUNFELS WEST QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)

RECHARGE ZONE

RECHARGE ZONE

TRANSITION ZONE

NEW BRAUNFELS

Produced by the United States Geological Survey
Revised in cooperation with the Texas Water Development Board

Control by USGS, NOS/NOAA, and USCE

Compiled by the Army Map Service by photogrammetric methods from aerial photographs taken 1956. Field checked 1958
Revised from aerial photographs taken 1986. Field checked 1987
Map edited 1988

Projection and 10,000-foot grid ticks: Texas coordinate system, south central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 20 meters south and 28 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence and field lines generally visible on aerial photographs. This information is unchecked

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF MAP DIAGRAM IS APPROXIMATE

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Stephen W. Hanz, PE
07/18/11
F-10961

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

TEXAS
QUADRANGLE LOCATION

2998-413

ROAD CLASSIFICATION

Primary highway, hard surface ..... Light-duty road, hard or improved surface ...
Secondary highway, hard surface ..... Unimproved road ...
Interstate Route U. S. Route State Route

NEW BRAUNFELS WEST, TEX.
29098-F2-TF-024
1988
DMA 6343 II NW–SERIES V822

INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA—1988

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BAT CAVE QUADRANGLE
TEXAS
7.5 MINUTE SERIES (TOPOGRAPHIC)

RECHARGE ZONE

CONTRIBUTING ZONE

RECHARGE ZONE

CONTRIBUTING ZONE WITHIN
THE TRANSITION ZONE

TRANSITION ZONE

Mapped, edited, and published by the Geological Survey
Revised in cooperation with the Texas Water Development Board
Control by USGS and NOS/NOAA

Topography by the Army Map Service by photogrammetric methods from aerial photographs taken 1952. Field checked 1953. Revised by USGS from aerial photographs taken 1986. Field checked 1987
Map edited 1988

Projection and 10,000-foot grid ticks: Texas coordinate system, south central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 20 meters south and 29 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence lines

Red tint indicates areas in which only landmark buildings are shown

UTM GRID AND 1988 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

Stephen W. Hanz, PE
07/18/11
F-10961

TEXAS
QUADRANGLE LOCATION

2998-424

ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

BAT CAVE, TEX.
29098-F3-TF-024
1988
DMA 6343 III NE-SERIES V882

ATTACHMENT "C"
Project Description

The site consists of an approximate 17.1 acre gross site area in Comal County and is not located within any city's limits or ETJ. The site makes up a portion of a larger 26.259 acre tract located at 1741 Herbelin Rd along SH46. The site does not currently have a WPAP. The 17.1 acre site is currently in use as a commercial winery with buildings, driveways, and miscellaneous impervious cover installed from 1950's to the present.

The site contains a residence structure, residence structure driveway, wine tasting building, and winery building installed prior to 1984. These items will be considered existing conditions as they were installed prior to the WPAP requirements of 1984.

The site also contains a bathroom on bottom & apartment on top building, storage & office space building, driveways, and miscellaneous impervious cover installed after 1984 to the present.

In addition, a proposed improvement is planned to be installed within the existing developed area of the site. The proposed improvement consists of the installation of an underground septic tank and aerobic spray irrigation system to serve the previously installed buildings. Currently, the buildings are tied to an existing On Site Sewage Facility (OSSF); however, the OSSF lies within the floodplain zone and is unpermitted. The owner will be required to build a new OSSF to meet standards of a properly permitted system. The new OSSF will be designed according to TCEQ regulations for On-Site Sewage Facilities over the Edwards Aquifer as specified in Title 30 of the Texas Administrative Code, Section 285, Subchapter E (30 TAC 285:E, Effective June 13, 2001). The goal of this WPAP is to properly permit the improvements that were previously installed without a WPAP from 1984 to the present, and the proposed OSSF improvements yet to be installed.

- Building 1 – Storage & Office Space, built 2000's
- Building 2 – Winery, built 1970's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 5 – Residence Structure & Driveway, Built 1950's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
- Proposed OSSF planned to be installed 2011

The Upper Dry Comal Creek creates the southern boundary of the site, flowing west to east. The entire site drains to the Upper Dry Comal Creek. A portion of the developed site is within the limits of the 100-year flood plain of the Upper Dry Comal Creek according to the FEMA Flood Insurance Rate Map (FIRM) Panel 48091C0245F effective September 2, 2009. The owner is currently working with Comal County officials on impacts to the base flood elevation due to improvements installed within the floodplain. There will be no floodplain modifications associated with this proposed OSSF work. In

addition, the site does not have a Critical Water Quality Zone and there are no areas planned to be irrigated with wastewater.

The developed portion of the site contains no existing drainage inlets or subsurface pipe systems. A large pervious berm exists along the north banks of the Upper Dry Comal Creek, which protects the property from constant flooding from offsite stormwater runoff. The existing stormwater runoff generated onsite sheet flows towards the southeastern edge of the property before entering the Upper Dry Comal Creek. The Upper Dry Comal Creek is part of the Dry Comal Creek watershed, which eventually drains into the Comal River. The berm structure is a pervious structure.

Existing (Before 1984)

The site improvements installed before 1984 created less than 20% impervious cover to the 17.1 acre site. The improvements installed before 1984 created 2.50% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed before 1984 created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 5 – Residence Structure & Driveway, Built 1950's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 2 – Winery, built 1970's
  (Shown in Yellow on Impervious Cover Exhibit located in Section 3)

Present (After 1984)

The site improvements installed after 1984 to the present created less than 20% impervious cover to the 17.1 acre site. The improvements installed after 1984 to the present created 8.83% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed after 1984 to the present created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 1 – Storage & Office Space, built 2000's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
  (Shown in Purple & Blue on Impervious Cover Exhibit located in Section 3)

Proposed (2011)

The proposed improvements are minor in nature and will include the construction of a new septic tank and utility tie-in lines for the existing buildings on the property. An aerobic spray irrigation system will also be provided onsite. The project scope does not include the addition of any stormwater drainage infrastructure to the site. The project

includes the addition of less than 1/2% impervious cover to the gross area of the site and impact on drainage for the proposed conditions can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Proposed OSSF planned to be installed 2011
  (Shown in Orange on Impervious Cover Exhibit located in Section 3)

This WPAP has been prepared for the site based on the regulated activity that has occurred and will occur over the Edwards Aquifer Recharge Zone in accordance with the Edwards Aquifer Protection Program Rules as specified in Title 30 of the Texas Administrative Code, Section 213 (30 TAC 213, effective June 1, 1999). Because the improvements installed after 1984 to the present created only 8.83% impervious cover and the proposed OSSF improvements will consist of minor construction and an addition of less than 1/2% impervious cover to the gross area of the site, the owner is requesting a waiver of the requirement for permanent BMPs. The OSSF project is to begin as soon as the proper permits are acquired and is planned to be completed within 2 months (after site plan approval).

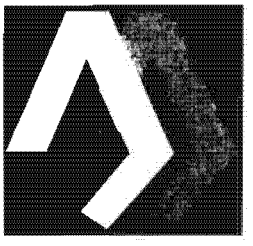
GEOLOGIC ASSESSMENT

For:

Water Pollution Abatement Plan

At:

Dry Comal Creek Vineyards, Inc.
1741 Herbelin Road
New Braunfels, Comal County, Texas



ARIAS & ASSOCIATES

Geotechnical • Environmental • Testing

Prepared for:

HMT Engineering & Surveying
401 N. Seguin Avenue
New Braunfels, Texas 78130

June 2011
Arias Job No.: 2011-199

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

REGULATED ENTITY NAME: Dry Comal Creek Vineyards, Inc

TYPE OF PROJECT: X WPAP ___ AST __ SCS __ UST

LOCATION OF PROJECT: X Recharge Zone __ Transition Zone __ Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. X Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE**.

2. 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.

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Tarpley clay (TaB), 1 to 3 percent slopes	D	0.5 – 1.5
Comfort Rock-Outcrop (CrD) 1 to 8 percent slopes	D	0 to 0.2

* 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.

3. X A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column.

4. X A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.

5. X Appropriate **SITE GEOLOGIC MAP(S)** is attached:

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" = 80'
Site Geologic Map Scale	1" = 80'
Site Soils Map Scale (if more than 1 soil type)	1" = N/A (included with Geologic Map)

6. Method of collecting positional data:
___ Global Positioning System (GPS) technology.

__X__ Other method(s).

7. __X__ The project site is shown and labeled on the Site Geologic Map.

8. __X__ Surface geologic units are shown and labeled on the Site Geologic Map.

9. __X__ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
__ Geologic or manmade features were not discovered on the project site during the field investigation.

10. __X__ The Recharge Zone boundary is shown and labeled, if appropriate. ***The Recharge Zone boundary falls outside of the Site Geologic map extent and is therefore not shown.***

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

__X__ There are __2__ (#) 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.
__X__ The wells are in use and comply with 16 TAC Chapter 76.
__ There are no wells or test holes of any kind known to exist on the project site.

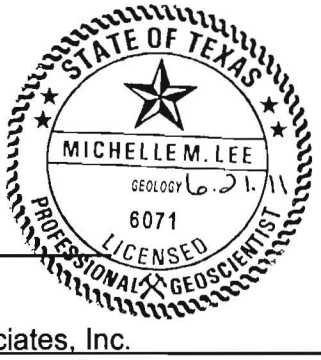
ADMINISTRATIVE INFORMATION

12. __X__ 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.

Date(s) Geologic Assessment was performed: April 11, 2011
Date(s)

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.

Michelle M. Lee, P.G.
Print Name of Geologist



210.308.5884
Telephone

210.308.5886
Fax

Michelle M. Lee
Signature of Geologist

June 21, 2011
Date

Representing: Arias & Associates, Inc.
(Name of Company)

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

ASSESSMENT TABLE **PROJECT NAME: Dry Comal Creek Vineyards, Inc.**

LOCATION - 1741 Herbelin Rd., N			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DIP	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
S-1	29.77031	98.27515	SCZ	30	Kek	7	2	1.8	40°		2/ft	0.3	F,O	8	38	X			X	Cliff
S-2	29.77018	98.27502	C	30	Kek	5	3.5	1	4°				F,O	16	46		X		X	Cliff
S-3	29.77007	98.27480	SC	20	Kek	3.2	1	1.7	2°				F,O	11	31	X			X	Cliff
S-4	29.76984	98.27245	O	5	Kek	100	35	3.5	52°	10			N	16	31	X			X	Streambed
S-5	29.76984	98.27251	O	5	Kek	22	9	3.5	88°				N	16	21	X			X	Streambed
S-6	29.77024	98.27484	CD	5	Kek	425	40	11	275°				F	10	15	X			X	Streambed
S-7	29.77046	98.27417	MB - well	30	Kek	0.6	0.6	~600	NA				NA	7	37	X			X	Hillside
S-8	29.77081	98.27237	MB - booster	30	Kek	0.6	0.6	?	NA				NA	7	37	X			X	Hillside
S-9	29.77006	98.27353	MB - well	30	Kek	0.6	0.6	~400	NA				NA	7	37	X			X	Hillside
															0					
															0					
															0					
															0					
															0					
															0					
															0					
															0					

DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	e, exposed bedrock
C	es, breakdown, sand, gravel
O	il, organics, leaves, sticks, dark colors
F	sediment, soil profile, gray or red colors
V	details in narrative description
FS	, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Hilltop, Hillside, Drainage, Floodplain, Streambed

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

Michelle M. Lee

STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY
6071
LICENSED
PROFESSIONAL GEOSCIENTIST

Date: June 21, 2011

-Table (Rev. 10-01-04)

SOIL NARRATIVE

DRY COMAL CREEK VINEYARDS, INC.
1741 HERBELIN ROAD
NEW BRAUNFELS, COMAL COUNTY, TEXAS

In accordance with the United States Department of Agriculture (USDA) Web Soil Survey, the natural surface soils over the project area are considered to be within the Tarpley clay (TaB) and Comfort-Rock outcrop complex (CrD) groups.

The Tarpley clay (TaB) soils typically have a 1 to 3 percent slope are located on the north side of the Dry Comal Creek. The vineyards at the Site are planted in the TaB soils. These soils are well drained and have a moderately low to moderately high capacity to transmit water. A typical profile of TaB soils is clay from the surface to about 17" where bedrock is encountered.

The Comfort-Rock outcrop complex (CrD) have slopes that range from 1 to 8 percent. At the Site, these soils are located along the southern perimeter where the Edwards Limestone outcrops. These soils are well drained and have a moderately low to moderately high capacity to transmit water. A typical profile of CrD soils is extremely stony clay to maybe six inches then bedrock.

STRATIGRAPHIC COLUMN

DRY COMAL CREEK VINEYARDS, INC.
1741 HERBELIN ROAD
NEW BRAUNFELS, COMAL COUNTY, TEXAS

Hydrogeologic subdivision			Group formation or member			Hydrologic Function	Thickness (feet)	Lithology	Cavern development	Porosity / permeability type
Upper Cretaceous	Upper confining units		Buda Formation			CU	40-50	Buff, light gray, dense mudstone	Minor surface karst	Low porosity /low permeability
			Del Rio Clay			CU	40-50	Blue-green to yellow-brown clay	None	None / primary upper confining unit
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Karst AQ; not karst CU		Reddish-brown, gray to light tan marly limestone	None	Low porosity / low permeability
	II		Edwards Group	Person Fm	Cyclic & marine members undivided	AQ	89-90	Mudstone to packstone; miliolid grainstone; chert	Many sub-surface	Laterally extensive; water yielding
	III				Leached & collapsed members	AQ	70-90	Crystalline limestone; mudstone to grainstone; chert collapsed breccia	Extensive lateral development; large rooms	Majority not fabric / one of the most permeable
	IV				Regional dense members	CU	20-24	Dense, argillaceous mudstone	Very few; only vertical fracture enlargement	Not fabric / low permeability; vertical barrier
	V			Kainer Fm	Grainstone member	AQ	50-60	Miliolid grainstone; mudstone to wackestone; chert	Few	Not fabric / recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50-60	Highly altered crystalline limestone; chalky mudstone; chert	Probably extensive cave development	Majority fabric / one of the most permeable
	VII				Dolomitic member	AQ	110-130	Mudstone to grainstone; crystalline limestone; chert	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane fabric / water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50-60	Shaly, nodular limestone; mudstone and miliolid grainstone	Large lateral caves at surface	Fabric; stratigraphically controlled/ large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350-500	Yellowish tan, thinly bedded limestone and marl	Some surface cave development	Some water production at evaporite beds / relatively impermeable

Reference: U.S.G.S. Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas; Water-Resources Investigations Report 95-4030

Note: CU = Confining Unit; AQ = Aquifer

— — — Indicates Mapped Surface Formation

SITE SPECIFIC GEOLOGY NARRATIVE

DRY COMAL CREEK VINEYARDS, INC.
1741 HERBELIN ROAD
NEW BRAUNFELS, COMAL COUNTY, TEXAS

Introduction
A Geologic Assessment (GA) was performed for the above-referenced site on April 11, 2011 by Michelle M. Lee, P.G. #6071. The GA was performed in accordance with the Texas Commission on Environmental Quality (TCEQ) *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones, TCEQ-0585-Instructions (Rev. 10-01-04).* Nine potential recharge features (S-1 through S-9), as defined by TCEQ-0585, were observed on the surface of the Site at the time of this assessment.

Background
The project area is currently operating as a winery and vineyard. Within this project area, there are several buildings that house various functions to produce wine. The Dry Comal Creek is on Site and is bordered on the south by a tall vertical rock cliff.

Stratigraphy
According to the Bureau of Economic Geology of the Smithson Valley Topographic Quadrangle by E.W. Collins 1992, the surface geologic formation at the Site is mapped as the Cretaceous aged Edwards Group, Kainer Formation. This formation is generally up to 220 feet thick or more, and consist of limestone, chert, and marlstone, and forms the lower half of the Edwards Group.

Structure
Faults were not observed at the time of this assessment. Bureau of Economic Geology of the Smithson Valley Topographic Quadrangle by E.W. Collins 1992 does not show any mapped faults at the Site.

Karstic Characteristics
Karst features were observed on the Site at the time of this assessment. One Cave, **S-2**, (sensitive), one solution cavity, **S-3**, (not sensitive) and one solution cavity zone, **S-1**, (not sensitive) were observed at the Site during field reconnaissance. These features were observed high atop the vertical rock cliff in the southwestern portion of the Site. Although the cave is ranked sensitive, it is due to the high point value assigned to features of this type. There is a slight slope above the cave area such that it might capture some runoff during heavy storm events. The cave was infilled with fine-grained sediment and organic material. Probability of rapid infiltration to the subsurface is very low.

The other two karst features are located in an area that will receive little to no runoff due to their position high on the vertical rock cliff. Additionally, these features were infilled with fine grained sediment at the time of field reconnaissance. Probability of rapid infiltration to the subsurface is very low.

Potential for fluid movement to the aquifer is low over the project area, due to absence of karst and structural features. Additionally, the soil cover, where present, at the Site appears to impede flow of fluids to the subsurface.

Feature Discussion
SENSITIVE FEATURE
S-2: Cave (C)
S-2 is a small cave located near the top of the ridge in the southwestern portion of the site. The feature meets the definition of a cave as set forth by the TCEQ Instructions to Geologists. The feature measures ~5.2 wide by ~3.5 ft tall and ~10 ft deep and is filled with fine-grained sediment and organics. The feature will not receive direct recharge given the location at the top of a steep rock cliff. If any recharge occurs it will be by runoff from areas up slope from the feature. Probability of rapid infiltration is low. However, since the feature ranks at 30 points and has a low probability of rapid infiltration rate of 16 points that automatically makes **S-2** sensitive.

NOT SENSITIVE FEATURES
S-1: Solution Cavity Zone (SCZ)
S-1 is a band of solution cavities of varying sizes located near the top of the rock cliff in the southwestern portion of the Site. The zone measures ~ 70 ft long by 20 ft tall with the deepest SC measuring approximately 1.5 ft. Infilling was observed to be fine-grained sediment in addition to organic materials. The zone trends at 40^{O} and has a low probability of rapid infiltration.

S-3: Solution Cavity (SC)
This solution cavity measured ~3.2 ft x ~1 ft x ~1.7 ft and is located near the top of the rock cliff along the southern perimeter of the Site. Based on the location and orientation of this feature, in addition to the fine-grained sediment observed as the infilling, the probability of rapid infiltration is low.

S-4: Other Feature in Bedrock (O)
Feature **S-4** is an Other Feature in Bedrock. The portion of Dry Comal Creek from the western perimeter to the eastern third of the creek has been manually cleared of all debris, vegetation and float material exposing solid bedrock. This feature is a closed depression measuring approximately 100 ft x 35 ft x 3.5 ft at its deepest point. The bedrock was observed to be flaggy and intact with very minor fracturing. The feature will have a tendency to hold water when present. Based on the cohesive nature of the exposed bedrock, probability of rapid infiltration is very low.

S-5: Other Feature in Bedrock (O)
Feature **S-5** is very similar to **S-**4 but is separated in distance by about 75 ft. Probability of rapid infiltration rate is very low.

S-6: Closed Depression (CD)
Feature **S-6** is a closed depression located at the base of the rock cliff in the southwestern corner of the Site. This closed depression measures approximately 425 ft x 40 ft x 11 ft deep. It is a man-made pond created by the landowner that was observed to be holding water at the time of this assessment.

S-7, S-8 & S-9: Water Wells & Booster Pump Station
Well **S-7** serves the on site residence and is located in an enclosed structure next to the house. **S-9** is used in the production of the wine and is located near the center of the sitting area under the trees. The probability of rapid infiltration to the subsurface is very low. **S-8** is a booster pump station located to the north of the production building and is also in an enclosed structure. This feature also has a very low probability of rapid infiltration into the subsurface.

HWY 46

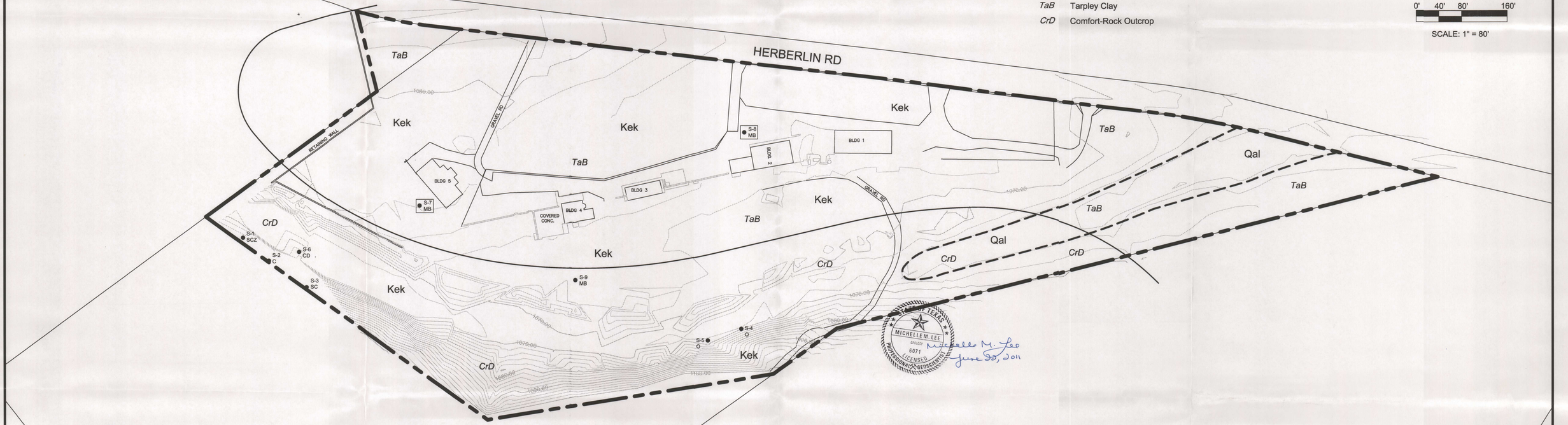
HERBERLIN RD

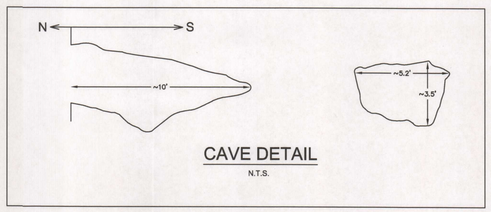
LEGEND:

	Property Boundary
Kek	Kainer Formation
Qal	Quaternary Alluvium
CD	Non-Karst Closed Depression
C	Cave
MB	Man-Made Feature in Bedrock
SC	Solution Cavity
SCZ	Solution Cavity Zone
O	Other Natural Bedrock Feature
	Formation Contact
	Soils Contact
TaB	Tarpley Clay
CrD	Comfort-Rock Outcrop

0' 40' 80' 160'

SCALE: 1" = 80'





CAVE DETAIL

N.T.S.

STATE OF TEXAS
MICHELLE M. LEE
6071
LICENSED
PROFESSIONAL GEOSCIENTIST
June 22, 2011

Geologic & Soils Map
Geologic Assessment
Dry Comal Creek Vineyards
New Braunfels, Comal County, Texas

Arias Job No. 2011-199
June 22, 2011

ARIAS & ASSOCIATES, INC.
Geotechnical · Environmental · Testing

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

REGULATED ENTITY NAME: Dry Comal Creek Vineyards Inc.

REGULATED ENTITY INFORMATION

1. The type of project is:
   ___ Residential: # of Lots: _____
   ___ Residential: # of Living Unit Equivalents: _____
   _X_ Commercial
   ___ Industrial
   ___ Other: _____

2. Total site acreage (size of property): 17.102 ac

3. Projected population: 0 - 20 people

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	*26,077 ft^2	÷ 43,560 =	0.60 acres
Parking	37,268 ft^2	÷ 43,560 =	0.86 acres
Other paved surfaces	21,557 ft^2	÷ 43,560 =	0.49 acres
Total Impervious Cover	84,902 ft^2	÷ 43,560 =	1.95 acres
Total Impervious Cover ÷ Total Acreage x 100 =			11.4%

* Includes residential structure and residential structure driveway, wine tasting building, and winery building installed prior to 1984.

5. _X_ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. _X_ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY

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

7. Type of project:
   ___ TXDOT road project.
   ___ County road or roads built to county specifications.
   ___ City thoroughfare or roads to be dedicated to a municipality.
   ___ Street or road providing access to private driveways.

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

__ Concrete
__ Asphaltic concrete pavement
__ Other: _____

9. Length of Right of Way (R.O.W.): ____ feet.
Width of R.O.W.: ____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
Width of pavement area: ____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.
Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

11. __ A rest stop will be included in this project.
__ A rest stop will **not** be included in this project.

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

STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

13. _X_ **ATTACHMENT B - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is provided at the end of this form. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

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

100% Domestic	60 gallons/day
___% Industrial	_____ gallons/day
___% Commingled	_____ gallons/day

TOTAL 60 gallons/day

15. Wastewater will be disposed of by:
_X_ **On-Site** Sewage Facility (OSSF/Septic Tank):
_X_ **ATTACHMENT C - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.
_X_ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

N/A Sewage Collection System (Sewer Lines):
__ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

__ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
- __ The SCS was previously submitted on _____.
- __ The SCS was submitted with this application.
- __ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

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

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

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = _80'_.

18. 100-year floodplain boundaries
- _X_ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
- __ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):
FEMA FIRM Panel Number 48091C0245F (Effective September 2, 2009)

19.
- __ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.
- _X_ The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
- _X_ There are _2_(#) 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.
  - _X_ The wells are in use and comply with 16 TAC §76.
  - __ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:
- _X_ All **sensitive** geologic or manmade features identified in the Geologic Assessment are shown and labeled.
- __ No **sensitive** geologic or manmade features were identified in the Geologic Assessment.
- __ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained at the end of this form.

22. _X_ The drainage patterns and approximate slopes anticipated after major grading

activities.

23. _X_ Areas of soil disturbance and areas which will not be disturbed.

24. _X_ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. _X_ Locations where soil stabilization practices are expected to occur.

26. _X_ Surface waters (including wetlands).

27. _X_ Locations where stormwater discharges to surface water or sensitive features.
___ There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. _X_ 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.

29. _X_ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **WATER POLLUTION ABATEMENT PLAN APPLICATION FORM** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Stephen W. Hanz, P.E.
Print Name of Customer/Agent

Stephen W. Hanz, PE — 07/18/11
Signature of Customer/Agent — Date

ATTACHMENT "A"
Factors Affecting Water Quality

History of Improvements to the site:

- Improvements installed before 1984
- Improvements installed from 1984 to present
- Proposed improvements not yet installed

Improvements installed before 1984 - an existing residential structure and driveway, wine tasting building, and winery building were installed from the 1950's to 1984. The construction and existing conditions of these buildings result in no pollution from the site.

Improvements installed from 1984 to present – an existing storage and office space building, bathrooms on the bottom apartment on top building, roads and driveways, and miscellaneous impervious cover installed from 1984 to the present also resulted in minimal to no pollution from the site.

Proposed improvements not yet installed - The proposed improvements consist of repair or enhancement to the current underground septic tank to better serve the commercial-use buildings on the property. The existing septic system is unpermitted and requires certain improvements, including the installation of a new underground septic tank, in order to properly serve the site. The new septic system will be designed according to TCEQ regulations for On-Site Sewage Facilities over the Edwards Aquifer (Section 285: Subchapter E). The proposed construction will result in minimal to no pollution from the site. Some pollution may originate post-construction from the septic tank during overflow, cleaning, or waste removal, which may have an effect on surface water and water quality of the adjacent creek. However, proper design and construction of the On-Site Sewage Septic System will mitigate the potential risks.

ATTACHMENT "B"
Volume and Character of Stormwater

The development of this site starting before 1984 and including improvements that occurred from 1984 to the present resulted in minimal to no increase in stormwater run-off. The proposed improvements will also result in minimal to no increase in stormwater run-off.

- Building 1 – Storage & Office Space, built 2000's
- Building 2 – Winery, built 1970's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 5 – Residence Structure & Driveway, Built 1950's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
- Proposed OSSF planned to be installed 2011

The proposed improvements include the replacement of a septic tank, which is installed underground.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	58,325	1.34	1990's
	Total Impervious Cover	84,902	1.95	

Total Site	17.1
Total Impervious Cover	11.40%
Before 1984	2.50%
1984 to Present	8.83%
Proposed	0.07%
	11.40%

The construction of these improvements from 1984 to the present and including the proposed OSSF improvements scheduled for 2011 will add approximately 66,253 square feet (1.52 acres) of impervious cover to the 17.1 acre site. Currently, the site contains existing buildings, existing driveways and existing miscellaneous impervious covers which make up approximately 84,902 square feet (1.95 acres) of impervious cover. The addition of the proposed OSSF will add 500 square feet (0.01 acres). Therefore, the addition of the proposed impervious cover amounts to less than 20% of the gross site area and can be assumed negligible. The offsite areas that contribute to the site and affect onsite drainage were considered as undeveloped sparsely wooded land.

The hydrology calculations for existing and proposed conditions are broken out in the tables below. Table 1 shows existing conditions stormwater runoff for improvements installed before 1984.

Table 1 – Before 1984 Existing Conditions Hydrology Calculations

Area ID	Area	"C" Value	T_c	I_{10}	I_{100}	Q_{10}	Q_{100}
O1	2.37	0.38	20	5.44	8.51	4.90	7.66
O2	1.41	0.38	20	5.44	8.51	2.91	4.56
O3	2.86	0.38	20	5.44	8.51	5.91	9.25
1	1.33	0.41	20	5.44	8.51	2.97	4.64
O2 + 1	2.74	0.39	20	5.44	8.51	5.81	9.09
2	11.69	0.40	20	5.44	8.51	25.44	39.79
O1 + O2 + O3 +1 + 2	19.66	0.39	20	5.44	8.51	42.13	65.91

Table 2 shows existing conditions stormwater runoff for improvements installed from 1984 to present & including the proposed OSSF improvement.

Table 2 – After 1984 & Proposed Conditions Hydrology Calculations

Area ID	Area	"C" Value	T_c	I_{10}	I_{100}	Q_{10}	Q_{100}
O1	2.37	0.38	20	5.44	8.51	4.90	7.66
O2	1.41	0.38	20	5.44	8.51	2.91	4.56
O3	2.86	0.38	20	5.44	8.51	5.91	9.25
1	1.33	0.47	20	5.44	8.51	3.40	5.32
O2 + 1	2.74	0.42	20	5.44	8.51	6.26	9.79
2	11.69	0.44	20	5.44	8.51	27.98	43.77
O1 + O2 + O3 +1 + 2	19.66	0.42	20	5.44	8.51	45.11	70.56

The additional runoff added to the site from 1984 to the present and including the proposed OSSF improvements when compared to runoff conditions prior to 1984 is a minimal 2.98 cfs Q10 and 4.65 cfs Q100. These additional runoff flows are negligible compared to the entire 17.1 acre site.

Drainage Area 1 drains from the north to the south through the proposed project area. The remainder of the site has been calculated with Drainage Area 2, which flows across the site into the adjacent creek and its 100 yr floodplain. Both drainage areas are located entirely over the Edwards Aquifer Recharge Zone.

The flows directed from this site are in the form of sheet flow and the calculated values are considered as the total contribution to the adjacent creek. Total flow contribution to the creek from the site is not a point discharge. All existing drainage patterns were not altered by the proposed improvements.

ATTACHMENT "C"
Suitability Letter from Authorized Agent

See Suitability Letter from Authorized Agent, attached.

ATTACHMENT "D"
Exception to the Required Geologic Assessment

No exception will be requested.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, and the name of the prime contractor and the name and telephone number of the contact person.

2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.

3. If any sensitive feature is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. The regulated activities near the sensitive feature may not proceed until the TCEQ has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality.

4. No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

5. Prior to commencement of construction, all temporary erosion and sedimentation (E&S) control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must remain in place until disturbed areas are revegetated and the areas have become permanently stabilized.

6. 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).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake must be provided that can indicate when the sediment occupies 50% of the basin volume.

8. 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).

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

11. The following records shall be maintained and made available to the TCEQ upon request: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

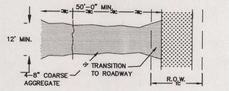
A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;

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

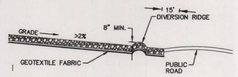
C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office
2800 S. IH 35, Suite 100
Austin, Texas 78704-5712
Phone (512) 339-2929
Fax (512) 339-3795

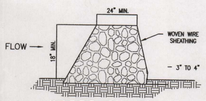
San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
Phone (210) 490-3096
Fax (210) 545-4329



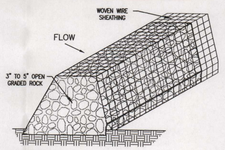
PLAN VIEW



PROFILE



CROSS SECTION



ISOMETRIC PLAN VIEW

HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) c tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation.A biodegradable BFM is composed of materials that are 100% biodegradable. The biner in the BFM should also be biodegradable and should not dissolve or disperse upn re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending o the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:
(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or packing type roller or by track walking. Track walking shall only be used where other metods are impractical.

(2) To be effeve, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulchover spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:
(1) Mulched aas should be inspected weekly and after each rain event to locate and repair an damage.

(2) Areas damged by storms or normal construction activities should be regraded and hydulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:
(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rock should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:
(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:
(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:
(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoot rings.

(2) Clean, open graded 3 – 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 – 8 inch diameters rocks may be used.

Installation:
(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:
(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

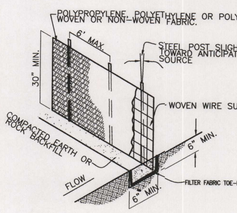
(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.



SILT FENCE

Materials:
(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:
(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1– foot deep and spaced not more than 8 feet on center, Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down–slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down–slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) 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.

(5) 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. There should be a 3–foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

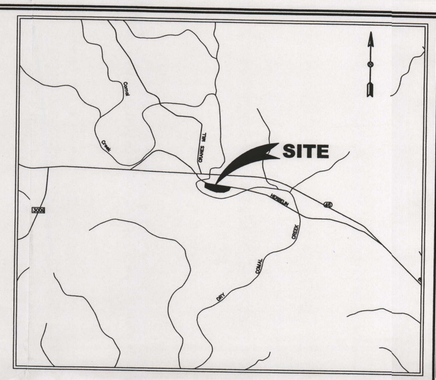
Inspection and Maintenance Guidelines:
(1) Inspect all fencing weekly, and after any rainfall.

(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.

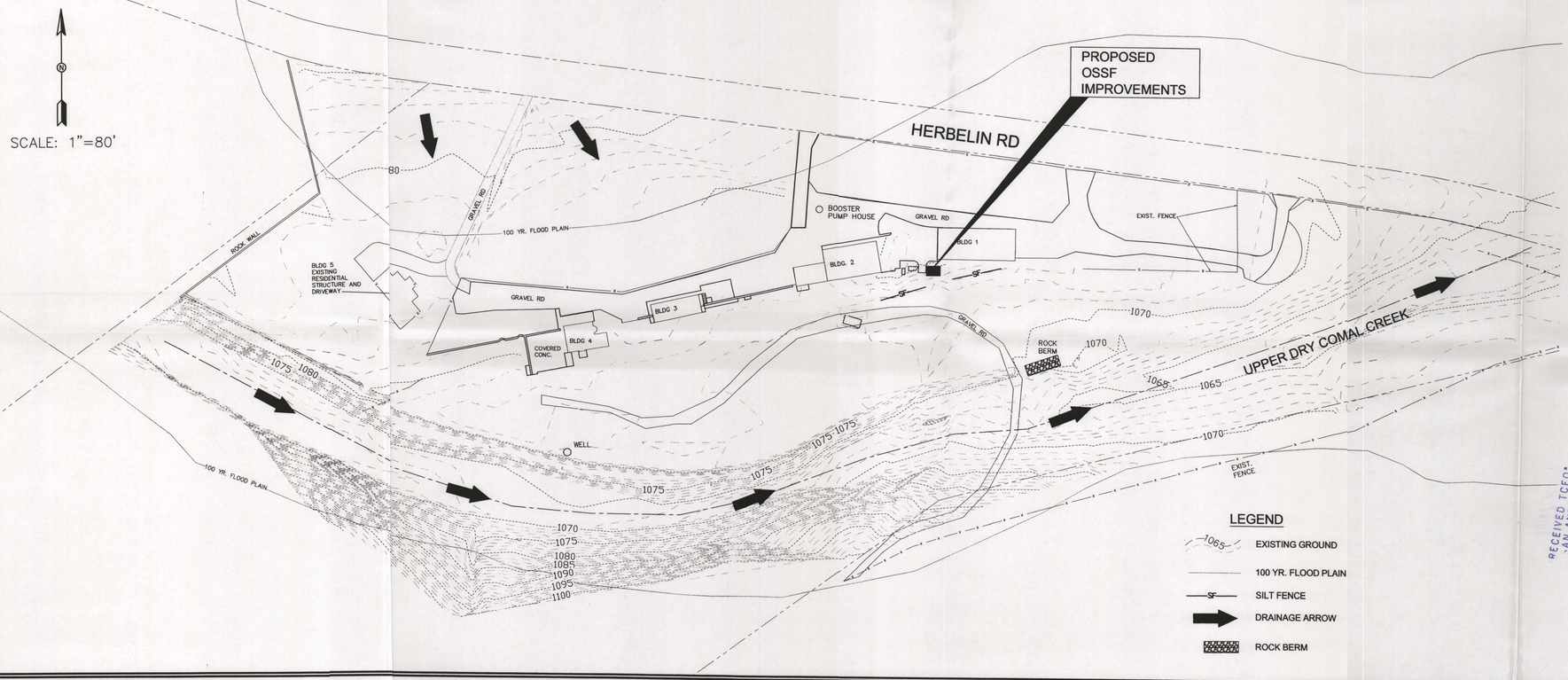
(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to 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 revegetated. The fence itself should be disposed of in an approved landfill.



LOCATION MAP

Stephen W. Hanz, PE
07/18/11
F-10961



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FOR PERMIT USE ONLY. NOT FOR CONSTRUCTION.

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NEW BRAUNFELS
TEXAS, 78130
TBPE Firm F–10961
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STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

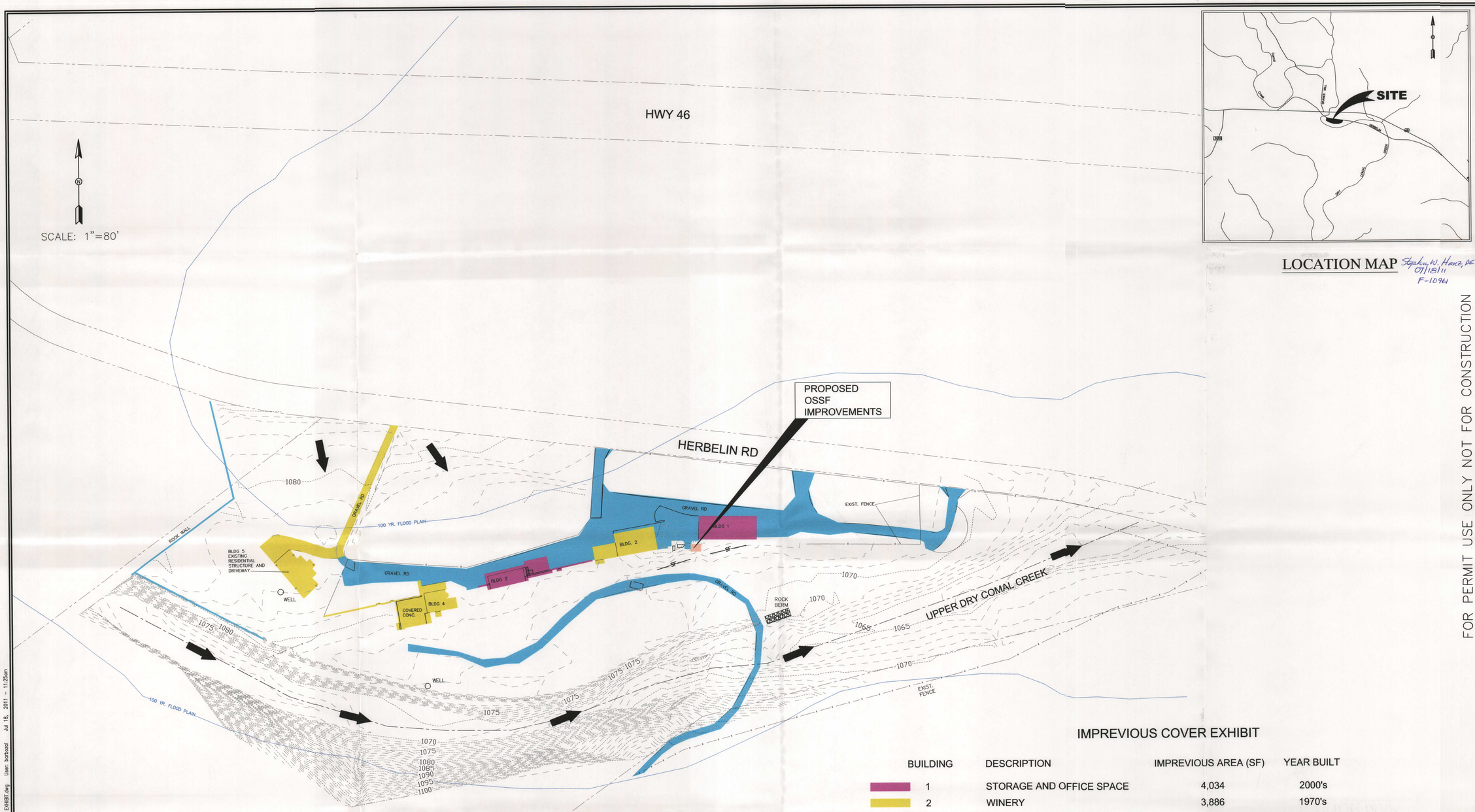
WATER POLLUTION ABATEMENT PLAN
SITE PLAN

DRY COMAL CREEK VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

DATE:	APRIL 2011
DRAWN BY:	LB
DESIGNED BY:	MB
CHECKED BY:	MB
REVIEWED BY:	SH
PROJECT NUMBER:	HSR001.101

SHEET 1 OF 1

Drawing Name: N:\Projects\HSR001.101 – Floodplain & WPAP\Civil\Construction Drawings\SITE PLAN.dwg User: barbozal Jun 22, 2011 – 1:36pm



LOCATION MAP

Stephen W. Hanz, PE
07/18/11
F-10961

IMPREVIOUS COVER EXHIBIT

BUILDING	DESCRIPTION	IMPREVIOUS AREA (SF)	YEAR BUILT
1	STORAGE AND OFFICE SPACE	4,034	2000's
2	WINERY	3,886	1970's
3	BATHROOMS ON BOTTOM APARTMENT ON TOP	3,394	1990's
4	WINE TASTING BUILDING	5,374	1970's
5	EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY	9,389	1950's
	OSSF IMPROVEMENTS	500	PROPOSED
	DRIVEWAY PARKING, ROADS, ROCKWAL	58,325	1990's
	TOTAL IMPROVEMENTS	84,902	
	TOTAL SITE AREA	17.1 AC	
	PERCENT IMPERVIOUS	11.39%	

RECEIVED TCEQ*
SAN ANTONIO REGION
11 JUL 22 PM 4:02

* EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY, WINE TASTING BUILDING, AND WINERY WERE INSTALLED PRIOR TO 1984 WPAP REQUIREMENTS.

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST.
NEW BRAUNFELS
TEXAS, 78130
TBPE Firm F-10961
www.hmtnb.com
Ph: 830-625-8555
Fax: 830-625-8556

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED PROFESSIONAL ENGINEER

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION

IMPREVIOUS COVER EXHIBIT

DRY COMAL CREEK VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

DATE: APRIL 2011
DRAWN BY: LB
DESIGNED BY: MB
CHECKED BY: MB
REVIEWED BY: SH
PROJECT NUMBER: HSR001.101

SHEET 1 OF 1

Drawing Name: N:\Projects\HSR001.101 - Floodplain & WPAP\Civil\Construction Drawings\IMPREVIOUS COVER EXHIBIT.dwg User: barbocat Jul 18, 2011 - 11:25am

ATTACHMENT "C"

Suitability Letter from Authorized Agent

Greg W. Johnson, P.E.

170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778

May 8, 2011

Comal County Office of Environmental Health
195 David Jonas Drive
New Braunfels, Texas 78132-3760

RE: Soil Survey & OSSF compatibility for Franklin D. Houser
1741 Herbelin Road
Dry Comal Creek Vineyards
Jose Maria Tejerino S-349, A-616 being 26.259 acres

TYPE SOILS AND DRAINAGE

This location was surveyed for soil types and their compatibility with development and installation of septic systems. Tested soils have a moderately high clay content and are a part of the Comfort-Rock outcrop complex, undulating (CrD) and Tarpley Clay sloping(1-8%). Soils are moderately well drained. The soil profile consists of a dark reddish brown to dark brown cherty clay with fine blocky structure to 8"-14" over coarsely fractured indurated limestone.

OSSF TYPES

Since the site has mimimal depth soils with a moderately high clay content with poor soil absorption characteristics, a variety of septic systems are suitable depending on each lot. Recommended On Site Sewage Facilities (OSSF) for this site are aerobic treatment plants with spray or drip irrigation . Adequate space is available for any of the referenced OSSF's and their respective replacement areas.

The water service must be routed in such a way to provide a minimum of 10' separation from any part of each OSSF.

Respectfully yours,

Greg W. Johnson, P.E
F2585

OSSF Sizing

Water usage and field requirements:

Q = 200 GPD

Q = 400 GPD

Q= 600 GPD

Drip Irrigation

A = Q/Ra Ra = 0.1 g/sf (Type IV Soil)

A = 200/0.1 = 2000 sf.

A = 400/0.1 = 4000 sf.

A = 600/0.1 = 6000 sf.

Aerobic Treatment Plant (Spray Irrigation)

A = Q / Ri Ri = 0.064 g/sf

A = 200/0.064 = 3125 sf.

A = 400/0.064 = 6250 sf.

A = 600/0.064 = 9375 sf.

ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed: **May 04, 2011**

Site Location: **Jose Maria Tejerino S-349, A-616, being 26.259 @ 1741 Herblin Road**

Proposed Excavation Depth: **N/A**

Requirements:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.
Locations of soil boring or dug pits must be shown on the site drawing.
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated.
Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

SOIL BORING NUMBER **1**

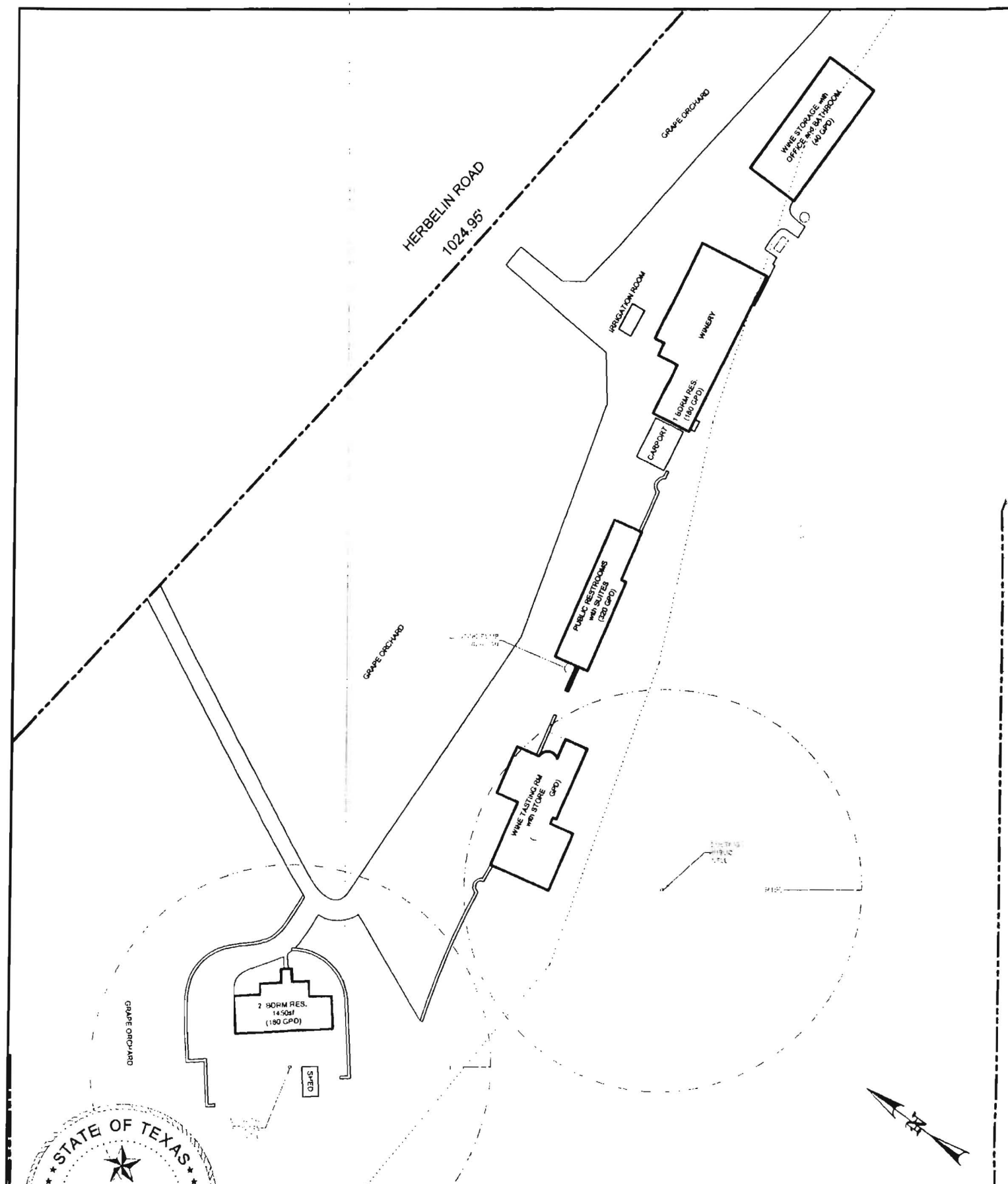
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0 **0-14"** 1 2 3 4 5	**IV**	**CLAY**	**N/A**	**NO**	**L.S. @ 14"**	**BROWN**

SOIL BORING NUMBER **2**

Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0 1 2 3 4 5	**SAME**	**AS**	**ABOVE**			

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability.

Greg W. Johnson, P.E. 67587-F2585, S.E. 11561 — Date



STATE OF TEXAS
GREG W. JOHNSON
67587
REGISTERED
PROFESSIONAL ENGINEER

OWNER: FRANKLIN D. HOUSER				DRAWN BY:
STREET ADDRESS: 1741 HERBELIN ROAD				
LEGAL DESC: JOSE MARIA TEJERINO S-349, A-616				ACREAGE 26.259
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=160'	DATE: 5/4/2011		REVISED:

Comal County

OFFICE OF COMAL COUNTY ENGINEER

May 31, 2011

Mr. Arnold Martinez, Jr., P.E.
HMT Engineering & Surveying
410 N. Seguin Ave.
New Braunfels, TX 78130

Re: Dry Comal Creek Vineyards On-Site Sewage Facility Suitability Letter, within Comal County, Texas

Dear Mr. Martinez:

In accordance with TAC §213.5(b)(4)(F)(ii), Comal County has found that the entire referenced site (except for areas listed below) is suitable for the use of private sewage facilities and will meet the special requirements for on-site sewage facilities located on the Edwards Aquifer recharge zone as specified in TAC §285.40-42 based on the following information submitted to our office on May 31, 2011:

- The Geologic Assessment, prepared by Arias & Associates
- The Water Pollution Abatement Plan, prepared by HMT Engineering & Surveying

Areas that are not Suitable

Feature	Latitude	Longitude	Description
S-2	29.77018°	98.27502°	Cave

In accordance with TAC §285.91, Table X, sewer pipe with water tight joints, lined ET beds and tanks must maintain a 50' separation distance from the feature identified above. Soil absorption systems, unlined ET beds, surface application areas (edge of spray area), and drip irrigation must maintain a 150' separation distance from the feature identified above.

Moreover, according to TAC §285.41(b), Franklin Houser, the president of the referenced site, must inform, in writing, each prospective purchaser, lessee, or renter of the following:

- A Permit to Construct is required from Comal County before an OSSF can be constructed on the Dry Comal Creek Vineyard land;
- A License to Operate is required from Comal County before an OSSF can be operated on the Dry Comal Creek Vineyard land;
- That an application for a water pollution abatement plan, as defined in TAC §213, has been made, whether it has been approved, and if any restrictions or conditions have been placed on that approval; and
- Minimum separation distances, as outlined in Table 10 of TAC §285.91

Furthermore, according to TAC §285.42(a), if any recharge feature, not listed above, is discovered during construction of an OSSF, all regulated activities near the feature shall be suspended immediately. The owner shall immediately notify the TCEQ San Antonio office of the discovery of the feature. All activities regulated under TAC §213 shall not proceed near the feature until Comal County, in conjunction with the TCEQ San Antonio office, has reviewed and approved a plan proposed to protect the feature, the structural integrity of the OSSF, and the water quality of the aquifer. The plan shall be sealed, signed, and dated by a professional engineer.

If you have any questions or need additional information, please do not hesitate to contact our office.

Sincerely,

Robert Boyd, P.E.
Comal County Assistant Engineer

cc: Scott Haag, Comal County Commissioner, Precinct No. 2

Temporary Stormwater Section
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

REGULATED ENTITY NAME: Dry Comal Creek Vineyards Inc.

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:

___ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.
___ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
___ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An **Aboveground Storage Tank Facility Plan** application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
_X_ Fuels and hazardous substances will not be stored on-site.

2. _X_ **ATTACHMENT A - Spill Response Actions.** A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided at the end of this form.

3. _N/A_ 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. _X_ **ATTACHMENT B - Potential Sources of Contamination.** Describe in an attachment at the end of this form any other activities or processes which may be a potential source of contamination.
___ There are no other potential sources of contamination.

SEQUENCE OF CONSTRUCTION

5. _X_ **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 provided at the end of this form. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

6. _X_ 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: Upper Dry Comal Creek

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

on the site plan.

7. _X_ **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided at the end of this form. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

   _X_ 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 has been provided in the attachment at the end of this form

   a. 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.

   b. 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.

   c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

   d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

   ___ **ATTACHMENT E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

   _X_ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. _X_ **ATTACHMENT F - Structural Practices.** Describe 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. Placement of structural practices in floodplains has been avoided.

10. _X_ **ATTACHMENT G - Drainage Area Map**. A drainage area map is provided at the end of this form to support the following requirements.

   ___ 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.

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

11. _N/A_ **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 has 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 provided as at the end of this form.

12. _X_ **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repairs, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

13. _X_ 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. _X_ 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. _N/A_ 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. _X_ 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. _X_ **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 at the end of this form.

18. _X_ 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. _X_ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

ADMINISTRATIVE INFORMATION

20. _X_ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. _X_ 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. _X_ 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.

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:

Stephen W. Hanz, P.E.
Print Name of Customer/Agent

Stephen W. Hanz, PE
Signature of Customer/Agent

07/18/11
Date

ATTACHMENT "A"
Spill Response Actions

Spill Prevention and Control

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill cleanup materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise clean up activities.

(7) Do not bury or wash spills with water.

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMP's.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills immediately.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMP's in this section for specific information.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM.
After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html

Vehicle and Equipment Maintenance

(1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

(4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non- leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

ATTACHMENT "B"
Potential Sources of Contamination

The only potential sources of contamination are construction equipment leaks, re-fueling spills, as well as potential from port-o-lets, and the total suspended solids (TSS) due to the construction activities on-site. There are no other anticipated potential sources of contamination.

ATTACHMENT "C"
Sequence of Major Activities

The site was developed in three categories:

- Before 1984
- 1984 to Present
- Proposed OSSF

Stages of Construction for the proposed OSSF:

1. Site Prep-Work: This includes the set up of construction exhibit and work area. Approximate total disturbed area = 0.0115 acres
2. Existing Demolition/Removal: Removal of the existing septic tank and tie-in lines. Approximate total disturbed are = 0.0115 acres.
3. New Septic System Installation: Septic tank structure and utility lines will be installed at the location shown on the site plans, see Permanent Stormwater Section
4. Finish Site Work: Final landscaping of disturbed areas. Approximate total disturbed area = 0.0115 acres

ATTACHMENT "D"
Temporary BMP's and Measures

The following sequence will be followed for installing temporary BMP's:

1. Silt fence will be constructed on the down-gradient side of proposed site.
2. A rock berm will be installed on the east side of the property next to the existing berm, downstream of the construction site.

A. The existing driveway onsite limits the amount of impact from upstream runoff. Water is captured by existing swales onsite and directed around the existing buildings and the area for the proposed septic system installation.

B. Silt fence will be placed on the downgradient side of the proposed improvement to contain pollutants generated from onsite runoff. Soil disturbance will be limited to a minimal distance outside the proposed septic system. Disturbed areas will be seeded to replace destroyed vegetation. The existing vegetation located downgradient of each proposed improvement will work in conjunction with the silt fence to prevent pollution of water originating onsite and/or flowing offsite.

C. The proposed rock berm, located near the end of the existing berm will prevent pollutants from directly entering the Upper Dry Comal Creek. The creek is a direct source for recharge to the aquifer, and the rock berm will limit the impact of onsite runoff pollutants on the creek. According to the Geologic Assessment, all sensitive features within the identified boundary are located upstream of the project site and should not be impacted by this work.

D. There were no sensitive features identified in the Geologic Assessment that will be affected by the proposed construction.

ATTACHMENT "E"
Request to Temporarily Seal a Feature

There will be no request to temporarily seal a feature.

ATTACHMENT "F"
Structural Practices

Rock berms and silt fence will be used to protect disturbed soils and to prevent contamination from leaving the project site.

ATTACHMENT "G"
Drainage Area Map

See Drainage Area Map at the end of this section.

ATTACHMENT "H"
Temporary Sediment Pond Plans and Calculations

There will not be more than 10 acres of disturbed soil in one common drainage area that will occur at one time. Silt fence will be used for small drainage areas. No sediment ponds will be constructed due to the minimal amount of soil disturbance.

ATTACHMENT "I"
Inspection and Maintenance for BMP's

Inspection and Maintenance Plan

The contractor is required to inspect the control and fences at weekly intervals and after any rainfall events to insure that they are functioning properly. The person(s) responsible for maintenance controls and fences shall immediately make any necessary repairs to damaged areas.

Silt Fence: Remove sediment when buildup reaches 6 inches. Replace any torn fabric or install a second line of fencing parallel to the torn section. 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. 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 revegetated. The fence itself should be disposed of in an approved landfill.

Rock Berms: For installation in streambeds, additional daily inspections shall be made. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation. Repair any loose wire sheathing. The berm shall be reshaped as needed during inspection. The berm shall be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc. The rock berm shall be left in place until all upstream areas are stabilized and accumulated silt removed.

TCEQ staff will be allowed full access to the property during construction of the project for inspecting controls and fences and to verify that the accepted plan is being utilized in the field. TCEQ staff has the right to speak with the contractor to verify plan changes and modifications.

Documentation: All scheduled inspection and maintenance measures made to the temporary BMPs must be documented clearly on the WPAP Site Plan showing inspection/maintenance measures performed, date, and person responsible for inspection and maintenance. Any changes made to the location or type of controls shown on the accepted plans, due to onsite conditions, shall be documented on the site plan that is part of this Water Pollution Abatement Plan. No other changes shall be made unless approved by TCEQ and the Design Engineer. Documentation shall clearly show changes made, date, and person responsible and reason change was made.

Owner's Information:

Owner: Dry Comal Creek Vineyards Inc.
Contact: Franklin Houser
Phone: (830) 456-2787
Address: 1741 Herbelin Rd.
New Braunfels, Texas 78132

Design Engineer:

Company: HMT Engineering & Surveying
Contact: Stephen W. Hanz, P.E.
Phone: (830) 625-8555
Address: 410 N. Seguin Street
New Braunfels, Texas 78130

Person or Firm Responsible for Erosion/Sedimentation Control Maintenance:

Company: _____
Contact: _____
Phone: _____
Address: _____

Signature of Responsible Party: _____

This portion of the form shall be filled out and signed by the responsible party prior to construction.

ATTACHMENT "J"
Schedule of Interim and Permanent Soil Stabilization Practices

Areas which are disturbed by construction staging and storage areas will be hydro mulched with the appropriate seed mixture. Areas between the edge of pavement and property line will also be hydro mulched. There will be no fill slopes exceeding a 3:1 slope and all fill slopes will be hydro mulched. Installation and acceptable mixtures of hydro mulch are as follows:

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Seed Mixtures:

Dates	Climate	Species	(lb/ac.)
Sept. 1 to Nov. 30	Temporary Cool Season	Tall Fescue	4.0
		Oats	21.0
		Wheats	30.0
		Total	**55.0**
Sept. 1 to Nov. 30	Cool Season Legume	Hairy Vetch	8.0
May 1 to Aug. 31	Temporary Warm Season	Foxtail Millet	30.0

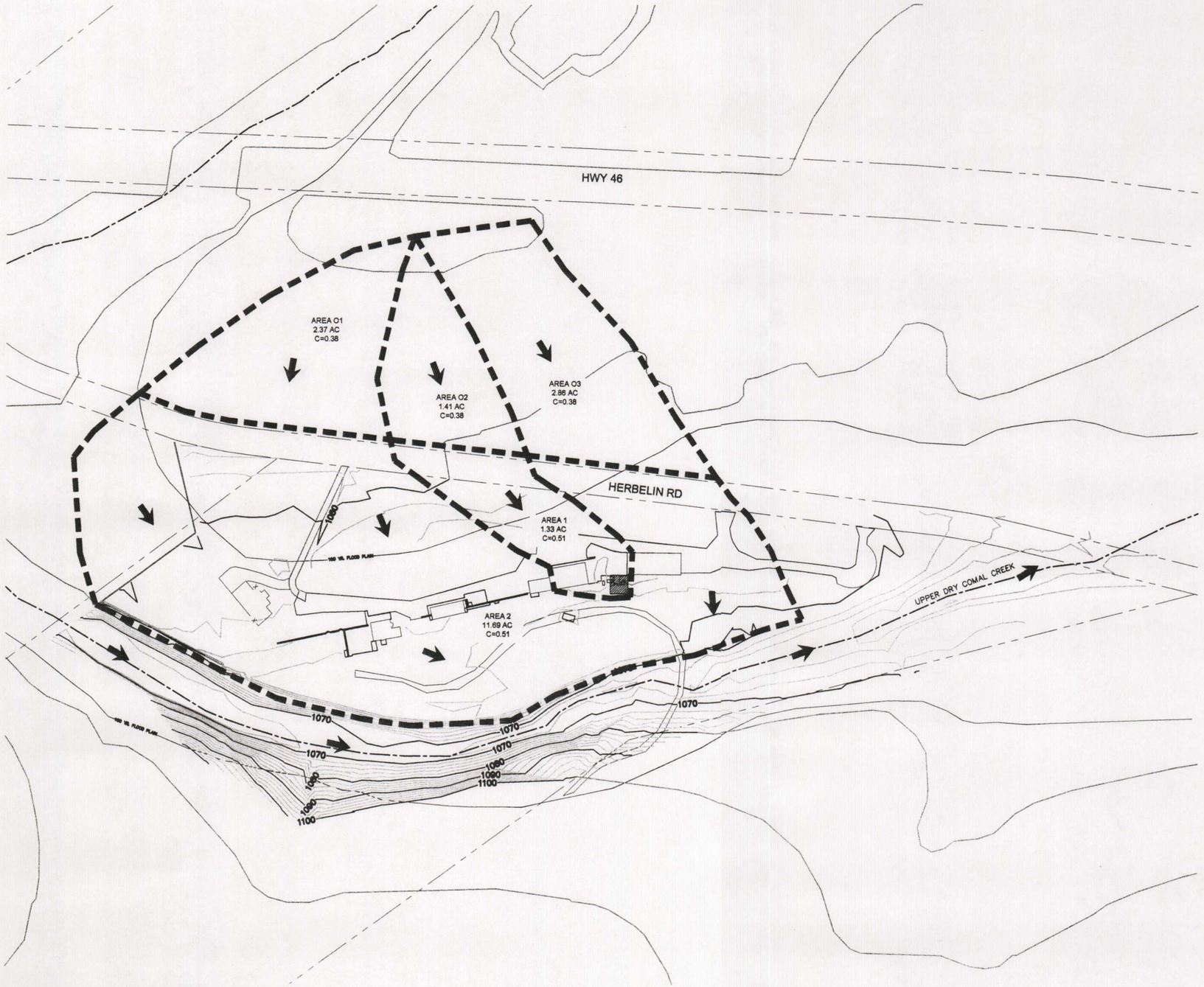
Fertilizer: Fertilizer should be applied at the rate of 40 pounds of nitrogen and 40 pounds of phosphorus per acre, which is equivalent to about 1.0 pounds of nitrogen and phosphorus per 1000 square feet.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.



SCALE: 1" = 100'

LEGEND

LIMITS OF DRAINAGE AREA

AREAS OF DISTURBANCE

DRAINAGE FLOW ARROWS

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

Stephen W. Hanz, PE
07/18/11
F-10961

FOR PERMIT USE ONLY.
NOT FOR CONSTRUCTION.

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST.
NEW BRAUNFELS
TEXAS, 78130
TBPE Firm F-10961
www.hmtnb.com
Ph: 830-625-8555
Fax: 830-625-8556

DRAINAGE AREA MAP

DRY COMAL CREEK
VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

DATE:	MAY 2011
DRAWN BY:	MB
DESIGNED BY:	MB
CHECKED BY:	MB
REVIEWED BY:	SH
PROJECT NUMBER:	HSR001.101

SHEET 1 OF 1

Drawing Name: K:\Projects\HSR001.101 - Floodplain & WPAP\Civil\Exhibits\Drainage\Exhibit1811.dwg User: bcrbosal Jun 22, 2011 - 1:19pm

Permanent Stormwater Section
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

REGULATED ENTITY NAME: Dry Comal Creek Vineyards Inc.

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

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

2. N/A 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 provided below:

   _____
   _____

3. _N/A_ 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.

4. _N/A_ 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.

   ___ This site will be used for low density single-family residential development and has 20% or less impervious cover.
   ___ This site will be used for low density single-family residential development but has more than 20% impervious cover.
   ___ This site will not be used for low density single-family residential development.

5. _X_ The executive director may waive the requirement for other permanent BMPs for multi-family 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.

_X_ **ATTACHMENT A - 20% or Less Impervious Cover Waiver.** This 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 found at the end of this form.

___ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

___ This 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 identified as **ATTACHMENT B** at the end of this form.

___ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form.

_X_ If 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, an explanation is provided as **ATTACHMENT B** at the end of this form.

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 identified as **ATTACHMENT C** at the end of this form.

_X_ If 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, an explanation is provided as **ATTACHMENT C** at the end of this form.

8. _X_ **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 provided at the end of this form. Each feature identified in the Geologic Assessment as "sensitive" has been addressed.

9. _X_ 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.

_X_ The permanent sealing of or diversion of flow from a naturally-occurring "sensitive" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" or "possibly sensitive" features on this site.

___ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" or "possibly sensitive" feature, that includes a justification as to why no reasonable and practicable alternative exists, is found at the end of this form. A request and justification has been provided for each feature.

10. _N/A_ **ATTACHMENT F - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ

Construction Notes, all man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. _N/A_ **ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

12. _N/A_ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

_N/A_ Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.

__ **ATTACHMENT H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. _N/A_ **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 provided at the end of this form. 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.

Responsibility for maintenance of permanent BMPs and measures after construction is complete.

14. _X_ 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.

15. _X_ 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.

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:

Stephen W. Hanz, P.E.
Print Name of Customer/Agent

Stephen W. Hanz, PE — 07/18/11
Signature of Customer/Agent — Date

ATTACHMENT "A"
20% of Less Impervious Cover Waiver

The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	58,325	1.34	1990's
	Total Impervious Cover	84,902	1.95	

Total Site	17.1
Total Impervious Cover	11.40%
Before 1984	2.50%
1984 to Present	8.83%
Proposed	0.07%
	11.40%

*** Dry Comal Creek Vineyards Inc. is requesting a waiver of the requirement for permanent BMPs to be used at this site.**

ATTACHMENT "B"
BMP's for Upgradient Stormwater

Up gradient stormwater currently sheet flows over land through the site from a high point located to the northwest of the site on the property across Herbelin Rd. The flow is over natural soil conditions and has no obstructions preventing its natural path. Currently, the existing site that includes buildings, driveways, and miscellaneous concrete is not impacted by the sheet flow upgradient. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "C"
BMP's for On-Site Stormwater

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since site improvements from 1984 to the present including the proposed OSSF improvements increased impervious cover from 2.50% to 8.83%, 4.65 CFS Q100 of additional stormwater runoff, and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "D"
BMP's for Surface Streams

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

The natural vegetation located downgradient of proposed improvements will provide additional filtration to help prevent pollution from entering streams, sensitive features and the aquifer. According to the Geologic Assessment, all sensitive features within the identified boundary are located upstream of the project site and should not be impacted by this work.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

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

I Franklin Houser,
Print Name

President,
Title - Owner/President/Other

of Dry Comal Creek Vinyards, Inc.,
Corporation/Partnership/Entity Name

have authorized Stephen W. Hanz, P.E.
Print Name of Agent/Engineer

of Hollmig Moeller Thornhill, Inc (HMT Engineering & Surveying)
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:

Applicant's Signature

20 April
Date

THE STATE OF Texas §

County of Comal §

BEFORE ME, the undersigned authority, on this day personally appeared Franklin Huser 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 20th day of April, 2011.

AMANDA M. GOLD
Notary Public, State of Texas
My Commission Expires
September 15, 2013

Amanda M. Gold
NOTARY PUBLIC

Amanda M. Gold
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: September 15, 2013

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Form

NAME OF PROPOSED REGULATED ENTITY: Dry Comal Creek Vineyards, Inc.
REGULATED ENTITY LOCATION: 1741 Herbelin Rd
NAME OF CUSTOMER: Franklin Houser
CONTACT PERSON: Stephen W. Hanz, PE PHONE: (830) 625-8555
(Please Print)

Customer Reference Number (if issued): CN _____ (nine digits)

Regulated Entity Reference Number (if issued): RN _____ (nine digits)

Austin Regional Office (3373) ☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362) ☐ Bexar ☒ Comal ☐ Medina ☐ Kinney ☐ Uvalde

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to (Check One):

☐ **Austin Regional Office**

☐ **Mailed to TCEQ:**
TCEQ – Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☒ **San Antonio Regional Office**

☐ **Overnight Delivery to TCEQ:**
TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-0347

Site Location (Check All That Apply): ☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	Size		Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling		Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks		Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	17.1	Acres	$ 6,500
Sewage Collection System		L.F.	$
Lift Stations without sewer lines		Acres	$
Underground or Aboveground Storage Tank Facility		Tanks	$
Piping System(s)(only)		Each	$
Exception		Each	$
Extension of Time		Each	$

Stephen W. Hanz, PE
Signature

07/18/11
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Schedule
30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications
Contributing Zone Plans and Modifications

PROJECT	PROJECT AREA IN ACRES	FEE
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $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

Morgan Stanley

FRANKLIN HOUSER
BONNIE HOUSER
251 BLUE BONNET BLVD.
SAN ANTONIO, TX 78209-4630

1214

Date 9 May 11 26-80/440

Pay to the Order of TSEQ $ 6500 00

Six Thousand five hundred and no/100 Dollars

Morgan Stanley DW Inc.
JPMorgan Chase Bank, N.A.
Columbus, Ohio 43271

Expense Analyzer

For

⑆044000804⑆890108344⑈ 1214

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

■ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments — Describe Any Attachments: *(ex. Title V Application, Waste Transporter Application, etc.)*

■ Yes ☐ No — WPAP

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN		RN

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

■ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

RECEIVED TCEQ SAN ANTONIO REGION
2007 AUG -1 AM 11:3

7. General Customer Information

■ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☐ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	■ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)*	*If new Customer, enter previous Customer below*	*End Date:*
DRY COMAL CREEK VINEYARDS, INC.		

10. Mailing Address:	1741 HERBELIN RD						
	City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	1838

11. Country Mailing Information *(if outside USA)*	12. E-Mail Address *(if applicable)*

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
(830) - 456-2787		(830) - 885-7001

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number *(if applicable)*	19. TX SOS Filing Number *(if applicable)*
742880580	17428805802	N/A	149210900

20. Number of Employees: ■ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated? ■ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

■ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☐ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

DRY COMAL CREEK VINEYARDS, INC.

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*	1741 HERBELIN RD.							
	City	NEW BRAUFELS	State	TX	ZIP	78132	ZIP + 4	1838
25. Mailing Address:	1741 HERBELIN RD.							
	City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	1838

26. E-Mail Address:	N/A

27. Telephone Number	28. Extension or Code	29. Fax Number *(if applicable)*
(830) - 885-4076		(830) -885-4124

30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)
5182	0721	312130	

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

WINERY

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	APPROX. 1500 FT TO THE EAST OF THE INTERSECTION OF STATE HIGHWAY 46 AND HERBELIN RD.; ALONG THE SOUHT FRONTAGE OF HERBELIN RD.

36. Nearest City	County	State	Nearest ZIP Code
NEW BRAUNFELS	COMAL	TX	78132

37. Latitude (N) In Decimal:	29.7712		38. Longitude (W) In Decimal:	98.2728	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29°	46'	16"	98°	16'	22"

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 or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	■ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	STEPHEN W HANZ, P.E.	41. Title:	PROFESSIONAL ENGINEER

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 625 8555		(830)625- 8556	STEPHENH@HMTNB.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 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	DRY COMAL CREEK VINEYARDS, INC.	Job Title:	PRESIDENT
Name *(In Print)*:	FRANKLIN HOUSER	Phone:	(830)456.4377
Signature:		Date:	8-1-11

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

I FRANKLIN HOUSER,
Print Name

PRESIDENT,
Title - Owner/President/Other

of DRY COMAL CREEK VINEYARDS, INC.,
Corporation/Partnership/Entity Name

have authorized STEPHEN W. HANZ, P.E.
Print Name of Agent/Engineer

of HOLLMIG MOELLER THORNHILL, INC DBA HMT ENGINEERING & SURVEYING
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:

Applicant's Signature

8-1-11
Date

THE STATE OF Texas §

County of Comal §

BEFORE ME, the undersigned authority, on this day personally appeared Franklin Houser 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 1 day of August, 2011.

Amanda M Gold
Notary Public
State of Texas
My Comm. Exp. 9-15-2013

Amanda M. Gold
NOTARY PUBLIC

Amanda M. Gold
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 9-15-2013

TCEQ

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒ Yes ☐ No WPAP

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN		RN

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☐ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☒ Other: WINERY

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* *If new Customer, enter previous Customer below* *End Date:*

DRY COMAL CREEK VINEYARDS INC.

10. Mailing Address: 1741 HERBELIN RD

City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	1838

11. Country Mailing Information *(if outside USA)*

12. E-Mail Address *(if applicable)* Franklin@drycomalcreek.com

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
(830) 456 2787		(830) 885-7001

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number *(if applicable)*	19. TX SOS Filing Number *(if applicable)*
742805580	17423805802	N/A	14921090

20. Number of Employees

☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☒ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☐ No Change** *(See below)*

If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

DRY COMAL CREEK VINEYARDS INC.

24. Street Address of the Regulated Entity: (No P.O. Boxes)	1741 HERBELIN RD							
	City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	1838
25. Mailing Address:	1741 HERBELIN RD							
	City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	1838
26. E-Mail Address:								

27. Telephone Number	28. Extension or Code	29. Fax Number (if applicable)
(830) 885-4076		(830) 885-4124

30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)
5182	0721	312130	

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

WINERY

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	LOCATED APPROXIMATELY 1500 FT TO THE EAST OF THE INTERSECTION OF STATE HIGHWAY 46 & HERBELIN RD; ALONG THE SOUTH FRONTAGE OF HERBELIN RD.

36. Nearest City	County	State	Nearest ZIP Code
NEW BRAUNFELS	COMAL	TX	78132

37. Latitude (N) In Decimal:	29.7712	38. Longitude (W) In Decimal:	98.2728

Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29°	46′	16″	98°	16′	22″

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 or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	STEPHEN W. HANZ, P.E.	41. Title:	PROFESSIONAL ENGINEER

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 625-8555		(830) 625-8556	STEPHENH@HMTNB.COM

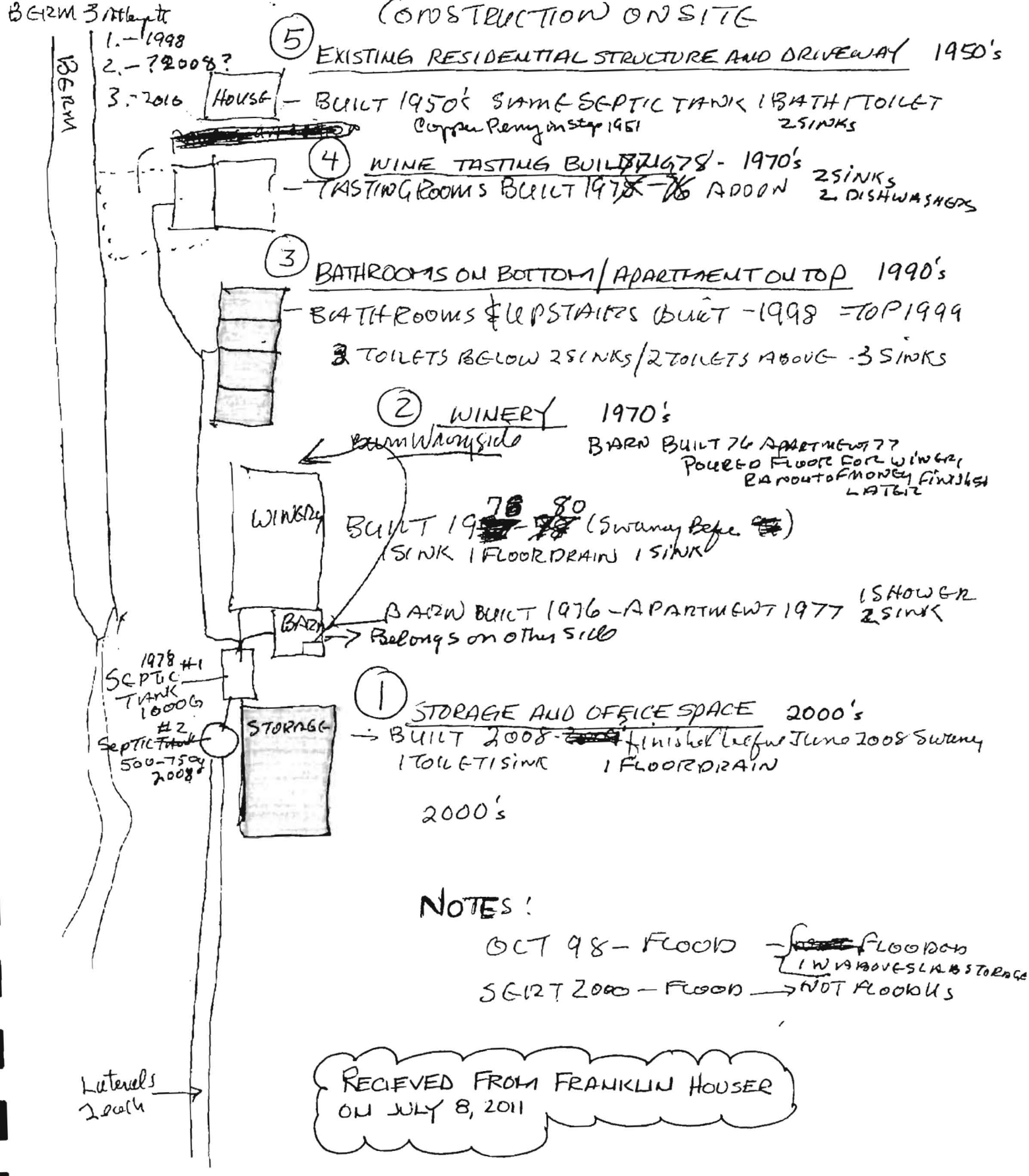
SECTION V: Authorized Signature

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 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Dry Comal Creek Winery	Job Title:	President
Name (In Print):	FRANKLIN HOUSE	Phone:	(830) 456-4377
Signature:	[signature]	Date:	20 Apr 11

DRY CREEK VINEYARDS
CONSTRUCTION ONSITE



(5) EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY 1950's

HOUSE – BUILT 1950's SAME SEPTIC TANK 1 BATH 1 TOILET 2 SINKS
Copper Penny in Step 1951

(4) WINE TASTING BUILDING 1978 - 1970's 2 SINKS 2 DISHWASHERS

TASTING ROOMS BUILT 1978 ~~-76~~ ADDON

(3) BATHROOMS ON BOTTOM / APARTMENT ON TOP 1990's

BATHROOMS & UPSTAIRS BUILT -1998 =TOP 1999

~~2~~ TOILETS BELOW 2 SINKS / 2 TOILETS ABOVE - 3 SINKS

(2) WINERY 1970's

~~Barn~~ Winery side

BARN BUILT 76 APARTMENT 77
POURED FLOOR FOR WINERY
RAN OUT OF MONEY FINISHED LATER

WINERY BUILT 19~~76~~ 80 (Swamp Before ~~80~~)
1 SINK 1 FLOORDRAIN 1 SINK

BARN BUILT 1976 – APARTMENT 1977 1 SHOWER 2 SINK

BARN → Belongs on other side

(1) STORAGE AND OFFICE SPACE 2000's

→ BUILT 2008 ~~2009~~ finished before June 2008 Sweeny
1 TOILET 1 SINK 1 FLOORDRAIN

2000's

NOTES:

OCT 98 – FLOOD – ~~1~~ FLOOD 1 W/ ABOVE SLAB STORAGE

SEPT 2000 – FLOOD → NOT FLOODED

RECIEVED FROM FRANKLIN HOUSER ON JULY 8, 2011

HMT
ENGINEERING & SURVEYING
HOLLMIG ■ MOELLER ■ TSCHIRHART

October 8, 2011

Javier Anguiano
Texas Commission on Environmental Quality, EAPP, Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233

RE: Edwards Aquifer, Comal County
NAME OF PROJECT: Dry Comal Creek Vineyards; located at 1741 Herbelin Rd., New Braunfels, Texas
TYPE OF PLAN: Request for the approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer; Edwards Aquifer Protection Program San Antonio File No. 3000.00; Investigation No. 948278; Regulated Entity No. RN106201189

Mr. Anguiano,

This letter is in response to comments letter dated September 23, 2011for the above referenced project.

1. Please contact the investigator to schedule a site assessment.

   An onsite site assessment was scheduled and done with Mr. Javier Anguiano at 9:00AM, Tuesday, October 03, 2011.

2. The project description states that the "site" (as shown on the site plan) is 17.1 acres that is part of a larger acre tract. According to Comal County [website] records, the site is comprised of a 0.418 acre tract and an 18.024 acre tract. Additionally, the boundaries for the 18.024 acre tract proceed past the Dry Comal Creek. Please explain and confirm that the site boundaries are based on a legal land description i.e. metes & bounds.

   The two properties that represent the WPAP are 0.418 acres & 18.024 acres, for a total area of 18.44 acres. All references to the two property areas have been changed and all impervious area calculations have been corrected. The corrected sheets are included with this letter to be inserted into the WPAP application.

3. According to Comal County [website] records, Mr. Franklin Houser is shown to be the owner of the site, not Dry Comal Creek Vineyards, Inc. Please confirm who the actual owner of the site is and provide appropriate documentation. If it is not Dry Comal Creek Vineyards, Inc., then revise all pertinent forms and attachments that require the owner/customer name and information.

   The two properties that represent the WPAP are 0.418 acres & 18.024 acres for a total area of 18.44 acres as shown on the Comal County CAD website. The owner of both properties is Franklin D. Houser. All references to the owner of the two properties have been corrected and the corrected sheets are included with this letter to be inserted into the WPAP application.

TCEQ-0584 Concerns:

4. Item 14 state that there would be approximately 60 gal/day of domestic wastewater to be expected from the site. The gal/day shown on the site exhibit included Attachment C totals to more than 60. Please explain and revise as necessary.

   Item 14 has been revised to match the same 540 gal/day domestic wastewater as shown on Attachment C.

5. Is there any wastewater resulting from the wine making process, and if so, how is it disposed of?

   The wine making process starts with grape juice produced from pressing grapes, or by using grape juice purchased already pressed by offsite others. The grape juice is then pumped to the fermentation tank. From the fermentation process, the grape juice is turned to wine. The quality wine is pumped from the fermentation tank to storage tanks. The remaining fluid in the fermentation tank is captured and transferred to additional stargaze tanks for the use of making other types of wines (port), or used to assist with refinement of other wine making processes. There is a zero liquid waste stream from this process. All liquids are utilized in the process. In conclusion, no liquids are ever wasted or discharged as part of a waste stream. All liquids are captured and utilized in the wine making process.

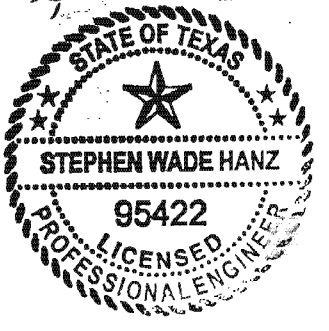
6. Update Site Plans & Geological Assessment to match the 18.44 acres.

   The Site Plan and Geological Assessment have been updated to include the 18.44 acre site.

Thank you for your help and assistance with this matter. If you have any further questions or comments, please call Stephen at (830) 625-8555.

Stephen W. Hanz, PE
Principal

Stephen W. Hanz, PE
10/10/2011
F-10961



General Information Form

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

REGULATED ENTITY NAME: DRY COMAL CREEK VINEYARDS
COUNTY: Comal STREAM BASIN: Upper Dry Comal Creek

EDWARDS AQUIFER: ☑ RECHARGE ZONE
__ TRANSITION ZONE

PLAN TYPE: ☑ WPAP __ AST __ EXCEPTION
__ SCS __ UST __ MODIFICATION

CUSTOMER INFORMATION

1. Customer (Applicant):

Contact Person: Franklin D. Houser
Entity: DRY COMAL CREEK VINEYARDS
Mailing Address: 1741 Herbelin Rd.
City, State: New Braunfels, TX Zip: 78132
Telephone: (830) 456-2787 FAX: (830) 855-4124

Agent/Representative (If any):

Contact Person: Stephen W. Hanz, PE
Entity: HMT Engineering & Surveying
Mailing Address: 410 N. Seguin Ave.
City, State: New Braunfels, TX Zip: 78130
Telephone: (830) 625-8555 FAX: (830) 625-8556

2. __ This project is inside the city limits of _____.
__ This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
☑ This project is not located within any city's limits or ETJ.

3. 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.

_____
_____
_____

4. ☑ **ATTACHMENT A - ROAD MAP**. A road map showing directions to and the location of the project site is attached at the end of this form.

5. ☑ **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

ATTACHMENT "C"
Project Description

The site consists of two properties. The first property consists of 0.418 acres and the second consists of 18.024 acres. The combined area represented by this WPAP is 18.44 acres. The site is located in Comal County and is not within any city's limits or ETJ. The site is addressed at 1741 Herbelin Rd along SH 46. The site does not currently have a WPAP. The 18.44 acre site is currently in use as a commercial winery with buildings, driveways, and miscellaneous impervious cover installed from 1950's to the present.

The site contains a residence structure, residence structure driveway, wine tasting building, and winery building installed prior to 1984. These items will be considered existing conditions as they were installed prior to the WPAP requirements of 1984.

The site also contains a bathroom on bottom & apartment on top building, storage & office space building, driveways, and miscellaneous impervious cover installed after 1984 to the present.

In addition, a proposed improvement is planned to be installed within the existing developed area of the site. The proposed improvement consists of the installation of an underground septic tank and aerobic spray irrigation system to serve the previously installed buildings. Currently, the buildings are tied to an existing On Site Sewage Facility (OSSF); however, the OSSF lies within the floodplain zone and is unpermitted. The owner will be required to build a new OSSF to meet standards of a properly permitted system. The new OSSF will be designed according to TCEQ regulations for On-Site Sewage Facilities over the Edwards Aquifer as specified in Title 30 of the Texas Administrative Code, Section 285, Subchapter E (30 TAC 285:E, Effective June 13, 2001). The goal of this WPAP is to properly permit the improvements that were previously installed without a WPAP from 1984 to the present, and the proposed OSSF improvements yet to be installed.

- Building 1 – Storage & Office Space, built 2000's
- Building 2 – Winery, built 1970's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 5 – Residence Structure & Driveway, Built 1950's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
- Proposed OSSF planned to be installed 2011

The Upper Dry Comal Creek creates the southern boundary of the site, flowing west to east. The entire site drains to the Upper Dry Comal Creek. A portion of the developed site is within the limits of the 100-year flood plain of the Upper Dry Comal Creek according to the FEMA Flood Insurance Rate Map (FIRM) Panel 48091C0245F effective September 2, 2009. The owner is currently working with Comal County officials on impacts to the base flood elevation due to improvements installed within the floodplain.

There will be no floodplain modifications associated with this proposed OSSF work. In addition, the site does not have a Critical Water Quality Zone and there are no areas planned to be irrigated with wastewater.

The developed portion of the site contains no existing drainage inlets or subsurface pipe systems. A large pervious berm exists along the north banks of the Upper Dry Comal Creek, which protects the property from constant flooding from offsite stormwater runoff. The existing stormwater runoff generated onsite sheet flows towards the southeastern edge of the property before entering the Upper Dry Comal Creek. The Upper Dry Comal Creek is part of the Dry Comal Creek watershed, which eventually drains into the Comal River. The berm structure is a pervious structure.

Existing (Before 1984)

The site improvements installed before 1984 created less than 20% impervious cover to the 18.44 acre site. The improvements installed before 1984 created 2.32% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed before 1984 created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 5 – Residence Structure & Driveway, Built 1950's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 2 – Winery, built 1970's
  (Shown in Yellow on Impervious Cover Exhibit located in Section 3)

Present (After 1984)

The site improvements installed after 1984 to the present created less than 20% impervious cover to the 18.44 acre site. The improvements installed after 1984 to the present created 8.19% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed after 1984 to the present created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 1 – Storage & Office Space, built 2000's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
  (Shown in Purple & Blue on Impervious Cover Exhibit located in Section 3)

Proposed (2011)

The proposed improvements are minor in nature and will include the construction of a new septic tank and utility tie-in lines for the existing buildings on the property. An aerobic spray irrigation system will also be provided onsite. The project scope does not

include the addition of any stormwater drainage infrastructure to the site. The project includes the addition of less than 1/2% impervious cover to the gross area of the site and impact on drainage for the proposed conditions can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Proposed OSSF planned to be installed 2011
  (Shown in Orange on Impervious Cover Exhibit located in Section 3)

This WPAP has been prepared for the site based on the regulated activity that has occurred and will occur over the Edwards Aquifer Recharge Zone in accordance with the Edwards Aquifer Protection Program Rules as specified in Title 30 of the Texas Administrative Code, Section 213 (30 TAC 213, effective June 1, 1999). Because the improvements installed after 1984 to the present created only 8.19% impervious cover and the proposed OSSF improvements will consist of minor construction and an addition of less than 1/2% impervious cover to the gross area of the site, the owner is requesting a waiver of the requirement for permanent BMPs. The OSSF project is to begin as soon as the proper permits are acquired and is planned to be completed within 2 months (after site plan approval).

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

REGULATED ENTITY NAME: ~~Franklin D. Houser~~ Donna Creek Vineyards

REGULATED ENTITY INFORMATION

1. The type of project is:
   ___ Residential: # of Lots: _____
   ___ Residential: # of Living Unit Equivalents: _____
   _X_ Commercial
   ___ Industrial
   ___ Other: _____

2. Total site acreage (size of property): 18.44 ac

3. Projected population: 0 - 20 people

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	*26,077 ft^2	÷ 43,560 =	0.60 acres
Parking	37,268 ft^2	÷ 43,560 =	0.86 acres
Other paved surfaces	21,557 ft^2	÷ 43,560 =	0.49 acres
Total Impervious Cover	84,902 ft^2	÷ 43,560 =	1.95 acres
Total Impervious Cover ÷ Total Acreage x 100 =			10.57%

* Includes residential structure and residential structure driveway, wine tasting building, and winery building installed prior to 1984.

5. _X_ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. _X_ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. Type of project:
   ___ TXDOT road project.
   ___ County road or roads built to county specifications.
   ___ City thoroughfare or roads to be dedicated to a municipality.
   ___ Street or road providing access to private driveways.

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

__ Concrete
__ Asphaltic concrete pavement
__ Other: _____

9. Length of Right of Way (R.O.W.): ____ feet.
Width of R.O.W.: ____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
Width of pavement area: ____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.
Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

11. __ A rest stop will be included in this project.
__ A rest stop will **not** be included in this project.

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

STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

13. X **ATTACHMENT B - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is provided at the end of this form. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

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

100% Domestic	540 gallons/day
___% Industrial	_____ gallons/day
___% Commingled	_____ gallons/day

TOTAL 540 gallons/day

15. Wastewater will be disposed of by:
X **On-Site** Sewage Facility (OSSF/Septic Tank):
X **ATTACHMENT C - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.
X Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

N/A Sewage Collection System (Sewer Lines):
__ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

The proposed improvements include the replacement of a septic tank, which is installed underground.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	58,325	1.34	1990's
	Total Impervious Cover	84,902	1.95	

Total Site	18.44
Total Impervious Cover	10.57%
Before 1984	2.32%
1984 to Present	8.19%
Proposed	0.06%
	10.57%

The construction of these improvements from 1984 to the present and including the proposed OSSF improvements scheduled for 2011 will add approximately 66,253 square feet (1.52 acres) of impervious cover to the 18.44 acre site. Currently, the site contains existing buildings, existing driveways and existing miscellaneous impervious covers which make up approximately 84,902 square feet (1.95 acres) of impervious cover. The addition of the proposed OSSF will add 500 square feet (0.01 acres). Therefore, the addition of the proposed impervious cover amounts to less than 20% of the gross site area and can be assumed negligible. The offsite areas that contribute to the site and affect onsite drainage were considered as undeveloped sparsely wooded land.

The hydrology calculations for existing and proposed conditions are broken out in the tables below. Table 1 shows existing conditions stormwater runoff for improvements installed before 1984.

Table 1 – Before 1984 Existing Conditions Hydrology Calculations

Area ID	Area	"C" Value	T_c	I_{10}	I_{100}	Q_{10}	Q_{100}
O1	2.37	0.38	20	5.44	8.51	4.90	7.66
O2	1.41	0.38	20	5.44	8.51	2.91	4.56
O3	2.86	0.38	20	5.44	8.51	5.91	9.25
1	1.33	0.41	20	5.44	8.51	2.97	4.64
O2 + 1	2.74	0.39	20	5.44	8.51	5.81	9.09
2	11.69	0.40	20	5.44	8.51	25.44	39.79
O1 + O2 + O3 +1 + 2	19.66	0.39	20	5.44	8.51	42.13	65.91

Table 2 shows existing conditions stormwater runoff for improvements installed from 1984 to present & including the proposed OSSF improvement.

Table 2 – After 1984 & Proposed Conditions Hydrology Calculations

Area ID	Area	"C" Value	T_c	I_{10}	I_{100}	Q_{10}	Q_{100}
O1	2.37	0.38	20	5.44	8.51	4.90	7.66
O2	1.41	0.38	20	5.44	8.51	2.91	4.56
O3	2.86	0.38	20	5.44	8.51	5.91	9.25
1	1.33	0.47	20	5.44	8.51	3.40	5.32
O2 + 1	2.74	0.42	20	5.44	8.51	6.26	9.79
2	11.69	0.44	20	5.44	8.51	27.98	43.77
O1 + O2 + O3 +1 + 2	19.66	0.42	20	5.44	8.51	45.11	70.56

The additional runoff added to the site from 1984 to the present and including the proposed OSSF improvements when compared to runoff conditions prior to 1984 is a minimal 2.98 cfs Q10 and 4.65 cfs Q100. These additional runoff flows are negligible compared to the entire 18.44 acre site.

Drainage Area 1 drains from the north to the south through the proposed project area. The remainder of the site has been calculated with Drainage Area 2, which flows across the site into the adjacent creek and its 100 yr floodplain. Both drainage areas are located entirely over the Edwards Aquifer Recharge Zone.

The flows directed from this site are in the form of sheet flow and the calculated values are considered as the total contribution to the adjacent creek. Total flow contribution to the creek from the site is not a point discharge. All existing drainage patterns were not altered by the proposed improvements.

ATTACHMENT "A"
20% of Less Impervious Cover Waiver

The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	58,325	1.34	1990's
	Total Impervious Cover	84,902	1.95	

Total Site	18.44
Total Impervious Cover	10.57%
Before 1984	2.32%
1984 to Present	8.19%
Proposed	0.06%
	10.57%

*** Dry Comal Creek Vineyards Inc. is requesting a waiver of the requirement for permanent BMPs to be used at this site.**

ATTACHMENT "B"
BMP's for Upgradient Stormwater

Up gradient stormwater currently sheet flows over land through the site from a high point located to the northwest of the site on the property across Herbelin Rd. The flow is over natural soil conditions and has no obstructions preventing its natural path. Currently, the existing site that includes buildings, driveways, and miscellaneous concrete is not impacted by the sheet flow upgradient. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "C"
BMP's for On-Site Stormwater

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since site improvements from 1984 to the present including the proposed OSSF improvements increased impervious cover from 2.32% to 8.19%, 4.65 CFS Q100 of additional stormwater runoff, and minim al soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "D"
BMP's for Surface Streams

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

The natural vegetation located downgradient of proposed improvements will provide additional filtration to help prevent pollution from entering streams, sensitive features and the aquifer. According to the Geologic Assessment, all sensitive features within the identified boundary are located upstream of the project site and should not be impacted by this work.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided*)

■ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments — Describe Any Attachments: *(ex. Title V Application, Waste Transporter Application, etc.)*

■ Yes ☐ No — WPAP

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN		RN

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

■ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

7. General Customer Information

■ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☐ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	■ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

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9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* — *If new Customer, enter previous Customer below* — *End Date:*

Franklin D. Houser

10. Mailing Address: 1741 HERBELIN RD

City	NEW BRAUNFELS	State	TX	ZIP	78132	ZIP + 4	1838

11. Country Mailing Information *(if outside USA)*

12. E-Mail Address *(if applicable)*

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
(830) - 456-2787		(830) - 885-7001

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number *(if applicable)*	19. TX SOS Filing Number *(if applicable)*
742880580	17428805802	N/A	149210900

20. Number of Employees

■ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

■ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

■ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☐ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

DRY COMAL CREEK VINEYARDS, INC.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, and the name of the prime contractor and the name and telephone number of the contact person.

2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.

3. If any sensitive feature is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. The regulated activities near the sensitive feature may not proceed until the TCEQ has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality.

4. No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

5. Prior to commencement of construction, all temporary erosion and sedimentation (E&S) control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must remain in place until disturbed areas are revegetated and the areas have become permanently stabilized.

6. 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).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake must be provided that can indicate when the sediment occupies 50% of the basin volume.

8. 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).

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

11. The following records shall be maintained and made available to the TCEQ upon request: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

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

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

C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704-5712	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:

(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:

(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 - 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 - 8 inch diameters rocks may be used.

Installation:

(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) 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.

(5) 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. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:

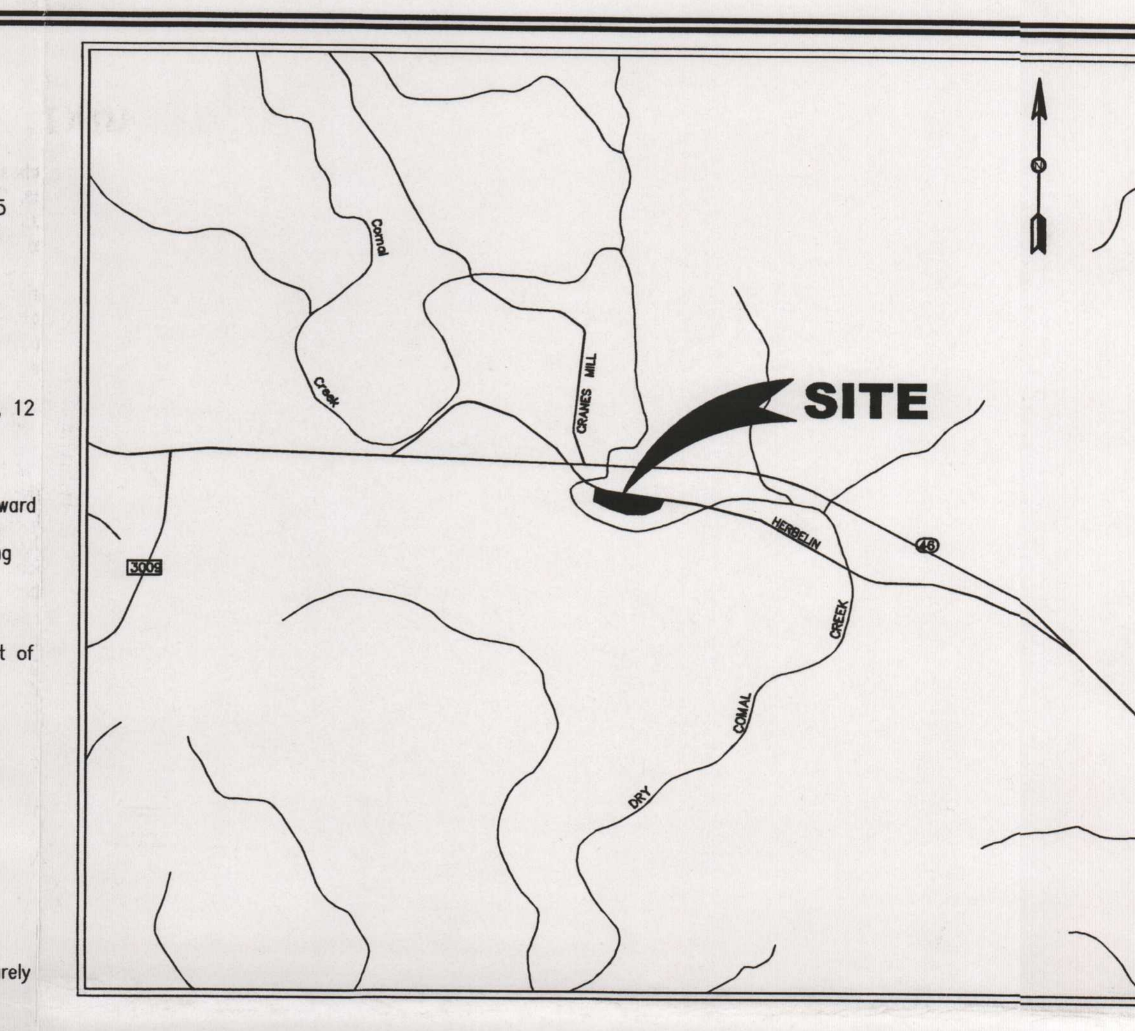
(1) Inspect all fencing weekly, and after any rainfall.

(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.

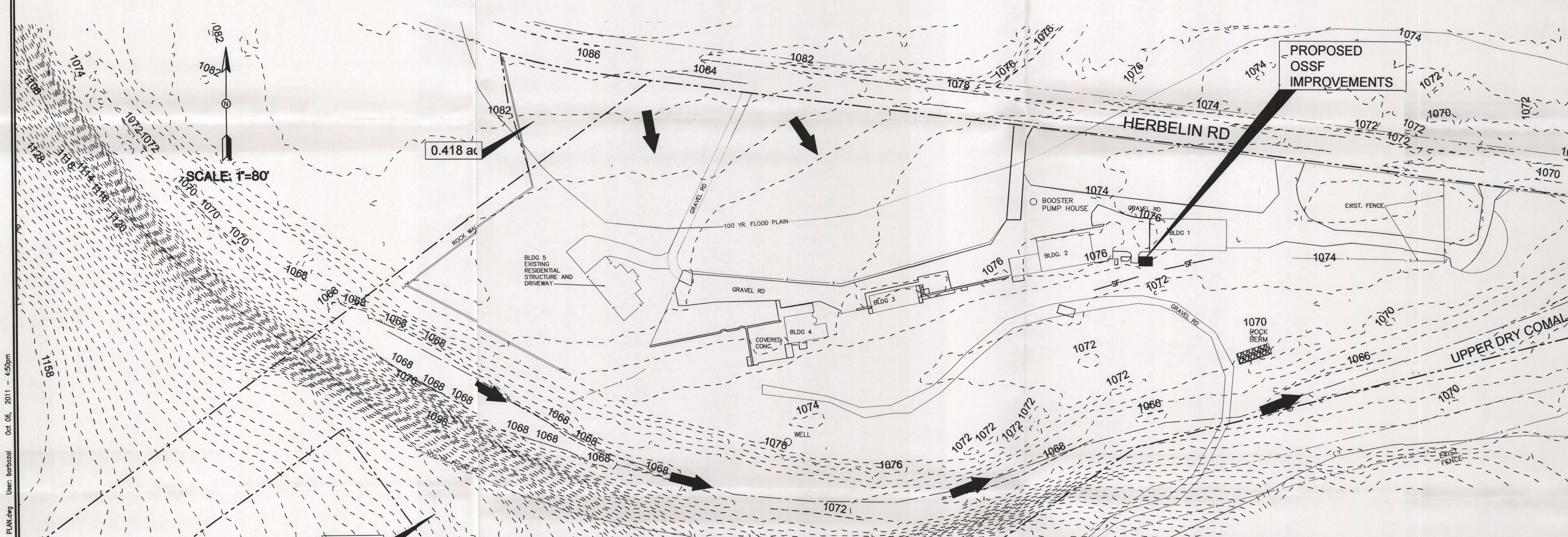
(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

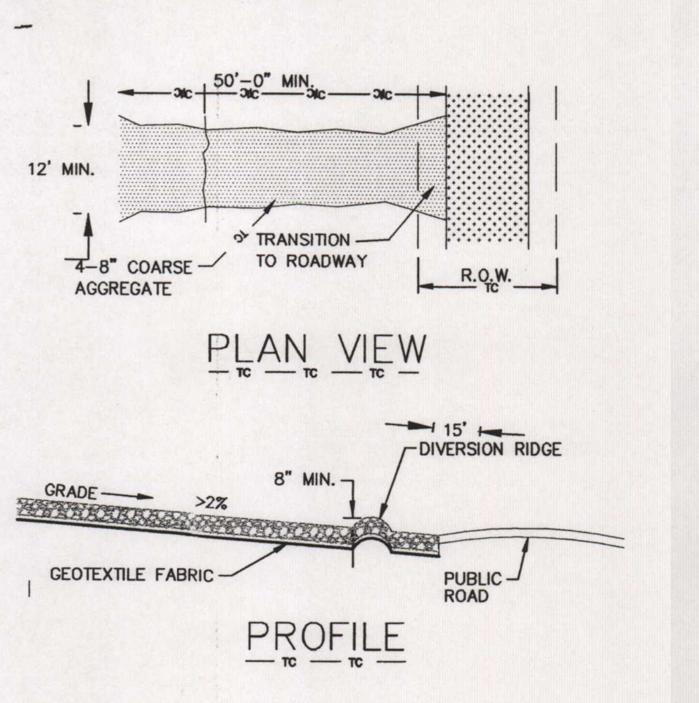


LOCATION MAP

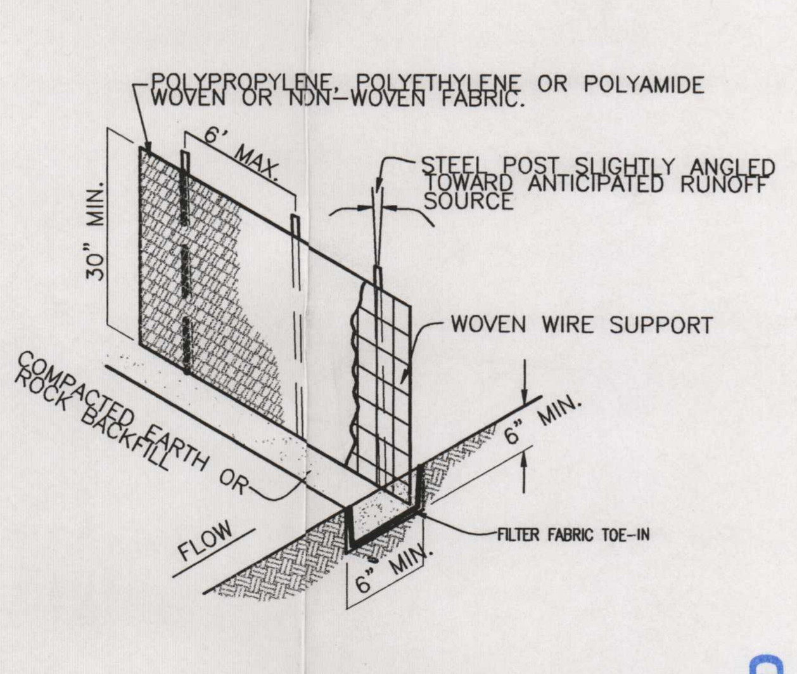
LEGEND

1065 (dashed)	EXISTING GROUND
———	100 YR. FLOOD PLAIN
—SF—	SILT FENCE
➡	DRAINAGE ARROW
▨	ROCK BERM

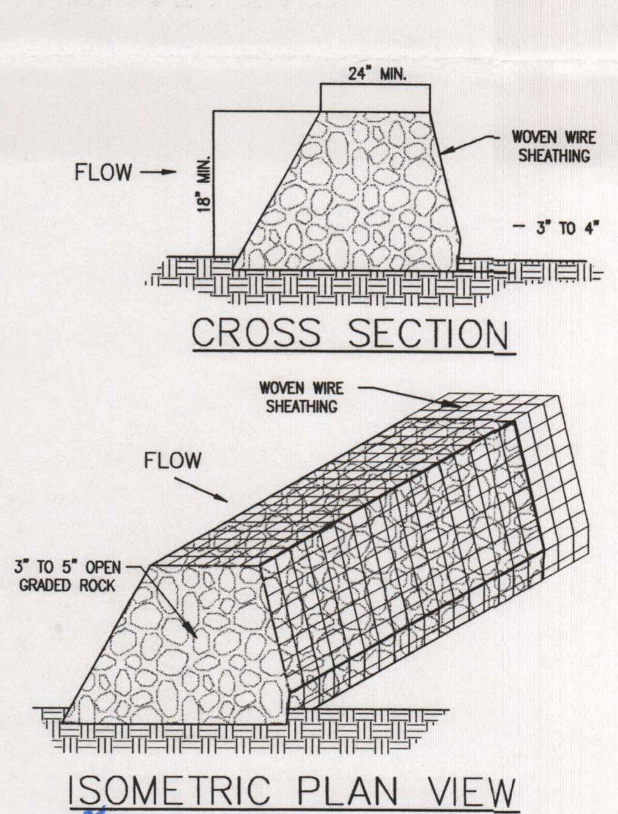




STABILIZED CONSTRUCTION ENTRANCE / EXIT



SILT FENCE



ROCK BERM

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ENGINEERING & SURVEYING
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410 N. SEGUIN ST.
NEW BRAUNFELS
TEXAS, 78130
TBPE Firm F-10961
www.hmtnb.com
Ph: 830-625-8555
Fax: 830-625-8556

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

[illegible]
10/10/2011
F- 10961

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NOT FOR CONSTRUCTION.

WATER POLLUTION ABATEMENT PLAN
SITE PLAN

DRY COMAL CREEK
VINEYARDS INC.

1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

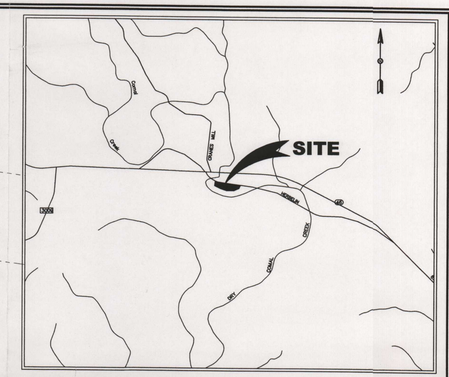
DATE:	APRIL 2011
DRAWN BY:	LB
DESIGNED BY:	MB
CHECKED BY:	MB
REVIEWED BY:	SH
PROJECT NUMBER:	HSR001.101

SHEET
1
OF 1

Drawing Name: N:\Projects\HSR001.101 - Floodplain & WPAP\Civil\Construction Drawings\SITE PLAN.dwg User: barboza Oct 06, 2011 - 4:50pm

HWY 46

SCALE: 1"=80'



LOCATION MAP

Stephen W. Hanz PE
10/10/2011
F-10961

PROPOSED OSSF IMPROVEMENTS

HERBELIN RD

GRAVEL RD.

EXIST. FENCE

BLDG. 2

BLDG. 3

BLDG. 5 EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY

WELL

ROCK WALL

100 YR. FLOOD PLAIN

COVERED CONC.

BLDG. 4

ROCK BERM

UPPER DRY COMAL CREEK

1080 1075 1070 1065

SF

LEGEND

- EXISTING GROUND (1065)
- 100 YR. FLOOD PLAIN
- SF — SILT FENCE
- DRAINAGE ARROW
- ROCK BERM

IMPREVIOUS COVER EXHIBIT

BUILDING	DESCRIPTION	IMPREVIOUS AREA (SF)	YEAR BUILT
1	STORAGE AND OFFICE SPACE	4,034	2000's
2	WINERY	3,886	1970's
3	BATHROOMS ON BOTTOM APARTMENT ON TOP	3,394	1990's
4	WINE TASTING BUILDING	5,374	1970's
5	EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY	9,389	1950's
	OSSF IMPROVEMENTS	500	PROPOSED
	DRIVEWAY PARKING, ROADS, ROCKWAL	58,325	1990's
	TOTAL IMPROVEMENTS	84,902	
	TOTAL SITE AREA	18.44 AC	
	PERCENT IMPERVIOUS	10.57%	

* EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY, WINE TASTING BUILDING, AND WINERY WERE INSTALLED PRIOR TO 1984 WPAP REQUIREMENTS.

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION

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TEXAS, 78130
TBPE Firm F-10961
www.hmtnb.com
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Fax: 830-625-8556

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED PROFESSIONAL ENGINEER

IMPREVIOUS COVER EXHIBIT

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SAN ANTONIO REGION

DRY COMAL CREEK VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

DATE: APRIL 2011
DRAWN BY: LB
DESIGNED BY: MB
CHECKED BY: MB
REVIEWED BY: SH
PROJECT NUMBER: HSR001.101

SHEET 1 OF 1

Drawing Name: N:\Projects\HSR001.101 - Floodplain & WPAP\Civil\Construction Drawings\IMPREVIOUS COVER EXHIBIT.dwg User: barbozol Oct 06, 2011 - 4:55pm

GEOLOGIC ASSESSMENT

For:

Water Pollution Abatement Plan

For:

Franklin D. Houser
1741 Herbelin Road
New Braunfels, Comal County, Texas

ARIAS & ASSOCIATES
Geotechnical • Environmental • Testing

Prepared for:

HMT Engineering & Surveying
401 N. Seguin Avenue
New Braunfels, Texas 78130

October 2011
Arias Job No.: 2011-199rev

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

REGULATED ENTITY NAME: Franklin D. Houser

TYPE OF PROJECT: X WPAP ___ AST __ SCS __ UST

LOCATION OF PROJECT: X Recharge Zone __ Transition Zone __ Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. X Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE**.

2. 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.

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Tarpley clay (TaB), 1 to 3 percent slopes	D	0.5 – 1.5
Comfort Rock-Outcrop (CrD) 1 to 8 percent slopes	D	0 to 0.2

* 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.

3. X A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column.

4. X A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.

5. X Appropriate **SITE GEOLOGIC MAP(S)** is attached:

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" = 80'
Site Geologic Map Scale	1" = 80'
Site Soils Map Scale (if more than 1 soil type)	1" = N/A (included with Geologic Map)

6. Method of collecting positional data:
___ Global Positioning System (GPS) technology.

__X__ Other method(s).

7. __X__ The project site is shown and labeled on the Site Geologic Map.

8. __X__ Surface geologic units are shown and labeled on the Site Geologic Map.

9. __X__ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
__ Geologic or manmade features were not discovered on the project site during the field investigation.

10. __X__ The Recharge Zone boundary is shown and labeled, if appropriate. ***The Recharge Zone boundary falls outside of the Site Geologic map extent and is therefore not shown.***

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

__X__ There are __2__ (#) 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.
__X__ The wells are in use and comply with 16 TAC Chapter 76.
__ There are no wells or test holes of any kind known to exist on the project site.

ADMINISTRATIVE INFORMATION

12. __X__ 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.

Date(s) Geologic Assessment was performed: April 11 & October 7, 2011
Date(s)

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.

Michelle M. Lee, P.G.
Print Name of Geologist

210.308.5884
Telephone

210.308.5886
Fax

Michelle M. Lee
Signature of Geologist

October 10, 2011
Date

Representing: Arias & Associates, Inc.
(Name of Company)

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME: Franklin D. Houser

LOCATION - 1741 Herbelin Rd., N

FEATURE CHARACTERISTICS															EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DIP	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
S-1	29.77031	98.27515	SCZ	30	Kek	7	2	1.8	40°		2/ft	0.3	F,O	8	38	X			X	Cliff
S-2	29.77018	98.27502	C	30	Kek	5	3.5	1	4°				F,O	16	46		X		X	Cliff
S-3	29.77007	98.27480	SC	20	Kek	3.2	1	1.7	2°				F,O	11	31	X			X	Cliff
S-4	29.76984	98.27245	O	5	Kek	100	35	3.5	52°	10			N	16	31	X			X	Streambed
S-5	29.76984	98.27251	O	5	Kek	22	9	3.5	88°				N	16	21	X			X	Streambed
S-6	29.77024	98.27484	CD	5	Kek	425	40	11	275°				F	10	15	X			X	Streambed
S-7	29.77046	98.27417	MB - well	30	Kek	0.6	0.6	~600	NA				NA	7	37	X			X	Hillside
S-8	29.77081	98.27237	MB - booster	30	Kek	0.6	0.6	?	NA				NA	7	37	X			X	Hillside
S-9	29.77006	98.27353	MB - well	30	Kek	0.6	0.6	~400	NA				NA	7	37	X			X	Hillside
															0					
															0					
															0					
															0					
															0					
															0					
															0					
															0					

DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	e, exposed bedrock
C	es, breakdown, sand, gravel
O	il, organics, leaves, sticks, dark colors
F	sediment, soil profile, gray or red colors
V	details in narrative description
FS	, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The 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 230.

Michelle M. Lee

STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY 10.10.11
6071
LICENSED
PROFESSIONAL GEOSCIENTIST

Date October 10, 2011

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

SOIL NARRATIVE

FRANKLIN D. HOUSER
1741 HERBELIN ROAD
NEW BRAUNFELS, COMAL COUNTY, TEXAS

In accordance with the United States Department of Agriculture (USDA) Web Soil Survey, the natural surface soils over the project area are considered to be within the Tarpley clay (TaB) and Comfort-Rock outcrop complex (CrD) groups.

The Tarpley clay (TaB) soils typically have a 1 to 3 percent slope are located on the north side of the Dry Comal Creek. The vineyards at the Site are planted in the TaB soils. These soils are well drained and have a moderately low to moderately high capacity to transmit water. A typical profile of TaB soils is clay from the surface to about 17" where bedrock is encountered.

The Comfort-Rock outcrop complex (CrD) have slopes that range from 1 to 8 percent. At the Site, these soils are located along the southern perimeter where the Edwards Limestone outcrops. These soils are well drained and have a moderately low to moderately high capacity to transmit water. A typical profile of CrD soils is extremely stony clay to maybe six inches then bedrock.

STRATIGRAPHIC COLUMN

FRANKLIN D. HOUSER
1741 HERBELIN ROAD
NEW BRAUNFELS, COMAL COUNTY, TEXAS

Hydrogeologic subdivision			Group formation or member			Hydrologic Function	Thickness (feet)	Lithology	Cavern development	Porosity / permeability type
Upper Cretaceous	Upper confining units		Buda Formation			CU	40-50	Buff, light gray, dense mudstone	Minor surface karst	Low porosity /low permeability
			Del Rio Clay			CU	40-50	Blue-green to yellow-brown clay	None	None / primary upper confining unit
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Karst AQ; not karst CU		Reddish-brown, gray to light tan marly limestone	None	Low porosity / low permeability
	II		Edwards Group	Fm Person	Cyclic & marine members undivided	AQ	89-90	Mudstone to packstone; miliolid grainstone; chert	Many sub-surface	Laterally extensive; water yielding
	III				Leached & collapsed members	AQ	70-90	Crystalline limestone; mudstone to grainstone; chert collapsed breccia	Extensive lateral development; large rooms	Majority not fabric / one of the most permeable
	IV				Regional dense members	CU	20-24	Dense, argillaceous mudstone	Very few; only vertical fracture enlargement	Not fabric / low permeability; vertical barrier
	V			Fm Kainer	Grainstone member	AQ	50-60	Miliolid grainstone; mudstone to wackestone; chert	Few	Not fabric / recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50-60	Highly altered crystalline limestone; chalky mudstone; chert	Probably extensive cave development	Majority fabric / one of the most permeable
	VII				Dolomitic member	AQ	110-130	Mudstone to grainstone; crystalline limestone; chert	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane fabric / water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50-60	Shaly, nodular limestone; mudstone and miliolid grainstone	Large lateral caves at surface	Fabric; stratigraphically controlled/ large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350-500	Yellowish tan, thinly bedded limestone and marl	Some surface cave development	Some water production at evaporite beds / relatively impermeable

Reference: U.S.G.S. Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas; Water-Resources Investigations Report 95-4030

Note: CU = Confining Unit; AQ = Aquifer

Indicates Mapped Surface Formation

Arias & Associates, Inc.
October 10, 2011

Job No. 2011-199rev

SITE SPECIFIC GEOLOGY NARRATIVE

FRANKLIN D. HOUSER
1741 HERBELIN ROAD
NEW BRAUNFELS, COMAL COUNTY, TEXAS

Introduction

A Geologic Assessment (GA) was performed for the above-referenced site on April 11 & October 7, 2011 by Michelle M. Lee, P.G. #6071. The GA was performed in accordance with the Texas Commission on Environmental Quality (TCEQ) *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones, TCEQ-0585-Instructions (Rev. 10-01-04).* Nine potential recharge features (S-1 through S-9), as defined by TCEQ-0585, were observed on the surface of the Site at the time of this assessment.

Background

The project area is currently operating as a winery and vineyard. Within this project area, there are several buildings that house various functions to produce wine. The Dry Comal Creek is on Site and is bordered on the south by a tall vertical rock cliff. The cliff disappears as the creek turns north towards Herbelin Rd.

Stratigraphy

According to the Bureau of Economic Geology of the Smithson Valley Topographic Quadrangle by E.W. Collins 1992, the surface geologic formation at the Site is mapped as the Cretaceous aged Edwards Group, Kainer Formation. This formation is generally up to 220 feet thick or more, and consist of limestone, chert, and marlstone, and forms the lower half of the Edwards Group.

Structure

Faults were not observed at the time of this assessment. Bureau of Economic Geology of the Smithson Valley Topographic Quadrangle by E.W. Collins 1992 does not show any mapped faults at the Site.

Karstic Characteristics

Karst features were observed on the Site at the time of this assessment. One Cave, **S-2**, (sensitive), one solution cavity, **S-3**, (not sensitive) and one solution cavity zone, **S-1**, (not sensitive) were observed at the Site during field reconnaissance. These features were observed high atop the vertical rock cliff in the southwestern portion of the Site. Although the cave is ranked sensitive, it is due to the high point value assigned to features of this type. There is a slight slope above the cave area such that it might capture some runoff during heavy storm events. The cave was infilled with fine-grained sediment and organic material. Probability of rapid infiltration to the subsurface is very low.

The area that is in the southwest and southern portion of the Site above the rock cliff was observed to be highly solutioned at the time of field reconnaissance. Although numerous solutioned features were observed, there was no observable inter-connectedness amongst them. Additionally fine-grained soil and sediment was observed at the toe or bottom of the solutioned blocks indicating that probability of rapid infiltration to the subsurface is low.

The other two karst features are located in an area that will receive little to no runoff due to their position high on the vertical rock cliff. Additionally, these features were infilled with fine grained sediment at the time of field reconnaissance. Probability of rapid infiltration to the subsurface is very low.

Potential for fluid movement to the aquifer is low over the project area, due to absence of karst and structural features. Additionally, the soil cover, where present, at the Site appears to impede flow of fluids to the subsurface.

Feature Discussion
SENSITIVE FEATURE
S-2: Cave (C)
S-2 is a small cave located near the top of the ridge in the southwestern portion of the site. The feature meets the definition of a cave as set forth by the TCEQ Instructions to Geologists. The feature measures ~5.2 wide by ~3.5 ft tall and ~10 ft deep and is filled with fine-grained sediment and organics. The feature will not receive direct recharge given the location at the top of a steep rock cliff. If any recharge occurs it will be by runoff from areas up slope from the feature. Probability of rapid infiltration is low. However, since the feature ranks at 30 points and has a low probability of rapid infiltration rate of 16 points that automatically makes **S-2** sensitive.

NOT SENSITIVE FEATURES
S-1: Solution Cavity Zone (SCZ)
S-1 is a band of solution cavities of varying sizes located near the top of the rock cliff in the southwestern portion of the Site. The zone measures ~ 70 ft long by 20 ft tall with the deepest SC measuring approximately 1.5 ft. Infilling was observed to be fine-grained sediment in addition to organic materials. The zone trends at 40^{O} and has a low probability of rapid infiltration.

S-3: Solution Cavity (SC)
This solution cavity measured ~3.2 ft x ~1 ft x ~1.7 ft and is located near the top of the rock cliff along the southern perimeter of the Site. Based on the location and orientation of this feature, in addition to the fine-grained sediment observed as the infilling, the probability of rapid infiltration is low.

S-4: Other Feature in Bedrock (O)
Feature **S-4** is an Other Feature in Bedrock. The portion of Dry Comal Creek from the western perimeter to the eastern third of the creek has been manually cleared of all debris, vegetation and float material exposing solid bedrock. This feature is a closed depression measuring approximately 100 ft x 35 ft x 3.5 ft at its deepest point. The bedrock was observed to be flaggy and intact with very minor fracturing. The feature will have a tendency to hold water when present. Based on the cohesive nature of the exposed bedrock, probability of rapid infiltration is very low.

S-5: Other Feature in Bedrock (O)
Feature **S-5** is very similar to **S-4** but is separated in distance by about 75 ft. Probability of rapid infiltration rate is very low.

S-6: Closed Depression (CD)
Feature **S-6** is a closed depression located at the base of the rock cliff in the southwestern corner of the Site. This closed depression measures approximately 425 ft x 40 ft x 11 ft deep. It is a man-made pond created by the landowner that was observed to be holding water at the time of this assessment.

S-7, S-8 & S-9: Water Wells & Booster Pump Station
Well **S-7** serves the on site residence and is located in an enclosed structure next to the house. **S-9** is used in the production of the wine and is located near the center of the sitting area under the trees. The probability of rapid infiltration to the subsurface is very low. **S-8** is a booster pump station located to the north of the production building and is also in an enclosed structure. This feature also has a very low probability of rapid infiltration into the subsurface.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, and the name of the prime contractor and the name and telephone number of the contact person.

2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.

3. If any sensitive feature is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. The regulated activities near the sensitive feature may not proceed until the TCEQ has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality.

4. No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

5. Prior to commencement of construction, all temporary erosion and sedimentation (E&S) control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must remain in place until disturbed areas are revegetated and the areas have become permanently stabilized.

6. 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).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake must be provided that can indicate when the sediment occupies 50% of the basin volume.

8. 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).

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

11. The following records shall be maintained and made available to the TCEQ upon request: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

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

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

   C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office
2800 S. IH 35, Suite 100
Austin, Texas 78704-5712
Phone (512) 339-2929
Fax (512) 339-3795

San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
Phone (210) 490-3096
Fax (210) 545-4329

HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:

(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rock should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:

(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 – 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 – 8 inch diameters rocks may be used.

Installation:

(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1– foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) 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.

(5) 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. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Inspection and Maintenance Guidelines:

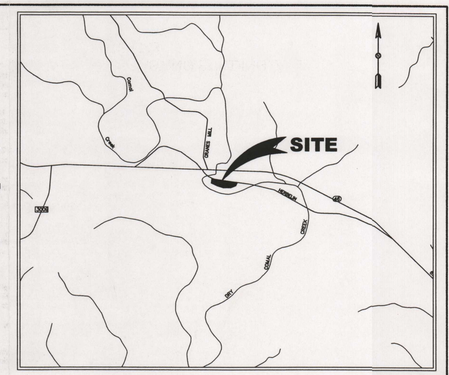
(1) Inspect all fencing weekly, and after any rainfall.

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



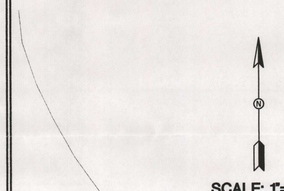
LOCATION MAP

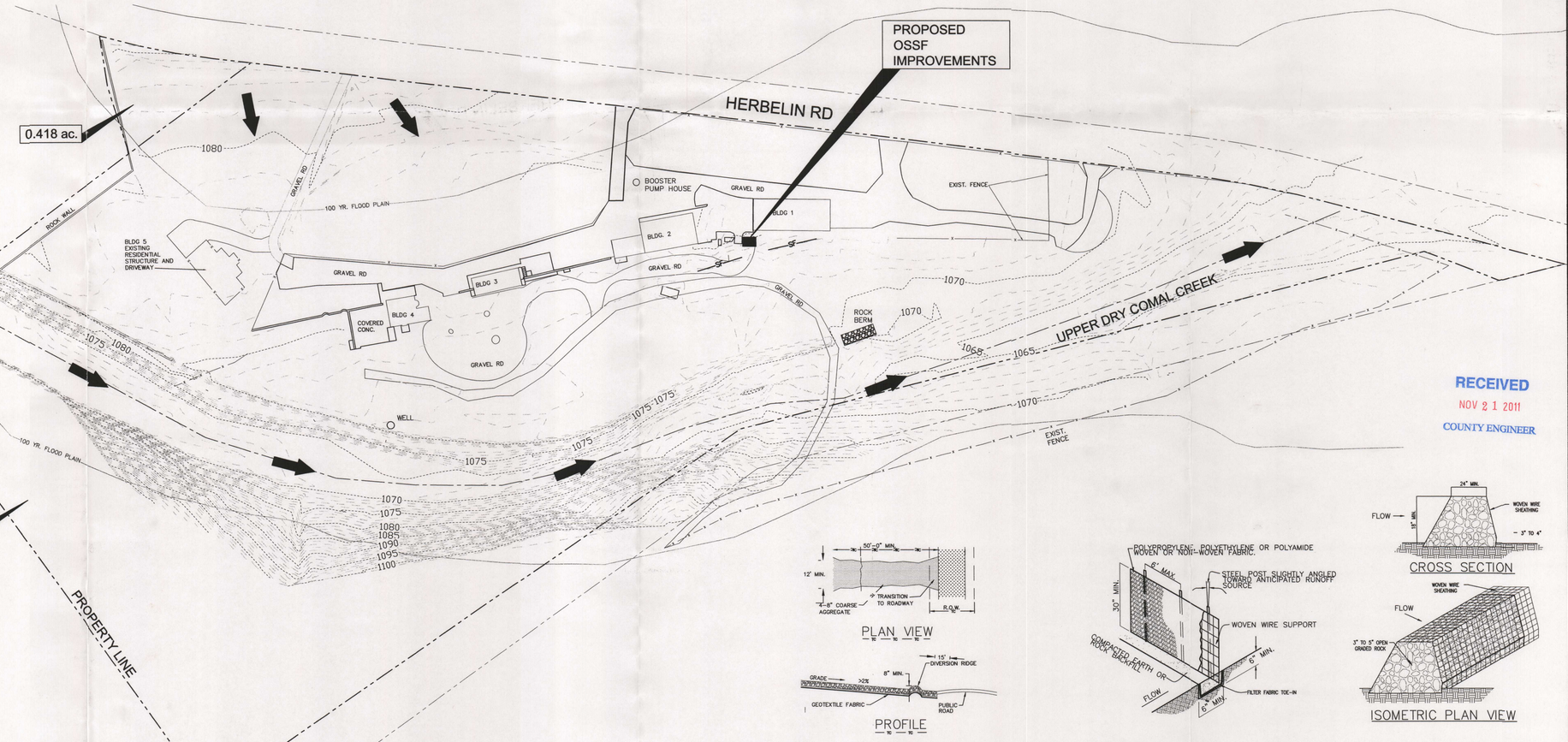
Stephen W. Hanz 11/09/11 F-10961

LEGEND

- 1065 — EXISTING GROUND
- 100 YR. FLOOD PLAIN
- SF — SILT FENCE
- DRAINAGE ARROW
- ROCK BERM

FOR PERMIT USE ONLY. NOT FOR CONSTRUCTION.





STABILIZED CONSTRUCTION ENTRANCE / EXIT

SILT FENCE

ROCK BERM

RECEIVED
NOV 2 1 2011
COUNTY ENGINEER

RECEIVED TCEQ NOV 10 AM 9:26 REGION

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL
410 N. SEGUIN ST.
NEW BRAUNFELS
TEXAS, 78130
TBPE Firm F-10961
www.hmtnb.com
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Fax: 830-625-8556

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

WATER POLLUTION ABATEMENT PLAN
SITE PLAN

DRY COMAL CREEK VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

DATE:	APRIL 2011
DRAWN BY:	LB
DESIGNED BY:	MB
CHECKED BY:	MB
REVIEWED BY:	SH
PROJECT NUMBER:	HSR001.101

SHEET 1 OF 1

drawing Name: N:\Projects\HSR001.101 – Floodplain & WPAP\Civil\Construction Drawings\SITE PLAN.dwg User: barbozat Nov. 03, 2011 – 9:34am

HMT
ENGINEERING & SURVEYING

November 9, 2011

RECEIVED
NOV 21 2011
COUNTY ENGINEER

Javier Anguiano
Texas Commission on Environmental Quality, EAPP, Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233

RE: Edwards Aquifer, Comal County
NAME OF PROJECT: Dry Comal Creek Vineyards; located at 1741 Herbelin Rd.; New Braunfels, Texas
TYPE OF PLAN: Request for the approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer; Edwards Aquifer Protection Program San Antonio File No. 3000.00; Investigation No. 948278; Regulated Entity No. RN106201189

Mr. Anguiano,

This letter is in response to comments email dated October 26, 2011 for the above referenced project.

1. As stated in your October 26, 2011 email: As previously discussed, it appears that the parking area that we parked on at the time of the site assessment (10/4/11) was not shown on the site plan. As such, please confirm that this and similar areas (see attached photo) have been accounted for in the total IC and is shown on the site plan(s). Amend all appropriate forms and attachments.

   All pages and sites plans have been updated per the below summary to account for the additional impervious cover as pointed out in your above mentioned email.

Impervious Cover Prior to 1984:	**2.32%**
Impervious Cover after 1984:	**10.57%**
Proposed OSSF:	**0.06%**
Total:	**12.95%**

RECEIVED TCEQ
2011 NOV 10 AM 9:25
SAN ANTONIO REGION

Thank you for your help and assistance with this matter. If you have any further questions or comments, please call Stephen at (830) 625-8555.

Stephen W. Hanz
11/09/11

Stephen W. Hanz, PE
Principal

F-10961

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

There will be no floodplain modifications associated with this proposed OSSF work. In addition, the site does not have a Critical Water Quality Zone and there are no areas planned to be irrigated with wastewater.

The developed portion of the site contains no existing drainage inlets or subsurface pipe systems. A large pervious berm exists along the north banks of the Upper Dry Comal Creek, which protects the property from constant flooding from offsite stormwater runoff. The existing stormwater runoff generated onsite sheet flows towards the southeastern edge of the property before entering the Upper Dry Comal Creek. The Upper Dry Comal Creek is part of the Dry Comal Creek watershed, which eventually drains into the Comal River. The berm structure is a pervious structure.

Existing (Before 1984)

The site improvements installed before 1984 created less than 20% impervious cover to the 18.44 acre site. The improvements installed before 1984 created 2.32% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed before 1984 created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 5 – Residence Structure & Driveway, Built 1950's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 2 – Winery, built 1970's
  (Shown in Yellow on Impervious Cover Exhibit located in Section 3)

Present (After 1984)

The site improvements installed after 1984 to the present created less than 20% impervious cover to the 18.44 acre site. The improvements installed after 1984 to the present created 10.57% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed after 1984 to the present created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 1 – Storage & Office Space, built 2000's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
  (Shown in Purple & Blue on Impervious Cover Exhibit located in Section 3)

Proposed (2011)

The proposed improvements are minor in nature and will include the construction of a new septic tank and utility tie-in lines for the existing buildings on the property. An aerobic spray irrigation system will also be provided onsite. The project scope does not

include the addition of any stormwater drainage infrastructure to the site. The project includes the addition of less than 1/2% (0.06%) impervious cover to the gross area of the site and impact on drainage for the proposed conditions can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Proposed OSSF planned to be installed 2011
  (Shown in Orange on Impervious Cover Exhibit located in Section 3)

This WPAP has been prepared for the site based on the regulated activity that has occurred and will occur over the Edwards Aquifer Recharge Zone in accordance with the Edwards Aquifer Protection Program Rules as specified in Title 30 of the Texas Administrative Code, Section 213 (30 TAC 213, effective June 1, 1999). Because the improvements installed after 1984 to the present created only 10.57% impervious cover and the proposed OSSF improvements will consist of minor construction and an addition of less than 1/2% (0.06%) impervious cover to the gross area of the site, the owner is requesting a waiver of the requirement for permanent BMPs. The OSSF project is to begin as soon as the proper permits are acquired and is planned to be completed within 2 months (after site plan approval).

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

REGULATED ENTITY NAME: Franklin D. Houser

REGULATED ENTITY INFORMATION

1. The type of project is:
   ___ Residential: # of Lots: _____
   ___ Residential: # of Living Unit Equivalents: _____
   _X_ Commercial
   ___ Industrial
   ___ Other: _____

2. Total site acreage (size of property): 18.44 ac

3. Projected population: 0 - 20 people

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	*26,077 ft^2	÷ 43,560 =	0.60 acres
Parking	55,896 ft^2	÷ 43,560 =	1.28 acres
Other paved surfaces	22,057 ft^2	÷ 43,560 =	0.51 acres
Total Impervious Cover	104,030 ft^2	÷ 43,560 =	2.39 acres
Total Impervious Cover ÷ Total Acreage x 100 =			12.95%

* Includes residential structure and residential structure driveway, wine tasting building, and winery building installed prior to 1984.

5. _X_ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. _X_ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. Type of project:
   ___ TXDOT road project.
   ___ County road or roads built to county specifications.
   ___ City thoroughfare or roads to be dedicated to a municipality.
   ___ Street or road providing access to private driveways.

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

The proposed improvements include the replacement of a septic tank, which is installed underground.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	77,453	1.78	1990's
	Total Impervious Cover	104,030	2.39	

Total Site	18.44
Total Impervious Cover	12.95%
Before 1984	2.32%
1984 to Present	10.57%
Proposed	0.06%
	12.95%

The construction of these improvements from 1984 to the present and including the proposed OSSF improvements scheduled for 2011 will add approximately 85,381 square feet (1.96 acres) of impervious cover to the 18.44 acre site. Currently, the site contains existing buildings, existing driveways and existing miscellaneous impervious covers which make up approximately 18,649 square feet (0.43 acres) of impervious cover. The addition of the proposed OSSF will add 500 square feet (0.01 acres). Therefore, the addition of the proposed impervious cover amounts to less than 20% of the gross site area and can be assumed negligible. The offsite areas that contribute to the site and affect onsite drainage were considered as undeveloped sparsely wooded land.

ATTACHMENT "A"
20% of Less Impervious Cover Waiver

The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
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	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	77,453	1.78	1990's
	Total Impervious Cover	104,030	2.39	

Total Site	18.44
Total Impervious Cover	12.95%
Before 1984	2.32%
1984 to Present	10.57%
Proposed	0.06%
	12.95%

*** Dry Comal Creek Vineyards Inc. is requesting a waiver of the requirement for permanent BMPs to be used at this site.**

ATTACHMENT "B"
BMP's for Upgradient Stormwater

Up gradient stormwater currently sheet flows over land through the site from a high point located to the northwest of the site on the property across Herbelin Rd. The flow is over natural soil conditions and has no obstructions preventing its natural path. Currently, the existing site that includes buildings, driveways, and miscellaneous concrete is not impacted by the sheet flow upgradient. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "C"
BMP's for On-Site Stormwater

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since site improvements from 1984 to the present including the proposed OSSF improvements increased impervious cover from 2.32% to 10.63%, 4.65 CFS Q100 of additional stormwater runoff, and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "D"
BMP's for Surface Streams

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

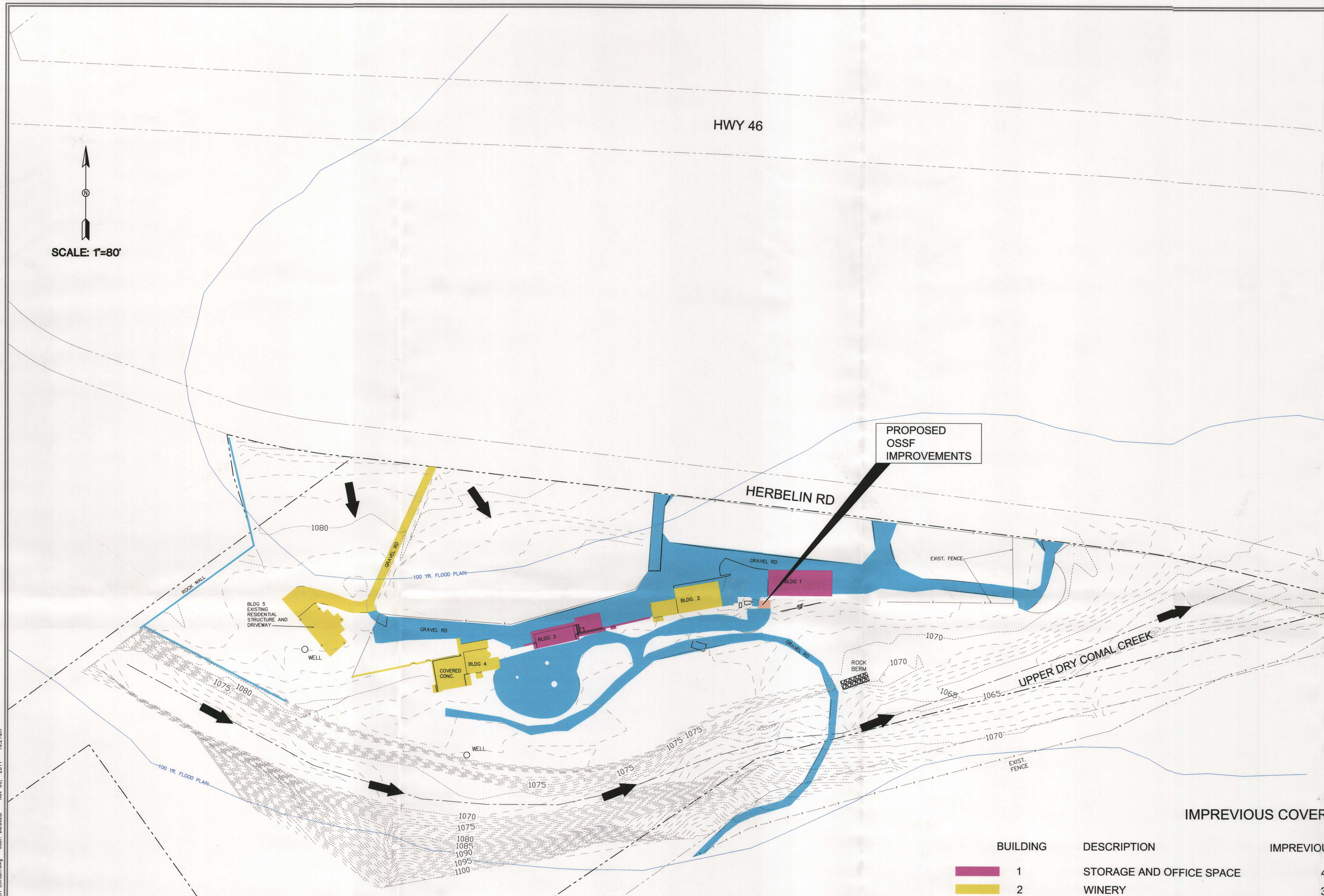
The natural vegetation located downgradient of proposed improvements will provide additional filtration to help prevent pollution from entering streams, sensitive features and the aquifer. According to the Geologic Assessment, all sensitive features within the identified boundary are located upstream of the project site and should not be impacted by this work.

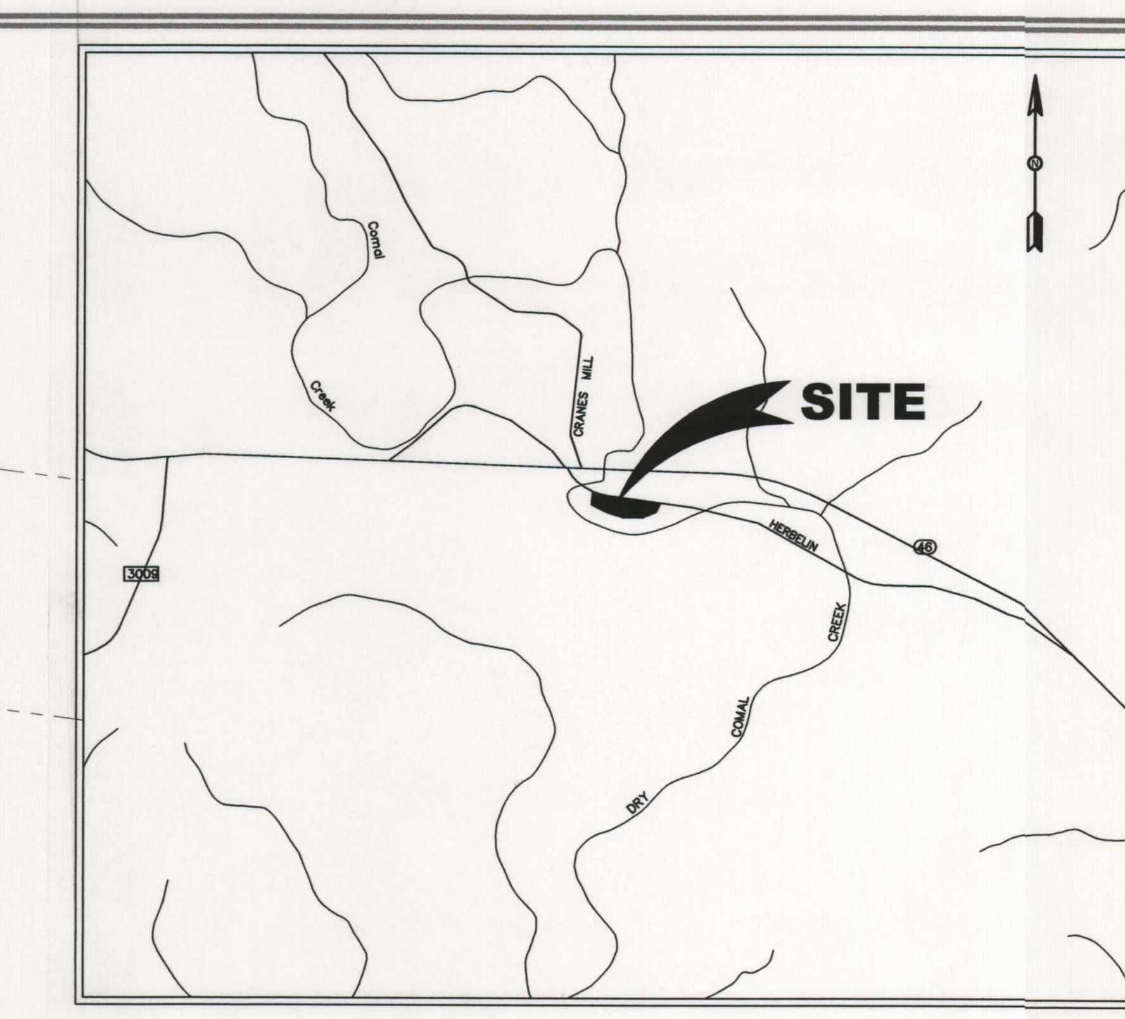
Please refer to the Drainage Area Map in the Temporary Stormwater Section.

Geologic & Soils Map
Geologic Assessment
Franklin D. Houser Site
New Braunfels, Comal County, Texas

Arias Job No. 2011-199
October 10, 2011

ARIAS & ASSOCIATES, INC.
Geotechnical · Environmental · Testing





LOCATION MAP

[illegible]
11/09/11
F-10961

LEGEND

1065	EXISTING GROUND
	100 YR. FLOOD PLAIN
SF	SILT FENCE
➡	DRAINAGE ARROW
▨	ROCK BERM

IMPREVIOUS COVER EXHIBIT

	BUILDING	DESCRIPTION	IMPREVIOUS AREA (SF)	YEAR BUILT
🟪	1	STORAGE AND OFFICE SPACE	4,034	2000's
🟨	2	WINERY	3,886	1970's
🟪	3	BATHROOMS ON BOTTOM APARTMENT ON TOP	3,394	1990's
🟨	4	WINE TASTING BUILDING	5,374	1970's
🟨	5	EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY	9,389	1950's
🟧		OSSF IMPROVEMENTS	500	PROPOSED
🟦		DRIVEWAY, PARKING, ROADS, ROCKWALL	77,453	1990's
		TOTAL IMPROVEMENTS	104,030	
		TOTAL SITE AREA	18.44 AC	
		PERCENT IMPERVIOUS	12.96%	

* EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY, WINE TASTING BUILDING, AND WINERY WERE INSTALLED PRIOR TO 1984 WPAP REQUIREMENTS.

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION

HMT ENGINEERING & SURVEYING
HOLLMIG • MOELLER • T
410 N. SEGUIN ST.
NEW BRAUNFELS
TEXAS, 78130
TBPE Firm F-10961
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Fax: 830-625-8556

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

IMPREVIOUS COVER EXHIBIT

DRY COMAL CREEK
VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

DATE: APRIL 2011
DRAWN BY: LB
DESIGNED BY: MB
CHECKED BY: MB
REVIEWED BY: SH
PROJECT NUMBER: HSR001.101

SHEET
1
OF 1

Drawing Name: N:\Projects\HSR001.101 - Floodplain & WPAP\Civil\Construction Drawings\IMPREVIOUS COVER EXHIBIT.dwg User: barbozal Nov 09, 2011 - 10:21am

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 10, 2011

Mr. Franklin Houser
Dry Comal Creek Vineyards, Inc.
1741 Herblin Rd.
New Braunfels, Texas 78132

Re: Edwards Aquifer, Comal County

Name of Project: Dry Comal Creek Vineyards; Located at 1741 Herblin Rd., approximately 0.30 miles south of the Herblin Rd and SH 46 intersection near Cranes Mill Rd; Comal County, Texas

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

Edwards Aquifer Protection Program San Antonio File No. 3000.00; Investigation No. 948278; Regulated Entity No. RN106201189

Dear Mr. Houser:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP Application for the above-referenced project submitted to the San Antonio Regional Office by HMT Engineering & Surveying on behalf of Mr. Franklin Houser on August 1, 2011. Final review of the WPAP was completed after additional material was received on October 10, October 20, and November 10, 2011. As presented to the TCEQ, the Temporary Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

Background

The above referenced site is an 18.44 acre commercial vineyard and event center containing an existing residential structure and driveway built in the 1950's. The commercial winery contains four buildings with associated access drives, parking areas, on-site sewage facility, and vineyard area all constructed between the 1970's to the present. Prior approval for the construction of the

commercial winery was not obtained in accordance with applicable Edwards Aquifer Recharge Zone rules. The submitted WPAP, approved by this letter, addresses the unauthorized activities.

Project Description

The proposed commercial project is located in the 18.44 acre site. It will include the construction and installation of an on-site sewage facility and associated utility lines. This approval also includes the existing structures and other impervious cover constructed without prior approval. The total impervious cover for the site will be 2.39 acres (12.95 percent). According to a letter dated, May 31, 2011, signed by Mr. Robert Boyd, P.E., with Comal County, the site in the development is acceptable for the use of on-site sewage facilities.

Permanent Pollution Abatement Measures

This small business will not have more than 20 percent impervious cover.

Geology

According to the geologic assessment included with the application, the site is located on the Dolomitic Member of the Edwards Kainer Formation with a northeast portion of the site located on the Quaternary Alluvium. The geologic assessment noted five geologic and four man-made features, of which, Feature S-2 (cave) was assessed as sensitive. The San Antonio Regional Office site assessment conducted on October 4, 2011 revealed no new features and that the site was generally as described in the application.

Sensitive Features

Feature S-2 is located on a cliff face within a portion of the site that is shown as not to be disturbed.

Special Conditions

1. The applicant requested a waiver to the requirement for other permanent BMPs for this commercial project because the development will have less than 20 percent impervious cover. Based on the TCEQ's Review of the proposed activities and the site conditions, the required waiver is hereby granted. If the percent impervious cover ever increases above 20 percent or the land use changes, the exemption for the whole site as described in the Water Pollution Abatement Plan may no longer apply and the property owner must notify the San Antonio Regional Office of these changes.

2. This approval letter is being issued for regulated activities (as defined in Chapter 213) and for best management practices presented in the application. This approval does not constitute a water right permit or authorization from the TCEQ Dam Safety Program. Failure to obtain all necessary authorizations could result in enforcement actions. For more information on Water Rights Permits, please refer to:
http://www.tceq.texas.gov/permitting/water_rights/wr_amiregulated.html

For more information on the Dam Safety program, please refer to:
http://www.tceq.texas.gov/field/damsafetyprog.html

3. Any subsequent modification of this plan that includes development near Feature S-2 must include appropriate protection measures for the feature.

4. Activities observed during the site assessment investigations, conducted on October 4, 2011, are alleged to constitute construction without prior approval of a water pollution abatement plan as required by Commission rules (30 TAC Chapter 213, Sub-Chapter A). Therefore, the applicant is hereby advised that the after-the-fact approval of the development, as provided by this letter, shall not absolve the applicant of any prior violations of Commission rules related to this project, and shall not necessarily preclude the Commission from pursuing appropriate enforcement actions and administrative penalties associated with such violations, as provided in 30 TAC §213.10 of Commission rules.

Standard Conditions

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.

3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

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

5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to

the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

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

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.

12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

13. Two wells exist on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.

14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be

removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

15. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

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

If you have any questions or require additional information, please contact Mr. Javier Anguiano of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 490-3096.

Sincerely,

Mark R. Vickery, P.G., Executive Director
Texas Commission on Environmental Quality

MRV/JA/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625

cc: Mr. Stephen W. Hanz, P.E., HMT Engineering & Surveying
Mr. Thomas H. Hornseth, P.E., Comal County
Mr. Karl J. Dreher, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

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November 9, 2011

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DEC 0 6 2011
COUNTY ENGINEER

Javier Anguiano
Texas Commission on Environmental Quality, EAPP, Region 13 – San Antonio
14250 Judson Road
San Antonio, Texas 78233

RE: Edwards Aquifer, Comal County
NAME OF PROJECT: Dry Comal Creek Vineyards; located at 1741 Herbelin Rd.; New Braunfels, Texas
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RECEIVED TCEQ
2011 NOV 10 AM 9:20
SAN ANTONIO
REGION

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Stephen W. Hanz
11/09/11

Stephen W. Hanz, PE
Principal
F-10961

STATE OF TEXAS
STEPHEN WADE HANZ
95422
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PROFESSIONAL ENGINEER

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The developed portion of the site contains no existing drainage inlets or subsurface pipe systems. A large pervious berm exists along the north banks of the Upper Dry Comal Creek, which protects the property from constant flooding from offsite stormwater runoff. The existing stormwater runoff generated onsite sheet flows towards the southeastern edge of the property before entering the Upper Dry Comal Creek. The Upper Dry Comal Creek is part of the Dry Comal Creek watershed, which eventually drains into the Comal River. The berm structure is a pervious structure.

Existing (Before 1984)

The site improvements installed before 1984 created less than 20% impervious cover to the 18.44 acre site. The improvements installed before 1984 created 2.32% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed before 1984 created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 5 – Residence Structure & Driveway, Built 1950's
- Building 4 – Wine Tasting Building, Built 1970's
- Building 2 – Winery, built 1970's
  (Shown in Yellow on Impervious Cover Exhibit located in Section 3)

Present (After 1984)

The site improvements installed after 1984 to the present created less than 20% impervious cover to the 18.44 acre site. The improvements installed after 1984 to the present created 10.57% impervious cover and does not include the addition of any stormwater drainage infrastructure to the site. Since the improvements installed after 1984 to the present created less than 20% impervious cover to gross area of the site, the impact on drainage can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Building 1 – Storage & Office Space, built 2000's
- Building 3 – Bathrooms on Bottom, Apartment on Top, built 1990's
- Misc Roadways & Driveways & other Impervious Cover, built 1990's
  (Shown in Purple & Blue on Impervious Cover Exhibit located in Section 3)

Proposed (2011)

The proposed improvements are minor in nature and will include the construction of a new septic tank and utility tie-in lines for the existing buildings on the property. An aerobic spray irrigation system will also be provided onsite. The project scope does not

include the addition of any stormwater drainage infrastructure to the site. The project includes the addition of less than 1/2% (0.06%) impervious cover to the gross area of the site and impact on drainage for the proposed conditions can be assumed negligible. There will be no directed point discharges found onsite or offsite due to this project.

- Proposed OSSF planned to be installed 2011
  (Shown in Orange on Impervious Cover Exhibit located in Section 3)

This WPAP has been prepared for the site based on the regulated activity that has occurred and will occur over the Edwards Aquifer Recharge Zone in accordance with the Edwards Aquifer Protection Program Rules as specified in Title 30 of the Texas Administrative Code, Section 213 (30 TAC 213, effective June 1, 1999). Because the improvements installed after 1984 to the present created only 10.57% impervious cover and the proposed OSSF improvements will consist of minor construction and an addition of less than 1/2% (0.06%) impervious cover to the gross area of the site, the owner is requesting a waiver of the requirement for permanent BMPs. The OSSF project is to begin as soon as the proper permits are acquired and is planned to be completed within 2 months (after site plan approval).

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

REGULATED ENTITY NAME: Franklin D. Houser

REGULATED ENTITY INFORMATION

1. The type of project is:
   ___ Residential: # of Lots: _____
   ___ Residential: # of Living Unit Equivalents: _____
   _X_ Commercial
   ___ Industrial
   ___ Other: _____

2. Total site acreage (size of property): 18.44 ac

3. Projected population: 0 - 20 people

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	*26,077 ft^2	÷ 43,560 =	0.60 acres
Parking	55,896 ft^2	÷ 43,560 =	1.28 acres
Other paved surfaces	22,057 ft^2	÷ 43,560 =	0.51 acres
Total Impervious Cover	104,030 ft^2	÷ 43,560 =	2.39 acres
Total Impervious Cover ÷ Total Acreage x 100 =			12.95%

* Includes residential structure and residential structure driveway, wine tasting building, and winery building installed prior to 1984.

5. _X_ **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. _X_ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. Type of project:
   ___ TXDOT road project.
   ___ County road or roads built to county specifications.
   ___ City thoroughfare or roads to be dedicated to a municipality.
   ___ Street or road providing access to private driveways.

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

The proposed improvements include the replacement of a septic tank, which is installed underground.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	77,453	1.78	1990's
	Total Impervious Cover	104,030	2.39	

Total Site	18.44
Total Impervious Cover	12.95%
Before 1984	2.32%
1984 to Present	10.57%
Proposed	0.06%
	12.95%

The construction of these improvements from 1984 to the present and including the proposed OSSF improvements scheduled for 2011 will add approximately 85,381 square feet (1.96 acres) of impervious cover to the 18.44 acre site. Currently, the site contains existing buildings, existing driveways and existing miscellaneous impervious covers which make up approximately 18,649 square feet (0.43 acres) of impervious cover. The addition of the proposed OSSF will add 500 square feet (0.01 acres). Therefore, the addition of the proposed impervious cover amounts to less than 20% of the gross site area and can be assumed negligible. The offsite areas that contribute to the site and affect onsite drainage were considered as undeveloped sparsely wooded land.

ATTACHMENT "A"
20% of Less Impervious Cover Waiver

The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site.

Building	Description	Impervious Cover Area (sf)	Impervious Cover Area (ac)	Year Built
1	Storage & Office Space	4,034	0.09	2000's
2	Winery	3,886	0.09	1970's
3	Bathrooms on Bottom, Apartment on Top	3,394	0.08	1990's
4	Wine Tasting Building	5,374	0.12	1970's
5	Residence Structure & Driveway	9,389	0.22	1950's
	Proposed OSSF Improvements	500	0.01	2011
	Driveways, Parking, Roads, Rock Wall, Misc	77,453	1.78	1990's
	Total Impervious Cover	104,030	2.39	

Total Site	18.44
Total Impervious Cover	12.95%
Before 1984	2.32%
1984 to Present	10.57%
Proposed	0.06%
	12.95%

*** Dry Comal Creek Vineyards Inc. is requesting a waiver of the requirement for permanent BMPs to be used at this site.**

ATTACHMENT "B"
BMP's for Upgradient Stormwater

Up gradient stormwater currently sheet flows over land through the site from a high point located to the northwest of the site on the property across Herbelin Rd. The flow is over natural soil conditions and has no obstructions preventing its natural path. Currently, the existing site that includes buildings, driveways, and miscellaneous concrete is not impacted by the sheet flow upgradient. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "C"
BMP's for On-Site Stormwater

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since site improvements from 1984 to the present including the proposed OSSF improvements increased impervious cover from 2.32% to 10.63%, 4.65 CFS Q100 of additional stormwater runoff, and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

ATTACHMENT "D"
BMP's for Surface Streams

On-site stormwater currently sheet flows over land through the site from northwest towards the southeast. The flow is over mostly undisturbed, natural surfaces with no obstructions or detention facilities blocking the flow patterns. The existing structures do not impede or direct flow in any way. Since the project includes the addition of no impervious cover and minimal soil disturbance, no permanent BMPs will need to be installed with this project.

The natural vegetation located downgradient of proposed improvements will provide additional filtration to help prevent pollution from entering streams, sensitive features and the aquifer. According to the Geologic Assessment, all sensitive features within the identified boundary are located upstream of the project site and should not be impacted by this work.

Please refer to the Drainage Area Map in the Temporary Stormwater Section.

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

1. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, and the name of the prime contractor and the name and telephone number of the contact person.

2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.

3. If any sensitive feature is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. The regulated activities near the sensitive feature may not proceed until the TCEQ has reviewed and approved the methods proposed to protect the sensitive feature and the Edwards Aquifer from any potentially adverse impacts to water quality.

4. No temporary aboveground hydrocarbon and hazardous substance storage tank system is installed within 150 feet of a domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

5. Prior to commencement of construction, all temporary erosion and sedimentation (E&S) control measures must be properly selected, installed, and maintained in accordance with the manufacturers specifications and good engineering practices. Controls specified in the temporary storm water section of the approved Edwards Aquifer Protection Plan are required during construction. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. The controls must remain in place until disturbed areas are revegetated and the areas have become permanently stabilized.

6. 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).

7. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake must be provided that can indicate when the sediment occupies 50% of the basin volume.

8. 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).

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

11. The following records shall be maintained and made available to the TCEQ upon request: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

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

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

C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
2800 S. IH 35, Suite 100	14250 Judson Road
Austin, Texas 78704-5712	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

HYDRAULIC MULCH

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydro seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Installation:
(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Inspection and Maintenance Guidelines:
(1) Mulched areas should be inspected weekly and after each rain event to locate and repair any damage.

(2) Areas damaged by storms or normal construction activities should be regraded and hydraulic mulch reapplied as soon as practical.

STABILIZED CONSTRUCTION ENTRANCE / EXIT

Materials:
(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd2, a mullen burst rating of 140 lb/in2, and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation:
(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Inspection and Maintenance Guidelines:
(1) The entrance should be maintained in a condition, which will prevent tracking or lowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

ROCK BERM

Materials:
(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 11 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3 - 5 inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5 - 8 inch diameters rocks may be used.

Installation:
(1) Lay out the woven wire sheathing perpendicular to the flow line. the sheathing should be 20 gauge woven wire mesh with 1 inch openings

(2) Berm should have a top width of 2 feet with side slopes being 2:1 (h:v) or flatter

(3) Place the rock along the sheathing as shown in the diagram, to a height of not less than 18 inches.

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlaps at least 2 inches, and the berm retains its shape when walked upon

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

Inspection and Maintenance Guidelines:
(1) Inspection should be made weekly and after each rainfall. repair or replacement should be made promptly as needed by contractor.

(2) Remove sediment and other debris when buildup reaches 6" and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

SILT FENCE

Materials:
(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in2, ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:
(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ¼ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendic ular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) 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.

(5) 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. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

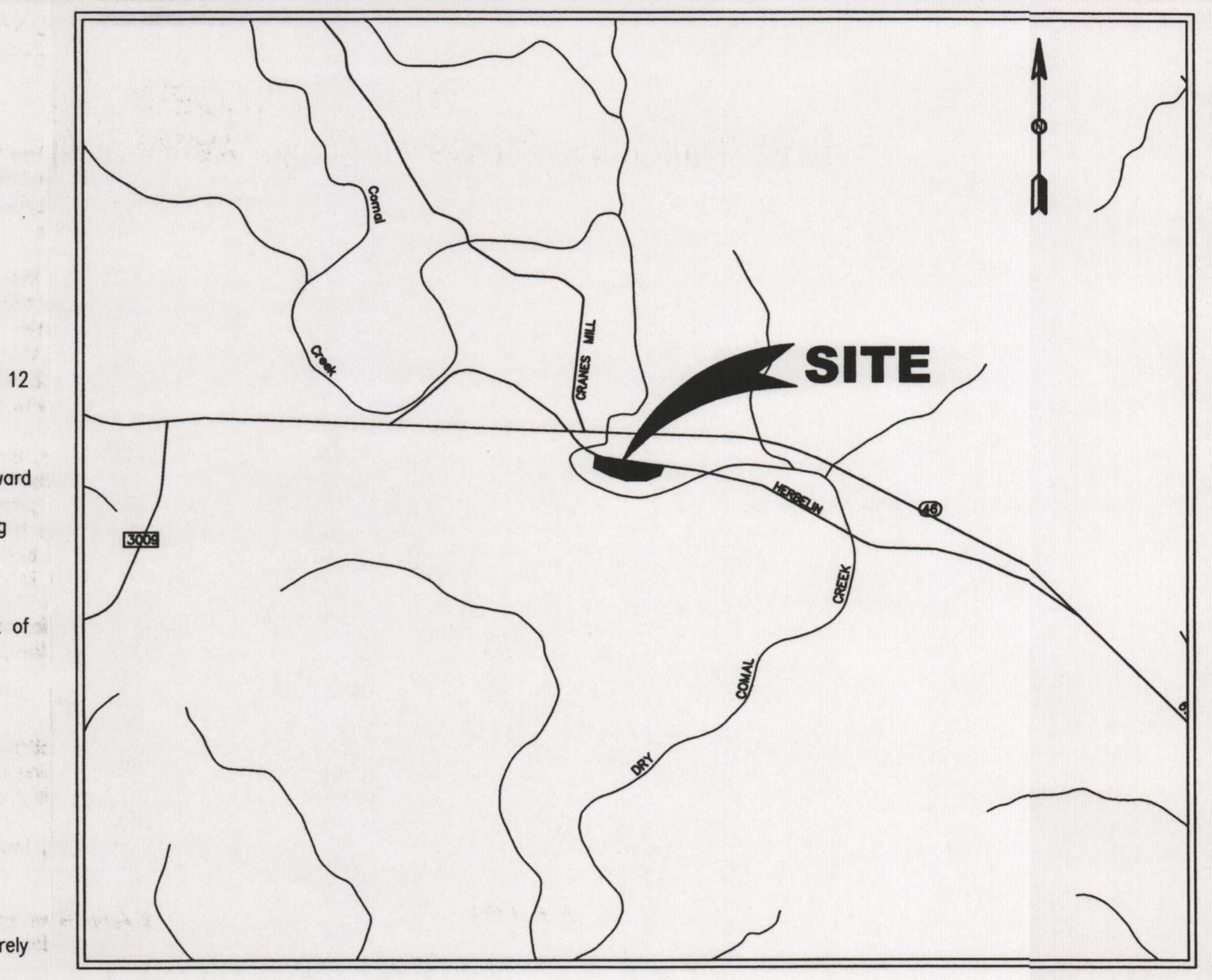
Inspection and Maintenance Guidelines:
(1) Inspect all fencing weekly, and after any rainfall.

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



LOCATION MAP

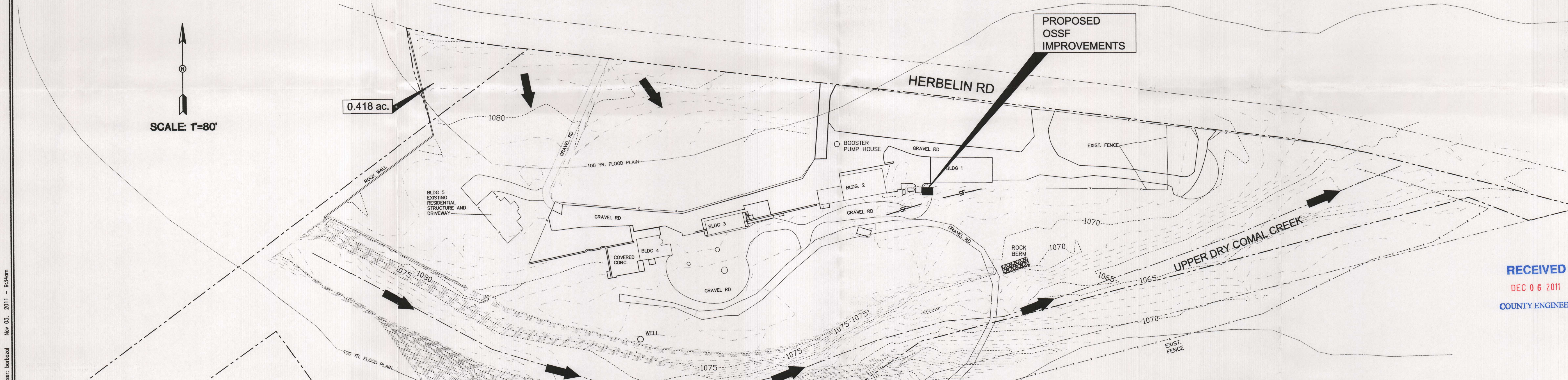
Stephen W. Hanz PE
11/09/11
F-10961

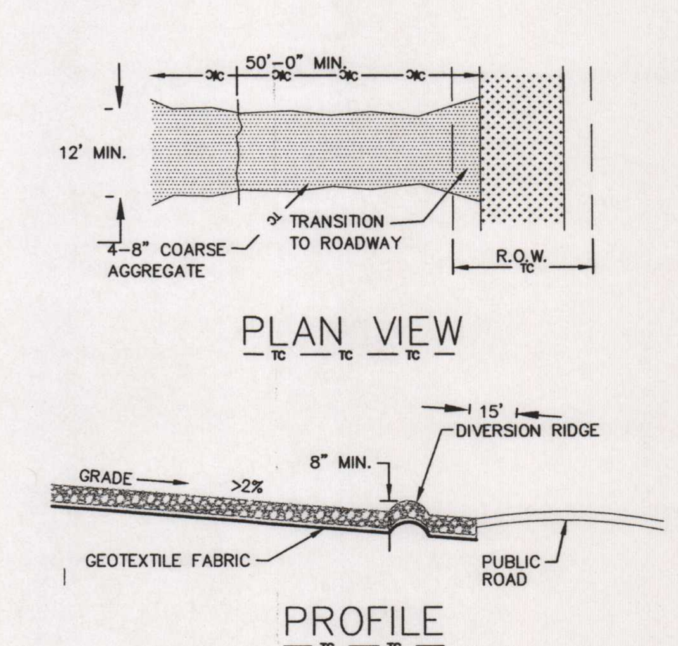
STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED PROFESSIONAL ENGINEER

LEGEND

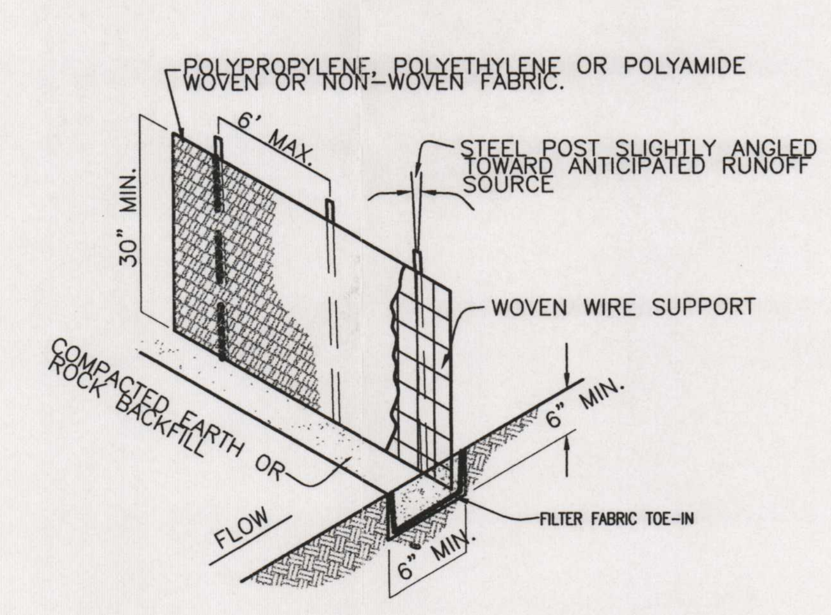
- 1065 — EXISTING GROUND
- 100 YR. FLOOD PLAIN
- SF — SILT FENCE
- ➡ DRAINAGE ARROW
- ▨ ROCK BERM

FOR PERMIT USE ONLY.
NOT FOR CONSTRUCTION.

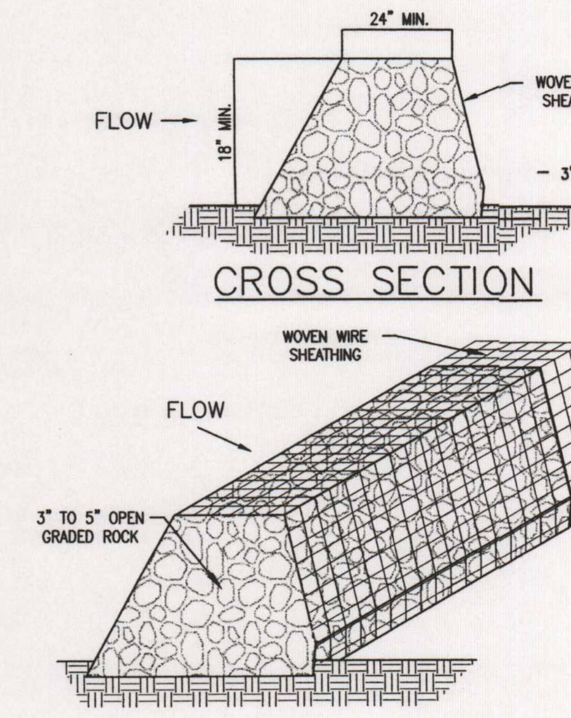




STABILIZED CONSTRUCTION ENTRANCE / EXIT



SILT FENCE



ROCK BERM

HMT
ENGINEERING & SURVEYING
HOLLMIG • MOELLER • THORNHILL

410 N. SEGUIN ST.
NEW BRAUNFELS
TEXAS, 78130

TBPE Firm F-10961
www.hmtnb.com

Ph: 830-625-8555
Fax: 830-625-8556

WATER POLLUTION ABATEMENT PLAN
SITE PLAN

DRY COMAL CREEK
VINEYARDS INC.

1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

RECEIVED
DEC 06 2011
COUNTY ENGINEER

2011 NOV 10 AM 9:2?
"RECEIVED TCEQ" SAN ANTONIO REGION

DATE:	APRIL 2011
DRAWN BY:	LB
DESIGNED BY:	MB
CHECKED BY:	MB
REVIEWED BY:	SH
PROJECT NUMBER:	HSR001.101

SHEET
1
OF 1

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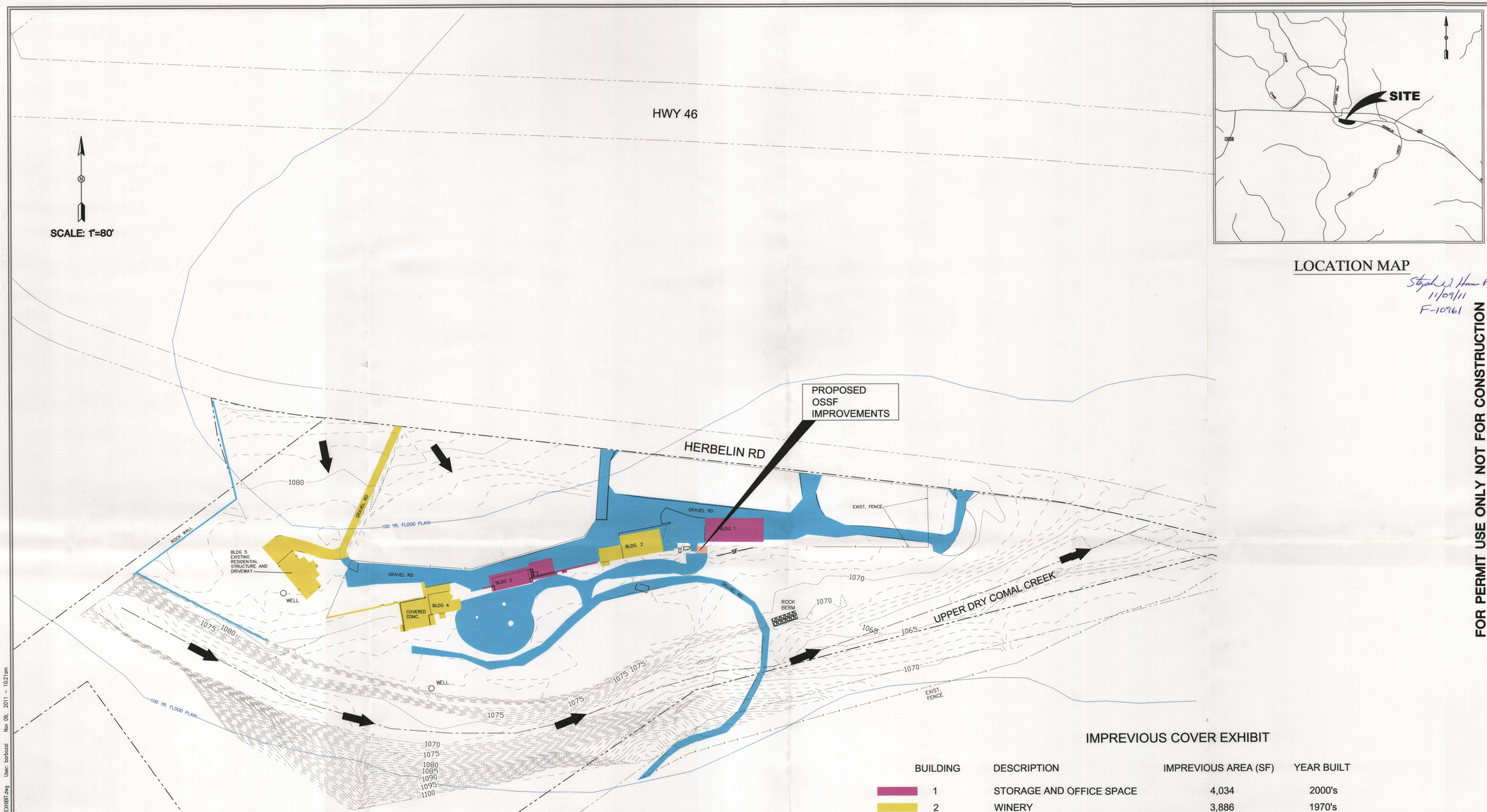

LOCATION MAP

IMPREVIOUS COVER EXHIBIT

BUILDING	DESCRIPTION	IMPREVIOUS AREA (SF)	YEAR BUILT
1	STORAGE AND OFFICE SPACE	4,034	2000's
2	WINERY	3,886	1970's
3	BATHROOMS ON BOTTOM APARTMENT ON TOP	3,394	1990's
4	WINE TASTING BUILDING	5,374	1970's
5	EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY	9,389	1950's
	OSSF IMPROVEMENTS	500	PROPOSED
	DRIVEWAY, PARKING, ROADS, ROCKWALL	77,453	1990's
	TOTAL IMPROVEMENTS	104,030	
	TOTAL SITE AREA	18.44 AC	
	PERCENT IMPERVIOUS	12.96%	

* EXISTING RESIDENTIAL STRUCTURE AND DRIVEWAY, WINE TASTING BUILDING, AND WINERY WERE INSTALLED PRIOR TO 1984 WPAP REQUIREMENTS.

FOR PERMIT USE ONLY NOT FOR CONSTRUCTION

HMT ENGINEERING & SURVEYING
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NEW BRAUNFELS
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TBPE Firm F-10961
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Fax: 830-625-8556

STATE OF TEXAS
STEPHEN WADE HANZ
95422
LICENSED
PROFESSIONAL ENGINEER

Stephen W. Hanz P.E.
11/09/11
F-10961

IMPREVIOUS COVER EXHIBIT

DRY COMAL CREEK
VINEYARDS INC.
1741 HERBELIN RD.
NEW BRAUNFELS, TX. 78132

RECEIVED TCEQ
SAN ANTONIO REGIONAL
2011 NOV 10 AM 9:56

DATE:	APRIL 2011
DRAWN BY:	LB
DESIGNED BY:	WB
CHECKED BY:	WB
REVIEWED BY:	SH
PROJECT NUMBER:	HSR001.101

SHEET 1 OF 1

Drawing Name: N:\Projects\HSR001.101 - Floodplain & WPAP\Civil\Construction Drawings\IMPREVIOUS COVER EXHIBIT.dwg User: bcrhoad Nov 09, 2011 - 10:21am

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 6, 2008

Mr. Thomas H. Hornseth, P.E.
Comal County Engineer
195 David Jonas Drive
New Braunfels TX 78132-3710

Re: Edwards Aquifer, Comal County
PROJECT NAME: Dry Comal Creek Flood Retarding Structure, located on the north side of IH 35 and FM 482 approximately 1.5 miles northwest of the intersection of Krueger and FM 482, New Braunfels, Comal County Texas
PLAN TYPE: Application for Approval of a Water Pollution Abatement Plan (WPAP) 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program
EAPP File No.: 2824.00

Dear Mr. Hornseth:

The enclosed WPAP application received on August 1, 2008, is being forwarded to you pursuant to the Edwards Aquifer Rules. The Texas Commission on Environmental Quality (TCEQ) is required by 30 TAC Chapter 213 to provide copies of all applications to affected incorporated cities and underground water conservation districts for their comments prior to TCEQ approval.

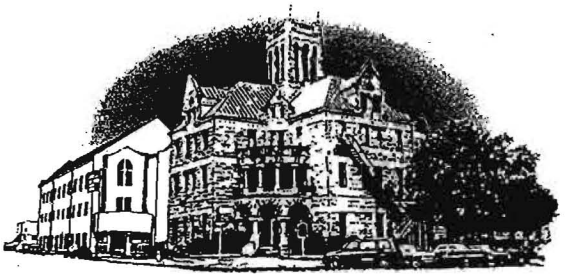
Please forward your comments to this office by September 1, 2008.

The Texas Commission on Environmental Quality appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact the San Antonio Region Office at (210) 490-3096.

Sincerely

Lynn M. Bumguardner
Water Section Work Leader
San Antonio Regional Office

LMB/eg



Comal County

OFFICE OF COMAL COUNTY ENGINEER

July 21, 2009

Ms. Charlyne Fritz
Texas Commission on Environmental Quality
14250 Judson Road
San Antonio, TX 78233-4480

Re: Edwards Aquifer Protection Program ID No. 2824.00; Investigation No. 689237; Regulated Entity No. RN105595078

Dear Ms. Fritz:

In accordance with Standard Condition Number 4 of the referenced investigation, please find attached the proof of recordation of the notice in the Comal County deed records.

If you have any questions or need additional information please contact our office.

Sincerely,

Robert Boyd, P.E.
Comal County Assistant Engineer

195 David Jonas Drive • New Braunfels, Texas 78130 • (830) 608-2090 FAX (830) 608-2009

200906025487 07/21/2009 01:10:13 PM 1/7

T/C

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of Comal §

BEFORE ME, the undersigned authority, on this day personally appeared Judge Danny Scheel who, being duly sworn by me deposes and says:

(1) That my name is Judge Danny Scheel and that I own the easement described below.

(2) That said easement is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said easement was approved by the Texas Commission on Environmental Quality (TCEQ) on September 29, 2008.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said easement is located in Comal County, Texas, and the legal description of the property is as follows:

Tract	6.530 Acres out of Francisco Rodriguez Survey No. 99, Abstract No. 484
Recording Information	DOC# 200906002173, Dated 01/16/2009

EASEMENT OWNER

SWORN AND SUBSCRIBED TO before me, on this 21 day of July, 2009.

Cryptal L. Gottfried
NOTARY PUBLIC

THE STATE OF Texas §

County of Comal §

BEFORE ME, the undersigned authority, on this day personally appeared Judge Danny Scheel 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 21 day of July 2009

CRYSTAL L. GOTTFRIED
Notary Public State of Texas
My Comm. Exp. 11-15-2011

Cryptal L. Gottfried
NOTARY PUBLIC

Crystal L. Gottfried
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 11-15-2011

TCEQ-0625 (Rev. 10/01/04)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 29, 2008

The Honorable Danny Scheel
County Judge
County Courthouse
195 David Jones Dr.
New Braunfels, TX 78132-3760

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Dry Comal Creek Flood Retarding Structure; Located approximately 1.5 miles northwest of the intersection of Krueger Rd. and FM 482; New Braunfels ETJ, Texas
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program ID No. 2824.00; Investigation No. 689237; Regulated Entity No. RN105595078

Dear Judge Scheel:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the above-referenced project submitted to the San Antonio Regional Office by CH2MHill on your behalf on August 1, 2008. Final review of the WPAP was completed after additional material was received on September 15, 2008. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed project will have an area of approximately 21.40 acres and will include a concrete flood retarding structure across Dry Comal Creek and construction related staging areas and access roads. The impervious cover will be 1.75 acres (8.18 percent) and will include the structure's footprint and stilling basin. The staging areas will have vegetation cleared and the material shredded and placed as ground cover. The haul roads will be widened to forty feet and improved with gravel. The gravel will be removed upon completion of construction. No wastewater will be generated by this project.

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PERMANENT POLLUTION ABATEMENT MEASURES

An exception to the requirement for permanent BMPs was requested in the application due to the nature of the activity and minimal amount of total suspended solids (TSS) generated.

EXCEPTION JUSTIFICATION

The justification for the exception request stated equivalent water quality protection will be achieved because:

1. The project is not a typical commercial or industrial project. A minimal amount of TSS will be generated from the 1.75 acres of impervious cover related to the dam structure. Vehicular traffic will be limited to maintenance vehicles conducting inspections of the structure.
2. The structure itself will act as a settling pond for the first flush of contaminants upstream of the site.
3. The two hundred foot upstream natural buffer area for sensitive features will be preserved.
4. The impounded water upstream of the structure could provide recharge for the Edwards Aquifer through sensitive feature S-3
5. The conservation easement, which follows the creek downstream of the structure, requires all land in the easement to remain in natural conditions up to the transition zone boundary.

GEOLOGY

According to the geologic assessment included with the application, the site is located within the Lower Cretaceous and Quaternary alluvium formations. The project geologist evaluated eighteen geologic features and two manmade features (water wells). Five of the geologic features were scored as sensitive by the project geologist and are discussed in the paragraph below. The San Antonio Regional Office site assessment conducted on September 10, 2008 revealed the site as described by the geologic assessment.

SENSITIVE FEATURE

Natural buffers were proposed for five natural sensitive features (2 solution cavities, 1 sinkhole, and 2 zones of solution fractures). Construction related regulated activities will occur within the natural buffer areas, however, no permanent structures or impervious cover will impede on the natural buffer areas upon the completion of construction. Rock berms will be situated to act as sediment controls for protection of the features and as a physical barrier to signal the limits of construction.

Each feature will have regulated activities (widening of the access road and placement of gravel) occur in a portion of the natural buffer area during construction. The access roads generally follow existing ranch roads at the site. One feature, S-3, will be temporarily sealed due to its location in the inundation area upstream of the structure. A modified rock berm, consisting of rock fill and filter fabric will be placed in the feature to prevent sediment, and construction debris from entering the feature in times of high water.

SPECIAL CONDITIONS

I. Due to the uniqueness of the project and the limited TSS generated, the exception to the requirement from permanent BMPs is approved.

II. Removal of the gravel from the access roads is required upon the completion of construction. Final stabilization of the soil is required after the gravel is removed.

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COUNTY ENGINEER

III. Sensitive feature S-3 shall be temporarily sealed with rock fill and filter fabric while construction activities are occurring. Upon the completion of construction, provide documentation (photographs) that the feature has been restored to its original condition.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

2. The holder of the approved Edwards Aquifer Protection Plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, PST) can be required depending on the specifics of the plan.

3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

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

5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is

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proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

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

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.

12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.

13. Two wells exist on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.

14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

15. Intentional discharges of sediment laden storm water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.

19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

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

If you have any questions or require additional information, please contact Charly Fritz of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4065.

Sincerely,

Mark R. Vickery, P.G.
Executive Director
Texas Commission on Environmental Quality

MRV/CEF/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625

cc: Ms. Judith Ibarra-Biancheta, P.E., C.F.M., CH2MHILL
Mr. Bruce Boyer, City of New Braunfels
Mr. Tom Hornseth, Comal County
Ms. Velma Danielson, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC212

Filed and Recorded
Official Public Records
Joy Streater, County Clerk
Comal County, Texas
07/21/2009 01:10:13 PM
CASHTWO
200906025487

Joy Streater

After Recording Return To:
Holcim (US) Inc.
6211 North Ann Arbor Road
Dundee, MI 48131
Attn: Real Estate Department

200906002173 01/16/2009 02:13:56 PM EASEMENT 1/7

FLOODWATER RETENTION STRUCTURE SITE EASEMENT AMENDMENT No. 2

STATE OF TEXAS §
§ KNOW ALL PERSONS BY THESE PRESENTS:
COUNTY OF COMAL §

This FLOODWATER RETENTION STRUCTURE SITE EASEMENT AMENDMENT No. 2 (this "Second Amendment") is made and entered into effective as of the Effective Date given below, by HOLCIM (US) INC., a Delaware corporation ("Grantor") and COMAL COUNTY, a political subdivision of the State of Texas ("Grantee").

WHEREAS, Grantor, by that certain Floodwater Retention Structure Site Easement dated effective as of February 11, 2008 and recorded on April 9, 2008 as Document No. 200806013862 in the Real Property Records of Comal County, Texas (the "FRS Site Easement"), granted to Grantee a permanent, non-exclusive easement upon, across and beneath 6.054 acres of real property owned by Grantor and located in Comal County, Texas; and

WHEREAS, the parties amended the FRS Site Easement by that certain Floodwater Retention Structure Site Easement Amendment dated effective as of November 20, 2008 and recorded on December 9, 2008 as Document No. 200806044302 in the Real Property Records of Comal County, Texas (the "FRS Site Easement Amendment"), intending to relocate the FRS Site to that certain 6.530 acres of real property owned by Grantor and located in Comal County, Texas, being more particularly described in Exhibit A attached hereto and incorporated herein for all purposes (the "New Site"); and

WHEREAS, an incorrect legal description of the New Site was attached to the FRS Site Easement Amendment and the parties desire to further amend the FRS Site Easement by correcting the description of the New Site.

NOW, THEREFORE, in consideration of the premises, the sum of Ten and No/100 Dollars ($10.00) and other good and valuable consideration in hand paid, and in consideration of the mutual agreements herein made, the receipt and sufficiency of which are hereby acknowledged, Grantor and Grantee hereby agree as follows:

1. The legal description of the New Site, as provided in Exhibit A of the FRS Site Easement Amendment, is deleted in its entirety and replaced with the New Site description at Exhibit A of this Second Amendment.

2. Except as herein modified or amended, the provisions, conditions and terms of the FRS Site Easement and FRS Site Easement Amendment shall remain unchanged and in full force and effect.

EFFECTIVE as of the date of the latest acknowledgment below ("Effective Date").

GRANTOR:

HOLCIM (US) INC.,
a Delaware corporation

James M. Addams
Senior Vice President

THE STATE OF TEXAS §
§
COUNTY OF DAL §

This instrument was acknowledged before me on the 12 day of JAN, 2009 by James M. Addams, the Senior Vice President of HOLCIM (US) INC., a Delaware corporation, on behalf of said corporation.

(SEAL)

Donna L White
My Commission Expires
11/28/2009

Notary Public in and for the State of Texas

My Commission Expires: 11/28/09

[*Grantee's Signature and Acknowledgment On Next Page*]

GRANTEE:

COMAL COUNTY,
a political subdivision of the State of Texas

Danny Scheel, County Judge

Approved by the County Attorney:

Jennifer Tharp
Chief Civil Prosecutor

THE STATE OF TEXAS §
§
COUNTY OF COMAL §

This instrument was acknowledged before me on the 30th day of December, 2008, by Danny Scheel, the County Judge of Comal County, a political subdivision of the State of Texas, on behalf of said county.

(SEAL)

CRYSTAL L. GOTTFRIED
Notary Public State of Texas
My Comm. Exp. 11-15-2011

Crystal L. Gottfried
Notary Public in and for the State of Texas

My Commission Expires: 11-15-2011

EXHIBIT A

FRS Site Description

(See attached
Legal Description of Permanent Dam Easement
on 6.530 acres of land
prepared by the Schultz Group, Inc.)

THE Schultz Group INC.

P.O. BOX 310483 • NEW BRAUNFELS, TX 78131-0483 • Phone: (830) 606-3913 • Fax: (830) 625-2204

LEGAL DESCRIPTION
OF

Permanent Dam Easement

6.530 acres of land out of the Francisco Rodriguez Survey No. 99, Abstract No. 484, Comal County, Texas, and being out of and a part of a 305.412 acre tract as conveyed by WARRANTY DEED WITH VENDOR'S LIEN from MILTON F. SCHMIDT, et ux to IDEAL BASIC INDUSTRIES, INC. and executed on September 8, 1982 and recorded in Volume 333, Pages 349-355 of the Deed Records of Comal County, Texas, said 6.530 acres of land being more particularly described as follows:

COMMENCING: at a set ½" iron pin with plastic cap in the Northwest Right of Way Line of the Union Pacific Railroad (old Missouri Pacific Railroad) and being the Southernmost corner of a 305.412 acre tract as conveyed by WARRANTY DEED WITH VENDOR'S LIEN from MILTON F. SCHMIDT, et ux to IDEAL BASIC INDUSTRIES, INC. and executed on September 8, 1982 and recorded in Volume 333, Pages 349-355 of the Deed Records of Comal County, Texas, and also being the Easternmost corner of a 287.386 acre tract (designated as TRACT 1), conveyed by Warranty Deed with Vendor's Lien from Archie Schmidt, et ux, to Ideal Basic Industries, Inc., and executed on September 8, 1982 and recorded in Volume 333, Pages 381-388 of the Deed Records of Comal County, Texas;

THENCE: North 30 deg. 17' 12" West, (all bearings in this description are based on Grid North of the Texas Coordinate System (NAD 83 (93), Zone 4204), a distance of 1241.96 feet and North 59 deg. 42' 48" East, a distance of 411.67 feet from a set ½" iron pin with plastic cap being the Southwest corner of this easement and the **POINT OF BEGINNING;**

THENCE: the following courses along the West line of this easement:

(1) North 06 deg. 14' 04" West, a distance of 119.73 feet to a set ½" iron pin with plastic cap stamped "4233";

(2) North 83 deg. 57' 44" East, a distance of 418.38 feet to a set ½" iron pin with plastic cap stamped "4233";

(3) North 04 deg. 58' 55" West, a distance of 806.17 feet to a set ½" iron pin with plastic cap stamped "4233"; and

(4) North 15 deg. 03' 42" East, a distance of 311.75 feet to a set ½" iron pin with plastic cap stamped "4233" and being the Northwest corner of this easement;

THENCE: (5) South 75 deg. 02' 16" East, a distance of 120.09 feet along the North line of this easement to a set ½" iron pin with plastic cap being the Northeast corner of this easement;

THENCE: the following courses along the East line of this easement:

(6) South 15 deg. 08' 03" West, a distance of 291.14 feet to a 60d nail;

(7) South 05 deg. 11' 40" East, a distance of 55.24 feet to a set ½" iron pin with plastic cap stamped "4233";

(8) South 08 deg. 53' 11" East, a distance of 310.78 feet to a set ½" iron pin with plastic cap stamped "4233";

(9) South 13 deg. 04' 10" East, a distance of 57.50 feet to a set ½" iron pin with plastic cap stamped "4233";

(10) North 84 deg. 24' 46" East, a distance of 92.45 feet to a set mag nail in rock;

(11) South 42 deg. 57' 17" East, a distance of 198.15 feet to a set ½" iron pin with plastic cap stamped "4233";

(12) South 04 deg. 55' 38" East, a distance of 58.22 feet to a set ½" iron pin with plastic cap stamped "4233";

(13) South 63 deg. 51' 11" West, a distance of 183.84 feet to a set cotton spindle;

(14) South 85 deg. 54' 52" West, a distance of 28.08 feet to a set cotton spindle;

(15) South 21 deg. 48' 05" West, a distance of 96.95 feet to a set cotton spindle;

(16) South 07 deg. 07' 30" East, a distance of 16.13 feet to a set cotton spindle;

(17) North 52 deg. 35' 41" East, a distance of 85.62 feet to a set mag nail;

(18) North 75 deg. 49' 59" East, a distance of 106.25 feet to a set cotton spindle; and

(19) South 00 deg. 00' 00" East, a distance of 122.02 feet to a set cotton spindle being the Southeast corner of this easement;

THENCE: the following courses along the South line of this easement:

(20) South 73 deg. 42' 21"West, a distance of 67.73 feet to a set cotton spindle;

(21) South 27 deg. 08' 07" West, a distance of 89.91 feet to a set ½" iron pin with plastic cap stamped "4233";

(22) South 83 deg. 43' 44" West, a distance of 91.56 feet to a set ½" iron pin with plastic cap stamped "4233";

(23) North 65 deg. 55' 28"West, a distance of 102.97 feet to a set ½" iron pin with plastic cap stamped "4233"; and

(23) South 83 deg. 56' 22" West, a distance of 407.34 feet to a set ½" iron pin with plastic cap being the **POINT OF BEGINNING**, and containing 6.530 acres of land.

THIS LEGAL DESCRIPTION WAS WRITTEN IN CONJUNCTION WITH A SURVEY PLAT PREPARED IN THIS OFFICE ON 09/23/08, JOB NO. 10-11-2004.

Stephen E. Schultz 9/23/08
Stephen E. Schultz, R.P.L.S.
Registration No. 4233

F:\101104\2008 Update survey\6.530 acres.doc

Filed and Recorded
Official Public Records
Joy Streater, County Clerk
Comal County, Texas
01/16/2009 02:13:56 PM
CASHONE
200906002173

Joy Streater

THE Schultz Group INC.

P.O. BOX 310483 • NEW BRAUNFELS, TX 78131-0483 • Phone: (830) 606-3913 • Fax: (830) 625-2204

LEGAL DESCRIPTION
OF

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THENCE: North 30 deg. 17' 12" West, (all bearings in this description are based on Grid North of the Texas Coordinate System (NAD 83 (93), Zone 4204), a distance of 1241.96 feet and North 59 deg. 42' 48" East, a distance of 411.67 feet from a set ½" iron pin with plastic cap being the Southwest corner of this easement and the **POINT OF BEGINNING;**

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(3) North 04 deg. 58' 55" West, a distance of 806.17 feet to a set ½" iron pin with plastic cap stamped "4233"; and

(4) North 15 deg. 03' 42" East, a distance of 311.75 feet to a set ½" iron pin with plastic cap stamped "4233" and being the Northwest corner of this easement;

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(8) South 08 deg. 53' 11" East, a distance of 310.78 feet to a set ½" iron pin with plastic cap stamped "4233";

(9) South 13 deg. 04' 10" East, a distance of 57.50 feet to a set ½" iron pin with plastic cap stamped "4233";

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(13) South 63 deg. 51' 11" West, a distance of 183.84 feet to a set cotton spindle;

(14) South 85 deg. 54' 52" West, a distance of 28.08 feet to a set cotton spindle;

(15) South 21 deg. 48' 05" West, a distance of 96.95 feet to a set cotton spindle;

(16) South 07 deg. 07' 30" East, a distance of 16.13 feet to a set cotton spindle;

CH2M HILL
9311 San Pedro Ave., St. 800
San Antonio, TX 78216
Tel 210.377.3081
Fax 210.349.8944

15 September 2008

Ms. Charlyne Fritz
TCEQ R-13
14250 Judson Rd.
San Antonio, TX 78233-4480

Dear Ms. Fritz:

Subject: Revisions for Dry Comal Creek Flood Retarding Structure

CH2M HILL is pleased to submit five (5) copies of page inserts to our recently submitted WPAP application. The included pages reflect changes as requested by TCEQ. Per your request, one (1) original and four (4) copies of the following page inserts are included:

1. Site Plan- addition of buffer areas to the sensitive features, geotechnical boring locations
2. Detail of Modified High Service Rock Berm
3. Revision to details stated to the construction entrance/exit as stated in the Attachment J in the Temporary Stormwater Section
4. Update of Attachment A in the Exception request Form

Please call if you have any questions.

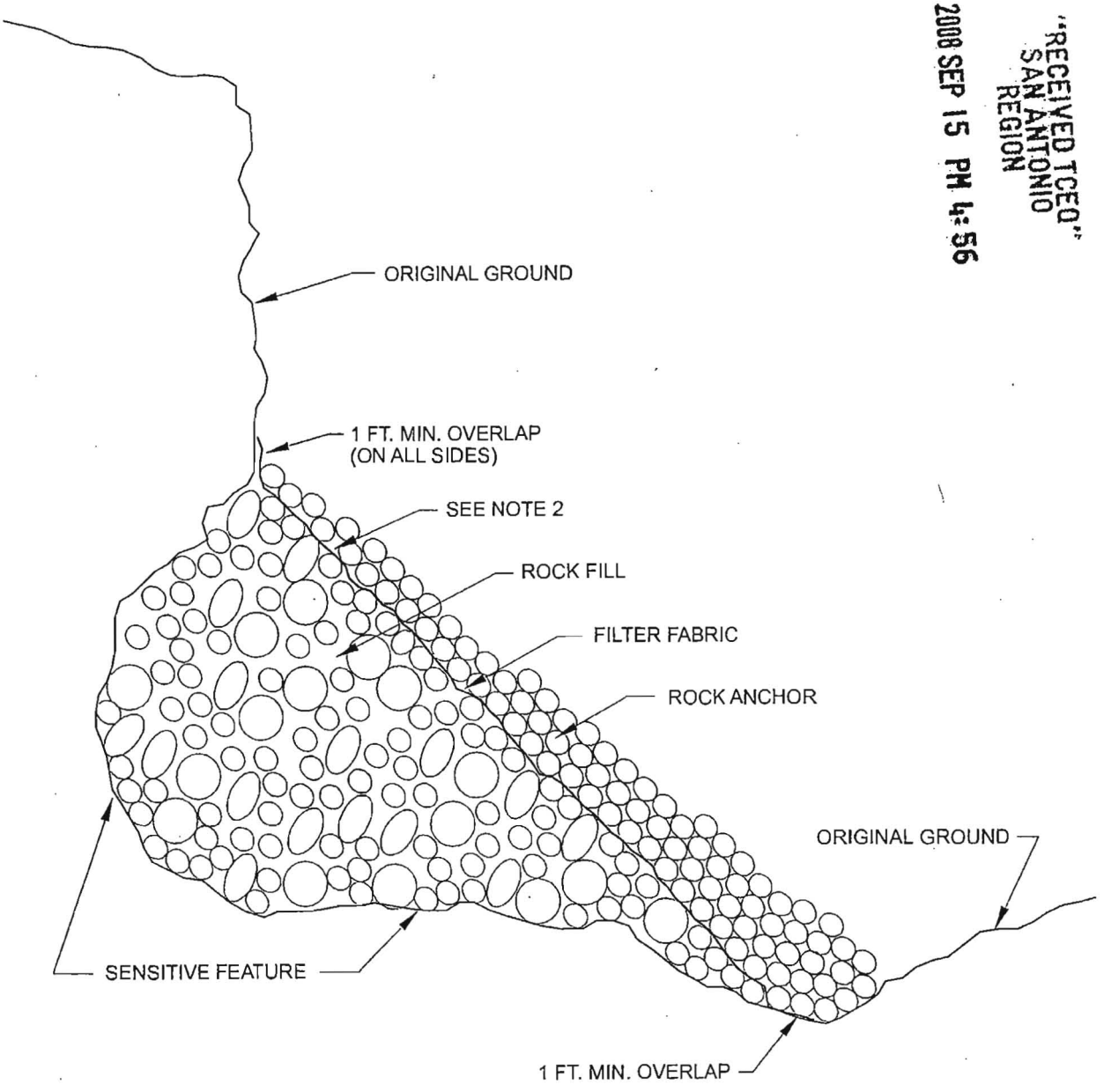
Sincerely,

CH2M HILL

J. Ibarra-Bianchetta

Judith Ibarra-Bianchetta, PE, CFM
Associate Project Manager

Attachments: Five (5) copies of each of the five (5) sheets listed above



NOTES:

1. CONTRACTOR TO REMOVE ALL INSTALLED MATERIAL AFTER CONSTRUCTION IS COMPLETED
2. CONTRACTOR TO INSTALL MATERIAL AT A STABLE SLOPE.

FIGURE 1
FEATURE TEMPORARY SEAL
HIGH SERVICE ROCK BERM
EROSION CONTROL DETAIL
COMAL COUNTY DAM PROJECT

CH2MHILL

ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices

The following measures will be utilized to ensure soil stabilization prior to, during, and after soil stabilization at the proposed Dry Comal dam site:

Table J.1 – Soil Stabilization Sequence

Activity	Area	Description
Mulching	4 – 10 ac	Following the geologic assessment, the dam footprint will be cleared of vegetation and any trees will be mulched on-site.
Road Preparation	2.6 ac	Ranch access roads will be improved and leveled using several inches of ¾-inch to 3-inch diameter crushed limestone.
Construction Entrance	30' X 50'	A 30' X 50' construction entrance will be installed at the interface between paved county roads and the site's improved ranch road access. The Construction Entrance will be constructed from 3-inch to 6-inch crushed limestone.
Silt Fencing / Rock Berms	per plan	Temporary sediment controls be installed following road improvement and prior to excavation of the dam site.
Natural Vegetation	---	Outside of the dam footprint, native grasses, forbs, shrubs, and trees will be maintained to the maximum extent practicable.
BMP Removal	per plan	Subsequent to dam completion, silt fences, rock berms, and construction entrance will be removed. BMPs remnants will be transported and appropriately disposed of off-site. All BMP locations will be restored to original condition and stabilized with mulch if necessary.
Record Keeping	---	Major grading activities, dates of construction starts and stops, and schedules of stabilization measures will be maintained at the construction field office.

Attachment A

This flood retarding structure does not meet the definition of a typical project associated with WPAP regulations. According to the rule citation 213.5(b)(4)(D)(ii)(I), "BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction. These practices and measures must be designed, constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids from the site caused by the regulated activity is removed. These quantities must be calculated in accordance with technical guidance prepared or accepted by the executive director." An exception is requested from this requirement for this structure.

The proposed flood retarding structure, which will be constructed of concrete, provides a permanent impervious surface, causing an increase of 8.18% compared to existing ground cover conditions. Also, the gravel roads that will be installed during construction will be removed from the site, following construction. After construction, the roads will be of natural ground cover with infrequent maintenance traffic on the roadways. The amount of pollutants that will be exposed to the impervious surface and thereby contributing to possible contamination of water will also be limited due to occasional maintenance vehicle traffic on top of the structure. However, this will be minimal and will not cause TSS contamination to the surface water. In addition, the location of the structure is in close proximity to the Edwards Aquifer Transition Zone (approximately 1,500 feet downstream) and will have a reduced impact to the recharge zone.

Attachment B

The project will provide many benefits that provide water quality protection. First, the structure will act as a sedimentation basin for the first flush of contaminants upstream of the site. Draining times for the structure vary from 4.5 hours for the 2 year event to 18.8 hours for the 100 year event and will provide time for containments or sediments to settle out of the surface water. Second, there will be the minimum 150' buffer between the identified sensitive features for the site and the permanent dam footprint, allowing for existing landcover conditions to help filter out any possible contamination. Thirdly, the impounded water behind the structure will provide more recharge water to the aquifer through the sensitive feature. Lastly, the conservation easement downstream of the structure will require any land between the structure and the transition zone to be untouched and therefore, this will contribute to improved water quality for the recharge zone. For all these reasons, the proposed structure provides equivalent water quality protection.

(17) North 52 deg. 35' 41" East, a distance of 85.62 feet to a set mag nail;

(18) North 75 deg. 49' 59" East, a distance of 106.25 feet to a set cotton spindle; and

(19) South 00 deg. 00' 00" East, a distance of 122.02 feet to a set cotton spindle being the Southeast corner of this easement;

THENCE: the following courses along the South line of this easement:

(20) South 73 deg. 42' 21"West, a distance of 67.73 feet to a set cotton spindle;

(21) South 27 deg. 08' 07" West, a distance of 89.91 feet to a set ½" iron pin with plastic cap stamped "4233";

(22) South 83 deg. 43' 44" West, a distance of 91.56 feet to a set ½" iron pin with plastic cap stamped "4233";

(23) North 65 deg. 55' 28"West, a distance of 102.97 feet to a set ½" iron pin with plastic cap stamped "4233"; and

(23) South 83 deg. 56' 22" West, a distance of 407.34 feet to a set ½" iron pin with plastic cap being the **POINT OF BEGINNING,** and containing 6.530 acres of land.

THIS LEGAL DESCRIPTION WAS WRITTEN IN CONJUNCTION WITH A SURVEY PLAT PREPARED IN THIS OFFICE ON 09/23/08, JOB NO. 10-11-2004.

Stephen E. Schultz 9/23/08

Stephen E. Schultz, R.P.L.S.
Registration No. 4233

F:\101104\2008 Update survey\6.530 acres.doc

2824.00

WATER POLLUTION ABATEMENT PLAN
(WPAP)

DRY COMAL CREEK FLOOD RETARDING STRUCTURE
COMAL COUNTY, TEXAS

Submitted to: TCEQ, Region 13 Office, San Antonio, Texas

August 2008

Prepared by:

CH2MHILL

General Information Form (*TCEQ-0587*)

General Information Form
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

REGULATED ENTITY NAME: Dry Comal Creek Flood Retarding Structure
COUNTY: Comal County STREAM BASIN: Dry Comal Creek

EDWARDS AQUIFER: X RECHARGE ZONE
__ TRANSITION ZONE

PLAN TYPE: X WPAP __ AST __ EXCEPTION
__ SCS __ UST __ MODIFICATION

CUSTOMER INFORMATION

1. Customer (Applicant):

Contact Person: Judge Danny Scheel
Entity: Comal County
Mailing Address: 195 David Jonas Drive
City, State: New Braunfels, Texas Zip: 78132-3760
Telephone: 830.608.2090 FAX: 830.608.2009

Agent/Representative (If any):

Contact Person: Judith Ibarra-Bianchetta, PE, CFM
Entity: CH2MHILL
Mailing Address: 9311 San Pedro Avenue Suite 800
City, State: San Antonio, Texas Zip: 78216
Telephone: 210.377.3081 FAX: 210.349.8944

2. __ This project is inside the city limits of _____.
X This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of New Braunfels.
__ This project is not located within any city's limits or ETJ.

3. 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.

The project is located on the North side of IH 35 and FM 482 approximately 1.5 miles Northwest of the intersection of Krueger and FM 482.

4. X **ATTACHMENT A - ROAD MAP**. A road map showing directions to and the location of the project site is attached at the end of this form.

5. X **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 behind this sheet. The map(s) should clearly show:

X Project site.

X USGS Quadrangle Name(s).
X Boundaries of the Recharge Zone (and Transition Zone, if applicable).
X Drainage path from the project to the boundary of the Recharge Zone.

6. X 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. **The TCEQ must be able to inspect the project site or the application will be returned.**

7. X **ATTACHMENT C - PROJECT DESCRIPTION**. Attached at the end of this form is a detailed narrative description of the proposed project.

8. Existing project site conditions are noted below:
   — Existing commercial site
   — Existing industrial site
   — Existing residential site
   X Existing paved and/or unpaved roads
   — Undeveloped (Cleared)
   X Undeveloped (Undisturbed/Uncleared)
   — Other: _____

PROHIBITED ACTIVITIES

9. X 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).

10. X 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

11. The fee for the plan(s) is based on:

   X For a Water Pollution Abatement Plan and Modifications, the total acreage of the site where regulated activities will occur.
   n/a For an Organized Sewage Collection System Plans and Modifications, the total linear footage of all collection system lines.

n/a For a UST Facility Plan or an AST Facility Plan, the total number of tanks or piping systems.
n/a A Contributing Zone Plan.
n/a A request for an exception to any substantive portion of the regulations related to the protection of water quality.
n/a A request for an extension to a previously approved plan.

12. 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)
X San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

13. X Submit one (1) original and three (3) copies of the completed application to the appropriate regional office for distribution by the TCEQ to the local municipality or county, groundwater conservation districts, and the TCEQ's Central Office.

14. X 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.
X No person shall commence any regulated activity until the Contributing Zone Plan for the activity has been filed with the executive director.

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:

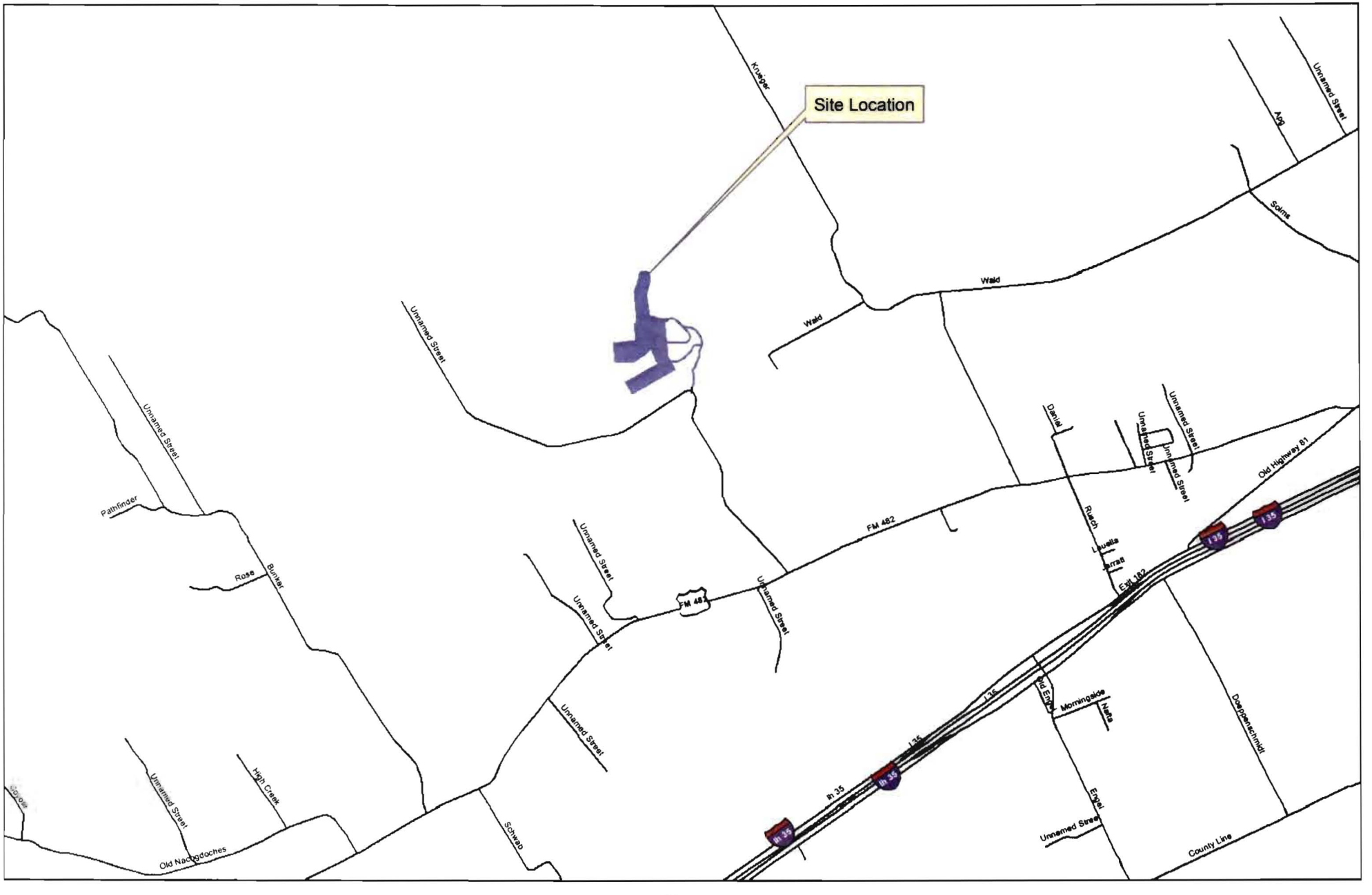
Judith Ibarra-Bianchetta
Print Name of Customer/Agent

J. Ibarra-Bianchetta
Signature of Customer/Agent

8.1.2008
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.



N

0 1,000 Feet

Scale 1" = 1000'

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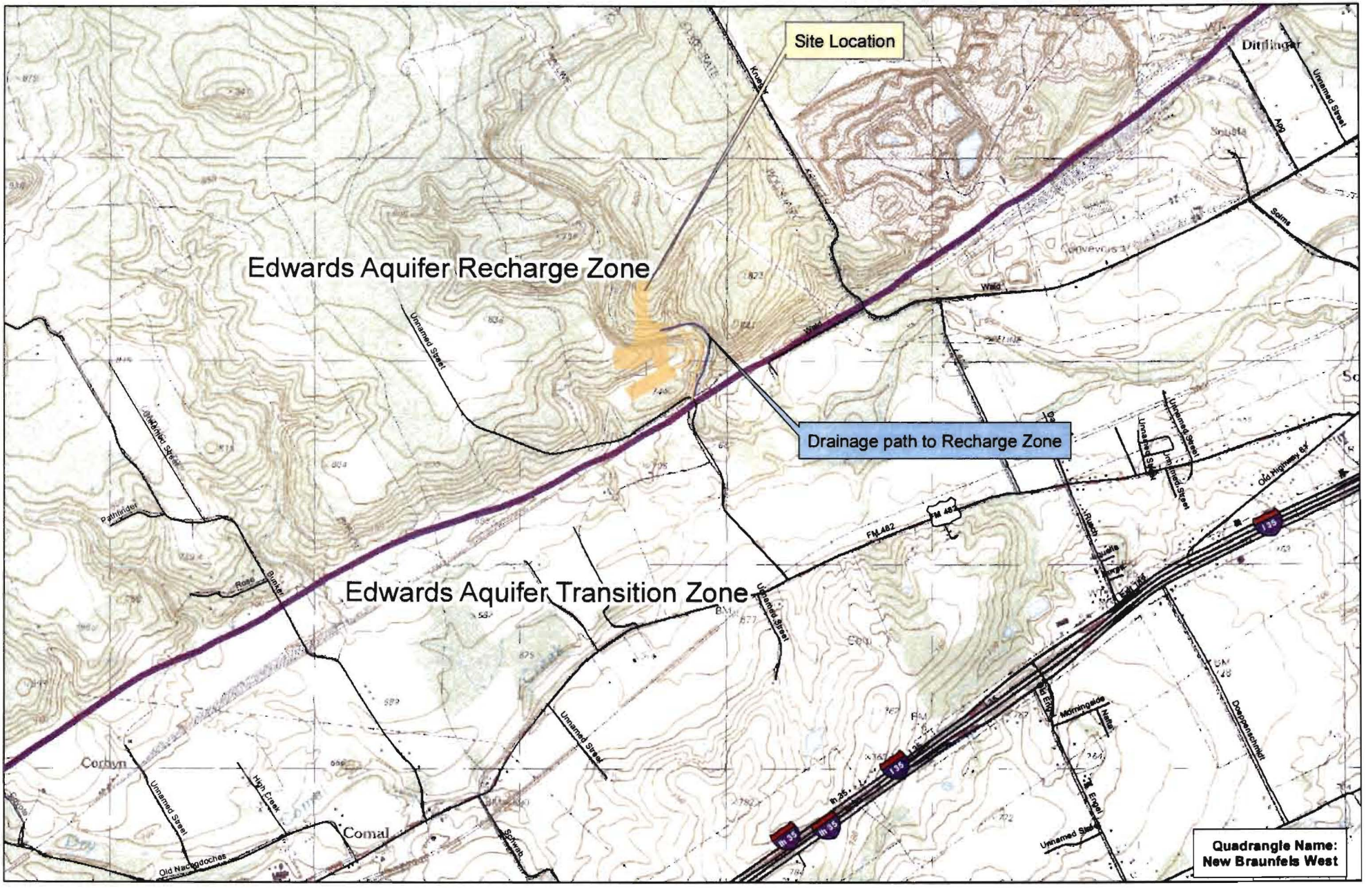
Attachment A
Road Map
Comal County, Texas



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Attachment B
USGS/Edwards Recharge Zone Map
Comal County, Texas

Attachment C

Project Description

Comal County is proposing development of a flood retarding structure with a total plan area of 1.50 acres along a tributary of the Dry Comal Creek. All of the area of the flood retarding structures is located within the Edwards Aquifer Recharge Zone. The proposed structure is being built in an effort to reduce peak discharges downstream of the site at the confluence of the Dry Comal Creek and Comal River. The proposed structure will be constructed of roller compacted concrete and reinforced concrete. The structure height above the streambed is 70 ft with a vertical upstream slope and a downstream slope of 0.8:1 (H to V) consisting of formed RCC steps with 2-ft risers.

The drainage area contributing to the site is 5.61 square miles. During construction activities approximately 21.40 acres which includes clearing limits, haul roads, and staging areas will be disturbed. All of the disturbed areas are within the Edwards Aquifer Recharge Zone. Existing ranch roads will be widened and used to haul material to the construction area. Of the 21.40 acres of disturbance, 2.6 acres of roads will be widened to approximately 40 ft and improved with gravel base during construction activities. The gravel roads will be removed after construction activities. Approximately 14.4 acres will be cleared for the site while 4.4 acres will be utilized as a staging area for the site.

Temporary best management practices will be utilized to control and treat stromwater runoff. BMPs consisting of rock berms, and silt fences will be used to protect sensitive features identified during the geologic assessment. Temporary gravel construction entrance and exits will be used to keep mud and sediment off public roads.

SURVEY STAKING

Sensitive features at the site are marked with green tape and are labeled according to the ID on the Geologic Assessment Table. The coordinates to the different areas at the site are summarized below:

Entrance to the Site:	98°12′ 22.88″W 29°39′56.65″N
Northernmost Boundary of the Site:	98°12′31.35″W 29°40′16.38″N
Southernmost Boundary of the Site:	98°12′53.10″W 29°40′19.74″N
Westernmost Boundary of the Site:	98°12′37.18″W 29°40′19.74″N

Geologic Assessment Form (*TCEQ-0585*)

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

REGULATED ENTITY NAME: Comal County, Dry Comal Creek Flood Retardation Structure, No. 11

TYPE OF PROJECT: _X_ WPAP __ AST __ SCS __ UST

LOCATION OF PROJECT: _X_ Recharge Zone _ Transition Zone _ Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. _X_ Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE.**

2. 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.

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Branyon Clay (ByB)	D	7.8'
Eckrant-Rock (ErG)	D	1'
Orif Soil (Or)	A	1.5'
Purves Clay (PuC)	D	1.5'
Rumple-Comfort (RUD)	C	2.3'

* 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.

3. _X_ A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic column.

4. _X_ A **NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY** is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.

5. _X_ Appropriate **SITE GEOLOGIC MAP(S)** are attached:

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" = 200 '
Site Geologic Map Scale	1" = 200'
Site Soils Map Scale (if more than 1 soil type)	1" = 500 '

6. Method of collecting positional data:
_X_ Global Positioning System (GPS) technology.
__ Other method(s).

7. _X_ The project site is shown and labeled on the Site Geologic Map.

Attachment A, Geologic Assessment Table

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME:

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	RQD	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-1	29 40.297	98 12.486	CD	5	K_{gp}	1	2	1	----	0	----	----	O	5	10	X		X		Hilltop
S-2	29 40.240	98 12.541	CD	5	K_{gp}	2	3	0.5	N45W	0	----	----	O	10	15	X		X		Hillside
S-3	29 40.103	98 12.540	SC	30	K_{gp}	15	1	0.5	N15W	0	----	----	O	25	55		X		X	Streambed
S-4	29 40.103	98 12.540	SC	30	K_{gp}	5	8	2	N40E	10	----	----	O	28	68		X		X	Cliff
S-5	29 40.114	98 12.509	SC	20	K_{gp}	20	8	1.5	N05W	0	----	----	N	19	39	X			X	Cliff
S-6	29 40.114	98 12.497	CD	5	K_{gp}	30	6	2	N75E	0	----	----	C,N	19	24	X			X	Streambed
S-7	29 40.104	98 12.494	SC	20	K_{gp}	1	4	1	N15E	0	----	----	O	17	37	X			X	Cliff
S-8	29 40.123	98 12.452	SC	20	K_{gp}	4	4	1	N05E	0	----	----	O	19	39	X			X	Cliff
S-9	29 40.099	98 12.435	SH	20	K_{gp}	4	2	4	----	0	----	----	O	22	42		X	X		Hillside
S-10	29 40.131	98 12.421	CD	5	K_{gp}	5	8	2	N35E	0	----	----	C	18	23	X			X	Streambed
S-11	29 40.144	98 12.399	CD	5	K_{gp}	100	30	3	N85E	0	----	----	C	18	23	X			X	Streambed
S-12	29 40.144	98 12.399	SC	20	K_{gp}	10	10	2	N10E	0	----	----	O	19	39	X			X	Hillside
S-13	29 40.143	98 12.399	Z-SF	30	K_{gp}	150	30		N30E	0	0.3	0.2	O	28	58		X		X	Streambed
S-14	29 40.148	98 12.421	Z-SF	30	K_{gp}	15	10		N20E	0	0.5	<0.1	O	15	45		X		X	Streambed
S-15	29 40.089	98 12.590	CD	5	K_{gp}	1	1	1	----	0	----	----	O	5	10	X		X		Hillside
S-16	29 40.053	98 12.338	CD	5	K_{gp}	50	15	2	N20E	0	----	----	N	15	20	X			X	Streambed
S-17	29 40.034	98 12.529	SC	20	K_{gp}	8	2	1	N40E	10	----	----	O	5	35	X		X		Hillside
S-18	29 39.981	98 12.480	CD	5	K_{gp}	30	15	1	N34E	0	----	----	V	10	15	X		X		Hilltop
S-19	29 40.193	98 12.508	MB-Well	30	K_{gp}	0.5	0.5		----	0	----	----	----	5	35	X		X		Hillside
S-20	29 40.098	98 12.544	MB-Well	30	K_{gp}	0.5	0.5		----	0	----	----	----	5	35	X			X	Streambed

* DATUM: WGS84

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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

Bret Rahe

Date August 1, 2008

Sheet 1 of 1

STATE OF TEXAS
BRET A. RAHE
GEOLOGY
2798
LICENSED
PROFESSIONAL GEOSCIENTIST

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

Attachment B, Soil Profile and Narrative of Soil Units

According to the *Soil Survey of Comal and Hays Counties,, Texas* (USDA, 1984), and the USDA Web Soil Service (http://websoilsurvey.nrcs.usda.gov/app/), five different soils are within close proximity of the project site. These include the Branyon Clay, Eckrant-Rock Outcrop, Purves Clay, Orif Soils, and Rumple-Comfort Association (**Figure B1**). Descriptions of the hydraulic properties for each of these units were obtained from the USDA publication *Urban Hydrology for Small Watersheds* (1975, 1986) and are provided on page 1 of the Geologic Assessment Form. Descriptions of these units are provided below.

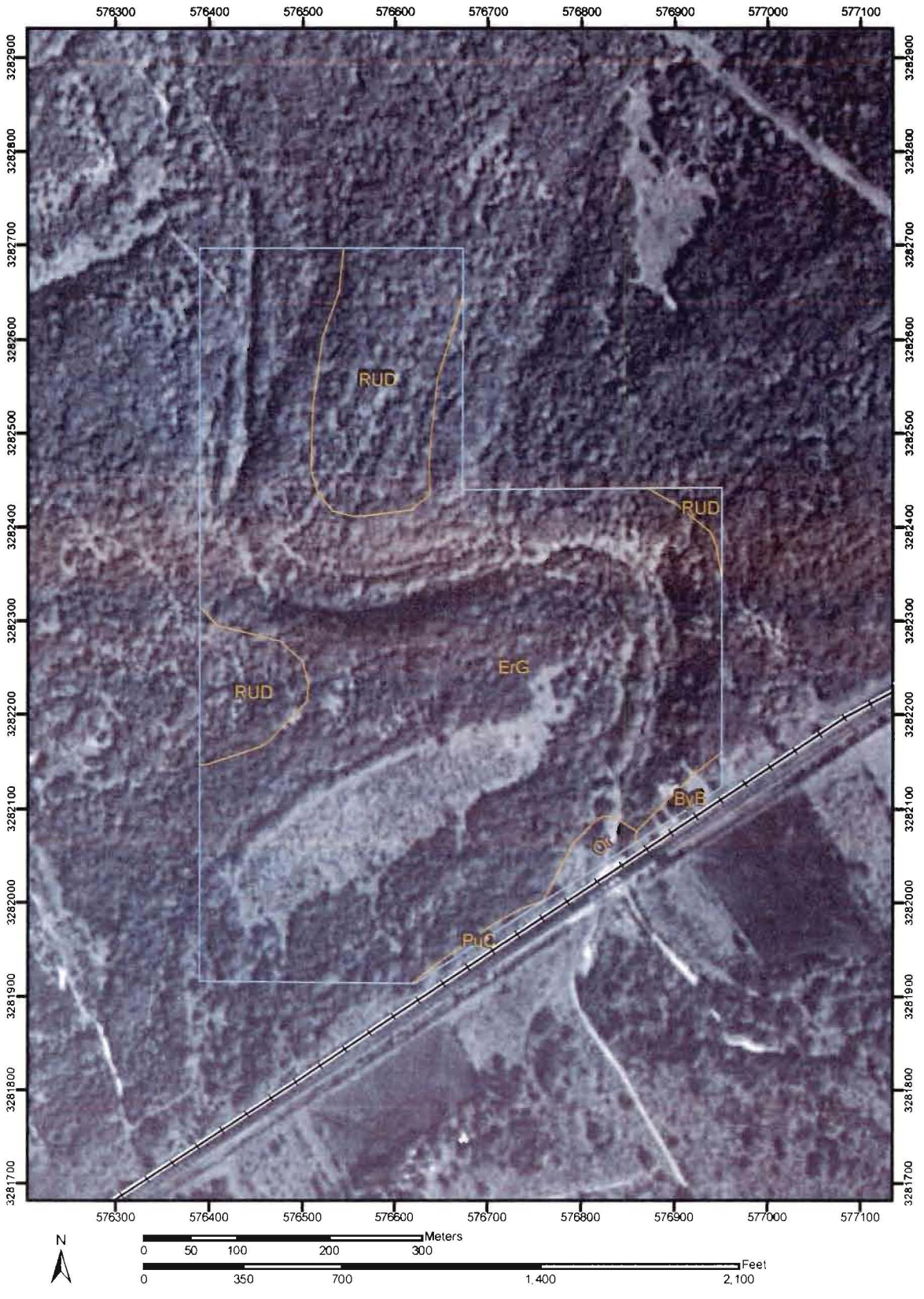
Group A soils have low runoff potential and high infiltration rates when thoroughly saturated. They consist of deep, well to excessively drained sand or gravel. These are usually associated with a high rate of water transmission. Only one Group A soil, called Orif Soil, was identified. The Orif Soil (Or) occurs in a small area at the entrance to the project site (**Figure B1**).

Group B soils are defined as those with moderate infiltration rates when thoroughly wetted. The consist of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. They are reported to have a moderate rate of water transmission (0.15 - 0.30 in/hr; USDA, 1986). No Group B soils were identified in the project area during the geologic assessment.

Group C soils have low infiltration rates when thoroughly wetted and consist of soils with a layer that can impede downward movement of water and soils with moderately fine to fine texture. These are reported to have a low rate of water transmission (0.05 - 0.15 in/hr; USDA, 1986). Group C soils within the study area include the Rumple-Comfort association (RUD). They occur mostly at the higher elevations within the project area (**Figure B1**).

Group D soils have high runoff potential. They have very low infiltration rates when thoroughly wetted and consist of clay soils with a high swelling potential, high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These have a very low rate of water transmission (0 - 0.05 in/hr; USDA, 1986). Group D soils within the project area include the Branyon Clay (ByB), Eckrant-Rock outcrop (ErG), and Purves Clay (PuC). The ErG comprises the largest percentage of the project site (**Figure B1**).

Figure B1 Soil Map
Comal County Water Pollution Abatement Plan
Dry Comal Creek Flood Retardation Structure, No. 11



Natural Resources Conservation Service

Web Soil Survey 2.0
National Cooperative Soil Survey

Attachment C, Stratigraphic Column

Stratigraphic Column and Hydrogeologic Summary of the Edwards Aquifer Outcrop, Comal County, Texas (adapted from USGS, 1994).

System	Hydrogeologic Unit		Group, Formation, or Member			Map Symbol	Thickness (ft)	Description
Quaternary	—		Alluvium			Qal	1 - 4	Gravel, sand, silt, and clay; typically in floodplains.
Upper Cretaceous	Upper Confining Units		Navarro and Taylor Groups			Knt	600	Clay; chalky limestone
			Austin Group			Kau	130 – 150	White to gray limestone
			Eagle Ford Group			Kef	30 – 50	Brown, flaggy shale and argillaceous limestone
			Buda Limestone			Kbu	40 – 50	Buff, light-gray, dense mudstone
			Del Rio Clay			Kdr	40 - 50	Blue-green to yellow-brown clay
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Kgt	40 - 60	Gray to light-tan, marly limestone
	II		Edwards Group	Person Formation	Cyclic and Marine Members	Kp	180 - 224	Mudstone to packstone;miliolid grainstone; chert.
	III				Leached and Collapsed Member			Crystalline limestone; mudstone to grainstone; chert; collapsed breccia
	IV				Regional Dense Member			Dense, argillaceous mudstone
	V			Kainer Formation	Grainstone Member	Kk	260 - 320	Miliolid grainstone; mudstone to wackestone; chert.
	VI				Kirschberg Evaporite Member			Highly altetred crystalline limestone; chalky mudstone; chert.
	VII				Dolomitic Member			Mudstone to grainstone; crystalline limestone; chert.
	VIII				Basal Nodular Member			Shaly, nodular limestone; mudstone and miliolid grainstone.
	Upper Trinity Aquifer		Upper member of the Glen Rose Limestone			Kgru	350 – 500	Yellowish-tan, thinly bedded limestone and marl

Notes: Groups, formations, and members and thicknesses were modified from the USGS Publication WRIR 94-4117 (USGS, 1994), and the Bureau of Economic Geology Geologic Atlas of Texas, San Antonio Sheet (BEG, 1983)

Attachment D, Narrative of Site Specific Geology

Introduction

For the purpose of this study, the project limits are defined the potential work areas to be used during construction of the Comal County Dry Comal Creek Flood Retardation Dam, No. 11. The entire parcel of property is bordered by Krueger Canyon Rd. to the east and private property to the south and west. The purpose of this assessment is to identify potential pathways for contaminant movement to the Edwards Aquifer. This investigation was conducted and report prepared by a professional geologist licensed in accordance with the Texas Geoscience Practice Act.

The applicable Comal and Hays Counties soil survey (USDA, 1984) and United States Department of Agriculture (USDA) web utility (USDA, 2008) were used in conjunction with the field investigation to evaluate soils within the project area. A description of soils at the site are provided in **Attachment B**. Geologic features were reviewed in the available literature, but only those features actually noted during the field investigation within the confines of the project site are documented in this assessment. Further, a database search was requested and conducted by the Texas Speleological Society (TSS) to assist in identifying known features within the vicinity of the site. No additional features were found through the TSS records search. Results from the literature review and field investigation are presented in the following sections. The required Geologic Assessment Form and Table (Form 0585; TCEQ, 2004) are provided in **Attachment A** at the beginning of the Geologic Assessment portion of the WPAP.

Regional and Site Geology

Geologic formations within the project area are Lower Cretaceous marine deposits and more recent Quaternary alluvium. These rocks, comprised chiefly of limestone, were deposited on a vast submerged plain known as the Comanche Shelf (BEG, 1972). The Comanche Shelf was a vast, generally flat, submerged plain that covered most of the state. Three dominant features comprised the Comanche Shelf and include the Maverick Basin to the west, the North Texas - Tyler Basin to the northeast, and the Central Texas Platform. The southeastern extension of the Central Texas Platform is known as the San Marcos Platform. The project site lies within the San Marcos Platform.

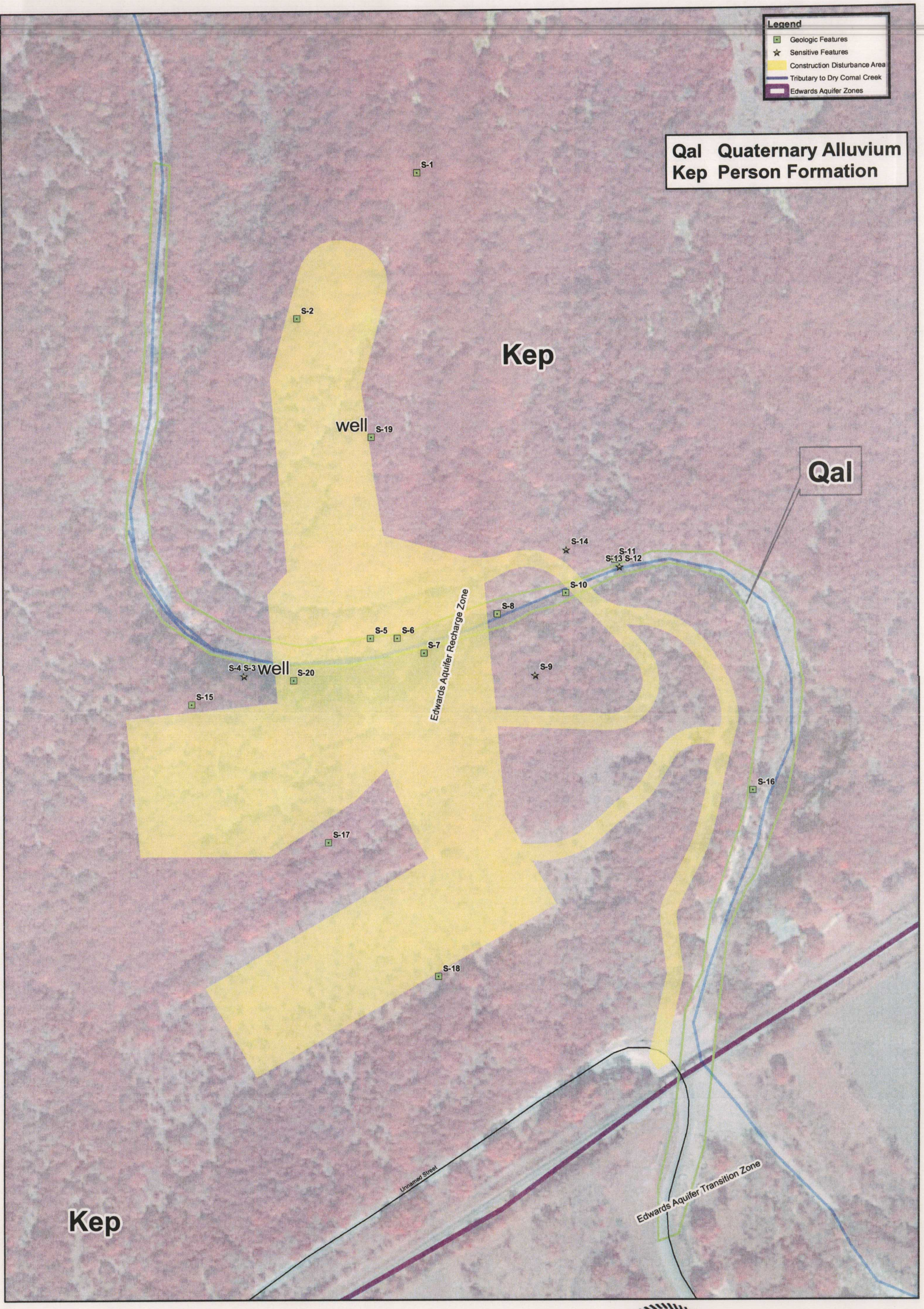
The San Marcos Platform is bordered by the Edwards Plateau physiographic province to the north and the Gulf Coastal Plain to the south. It also lies within the Balcones Fault Zone (BFZ), a region of southwest to northeast trending predominantly normal faults that are present in southern Comal and adjacent counties. The general trend of the BFZ near the site is approximately north 50 degrees east (N50E). One of the most notable faults in the BFZ, the Comal Springs Fault, is noted to be present (buried) near the southern margin of the site (BEG, 1993; USGS, 1994) and marks the boundary between the Edwards Aquifer Recharge and Transition Zones. This fault forms a prominent part of the escarpment separating the Edwards Plateau to the north from the Gulf Coastal Plain to the south (USGS, 1994). The elevation across the site ranges from 690-ft to 820-ft above sea level (asl).

According to available published geologic maps and field observations, the geologic units mapped at the ground surface within the project area include Quaternary Alluvium (Q_{al})

TABLE 1
Stratigraphic Column and Hydrogeologic Summary of the Edwards Aquifer Outcrop, Comal County, Texas (adapted from USGS, 1994).

System	Hydrogeologic Unit		Group, Formation, or Member			Map Symbol	Thickness (ft)	Description
Quaternary	----		Alluvium			Qal	1 - 4	Gravel, sand, silt, and clay; typically in floodplains.
Upper Cretaceous	Upper Confining Units		Navarro and Taylor Groups			Knt	600	Clay; chalky limestone
			Austin Group			Kau	130 – 150	White to gray limestone
			Eagle Ford Group			Kef	30 – 50	Brown, flaggy shale and argillaceous limestone
			Buda Limestone			Kbu	40 – 50	Buff, light-gray, dense mudstone
			Del Rio Clay			Kdr	40 - 50	Blue-green to yellow-brown clay
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Kgt	40 - 60	Gray to light-tan, marly limestone
	II		Edwards Group	Person Formation	Cyclic and Marine Members	Kp	180 - 224	Mudstone to packstone;miliolid grainstone; chert.
	III				Leached and Collapsed Member			Crystalline limestone; mudstone to grainstone; chert; collapsed breccia
	IV				Regional Dense Member			Dense, argillaceous mudstone
	V			Kainer Formation	Grainstone Member	Kk	260 - 320	Miliolid grainstone; mudstone to wackestone; chert.
	VI				Kirschberg Evaporite Member			Highly altetred crystalline limestone; chalky mudstone; chert.
	VII				Dolomitic Member			Mudstone to grainstone; crystalline limestone; chert.
	VIII				Basal Nodular Member			Shaly, nodular limestone; mudstone and miliolid grainstone.
	Upper Trinity Aquifer		Upper member of the Glen Rose Limestone			Kgru	350 – 500	Yellowish-tan, thinly bedded limestone and marl

Notes: Groups, formations, and members and thicknesses were modified from the USGS Publication WRIR 94-4117 (USGS, 1994), and the Bureau of Economic Geology Geologic Atlas of Texas, San Antonio Sheet (BEG, 1983)



CH2MHILL

N

0 100 200 400 Feet

Scale 1" = 200'

STATE OF TEXAS
BRET R. RAHE
GEOLOGY
2788
LICENSED
PROFESSIONAL GEOSCIENTIST
August 1, 2008

SAN ANTONIO
AUG 01 2008
TCEQ-R13

Figure D1
Geologic Map
Comal County, Texas

Feature S-10 (**Figure D1**) is a small depression adjacent to the upstream side of the existing road as it crosses the stream drainage. The feature does not appear to have been created from karst processes. Rather, it is more likely that the feature results from changes in surface flow and subsequent relocation of alluvium during flood events. A well graded grain size distribution, ranging from sand to boulders, is present both within and surrounding the feature. Structural elements such as fractures or faults were not noted. As such, the relative infiltration rate was scored low and the feature evaluated as non-sensitive.

Feature S-11 (**Figure D1**) is a closed depression located about 200-ft downstream of the existing road as it crosses the stream drainage. The feature itself is within the stream bed and the floor, mostly exposed bedrock, lacks karst features that would be conducive to infiltration and/or recharge. The relative infiltration rate was evaluated as low and the site considered as non-sensitive.

Feature S-15 (**Figure D1**) is a closed depression located on the hillside upstream of the proposed flood retardation structure. Surrounding land is vegetated with native grasses, ashe juniper (cedar) and live oak trees. The feature is relatively small (less than 1-ft in each dimension) and does not appear to receive significant recharge. A clearly discernable trend or alignment with other features was not noted. The relative infiltration rate was evaluated as low and the feature evaluated as non-sensitive.

Feature S-16 (**Figure D1**) is a closed depression located in the streambed downstream of a large abandoned concrete structure. Bedrock is exposed in the floor of the depression. Minor fractures, mostly sealed, occur infrequently. Solution enlargement of the fractures was not evident and apertures were less than 0.25-inches. The area is likely the result of surface runoff during precipitation events scouring and relocating debris from atop the bedrock. While according to published geologic maps (BEG, 1983; USGS, 1994) a large normal displacement fault (Comal Springs Fault) exists about 400-ft south and outside of the project limits, there were no significant structural features noted at this location. As such, the feature was evaluated as non-sensitive with a relatively low infiltration rate.

Feature S-18 (**Figure D1**) is located on a hilltop and surrounded by generally flat topography. It is a small depression overgrown with grass and cactus. Adjacent vegetation is mostly native grasses with dense mesquite and ashe juniper (cedar). There are no obvious features present that would indicate an influence from karst processes or a conduit for recharge. The feature was rated as non-sensitive with a low infiltration rate.

Solution Enlarged Fractures

Two features were classified as zones of solution enlarged fractures during the field investigation. These include features S-13 and S-14 (**Figure D1**). Each has varying degrees of solution enlargement. Descriptions of these features are provided below.

Feature S-13 (**Figure D1**) is a zone of solution enlarged vertical fractures in the streambed. The zone begins on the downstream side of the road where it crosses the stream drainage and extends about 150-ft further downstream. Fractures are infilled with sand and gravel and occur at a density of about one per three feet. Vegetation is minimal as it is often removed during flooding. The fractures within the zone are inconsistent with the regional structural trend. However, the feature was evaluated as having the potential for a moderate relative infiltration rate that resulted in a sensitive rating.

and dry vegetation debris were found on the floor of feature. Structural features that could suggest connection to the subsurface were not noted during the field investigation. The feature was evaluated as non-sensitive with a low relative rate of infiltration.

Feature S-12 (**Figure D1**) is a solution cavity located about 200-ft downstream from the intersection of the road and stream drainage. It is about 8-ft above the base of the streambed on the cutbank side of the hill. The feature is filled with soil and loose vegetative debris. As with some of the previous solution cavities described, the formation of this feature probably resulted from a combination of dissolution and mechanical erosion. The general trend of the feature measured in the field was N10E which is inconsistent with the regional trend of structural faulting. A vertical component could not be observed and the feature appears to extend only horizontally parallel to the limestone bedding planes. The feature was evaluated as non-sensitive, similar to other similar features identified at the site.

Feature S-17 (**Figure D1**) is a solution cavity at the base of a bedding outcrop. The extent of the feature is limited due to infilling by soil and organic debris. Animal burrowing was evident and the potential for rapid infiltration is low. Soil and organic material is mounded in front of the feature suggesting inflow during precipitation events is minimal. The feature was evaluated as non-sensitive.

Sinkholes

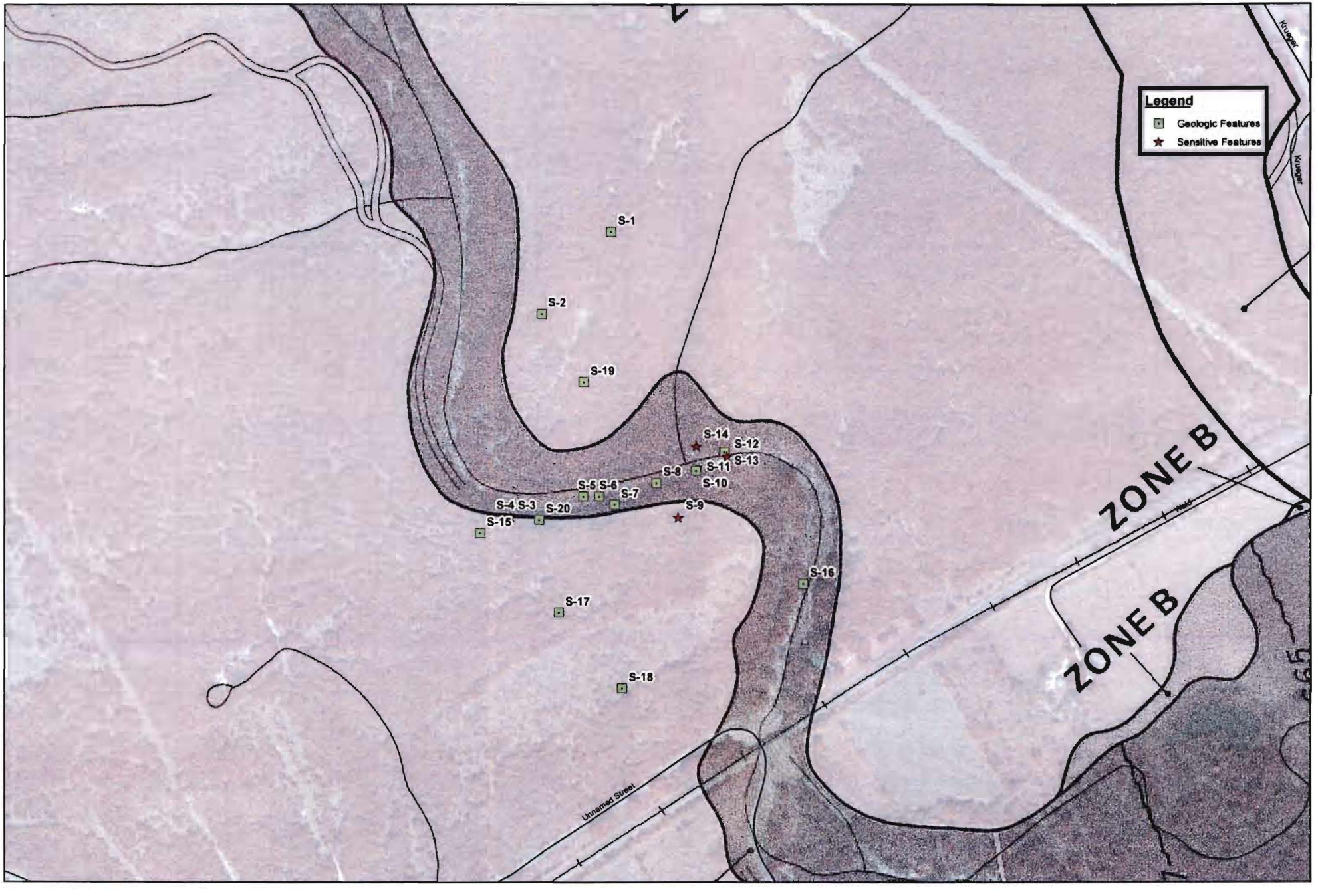
One sinkhole was identified during the field investigation. Feature S-9 (**Figure D1**) is surrounded by loose rocks and organic material but the vertical conduit is clear to about 4-ft below ground. The bottom of the feature was covered with organics and leaf debris that obscured any evidence of connection to other flow conduits. The potential for infiltration was evaluated as moderate that resulted in the feature be classified as sensitive.

Manmade Features

Two monitoring wells were located during the assessment. Both Features (S-19 and S-20, **Figure D1**) have steel protective casings completed to about 3-ft above ground surface. Locks were installed on the protective casings so visual inspection of the well casing was not possible. A grouted annular seal was observed at the surface. The relative infiltration for both features is low and both were rated as non-sensitive.

FEMA Floodplains

A FEMA 100-yr floodplain has been mapped along the stream drainage within the project area (FEMA, 2008; **Figure D2**). Surface water was not present within the stream drainage during the field investigation. Flow within the stream is intermittent and likely coincides only with significant precipitation events.



CH2MHILL

0 250 Feet

Scale 1" = 500'

N

Figure D2
FEMA 100-yr Floodplain
Comal County, Texas

References

BEG, 1972. Edwards Group Surface and Subsurface, Central Texas. Report of Investigations No. 74.

BEG, 1983. Geologic Atlas of Texas, San Antonio Sheet.

FEMA, 2008. Flood Insurance Rate Map. Comal County, Texas, Map No. 485463011C, Revised September 29, 1986. http://www.FEMA.gov.

TCEQ, 2004. Geologic Assessment Forms and Tables for Regulated Activities on the Edwards Aquifer Recharge Zone.
http://www.tceq.state.tx.us/compliance/field_ops/eapp/material.html

USDA, 1975. Urban Hydrology for Small Watersheds.

USDA, 1984. Soil Survey of Comal and Hays Counties, Texas.

USDA, 1986. Urban Hydrology for Small Watersheds.

USDA, 2008. Soil Survey Web Application. http://websoilsurvey.nrcs.usda.gov/app/

USGS, 1994. Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Outcrop, Comal County, Texas.

Water Pollution Abatement Plan Application Form (*TCEQ-0584*)

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

REGULATED ENTITY NAME: Dry Comal Creek Flood Retarding Structure

REGULATED ENTITY INFORMATION

1. The type of project is:
   - ___ Residential: # of Lots: _____
   - ___ Residential: # of Living Unit Equivalents: _____
   - ___ Commercial
   - ___ Industrial
   - X Other: Flood Retarding Structure

2. Total site acreage (size of property): 21.40 acres

3. Projected population: none

4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops		÷ 43,560 =	
Parking		÷ 43,560 =	
Other paved surfaces	113,256	÷ 43,560 =	2.60
Total Impervious Cover	65,340	÷ 43,560 =	1.50
Total Impervious Cover ÷ Total Acreage x 100 =			19.16%

5. X **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. X Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. Type of project:
   - ___ TXDOT road project.
   - ___ County road or roads built to county specifications.
   - ___ City thoroughfare or roads to be dedicated to a municipality.
   - ___ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:
   - ___ Concrete
   - ___ Asphaltic concrete pavement
   - ___ Other: _____

9. Length of Right of Way (R.O.W.): ____ feet.
Width of R.O.W.: ____ feet.
L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
Width of pavement area: ____ feet.
L x W = ____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.
Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

11. n/a A rest stop will be included in this project.
n/a A rest stop will **not** be included in this project.

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

STORMWATER TO BE GENERATED BY THE PROPOSED PROJECT

13. **ATTACHMENT B - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is provided at the end of this form. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

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

__% Domestic	_____ gallons/day
__% Industrial	_____ gallons/day
__% Commingled	_____ gallons/day

TOTAL 0 gallons/day

15. Wastewater will be disposed of by:
N/A **On-Site** Sewage Facility (OSSF/Septic Tank):
ATTACHMENT C - Suitability Letter from Authorized Agent. An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.
__ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

N/A Sewage Collection System (Sewer Lines):
__ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
__ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
__ The SCS was previously submitted on _____.
__ The SCS was submitted with this application.

__ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to executive director approval.

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

__ existing.
__ proposed.

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

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = 200'.

18. 100-year floodplain boundaries
X Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
__ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s):
Federal Emergency Management Agency Panel 4854630100C

19. __ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.
X The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
X There are 2 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.
X The wells are not in use and will be properly abandoned.
__ The wells are in use and comply with 30 TAC §238.
__ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:
X All **sensitive and possibly sensitive** geologic or manmade features identified in the Geologic Assessment are shown and labeled.
n/a No **sensitive and possibly sensitive** geologic or manmade features were identified in the Geologic Assessment.
N/A **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. Geologic or manmade features were found and are shown and labeled.
N/A **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained in ATTACHMENT D provided at the end of this form. No geologic or manmade features were found.

22. X The drainage patterns and approximate slopes anticipated after major grading activities.

23. X Areas of soil disturbance and areas which will not be disturbed.

24. X Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. X Locations where soil stabilization practices are expected to occur.

26. X Surface waters (including wetlands).

27. X Locations where stormwater discharges to surface water or sensitive features.
___ There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. X One (1) original and three (3) copies of the completed application have been provided.

29. X Any modification of this WPAP will require TCEQ executive director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

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

Judith Ibarra-Branchetta
Print Name of Customer/Agent

J. Ibarra-Branchetta
Signature of Customer/Agent

8/1/08
Date

WPAP Application Form

Attachment A

Factors Affecting Water Quality

The major factor that could potentially affect water quality is sediment in stormwater runoff after clearing the vegetation. Construction vehicles entering and exiting the site also affect water quality which includes fuels and lubricants. However, the construction access roads will be constructed of gravel and therefore will serve as a primary filter. The flood retarding structure which serves as the impervious cover will be exposed to construction debris as the structure is being built and could potentially affect water quality.

Attachment B

Volume and Character of Stormwater

The contributing drainage area to the site is 5.61 square miles or 3591 acres from a mostly undeveloped area. The proposed structure which consists of 1.50 plan acres of concrete will not have any potential sources of contamination on it as it will only be used to convey existing stormwater by detaining it and releasing it when the peak downstream flows have attenuated. The peak discharges for the site are shown below:

	2 Yr	5Yr	10Yr	25Yr	50Yr	100Yr
Discharges	2161 cfs	4475 cfs	6136 cfs	8246 cfs	9985 cfs	11949 cfs

The combination of the structure not being affected by any source of potential contaminants and it not being greater than 20% impervious results in character of undisturbed water. In addition, construction roads for the project will be constructed of gravel which will act as a primary buffer for stormwater runoff. Temporary BMP's will be utilized upgradient and downgradient of the site to include high service rock filter dams, eathern berms, construction entrance/exit treatments, gravel roads, and lined berms in addition to the natural rocks and vegetated terrain that exists at the site which will intercept and treat the stormwater flow. Once the construction of the dam starts water will be intercepted and detained upstream and no water will travel downstream of the site.

FEMA 100 Yr Floodplain

Area of soil stablization-

Legend
- Geologic Features
- Sensitive Features
- Areas Disturbed during Construction
- Proposed Dam Layout
- Silt Fence

High Service Rock Berm

High Service Rock Berm

Gravel Road Access

Modified High Service Rock Berm

S-1

S-2

5 %

5 %

S-19 well
(to be abandoned)

11 %

S-14

S-13 S-12

S-10

S-8

S-5

S-6

S-7

S-4 S-3

S-20 well
(to be abandoned)

S-9

7.4 %

S-15

8.5 %

4.3 %

8 %

8.7 %

Spoils, Typical
See Note 2

S-17

S-16

1.53 %

Construction Entrance

AST Typical See Note 1

Dumpster Typical See Note 1

1. ABOVE-GROUND STORAGE TANK (AST) AND DUMPSTER MAY BE LOCATED ANYWHERE WITHIN THE CONSTRUCTION AREA. LINED BERM AROUND AST AND DUMPSTER MUST BE 2.5 X VOLUME OF TANK. LINED WITH 16-MIL PVC CUMULATIVE AST VOLUME < 500.

2. EXCAVATED SPOIL PILE MAY BE LOCATED ANYWHERE WITHIN THE CONSTRUCTION AREA. A SILT FENCE MUST BE PLACED AROUND THE SPOIL PILE.

3. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.

4. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ONSITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

5. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

6. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM CAN BE INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.

7. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.

8. 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).

9. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS, SEDIMENTATION PONDS, OR SILT FENCES NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN CONTROL.

10. 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).

11. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

Unnamed Street

ZONE A
ACCESS
ROAD

CH2MHILL

0 100 200 400 Feet

Scale 1" = 200'

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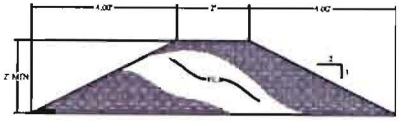
Site Plan
Comal County, Texas

MAINTENANCE PLAN

COMPACTED EARTHEN BERM



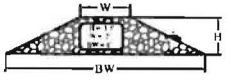
CONSTRUCTION NOTES

1. COMPACTED EARTHEN BERM

INSTALLATION
COMPRISED OF SOIL AND OVERBURDEN MATERIAL EITHER GENERATED ONSITE OR DELIVERED FROM OFFSITE. COMPACT WITH HEAVY EQUIPMENT IN 12" (MAX) LIFTS.

MAINTENANCE
INSPECT WEEKLY AND AFTER EACH RAINFALL. REPLACE AS NECESSARY

ROCK BERM (RG-348)



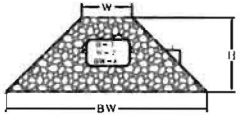
2. ROCK BERM

SHOULD BE SECURED WITH A WOVEN WIRE SHEATING, MAX. OPENING 1" AND MIN. WIRE DIAM. 20 GAUGE GALVANIZED SECURE WITH SIGMAT RINGS.

INSTALLATION
AGGREGATE USED SHOULD BE COMPRISED OF OPEN GRADED 3-5" DIAMETER ROCK. BERM SHOULD BE PLACED PERPENDICULAR TO FLOW LINE. SIDE SLOPE MUST BE 2:1 OR FLATTER. WIRE SHEATING MUST BE SECURED WITH TIE WIRE SO THEY OVERLAP AT LEAST 2". BERM SHOULD BE BURIED IN A TRENCH APPROX. 4" DEEP.

MAINTENANCE
INSPECT BERMS WEEKLY AND AFTER EACH RAINFALL. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6". REPLACE WHEN ROCK BECOMES CLOGGED WITH SEDIMENT.

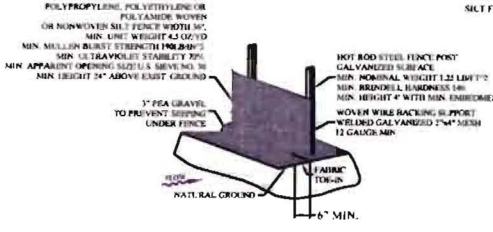
ALTERNATE ROCK BERM (WEI)



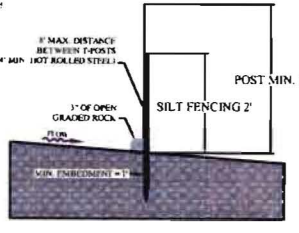
2. ALTERNATE ROCK BERM (WEI)

INSTALLATION
AGGREGATE USED SHOULD BE COMPRISED OF OPEN GRADED 3-5" DIAMETER ROCK. BERM SHOULD BE PLACED PERPENDICULAR TO FLOW LINE. BERM SHOULD BE BURIED IN A TRENCH APPROX. 4" DEEP.

MAINTENANCE
INSPECT BERMS WEEKLY AND AFTER EACH RAINFALL. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6". REPLACE WHEN ROCK BECOMES CLOGGED WITH SEDIMENT.



SILT FENCE

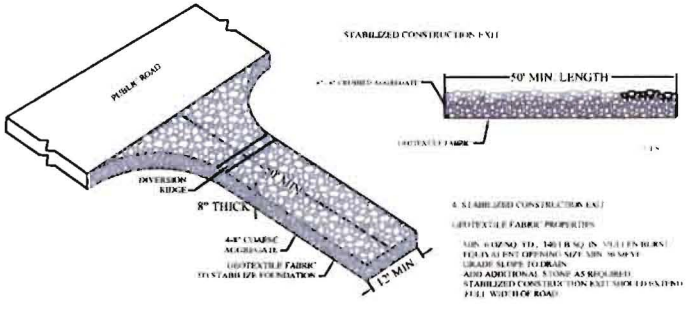


1. SILT FENCE

INSTALLATION
FOLLOW CONTOUR WHEN INSTALLING USING HOT ROLLED STEEL T-POSTS AT 6' INTERVALS. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING SHOULD BE 6'.
A MINIMUM DEPTH OF 3" OPEN GRADED ROCK USED AS ANCHOR. AVOID SPACE BETWEEN FENCE AND GROUND. INSTALL PERPENDICULAR TO FLOW ON A SLIGHT ANGLE AND SO THAT THE MAX. DRAINAGE AREA IS ¼ ACRE/100' OF FENCE. A 3' INTERVAL IS REQUIRED WHERE ENDS OF FABRIC MEET.

MAINTENANCE
INSPECT WEEKLY AND AFTER EACH RAINFALL. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6".
REPLACE TORN FABRIC OR FENCING.

STABILIZED CONSTRUCTION EXIT



4. STABILIZED CONSTRUCTION EXIT

GEOTEXTILE FABRIC PROPERTIES

MIN. STRENGTH TO 340 LB/SQ. IN. (MULLEN BURST)
EQUIVALENT OPENING SIZE MIN. 70 SIEVE
GRADE SLOPE TO DRAIN
ADD ADDITIONAL STONE AS REQUIRED
STABILIZED CONSTRUCTION EXIT SHOULD EXTEND FULL WIDTH OF ROAD

Temporary Stormwater Section (*TCEQ-0602*)

Temporary Stormwater Section
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

REGULATED ENTITY NAME: Dry Comal Creek Flood Retarding Structure

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:

___ 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.
X 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-site.

2. X **ATTACHMENT A - Spill Response Actions**. A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided at the end of this form.

3. X 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. X **ATTACHMENT B - Potential Sources of Contamination.** Describe in an attachment at the end of this form any other activities or processes which may be a potential source of contamination.
___ There are no other potential sources of contamination.

SEQUENCE OF CONSTRUCTION

5. X **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 provided at the end of this form. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

6. X 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: tributary to Dry Comal Creek

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

on the site plan.

7. X **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided at the end of this form. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

   X 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 has been provided in the attachment at the end of this form

   a. 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.

   b. 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.

   c. A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

   d. A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

   X **ATTACHMENT E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

   ___ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. X **ATTACHMENT F - Structural Practices.** Describe 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. Placement of structural practices in floodplains has been avoided.

10. X **ATTACHMENT G - Drainage Area Map**. A drainage area map is provided at the end of this form to support the following requirements.

    ___ 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.

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

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

11. N/A **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 has 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 provided as at the end of this form.

12. X **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repairs, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

13. X 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. X 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. X 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. X 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. X **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 at the end of this form.

18. X 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. X Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

ADMINISTRATIVE INFORMATION

20. X All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. X 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. X 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.

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:

Judith Ibarra-Bianchetta
Print Name of Customer/Agent

J. Ibarra-Bianchetta
Signature of Customer/Agent

8.1.08
Date

Attachment A - Spill Response Actions

Spill-Reporting Phone Numbers are listed on Page A.3.

The Contractor shall specify and operate according to procedures that, at a minimum, comply with the following Spill Response and education guidelines:

A. Worker Safety Education

1. **Safety Training:** the safety foreman will be Site Safety Coordinator trained and carry OSHA 40-hr HAZWOPER certification.
2. **Material Safety Data Sheets (MSDS):** will be maintained in the construction office (for all fuels, lubricants, soil stabilizers, and other chemicals used on site prior to and during dam construction). On site employees will be briefed on (and become familiar with) handling, storage, spill-response, and disposal of on-site chemicals.
3. **Human Health and the Environment:** site employees will be briefed on potential chemical dangers to humans and the environment in the event of a spill or leak, to include first-aid.
4. **Reportable quantities (RQ):** will be communicated to employees as listed in 30 TAC 327.4:

   Petroleum Spills:

Onto Dry Land:	25 gallons
Into Waters of the State:	enough to cause a sheen

   Chemical Spills:

Onto dry land:	see *Table 302.4* in *40 CFR §302.4*
Into Waters of the State:	see Table 302.4 in 40 CFR §302.4

5. **Safety Meetings:** disposal procedures, storage, first-aid response, location of absorbent material, clean-up, reportable quantities, and reporting procedures will be reinforced during regularly scheduled safety meetings. Maintain training/signature logs and brief new employees on new methods.
6. **Uniform Practice:** ensure all partner firms and contractors are educated on spill prevention and response procedures.

B. General Measures

1. **Site Safety Coordinator:** Designate responsible individuals to enforce material control measures (i.e. training, receiving, storage and handling, inspection, cleanup, and disposal).
2. **Secure Storage:** store potentially hazardous materials and wastes in covered containers and/or lock-boxes to prevent accidental access and to deter vandalism.
3. **Housekeeping Practices:** keep chemical/waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.
4. **Hazard Communication:** place Material Safety Data Sheets (MSDS) and proper storage, cleanup, and spill reporting instructions in an open, conspicuous, and accessible location.
5. **Spill Response:** to the extent practicable, spills of petroleum or other substances listed under 40 CFR parts 110, 117, and 302, to include sanitary and septic wastes, should be contained and cleaned up immediately.

6. **Waste Recovery:** Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
6. **Stormwater Protection:** spills should be covered and protected from stormwater run-on during rainfall, to the extent that is doesn't compromise cleanup activities.
8. **Disposal:** store and dispose of used cleanup materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.

C. Spill Mitigation

1. Clean up spills and leaks immediately.
2. Small spills on paved surfaces should be addressed using rags, followed by general cleanup with a damp mop. Absorbent materials should be applied to larger spills. If a spilled material is hazardous, any materials used during cleanup become hazardous likewise, and must be disposed of appropriately.
3. Never hose down or bury dry spill materials. Clean up as much of the material as possible, excavate exposed soil, and dispose of generated waste material properly. See the waste management BMPs in this section for specific information.

Minor Spills

Minor spills include small quantities of oil, gasoline, paint, etc. which can be controlled by first responders to the spill site.

1. Absorbent materials should be used on small spills. Do not 'hose down' or bury any spills.
2. Minor spill cleanup practices include:
   - Containment of the spill to control spread
   - Recovery of spilled materials
   - Cleaning of the contaminated area
   - Proper disposal of contaminated materials
3. All cleanup materials should be removed promptly and disposed of properly.

Semi-Significant Spills

Semi-significant spills can be controlled by first-responders with assistance from other personnel, such as laborers and foremen, etc. This response may require cessation of other activities.

Spills should be cleaned up immediately.

1. Contain the spread of the spill.
2. Notify the project foreman immediately.
3. If the spill occurs on a paved or impermeable surface, clean up using "dry" methods (absorbent materials, cat litter, and/or rags). Form a tight circle around spilled chemicals using absorbent material.
4. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant spills of reportable quantity:

1. Notify the TCEQ by telephone as soon as possible, and within 24 hours, at 512-339-2929 (Austin), or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224.
2. For spills exceeding federal reportable quantities, the contractor should notify the National Response Center at (800) 424-8802 (to conform with the requirements in 40 CFR parts 110, 119, and 302).
3. Federal notification should first be made by telephone and followed up in a written report.
4. A spill-response contractor or Haz-Mat team should be contracted immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff has arrived on site.
5. Other agencies who may need to be contacted include, but are not limited to, the City Police Department, the Fire Department, and the County Sherriff, the County Engineer's office, etc.

Government Spill Reporting Contact Numbers

In the event of a reportable spill, the following Emergency Response Agencies can be contacted for assistance. Always inform your supervisor of reportable spills, immediately; and follow company policy when responding to emergencies.

State	State of Texas Spill-Reporting Hotline and the SERC[1]: **1-800-832-8224**
Local	TCEQ (24-hr): **1-800-832-8224**
	TCEQ, Region 13 Field Office: **210-490-3096** (Monday–Friday, 8:00 AM – 5:00 PM)
Federal	National Response Center[2]: **1-800-424-8802**
	US EPA Region 6, Dallas (24-hr): **1-866-372-7745**
	National Weather Service: **1-281-337-5074**

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[1] State Emergency Response Commission (SERC)
[2] notifying the NRC does **not** constitute notice to the state

Detailed Telephone Spill Report Form

Date: _____

Location of Incident: _____

Description of Material Spilled (CAS number if available): _____

_____

Quantity of Material Spilled_____

Cause of Spill: _____

Authorities Notified: _____

_____

Remediation/clean-up action: _____

_____

_____

_____

Corrective measures taken for prevention of recurrence: _____

_____

_____

_____

Signature: _____

Foreman Signature: _____

Notes: _____

_____

_____

_____

_____

Attachments

Sketch - location of spill with respect to site

Sketch - spill area, scale bar, placement of absorbent material

copy of MSDS (found in construction trailer)

Emergency Phone Numbers

State State of Texas Spill-Reporting Hotline and the SERC: **1-800-832-8224**

Federal National Response Center: **1-800-424-8802**

ATTACHMENT B - Potential Sources of Contamination

Tables B.1 and **B.2** present potential sources of contamination at the Dry Comal Dam site.

Table B.1 - Staging Area

Material	Quantity On-Site	Spill Prevention Measures
Stored Gasoline / Diesel Fuel	< 500 gallons cumulative	**Temporary ground-level ASTs** will be surrounded by a 2.5X volume storage capacity earthen berm or rigid fence, and lined with a 16-mil impermeable PE or PVC barrier
Lubricants / Solvents	< 20 gallons cumulative - aerosol cans - 1-pt cans - 1-gal cans	Lubricants, solvents, or chemicals stored on site will be stored in heavy-duty locked **chemical-storage cabinet** near the construction office. Abatement materials (rages, absorbent socks, cat-litter, etc.) will be stored adjacent to the storage cabinet. Inspection forms and contact numbers will be posted on the cabinet door.
Trash Debris	Covered Dumpster 54-gallon lined and covered drums	Integrity of dumpster will be inspected upon delivery and placed within **lined berm area** Dumpster lid will be kept closed Drums will be emptied into dumpster regularly Dumpster will be regularly inspected for leaks

Table B.2 - Construction and Staging Areas

Material	Quantity On-Site	Spill Prevention Measures
Curing Agents	*Will not be stored on-site.*	If necessary, concrete curing agents will be transported and utilized by the contractor.
Fuel in vehicles / equipment	Approx. 20 to 150 gallons per vehicle	Perform daily inspections of vehicles and staging area for visible leaks; repair or replace vehicles with leaks
Coolant in vehicles / equipment	Approx. 2 to 20 gallons	Perform daily inspections of vehicles and staging area for visible leaks; repair or replace vehicles with leaks
Hydraulic oil / transmission fluid / crankcase oil / lubricating fluid in vehicles and equipment	Approx. 3 to 175 gallons	Perform daily inspections of vehicles and staging area for visible leaks; repair or replace vehicles with leaks

ATTACHMENT C - Sequence of Major Activities

Table C.1 presents the sequence of major development activities that will, or may, disturb natural site runoff characteristics during the 12-months of site-work and dam construction:

Table C.1 – Sequence and Description of Major Site-Development Activities

Activity	Area (ac)	Description
Staging Area / Road Improvement	4.4 / 2.6	**Roads:** existing ranch roads will be utilized for construction access, but will be leveled and/or widened in some areas. Roads will be leveled and stabilized using several inches depth of ¾-inch to 3-inch crushed limestone.
Site Clearing	14.4	**Dam Footprint:** approximately 10-acres surrounding the dam footprint will be cleared mechanically and mulched on site. **Roads:** current ranch roads will provide access during construction phase. Roads will be further cleared only at bottleneck points where the current width is not 30-feet. A short bypass (approx. 2-acres) will also be installed between the staging and construction areas *(see WPAP Site Plan)*. **Staging Area:** approximately four (4) additional acres will be cleared and added to the existing equipment staging area
Excavation, Abutment Preparation, and Keyed Foundation	10	The approximate 10-acre dam footprint (including cliff face walls) will be cleared of trees and underbrush prior to excavation. Several feet of material will be removed along this lateral axis to provide relief for the dam's keyed abutment and foundational features, in addition to the downstream stilling basin.
Construction	10	Roller-compacted concrete (RCC) dams utilize materials found in typical concrete: cement, water, and aggregate (i.e. sand, gravel, crushed stone, granulated slag, etc.). RCC material is drier than typical concrete, and in this case will be mixed off-site. Construction will occur in 6-in to 1-ft lifts followed by vibratory roller compaction.
Remove BMPs	per plan	Remove silt fences, rock berms, and construction entrance. All remnants of BMPs will be transported and appropriately disposed of off-site. BMP locations will be restored to original condition and stabilized with mulch if necessary.
Remove Road	2.6	**Roads:** gravel from roads will be removed subsequent to construction, returning them to their original condition. Road easements will remain and provide access to inspectors and O&M contractors.

ATTACHMENT D - Temporary Best Management Practices and Measures

The Contractor shall construct Temporary Best Management Practices (TBMPs) which, at a minimum, meet the following guidelines to: 1) prevent pollution of surface water, groundwater, and stormwater; and 2) account for development sequencing, changing site characteristics, and runoff origins (see *Site Map*).

A. **Upgradient Flow:** the following BMPs will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site as it flows across the site.

1. **Prior to Excavation:** a high-service rock berm and modified high-service rock berm will be installed upstream of the construction site and staging areas, with the intent of reducing stormwater velocity crossing construction areas.

2. **Dam Construction Phase:** as the dam is initiated, the structure itself will prevent upgradient stormwater from crossing the site.

B. **On-Site Runoff:** the following BMPs will prevent pollution of surface water or groundwater that originates on-site, as it leaves the site:

1. **Staging Area:** silt fences will be installed on the upgradient and downgradient edges of the staging area. Berms are intended to decrease runoff velocity, facilitate settling of suspended sediment, and prevent runoff. To prevent impoundment of stormwater, rock berms and filter fabric will be installed at concentrated outlets. Downstream of the berm, natural vegetation (grasses, forbs, shrub species, etc.) will provide further impedance prior to runoff entering the Dry Comal channel.

2. **Construction Area:** a 2-foot rock berm will be constructed perpendicular to the channel, downgradient from the bypass road, and *upgradient from the features S-14, S-10, and S-9.*

C. **Surface Water and Aquifer Protection:** description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

1. **Stream Channel:** a 2-foot rock berm will be installed downstream of the construction area. The rock will decrease stormwater velocity, facilitate settling of suspended solids, and prevent increased sedimentation of Dry Comal Creek.

2. **Sensitive features:** the following BMP will prevent pollutants of sediments from entering identified sensitive recharge features:

Monitoring Well: Feature S-20 is a monitoring well in the streambed, immediately upstream from the dam face. Per recommendation from TCEQ Underground Injection Control (UIC) and the Edward's Aquifer Authority (EAA), this feature will be plugged by a licensed water well installer.

Feature S-3: a modified high-service rock berm will provide protection between construction area and sensitive feature S-3, while maintaining natural upgradient flow. Potential backwater will exit the dam pool area via culvert.

Features S-9, S-12, and S-14: high-service rock berms will be installed 10 to 15-feet from the sensitive feature on the upgradient side facing the dam construction area and along gravel roads (strategically placed so as to not contribute to backwater collection on the feature side of the berm).

D. **Flow Maintenance:** 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.

Features S-13 and S-14: natural runoff to these features, from the hillside to the north, will not be impeded.

ATTACHMENT E - Request to Temporarily Seal a Feature

Request to temporarily seal Feature S-3: sensitive geologic feature *S-3* was determined to require protection during site activity. S-3 is a preferentially eroded cliff overhang on the outer bank of the Dry Comal, immediately upgradient of construction limits. S-3 has the following dimensions: W15' X D1' X H0.5'. The solution agreed upon to protect this feature includes: 1) filling of the overhang with limestone gravel of nominal diameter greater than 6-inches, 2) formation of a cobble slope from the streambed up to the top of the feature, 3) covering of the berm with filter fabric, and 4) covering of filter fabric with same cobble. Subsequent to construction, coble and filter fabric will be removed.

During the geologic assessment, no sensitive features were identified within the footprint of the proposed dam footprint.

- Basis for determination of the dam location as feasible was based on desired storage volume and constructability, largely defined by natural topographic relief.
- Following the geologic assessment, placement was further refined to avoid sensitive geologic features.

Three geologic features (S-5, S-6, and S-7) will be excavated during construction of the dam's stilling basin. These features were not identified as sensitive.

ATTACHMENT F - Structural Practices

Other than the dam and the stilling basin, no permanent flow control structures have been designed into the Comal County Dam construction process.

- The dam will minimize flood hydrographs in urban areas of New Braunfels
- In the event of stored water cresting the dam spillway, the stilling basin will reduce velocity of the hydraulic jump and prevent erosion on the downstream side.

Silt fencing will be removed when dam construction is complete.

ATTACHMENT G - Drainage Area Map

A drainage area map is provided at the end of this section, showing: topographic contours, the 100-year floodplain, the EARZ, the proposed dam structure, and TBMPs intented to prevent erosion / protect sensitive features *(see Site Map)*.

ATTACHMENT H - Temporary Sediment Pond(s) Plans and Calculations

No temporary sedimentation ponds have been designed into the implementation of the Dry Comal County Flood Retarding Structure.

ATTACHMENT I - Inspection and Maintenance for BMPs

1. **TMBP Construction:** rock berms and silt fencing will be installed by an experience contractor in accordance with specifications found on the Technical Guidance Manual. Rock will be a minimum of 2' X 2', and silt fencing design will be modified slightly due to constructability issues (i.e. 6" trench will be replaced by a layer of crushed rock to anchor geotextile fabric). Inspection schedules follow:

   (a) Silt Fencing: will be inspected weekly, or following rains in excess of 0.5". Inspection findings will be documented on forms maintained in the construction office (see example Inspection Form). Any accumulated silt, in excess of 6", will be removed from the fence line. If the silt fence is damaged, torn, collapsed, or otherwise ineffective, the fence will be repaired or replaced.

   (b) High-Service Rock Berm: will be inspected monthly, or following rains in excess of 2". Written documentation of inspections will be maintained at the construction office. Any wall sections that become damaged, eroded, filled with sediment, or otherwise ineffective, will be repaired or replaced.

   (c) Containment Berms: berms surrounding temporary fuel ASTs will be inspected daily. Inspection reports will be maintained in the field office. Any breaches in the ability of containment berms to capture and store spilled fuel, will be addressed and repaired immediately.

2. **Sediment Escape:** fugitive sediment at streets, construction entrances, damaged TBMPs, or unanticipated erosion areas will be mitigated as soon as possible. Sediments will be collected, TBMPs will be repaired, and new TBMPs will be installed in necessary.

3. **Sediment Traps:** sediment traps have not been incorporated into mitigation practices outlined in the Dry Comal County Flood Retarding Structure WPAP.

4. **Pollutant Sources:** litter, construction debris, and construction chemicals will be prevented from becoming pollutant sources for stormwater discharges (e.g., screening outfalls, picked up daily). Trash barrels will be lined, dumpsters will be located within lined berms, and chemicals will be stored within a properly designed and lockable storage cabinet.

WPAP Inspection Form

Month: _____ Week of Month (circle one): 1 2 3 4 5

Date: _____

BMPs Inspected:

- ☐ Rock Berms (monthly)
- ☐ Construction Entrance (monthly)
- ☐ Silt Fencing (weekly)
- ☐ AST Containment Berms (daily)
- ☐ Trash Cans and Dumpster (daily)

BMP Defects Detected: ☐ Yes ☐ No

Defective BMP Type:

- ☐ Rock Berms
- ☐ Construction Entrance
- ☐ Silt Fencing (weekly)
- ☐ AST Containment Berms
- ☐ Trash Cans and Dumpster

Describe BMP Damage: _____

_____

_____

_____

*** Locate BMP Damage on Map ***

*** Circle BMP Damage of Map ***

Attach copy of Site Map

Suspected Cause of BMP Damage: _____

_____

Signature: _____

Foreman Signature: _____

Notes: _____

_____

_____

ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization Practices

The following measures will be utilized to ensure soil stabilization prior to, during, and after soil stabilization at the proposed Dry Comal dam site:

Table J.1 – Soil Stabilization Sequence

Activity	Area	Description
Mulching	4 – 10 ac	Following the geologic assessment, the dam footprint will be cleared of vegetation and any trees will be mulched on-site.
Road Preparation	2.6 ac	Ranch access roads will be improved and leveled using several inches of ¾-inch to 3-inch diameter crushed limestone.
Construction Entrance	30' X 20'	A 30' X 20' construction entrance will be installed at the interface between paved county roads and the site's improved ranch road access. The Construction Entrance will be constructed from 3-inch to 6-inch crushed limestone.
Silt Fencing / Rock Berms	per plan	Temporary sediment controls be installed following road improvement and prior to excavation of the dam site.
Natural Vegetation	---	Outside of the dam footprint, native grasses, forbs, shrubs, and trees will be maintained to the maximum extent practiceable.
BMP Removal	per plan	Subsequent to dam completion, silt fences, rock berms, and construction entrance will be removed. BMPs remnants will be transported and appropriately disposed of off-site. All BMP locations will be restored to original condition and stabilized with mulch if necessary.
Record Keeping	---	Major grading activities, dates of construction starts and stops, and schedules of stabilization measures will be maintained at the construction field office.

Permanent Stormwater Section (*TCEQ-0600*)

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

REGULATED ENTITY NAME: Comal County Flood Retarding Structure

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

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

2. n/a 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 provided below:

   _____
   _____

3. n/a 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.

4. X 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.

   ___ This site will be used for low density single-family residential development and has 20% or less impervious cover.
   ___ This site will be used for low density single-family residential development but has more than 20% impervious cover.
   X This site will not be used for low density single-family residential development.

5. n/a The executive director may waive the requirement for other permanent BMPs for multi-family 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.** This 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 found at the end of this form.

___ This site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

___ This site will not be used for multi-family residential developments, schools, or small business sites.

6. **ATTACHMENT B - BMPs for Upgradient Stormwater.**

n/a 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 identified as **ATTACHMENT B** at the end of this form.

n/a If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form.

n/a If 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, an explanation is provided as **ATTACHMENT B** at the end of this form.

7. **ATTACHMENT C - BMPs for On-site Stormwater.**

n/a 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 identified as **ATTACHMENT C** at the end of this form.

n/a If 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, an explanation is provided as **ATTACHMENT C** at the end of this form.

8. n/a **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 provided at the end of this form. Each feature identified in the Geologic Assessment as "sensitive" has been addressed.

9. n/a 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" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" or "possibly sensitive" features on this site.

___ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" or "possibly sensitive" feature, that includes a justification as to why no reasonable and practicable alternative exists, is found at the end of this form. A request and justification has been provided for each feature.

10. n/a **ATTACHMENT F - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ

Construction Notes, all man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. n/a **ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

12. n/a The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

n/a Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.

— **ATTACHMENT H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. n/a **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 provided at the end of this form. 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.

Responsibility for maintenance of permanent BMPs and measures after construction is complete.

14. n/a 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.

15. n/a 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.

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:

Judith Ibarra-Bianchetta
Print Name of Customer/Agent

J. Ibarra-Bianchetta
Signature of Customer/Agent

8/1/08
Date

Recharge Zone Exception Request Form

Recharge And Transition Zone
Exception Request Form
30 TAC §213.9 Effective June 1, 1999

Regulated Entity Name: Dry Comal Creek Flood Retarding Structure

1. X **ATTACHMENT A - Nature of Exception.** A narrative description of the nature of each exception requested is provided as **ATTACHMENT A** at the end of this form. 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 provided as **ATTACHMENT B** at the end of this form.

ADMINISTRATIVE INFORMATION

3. X One (1) original and three (3) copies of the completed application has been submitted to the appropriate regional office of the TCEQ.

4. X The applicant understands that no exception will be granted for a prohibited activity in Chapter 213.

5. X The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

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** application is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Judith Ibarra-Bianchetta
Print Name of Customer/Agent

J. Ibarra Bianchetta
Signature of Customer/Agent

8/1/08
Date

Attachment A

This flood retarding structure does not meet the definition of a typical project associated with WPAP regulations. Therefore, an exception is requested from the requirement to install permanent BMPs for this structure.

The proposed flood retarding structure, which will be constructed of concrete, provides a permanent impervious surface, causing an increase of 7% compared to existing ground cover conditions. Also, the gravel roads that will be installed during construction will be removed from the site, following construction. After construction, the roads will be of natural ground cover with infrequent maintenance traffic on the roadways. The amount of pollutants that will be exposed to the impervious surface and thereby contributing to possible contamination of water will also be limited due to occasional maintenance vehicle traffic on top of the structure. However, this will be minimal and will not cause TSS contamination to the surface water. In addition, the location of the structure is in close proximity to the Edwards Aquifer Transition Zone (approximately 1,500 feet downstream) and will have a reduced impact to the recharge zone.

Attachment B

The project will provide many benefits that provide water quality protection. First, the structure will act as a sedimentation basin for the first flush of contaminants upstream of the site. Draining times for the structure vary from 4.5 hours for the 2 year event to 18.8 hours for the 100 year event and will provide time for containments or sediments to settle out of the surface water. Second, there will be the minimum 150' buffer between the identified sensitive features for the site and the permanent dam footprint, allowing for existing landcover conditions to help filter out any possible contamination. Thirdly, the impounded water behind the structure will provide more recharge water to the aquifer through the sensitive feature. Lastly, the conservation easement downstream of the structure will require any land between the structure and the transition zone to be untouched and therefore, this will contribute to improved water quality for the recharge zone. For all these reasons, the proposed structure provides equivalent water quality protection.

Agent Authorization Form (*TCEQ-0599*)

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

I Judge Danny Scheel,
Print Name

County Judge,
Title - Owner/President/Other

of Comal County, Texas,
Corporation/Partnership/Entity Name

have authorized Judith Ibarra-Bianchetta
Print Name of Agent/Engineer

of CH2MHILL
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 applicants 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.

Applicant's Signature — Date: 7-31-08

THE STATE OF Texas §

County of Comal §

BEFORE ME, the undersigned authority, on this day personally appeared Danny Scheel 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 31st day of July, 2008.

CRYSTAL L. GOTTFRIED
Notary Public State of Texas
My Comm. Exp. 11-15-2011

Crystal L. Gottfried
NOTARY PUBLIC

Crystal L. Gottfried
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 11-15-2011

Application Fee Form (*TCEQ-0574*)

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Form

NAME OF PROPOSED REGULATED ENTITY: Dry Comal Creek Flood Retarding Structure
REGULATED ENTITY LOCATION: New Braunfels ETJ, Comal County, Texas
NAME OF CUSTOMER: Comal County
CONTACT PERSON: County Judge Danny Scheel PHONE: 830.608.2090
(Please Print)

Customer Reference Number (if issued): CN 600647275 (nine digits)

Regulated Entity Reference Number (if issued): RN _____ (nine digits)

Austin Regional Office (3373) ☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362) ☐ Bexar ☒ Comal ☐ Medina ☐ Kinney ☐ Uvalde

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to (Check One):

☐ **Austin Regional Office**

☐ **Mailed to TCEQ:**
TCEQ – Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☒ **San Antonio Regional Office**

☐ **Overnight Delivery to TCEQ:**
TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-0347

Site Location (Check All That Apply): ☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	Size		Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling		Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks		Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	21.40	Acres	$6,500
Sewage Collection System		L.F.	$
Lift Stations without sewer lines		Acres	$
Underground or Aboveground Storage Tank Facility		Tanks	$
Piping System(s)(only)		Each	$
Exception		Each	$
Extension of Time		Each	$

J. Wina Brandtt
Signature

8.1.08
Date

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Core Data Form (*TCEQ-10400*)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided)*

☒ New Permit, Registration or Authorization *(Core Data Form should be submitted with the program application)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒ Yes ☐ No — WPAP Edwards Aquifer Recharge Zone Application Forms

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 600647275		RN

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy) 07/29/2008

6. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check only one of the following:*

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:			
☐ City Government	☒ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)* — *If new Customer, enter previous Customer below* — *End Date:*

Comal County

10. Mailing Address: 195 David Jonas Drive

City	New Braunfels	State	TX	ZIP	78132	ZIP + 4	3760

11. Country Mailing Information *(if outside USA)*

12. E-Mail Address *(if applicable)*: boydro@co.comal.tx.us

13. Telephone Number ( ) -

14. Extension or Code

15. Fax Number *(if applicable)* ( ) -

16. Federal Tax ID *(9 digits)* **17. TX State Franchise Tax ID** *(11 digits)* **18. DUNS Number***(if applicable)* **19. TX SOS Filing Number** *(if applicable)*

20. Number of Employees

☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

21. Independently Owned and Operated?

☐ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☒ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

23. Regulated Entity Name *(name of the site where the regulated action is taking place)*

Dry Comal Creek Flood Retarding Structure

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*								
	City		**State**		**ZIP**		**ZIP + 4**	
25. Mailing Address:	Comal County Engineer's Office							
	195 David Jonas Drive							
	City	New Braunfels	**State**	TX	**ZIP**	78132	**ZIP + 4**	3760

26. E-Mail Address:	boydro@co.comal.tx.us		
27. Telephone Number	**28. Extension or Code**	**29. Fax Number** *(if applicable)*	
(830) 608-2090		(830) 608-2009	

30. Primary SIC Code (4 digits)	**31. Secondary SIC Code** (4 digits)	**32. Primary NAICS Code** (5 or 6 digits)	**33. Secondary NAICS Code** (5 or 6 digits)
1622	1623	237990	237310

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

Reduce peak discharges for a tributary to Dry Comal Creek

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:	Located on North side of IH 35 and FM 482 approximately 1.5 miles Northwest of the intersection of Krueger and FM 482.

36. Nearest City	**County**	**State**	**Nearest ZIP Code**
New Braunfels	Comal	Tx	78132

37. Latitude (N) In Decimal:	29.67802		**38. Longitude (W) In Decimal:**	98.2051667	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	40	6.81	98	12	31.03

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 or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

☒ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Industrial Hazardous Waste	☐ Municipal Solid Waste
☐ New Source Review – Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS	☐ Sludge
☐ Stormwater	☐ Title V – Air	☐ Tires	☐ Used Oil	☐ Utilities
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Judith Ibarra-Bainchetta, PE, CFM	**41. Title:**	Associate Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(210) 377-3081	257	(210) 349-8944	Judith.Ibarra-Bianchetta@ch2m.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 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	CH2MHILL	**Job Title:**	Associate Project Manager		
Name *(In Print)* :	Judith Ibarra- Bianchetta			**Phone:**	(210) 377-3081
Signature:	J. Ibarra-Bianchetta			**Date:**	8.1.2008