

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 8, 2008

Mr. Todd McCullough
TMB Interests, LLC
PO Box 162462
Austin, Texas 78746

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Gruene Haven; Located 6.7 miles west of IH-35 on the east side of FM 306; 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. 2733.00; Investigation No. 608673; Regulated Entity No. RN105371066

Dear Mr. McCullough:

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 Brown Engineering Company on behalf of TMB Interests, LLC on November 5, 2007. Final review of the WPAP was completed after additional material was received on December 21, 2007 and January 7, 2008. 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.*

PROJECT DESCRIPTION

The proposed single family residential project will have an area of approximately 101.14 acres. It will include 74 house lots and associated roadways. The impervious cover will be 17.34 acres (17.14%). According to a letter dated, January 7, 2008, signed by Shawn Schorn, E.I.T., with Comal County, the site in the development is acceptable for the use of on-site sewage facilities.

PERMANENT POLLUTION ABATEMENT MEASURES

Since this single-family residential project will not have more than 20 percent impervious cover, an exemption from permanent BMPs is approved.

REPLY TO: REGION 13 • 14250 JUDSON RD. • SAN ANTONIO, TEXAS 78233-4480 • 210-490-3096 • FAX 210-545-4329

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: www.tceq.state.tx.us

GEOLOGY

According to the geologic assessment included with the application, 16 geologic features and one manmade feature in bedrock were assessed as non-sensitive by the project geologist. The San Antonio Regional Office site assessment conducted on December 20, 2007 revealed the site is described by the assessment.

SPECIAL CONDITIONS

- I. The holder of the approved Edwards Aquifer WPAP must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the application.
- II. 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.
- III. Since this project will not have more than 20% impervious cover, an exemption from permanent BMPs is approved. If the percent impervious cover ever increases above 20% or the land use changes, the exemption for the whole site as described in the property boundaries required by §213.4(g), may no longer apply and the property owner must notify the appropriate regional office of these changes.

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.

Prior to Commencement of Construction:

2. 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.
3. 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.
4. 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.
5. 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.

6. 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.
7. 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:

8. 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.
9. 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.
10. One well 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.
11. 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.
12. 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.
13. 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.

Mr. Todd McCullough

January 8, 2008

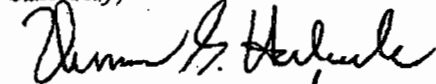
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After Completion of Construction:

14. 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.
15. 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.
16. 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.
17. 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.
18. 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,



Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

GS/CEF/eg

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

cc: Mr. Mark Brown, P.E., Brown Engineering Company
Mr. Tom Hornseth, P.E., Comal County
Mr. Bruce Boyer, City of New Braunfels
Ms. Velma Danielson, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

BROWN ENGINEERING CO.

ENGINEERING CONSULTANTS
1000 CENTRAL PARKWAY N., S-100
SAN ANTONIO, TEXAS 78232
PHONE (210) 494-5511

December 21, 2007

Lynn M. Bumguardner
Texas Commission on Environmental Quality
14250 Judson Road
San Antonio, Texas 78233-4480

Reference: Gruene Haven
Request for WPAP Approval
Edwards Aquifer Protection Program ID No. 2733.00
Regulated Entity No. RN105371066

RECEIVED
FEB 07 2008
COUNTY ENGINEER

2007 DEC 21 PM 3:38

"RECEIVED
SAN ANTONIO
PROJECT"

Dear Lynn,

We received your letter dated December 13, 2007 requesting clarification of several portions of the referenced WPAP submittal. Listed below are the responses to your comments.

1. The suitability letter from Comal County and background report has been included with this resubmittal package.
2. The differences with the two site boundaries occur because of an utility easement with P.E.C. There will be no construction or disturbance on that area.
3. The geologic assessment table was adjusted to include the water well as a man made feature. This well will be plugged and abandoned in accordance with all TCEQ regulations.
4. Finished contours were added to the site within the right-of-way and grading will not occur within single family lots except as shown on site plan.
5. For the site plan, the areas showing soil disturbance for the roads was added.
6. The 50' filterstrips will start at the edge of disturbed areas not the edge of the roadway. A note was added to the site plan stating the location of the 50' filter strip.
7. The major activities for this site will include storm drainage and excavation and backfill for the water lines. The storm drainage will consist of pipe culverts crossing the roads and minor bar ditches running along the roads, inside the right-of-way. Excavation and backfill for water line installation will occur within the right of way as well. The sequence of activities was modified to reflect these activities.
8. For individual lot and house padsites, the builder will be responsible for BMP measures, and filling SWPPP for lots.
9. The permanent stormwater section was updated to the current form dated 10/01/04.
10. Attachment I was updated to described active measures taken to minimize surface stream contamination.

11. A. Impervious cover is broken down to show that the site is less than 20%. This number should stand alone and was verified.
- B. The 8.8 acres was revised to 11.71 acres to reflect total area disturbed within the right-of-way. The 11.71 acres is for site clearing of the roads only. The 17.8 acres of grading refers to the total site grading, inside and outside the right-of-way.
- C. Attachment G refers to combined areas of disturbance within a single water basin, not the entire site.
- D. Item 4 was revised to 30% of the lot will be disturbed due to home construction.
- E. Item 4 was verified and matched the revised site plan

We appreciate your review of this supplemental information. Please contact us if additional information is required to finalize this application.

Sincerely,

BROWN ENGINEERING CO.

A handwritten signature in black ink, appearing to read 'Mark S. Brown', with a long horizontal flourish extending to the right.

Mark S. Brown, P.E.

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: Gruene Haven Subdivision

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

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

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.
- ☒ 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.
- ☒ 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.

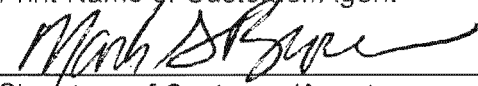
8. X **ATTACHMENT D - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is provided at the end of this form. Each feature identified in the Geologic Assessment as "sensitive" or "possibly sensitive" 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.
- ☒ 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.
- N/A **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 nonresidential 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:

Mark S. Brown, P.E.
Print Name of Customer/Agent

Signature of Customer/Agent

12.21.07
Date

Permanent Stormwater Section Form

ATTACHMENT I

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

The development is low density single family residential with less than 20% impervious cover.

All improved channels will have a velocity under 6 feet per second to reduce erosion and scouring, thus reducing stream contamination.

Temporary BMP measures will be used in areas under construction until paper vegetation is restored.

Storm flow energy dissipators will be used at the discharge point of small drainage channels when discharge velocities may cause scouring.

Temporary Storm Water Section
Attachment C
EROSION AND SEDIMENTATION (E & S) CONTROLS CHART

Sub-Area Label _____	Sub-Area Runoff _____ CFS	DA _____	Acres _____	Facility/Site Location Information:
Sub-Area Size _____	Acres Disturbed _____	TC _____	Minutes _____	Name: _____ Gruen Haven Subdivision
Name of Receiving _____	Gross Acres _____	I(2) _____	In./Hr. _____	Address: _____
	Final Runoff Coefficient _____	--	CR _____	City: _____ State: <u>TX</u>
		Q _____	cfs _____	Zip Code: _____
				Latitude <u>N29°49'40"</u> Longitude <u>98°06'11"</u>

Disturbed Area (AC.)	SEQUENCE OF MAJOR DISTURBING ACTIVITIES	EROSION & SEDIMENTATION CONTROLS		EROSION & SEDIMENTATION IMPLEMENTATION Commence/Complete	IMPLEMENTATION BY (for each control)
		Stabilization	Structural		
0.3	Construction Entrance	--	Stabilized Construction Entrance	Prior to commencement of construction	General Contractor
1.0	Clearing for E & S Facilities	--	--	Prior to any interior construction	General Contractor
N/A	Sensitive Features	--	Silt Fence or Silt Fence w/ Rock Berm	Prior to any interior construction	General Contractor
N/A	Diversion Berm or Swale	--	--	Prior to any interior construction	General Contractor
0.5	E & S Outlet Structure	--	--	Prior to any interior construction	General Contractor
11.71	Site Clearing	As Per Attachment "J" of Temporary Stormwater Section	--	--	General Contractor
N/A	Excavation - Buildings and Parking Lots	As Per Attachment "J" of Temporary Stormwater Section	Silt Fence or Rock Berm at Outlet	Prior to beginning any excavation w/in the applicable drainage area	General Contractor
2.5	Excavation - Storm Drains	As Per Attachment "J" of Temporary Stormwater Section	Silt Fence or Rock Berm at Outlet, Sandbag Gravel Filters at Inlet Throats	Prior to beginning any excavation w/in the applicable drainage area	General Contractor
N/A	Excavation & Backfill - Sanitary Sewer	As Per Attachment "J" of Temporary Stormwater Section	Silt Fence or Rock Berm at Outlet	Prior to beginning any excavation w/in the applicable drainage area	General Contractor
11.8	Excavation & Backfill - Water	Revegetate if denuded beyond 14 days without restart w/in 21 days	Silt Fence or Rock Berm at Outlet	Prior to beginning any excavation w/in the applicable drainage area	General Contractor
17.8	Grading	As Per Attachment "J" of Temporary Stormwater Section	Silt Fence or Rock Berm at Outlet	Prior to beginning any grading w/in the applicable drainage area	General Contractor
6.0	Utility Construction	As Per Attachment "J" of Temporary Stormwater Section	Silt Fence or Rock Berm at Outlet	Prior to street construction in the applicable drainage area	General Contractor
N/A	Revegetation	As Per Attachment "J" of Temporary Stormwater Section	Silt Fence or Rock Berm at Outlet	After completion of infrastructure work	General Contractor
N/A	Landscaping	Permanent stabilization provided within purchased residential lots	--	Final grading must be complete with all drainage facilities and velocity protection	Home Builder
N/A	Removal of E & S Controls	As Per Attachment "J" of Temporary Stormwater Section	--	After construction activity is substantially complete and the site is stable	General Contractor (PH 1) Home Builder (PH 2)



Protecting Texas
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FAX TRANSMITTAL

DATE: _____

NUMBER OF PAGES (including this cover sheet): ☐

TO:

Name

Organization

FAX Number

Mark Brown / Jimmy
Brown Engineering 210/494-5511
210/494-5519

FROM:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Name

Elaine G

Division/Region

San Antonio Region 13

Telephone Number

210/490-3096

FAX Number

210/545-4329

NOTES:

Buddy Garcia, *Chairman*
 Larry R. Soward, *Commissioner*
 Bryan W. Shaw, Ph.D., *Commissioner*
 Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 13, 2007

Mr. Mark Brown, P.E.
 Brown Engineering Co.
 1000 Central Pkwy North, Suite 100
 San Antonio, Texas 78232

Re: Edwards Aquifer, Comal County
 NAME OF PROJECT: Gruene Haven; Located on FM 306, north of River Chase Drive;
 New Braunfels ETJ, 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 ID No. 2733.00; Investigation No. 608673;
 Regulated Entity No. RN105371066

Dear Mr. Brown:

We are in the process of technically reviewing the WPAP application you submitted on the above-referenced project. Before we can proceed with our review, the following comments relating to the application must be addressed.

1. For item #15 of TCEQ-0584, provide the suitability letter from Comal County stating the site's land is suitable for the use of onsite sewage facilities.
2. The geologic assessment map details a site boundary different than the boundary provided on the site plan. Please explain and provide revised sheets as necessary.
3. According to the "Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones" the geologic assessment table should include both geologic and manmade features identified at the site. Water wells are considered manmade features. Update the geologic assessment table, site plan and any other relevant form items or attachments to include the water well located at the site.
 - a. Revise the site plan to include the appropriate OSSF separation distance for water wells and/or sensitive features.
4. The choice selected for Item #19 of TCEQ-0584 states existing and finished contours are shown on the site plan. Update the site plan to include final contours or revise the response to Item #19.

J.
Mark meeting 11:30am Monday

Un ✓ #19

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Printed on recycled paper using soy-based ink

Mr. Mark Brown, P.E.

December 13, 2007

Page 2

5. Item #23 of TCEQ-0584 asks for areas of soil disturbance and areas not disturbed to be shown on the site plan. The site plan includes a legend detail of a gray box depicting "phase 1 construction." It appears this detail was not used nor was it shown on the site plan (i.e., there are no gray areas on the plan). Is "phase 1 construction" detailing the areas of soil disturbance? Provide an updated site plan showing the areas of soil disturbance and areas not to be disturbed.

6. Item #3 of the Construction Phasing Notes on the Site Plan sheet states, "all areas within 10' of the proposed street right of way will be disturbed." It appears the 50 foot width for the natural filter strip is measured from the edge of the roadway. Confirm the natural filter strip will be outside of any disturbed area and provide a revised site plan as necessary.

7. The sequence of major activities, Attachment C of TCEQ-0602, lists "Excavation - storm drains" and "excavation & backfill - water" as two activities occurring at the site. Explain if these activities will occur and revise the sequence of activities as necessary.
8. Provide a typical temporary BMP layout for individual lots under construction.
9. Resubmit the Permanent Stormwater Section on the current TCEQ form (Rev. 10/01/04).
10. Revise Attachment I of TCEQ-0600 to describe the actual measures that will be implemented to avoid or minimize surface stream contamination (increased stream flashing, stronger flows and velocities, etc.).
11. Confirm and explain the following impervious cover amounts and disturbed areas. Reconcile the discrepancies and provide revised attachments as necessary.
 - a. Impervious Cover of Proposed Project (Item 4 of TCEQ-0584): 17.34 acres total impervious cover
 - b. Sequence of Activities (Item 5 of TCEQ-0602): 8-8 acres disturbed for site clearing; 17.8 acres disturbed for site grading
 - c. Attachment G (Item 10 of TCEQ-0602): 11.95 acres total; 7.85 acres total phase 1; 4.1 acres total phase 2
 - d. Construction Phasing Notes from Site Plan: Item 3, 11.71 acres disturbed; Item 4, 60% of house lot disturbed or 28.16 acres.
 - e. Construction Phasing Notes from SWPPP: Item 4, 30% of house lot disturbed or 28.16 acres

We ask that you submit one original and three copies of the amended materials to supplement the WPAP application to this office by no later than **14 days from the date of this letter** to avoid denial of the plan. If the response to this notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, a second notice will be sent to you requiring a response within 7 days from the notice date. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or

Mr. Mark Brown, P.E.

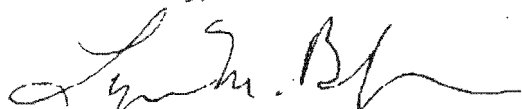
December 13, 2007

Page 3

inadequate, the application will be denied unless you provide written notification that the application is being withdrawn. Please note that the application fee will be forfeited if the plan is not withdrawn.

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.

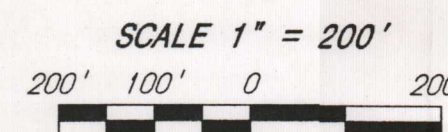
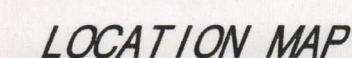
Sincerely,



Lynn M. Bumguardner
Water Section Work Leader
TCEQ San Antonio Regional Office

LMB/CEF/eg

fc: Mr. Todd McCullough, TMB Interests, LLC 210-494-5519
✓ Mr. Mark Brown, P.E., Brown Engineering Co. 210-494-5519



S.W.P.P.P. GENERAL NOTES

1. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OULLET.
2. ROCK BEDS:
 - a. ALL GRADED ROCK BEDS SHALL BE OPEN GRADED FOUR(4) TO EIGHT(8) INCHES IN DIAMETER.
 - b. THE ROCK BEDS SHALL BE INSPECTED WEEKLY OF AFTER EACH RAIN BY THE CONTRACTOR. IF BERM CEASES TO FUNCTION PROPERLY, THE ROCK SHALL BE CLEANED BY LIFTING, DROPPING AND RESHAPING THE BERM.
 - c. WHEN THE SILT REACHES A DEPTH EQUAL TO ONE-TWENTY THE HEIGHT OF THE BERM OR ONE(1) FOOT WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND MIXED WITH THE FINE SOIL MATERIALS BE PLACED WITHIN FILL AREAS OF THE PROJECT SITE.
3. ROCK BERMS AND SILT FENCES SHALL BE BUILT TO THE LENGTH SPECIFIED, INCLUDING FORTY-FIVE(45) DEGREE WINGS IN EACH END. THE MINIMUM LENGTH OF THE WINGS IS THREE(3) FEET.
4. NATURAL FILTER STRIPS (NFS):
 - a. THE NATURAL FILTER STRIPS SHALL CONFORM WITH TOED TOED COVERAGE STANDARDS WHICH CALL FOR AT LEAST 80% DENSE TURF COVERAGE. THE NATURAL FILTER COVERAGE MAY INCLUDE GRASS, TREES, AND SHRUBS.
 - b. SILT FENCE MAY BE USED IN LIEU OF NATURAL FILTER STRIPS. AND WILL BE REQUIRED IN AREAS WHICH DO NOT MEET THE TOED TOED COVERAGE STANDARDS.
 - c. THE NATURAL FILTER STRIPS WILL START AT THE EDGE OF THE TURBED AREAS AND PROCEED 50' INTO THE LOT PERPENDICULAR TO THE SHEET FLOW.
5. THE LOCATION OF EROSION AND SEDIMENTATION CONTROL FACILITIES ARE APPROXIMATE. CONTRACTOR MAY MODIFY, RELocate AND FACILITIES WITH AUTHORIZATION OF ENGINEER.

CONSTRUCTION PHASING NOTES

DEVELOPMENT OF THE SITE WILL OCCUR IN DIFFERENT PHASES:

1. PHASE 1 OF THE PROJECT WILL INCLUDE CONSTRUCTION OF TEMPORARY S.W.P.P.P. MEASURES, STREETS, WATER LINES, SIDEWALKS, UTILITIES, AND DRAINAGE IMPROVEMENTS.
2. PHASE 2 WILL INVOLVE ALL NON-INFRASTRUCTURE IMPROVEMENTS CONSTRUCTED ON THE LOTS. THESE IMPROVEMENTS WILL INCLUDE SINGLE FAMILY RESIDENTIAL HOMES, ONSITE SEPTIC TANKS TO SERVE THE HOME, AND S.W.P.P.P. MEASURES RELATED TO CONSTRUCTION ON THE LOTS.

DISTURBED AREAS:

3. DURING PHASE 1 OF THE PROJECT, ALL AREAS WITHIN 10' OF THE PROPOSED STREET RIGHT OF WAY WILL BE DISTURBED. THIS AREA IS APPROX. 11.71 ACRES.
4. DURING PHASE 2, SINGLE FAMILY HOME CONSTRUCTION WILL COMMENCE ON THE LOTS. DURING THIS PHASE, APPROX. 10% OF THE LOT AREA WILL BE DISTURBED. THIS TOTAL AREA IS APPROX. 28.16 ACRES. HOWEVER CONSTRUCTION OF SINGLE FAMILY HOMES WILL OCCUR OVER AN EXTENDED TIME, THEREFORE THE AREA DISTURBED AT ANY ONE TIME WILL BE SIGNIFICANTLY LESS THAN THE TOTAL AREA.

SOIL STABILIZATION AREAS:

5. SOIL STABILIZATION PRACTICES WILL BE USED ON ALL DISTURBED AREAS DESCRIBED ABOVE

PERMANENT BMP'S:

6. THE SITE WILL BE DEVELOPED INTO SINGLE FAMILY RESIDENTIAL USE WITH LESS THAN 20% IMPERVIOUS COVER. THIS IMPERVIOUS COVER LIMIT WILL SERVE AS A PERMANENT BMP.

LEGEND

-
- | | |
|-----|---|
| | SILT FENCE |
| | PHASE 1
STABILIZED CONSTRUCTION ENTRANCE |
| | PHASE 1
TRUCK WASHOUT PIT |
| | PHASE 1
S.W.P.P.P. DOCUMENT CONTAINER |
| | PHASE 1
SILT FENCE W/ ROCK BERM |
| | PHASE 1
CONSTRUCTION |
| | STORMWATER FLOW PATH |
| NFS | NATURAL FILTER STRIP |
| | PHASE 1
DSXX GEOLOGIC FEATURE |

PROJECT LAND USE

PROJECT SIZE = 101.196 AC
SINGLE FAMILY (1.0 AC.) = 74 LOTS
PROPOSED ROADS = 8.90 AC

ABBREVIATIONS

B.S.L	BUILDING SETBACK LINE
C.A.T.V.	CABLE TELEVISION
ELEC	ELECTRIC
ES/MT.	EASEMENT
FH	FIRE HYDRANT
OE	OVERHEAD ELECTRIC
PP	POWER POLE
R.O.W.	RIGHT-OF-WAY
SS	SANITARY SEWER LINE
SW	SIDEWALK
TELE.	TELEPHONE
UE	UNDERGROUND ELECTRIC
UT	UNDERGROUND TELEPHONE
WV	WATER VALVE
C.C.M.P.R.	COMAL COUNTY MAP AND PLAT RECORDS
C.C.R.P.R.	COMAL COUNTY REAL PROPERTY RECORDS
"s"	FOUND 1/2" IRON ROD
"s"	SECT 1/2" IRON ROD (W/ SECT 1/2" IRON ROD)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER
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 and time of the regulated activity, the nature of the regulated activity, the location of 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 Eads Aquifer Protection Plan and the TCEQ letter approving the specific conditions of its approval. During the course of these regulated activities, the contractor must comply with all regulatory and permit requirements.
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 notified immediately. Sensitive features that are not located within the regulated activities near the sensitive feature must not proceed until the TCEQ has reviewed and approved any necessary corrective actions. The TCEQ will review and approve any necessary corrective actions potentially adverse reports 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 features.
5. Prior to commencement of construction, all temporary erosion and sedimentation (ESES) control measures must be properly selected, installed, and maintained in accordance with the Eads Aquifer Protection Plan and the approved engineering practices. If the ESES control measures on the temporary water section of the approved Eads Aquifer Protection Plan are required during construction, the contractor must install a control that is more effective than the ESES control specified. The applicant must replace or modify the control for site situations that the control 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 as frequently as necessary to minimize off-site sediment. If sediment is found to be accumulating 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 no later than when design capacity has been reached. Sediment must not be provided that can indicate when the sediment exceeds 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, piled up daily).
9. All spoil (excavated material) generated from the project site must be stored on-site with proper ESES controls. For storage or disposal of spoils at another site on the Edwards Aquifer recharge zone, the area of the site must include a plan for the placement of spoils at the other site. The placement of fill material or loose 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 construction activities have temporarily or permanently ceased. Stabilization measures shall begin the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases. 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 and/or 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 were initiated, the dates when stabilization measures were initiated or permanently ceased on a portion of the site, and the dates when stabilization measures were initiated.
12. The holder of any approved Eads 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 diversion structures;
- B. any change in the nature or character of the regulated activity from that which was originally approved and which might 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
1921 DeGuss Band, Suite 150
Austin, Texas 78758-5339
Tel (512) 339-0929
Fax (512) 339-3755
- San Antonio Regional Office
14250 Junction Road
San Antonio, Texas 78233-4480
Phone (210) 495-3096
Fax (210) 495-3929

No.	Date	REVISIONS
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1000

BROWN
ENGINEERING CO.

INTEREST	1
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DE INTEREST 110

SITE PLAN

SHEET NO. _____

05