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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 31, 2009

Mr. Dave Stoessell
Creek Canyon Estates, LLC.
1311 Dessau Road
Austin, Texas 78754

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Estates at Stone Crossing; Located 0.46 miles north of Landa Street on the west side of Loop 337; New Braunfels, 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. 2699.03; Investigation No. 726228; Regulated Entity No. RN105325559

Dear Mr. Stoessell:

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 Matkin-Hoover Engineering and Surveying on behalf of Creek Canyon Estates, LLC. on January 26, 2009. Final review of the WPAP was completed after additional material was received on March 13, 2009 and March 26, 2009. 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 residential project will have an area of approximately 112.72 acres within a 149.58 acre site. It will include the removal of 1.09 acres of existing impervious cover and the construction of 238 residential lots along with associated roads and utilities along with the construction of a regional water quality pond. The impervious cover for the residential development will be 31.66 acres (28.08 percent). The future commercial tracts have been excluded from the application, but have been included in the sizing of the regional water quality pond. Project wastewater will be disposed of by conveyance to the existing North Kuehler Water Recycling Center owned by New Braunfels Utilities.

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

POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, an extended detention basin and engineered vegetated filter strips, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 27,440 pounds of TSS generated from 30.57 acres of impervious cover. The treatment of 978 pounds of TSS generated from the 1.09 acres of existing impervious cover is not required. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project. The individual treatment measures are described below.

The extended detention basin has been sized to capture the first 4 inches of stormwater run-off from 28.77 acres of impervious cover within a 139.62 acre catchment area, providing a total capture volume of 1,002,592 cubic feet (845,819 cubic feet required) to treat the required 25,824 pounds of TSS. The extended detention basin shall consist of the following:

- Dual sediment forebays that hold approximately 10% of the water quality volume (1,002,592 cubic feet).
- A 25 foot vegetative buffer that extends from the top of the pond in all directions.
- An impervious clay liner.
- An outflow structure capable of safely passing the 10-, 25-, and 100-year storm events, but allows for the required drawdown times of the water quality volume.
- A separate drain pipe with a manual valve (sluice gate) that can completely or partially drain the pond for maintenance purposes.
- Erosion protection at the outfall.

The engineered vegetated filter strips will be constructed to treat 1,616 pounds of TSS from 22 residential lots and one access drive, containing 1.80 acres of impervious cover within a 9.96 acre catchment area. The individual engineered vegetated filter strips are described below:

- The engineered vegetated filter strip is land adjacent to perimeter lots designated "R" on the site plan submitted with the application that will not drain by gravity to the extended detention basin;
- The engineered vegetated filter strip extends the length of the contributing area;
- The slope of the engineered vegetated filter strip does not exceed 20 percent;
- The minimum dimension of the engineered vegetated filter strip (in the direction of flow) is not less than 15 feet;
- The maximum width (in the direction of flow) of the contributing impervious cover does not exceed 72 feet;
- The minimum vegetated cover is 80 percent;
- The contributing area to the filter strip is relatively flat so that runoff is distributed evenly to the vegetated area without the use of a level spreader;
- The engineered vegetated filter strip is free of gullies or rills that can concentrate overland flow.

GEOLOGY

According to the geologic assessment (GA) included with the application, the site is underlain by the Persons Formation of the Edwards Group. According to the GA 68 features were observed, of which, two (2) were assessed as sensitive manmade features (wells, S-2 and S-3) and one (1) was assessed as a sensitive geologic feature (sinkhole, S-1). According to the GA the overall potential for fluid movement to the Edwards Aquifer across the site is considered to be low. The San Antonio Regional Office did not conduct a site assessment for this submittal. A site assessment was conducted on October 2, 2007 for the

August 21, 2007 submittal. On the October 2, 2007 site assessment the investigator observed that Feature S-1's natural drainage area extended off-site and onto the adjacent property to the north. The investigator also observed two large well-defined water courses on-site that are tributaries to Dry Comal Creek located just south of the above referenced site. According to the GA site map and observations on-site, approximately 34 features are located within the beds and banks of the two tributaries and whose classifications vary from solution cavities, solution fractures, and closed depressions, none of which were assessed as sensitive. The site assessment revealed no new features and is in general agreement with the submitted geologic assessment.

SENSITIVE FEATURE

A natural buffer zone was proposed for the Feature S-1 (sink-hole). A 50 foot natural buffer, which extends from the limits of the feature, was proposed. The buffer size is generally based on the drainage area for the sensitive feature and site boundary constraints. No regulated activities (such as construction or soil disturbing activities) will take place within the natural buffer area.

SPECIAL CONDITIONS

- I. All permanent pollution abatement measures shall be operational prior to occupancy of any of the residential or commercial facilities.
- II. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.
- III. 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.state.tx.us/permitting/water_supply/water_rights/wr_amiregulated.html
For more information on the Dam Safety program, please refer to:
http://www.tceq.state.tx.us/compliance/field_ops/dam_safety/damsafetyprog.html
- IV. For any future applications submitted to the TCEQ San Antonio Regional Office, the applicant shall include a revised and updated overall site plan of the entire 149.58 acre Estates at Stone Crossing Development. The following information should be clearly labeled or drawn on the overall site plan: the legal boundaries of each tract, limits of development by plan with corresponding Edwards Aquifer Protection Program file number, and locations of existing and proposed permanent BMPs.
- V. A copy of the deed recorded easements and restrictions for the "R" designated lots and the natural buffer area for feature S-1, as shown on the site plan submitted with the application, shall be submitted to the San Antonio Regional Office upon completion of platting for the residential lots.

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.

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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 Javier Anguiano of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4019.

Sincerely,



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

MRV/JA/eg

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

cc: Mr. Allen Hoover, P.E., Matkin-Hoover Engineering and Surveying
Mr. Thomas H. Hornseth, P.E., Comal County
Mr. James C. Klein, P.E., City of New Braunfels
Ms. Velma Danielson, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §
County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ who, being duly sworn by me deposes and says:

- (1) That my name is _____ and that I own the real property described below.
- (2) That said real property 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 real property was approved by the Texas Commission on Environmental Quality (TCEQ) on _____.

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 real property is located in _____ County, Texas, and the legal description of the property is as follows:

LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this ___ day of _____, _____.

NOTARY PUBLIC

THE STATE OF _____ §
County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ 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 ___ day of _____, _____.

NOTARY PUBLIC

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

**Change in Responsibility for Maintenance
on Permanent Best Management Practices and Measures**

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: _____

Regulated Entity Name: _____

Site Address: _____

City, Texas, Zip: _____

County: _____

Approval Letter Date: _____

BMPs for the project: _____

New Responsible Party: _____

Name of contact: _____

Mailing Address: _____

City, State: _____ Zip: _____

Telephone: _____ FAX: _____

Signature of New Responsible Party

Date

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TCEQ for the site, until another entity assumes such obligations in writing or ownership is transferred.

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.