

Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Bryan W. Shaw, Ph.D., *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

November 18, 2008

TO: Persons on the attached mailing list.

RE: Forestar (USA) Real Estate Group Inc.  
Permit No. WQ0014824001

### **Decision of the Executive Director.**

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. **This decision does not authorize construction or operation of any proposed facilities.** Unless a timely request for contested case hearing or reconsideration is received (see below), the TCEQ executive director will act on the application and issue the permit.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, is available for review at the TCEQ Central office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at Dripping Springs Community Library, 501 Sportsplex Drive, Dripping Springs, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. A brief description of the procedures for these two requests follows.

### **How To Request a Contested Case Hearing.**

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

- (1) Your name, address, daytime telephone number, and, if possible, a fax number.
- (2) If the request is made by a group or association, the request must identify:
  - (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group; and
  - (B) one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.
- (3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.
- (4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an **"affected person."** An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application. The request must be based on issues that were raised during the comment period. The request cannot be based solely on issues raised in comments that have been withdrawn. The enclosed Response to Comments will allow you to determine the issues that were raised during the comment period and whether all comments raising an issue have been withdrawn. The public comments filed for this application are available for review and copying at the Chief Clerk's office at the address below.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to comments that you dispute; and 2) the factual basis of the dispute. In addition, you should list, to the extent possible, any disputed issues of law or policy.

## **How To Request Reconsideration of the Executive Director's Decision.**

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

## **Deadline for Submitting Requests.**

A request for a contested case hearing or reconsideration of the executive director's decision must be **received** by the Chief Clerk's office no later than **30 calendar days** after the date of this letter. You may submit your request electronically at <http://www.tceq.state.tx.us/about/comments.html> or by mail to the following address:

LaDonna Castañuela, Chief Clerk  
TCEQ, MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

## **Processing of Requests.**

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the alternative dispute resolution director and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

## **How to Obtain Additional Information.**

If you have any questions or need additional information about the procedures described in this letter, please call the Office of Public Assistance, Toll Free, at 1-800-687-4040.

Sincerely,



LaDonna Castañuela  
Chief Clerk

LDC/er

Enclosures

MAILING LIST  
for  
Forestar (USA) Real Estate Group Inc.  
Permit No. WQ0014824001

FOR THE APPLICANT:

Wayne E. McDonald  
Forestar (USA) Real Estate Group, Inc.  
1300 South Mopac Expressway  
Austin, Texas 78746

Gilbert P. Gregory  
Bury+Partners-Public Works, Inc.  
3000 South 31<sup>st</sup> Street, Suite 308  
Temple, Texas 76502

Barrett Allison, P.E.  
Environmental & Planning Associates  
7200 Twilight Mesa Drive  
Austin, Texas 78737

PROTESTANTS/INTERESTED PERSONS:

Andrew Hawkins  
Save Our Springs Alliance  
P.O. Box 684881  
Austin, Texas 78768

FOR THE EXECUTIVE DIRECTOR:

Christiaan Siano, Staff Attorney  
Texas Commission on Environmental Quality  
Environmental Law Division MC-173  
P.O. Box 13087  
Austin, Texas 78711-3087

David Akoma, Technical Staff  
Texas Commission on Environmental Quality  
Water Quality Division MC-148  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR OFFICE OF PUBLIC ASSISTANCE:

Bridget Bohac, Director  
Texas Commission on Environmental Quality  
Office of Public Assistance MC-108  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR PUBLIC INTEREST COUNSEL:

Blas J. Coy, Jr., Attorney  
Texas Commission on Environmental Quality  
Public Interest Counsel MC-103  
P.O. Box 13087  
Austin, Texas 78711-3087

FOR THE CHIEF CLERK:

LaDonna Castañuela  
Texas Commission on Environmental Quality  
Office of Chief Clerk MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

**TCEQ PERMIT NO. WQ0014824001**

<b>APPLICATION BY</b>	§	<b>BEFORE THE</b>
<b>FORESTAR (USA) REAL ESTATE</b>	§	<b>TEXAS COMMISSION ON</b>
<b>GROUP INC</b>	§	<b>ENVIRONMENTAL QUALITY</b>

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**EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT**

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The Executive Director (ED) of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment (Response) on the Forestar (USA) Real Estate Group Inc. application and Executive Director's Preliminary Decision. As required by 30 Texas Administrative Code (TAC) Section 55.156,<sup>1</sup> before a permit is issued, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk received a timely comment letter from **Save Our Springs Alliance (SOSA)**. This response addresses all such timely public comments received, whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Office of Public Assistance at 1-800-687-4040. General information about the TCEQ can be found at our website at [www.tceq.state.tx.us](http://www.tceq.state.tx.us).

**BACKGROUND**

Description of Facility

Forestar (USA) Real Estate Group Inc. (the Applicant) has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, No. W0014824001, to authorize the disposal of treated domestic wastewater at a daily average flow not to exceed 125,000 gallons per day via public access subsurface drip irrigation system with a minimum area of 29 acres. This permit will not authorize a discharge of pollutants into water in the state.

The wastewater treatment facility and disposal site will be located at 2303 West Highway 290, Dripping Springs, in Hays County, Texas. The wastewater treatment facility and disposal site will be located in the drainage basin of Onion Creek in Segment No. 1427 of the Colorado River Basin. The facility will serve the Arrowhead Ranch Development residential housing units.

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<sup>1</sup> Unless noted otherwise, all citations refer to Title 30 of the Texas Administrative Code.

### Procedural Background

The application was received on June 25, 2007, and declared administratively complete on August 22, 2007. The Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI) was published on September 9, 2007, in the *Austin American-Statesman*. The Notice of Application and Preliminary Decision (NAPD) for a Water Quality Permit was published on July 23, 2008, in the *Austin American-Statesman*. The public comment period ended on August 22, 2008. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

### **COMMENTS AND RESPONSES**

#### **COMMENT 1**

SOSA is concerned that treated wastewater could infiltrate the Onion Creek and recharge the Aquifer causing pollution in Barton Springs and the Colorado River; that the proposed irrigation sites are located in the Onion Creek watershed and the Contributing Zone for the Barton Springs segment of the Edwards Aquifer; and that the treatment plant and drip fields are close to the bank of Onion Creek which recharges the Edwards Aquifer at several points. The SOSA is of the opinion that the soil, vegetation, and other natural conditions between the drip fields and the creek are inadequate to minimize the effect of effluent and prevent pollution in the Edwards Aquifer.

#### **RESPONSE 1**

Section 222.81 of the Commission Rules requires the applicant to locate the subsurface area drip dispersal system (SADDS) a minimum horizontal distance of 500 feet from public water wells, springs, or other similar sources of public drinking water; 150 feet from private water wells as described in section 309.13(c)(1); and 100 feet from surface waters in the state. The proposed wastewater treatment plant and area drip fields are approximately nine miles from the Edwards Aquifer Recharge Zone as measured in a straight line, and there are approximately 18 miles between the proposed wastewater treatment plant site and drip fields and the Edwards Aquifer Recharge Zone as measured along the Onion Creek channel. Section 222.77 requires drip dispersal systems to be designed and operated in a manner such that groundwater shall not be polluted.

Moreover, section 222.79 requires that the applicant must supply a recharge feature plan with the application that is signed and sealed by a licensed professional engineer or a licensed professional geoscientist who has inspected the site of the proposed subsurface

area drip dispersal system. The Applicant submitted a Recharge Feature Plan which indicates that the area, including the subsurface irrigation sites, is not located in the recharge zone; that the groundwater depth is approximately from 180 ft to 220 ft below land surface and that the general direction of groundwater flow is southeast; that the major groundwater use is for domestic purposes within a ½ mile radius of the perimeter of the proposed SADDs; that the buffer zone requirements of section 222.81 are met; that wells 90502, 93839, 93862, 93883, 93889, 93895, 94042, 94311, and 118066 are within 500 feet of the property lines; that as a precaution, a groundwater monitoring plan will be implemented; that three monitoring wells will be installed along the eastern boundary of drip field D.

Additional information about the geology of the site can be found in the Recharge Feature Plan (Exhibit 16 to the permit application) and the Preliminary Geotechnical Report included in the permit application.

### **COMMENT 2**

SOSA is concerned that the Applicant has not demonstrated ownership of the effluent disposal site, a long term lease agreement, or sufficient control of the site that would ensure that the wastewater treatment facility is operated efficiently and without interference. The Applicant submitted a non-binding letter of intent from the Fellers Ranch for the lease or purchase of 27 acres for disposal of treated effluent. The letter indicated that no binding agreement is entered into, thus failing the requirement to provide a long term lease agreement of six years or more.

### **RESPONSE 2**

TCEQ requires the permittee to maintain a long term contract with the owners of the proposed effluent disposal site. The Fellers Ranch has indicated that their property will be leased by the Applicant for the long term use as the drip irrigation site for the proposed wastewater treatment facilities. The Applicant has confirmed that the lease has been signed by Fellers Ranch and is presently awaiting closing and signature by the Applicant. The initial term of the lease will be 30 years, with two 10-year extensions planned in the document and further extensions are allowed in the plan. If the lease is executed by both parties, the Applicant would have sufficient control of the site and ensure that the wastewater treatment facilities will be operated efficiently and safely.

### **COMMENT 3**

SOSA is concerned that rainfall could supersaturate the drip fields and cause runoff of effluent into Onion Creek during wet weather conditions. Despite efforts to reduce or avoid irrigation during wet weather conditions, it is difficult to predict the exact timing, amount and rate of rainfall that may occur on the disposal sites. Also, the presence of steep slopes and canyons near Onion Creek could result in runoff reaching the creek.

### **RESPONSE 3**

Special Provision No. 13 of the draft permit would require the Applicant to design and install temporary storage that equals at least three days of the design flow of the facility for times when the subsurface area drip dispersal system is out of service due to an emergency or scheduled maintenance. In addition, the Applicant would be required to pump and haul wastewater from the facility to prevent the discharge of treated or untreated wastewater if complete shutdown of the wastewater treatment facility becomes necessary or if the storage capacity is exceeded. Accordingly, these provisions would serve to accommodate storage during wet weather periods. Moreover, the proposed drip fields are largely located on mildly sloped areas of existing, well established and vegetated grassland prairie that were inspected by TCEQ Regional staff.

These existing prairies will be planted with Bermuda grass and overseeded with Winter Rye grass as a cool season crop, or with other crop grasses acceptable to TCEQ, to maximize water use and uptake from the soil, and also, minimize the likelihood of runoff.

### **COMMENT 4**

SOSA is concerned with various uptake issues. It states that the calculation of wastewater nutrient loadings appears to assume uniform application rate; whereas, distribution is uneven as is uptake of water and nutrients due to design limitations of drip irrigation. SOSA is also concerned with potential clogging, uneven uptake due to slope, effect of sunlight, depth of soil, temperature and other factors.

### **RESPONSE 4**

Section 222.115 requires that SADDs be specifically designed to achieve a uniform application of effluent throughout the dispersal zones. Section 222.121(c) requires drip lines to follow the contour of the site and not exceed 1% lateral slope. Under section 222.83(a)(1), a hydraulic application rate of 0.1 gallons per square foot per day is allowed for drip fields in this geographic area. Therefore, the ED believes that there are sufficient safeguards in place to ensure that any uneven application or uptake will be minimal.

### **COMMENT 5**

SOSA refers to research that shows that Barton Springs is already suffering from elevated levels of nitrogen and phosphorous, and that sediments of Barton Springs sometimes contain hydro-phobic chemicals at levels toxic to aquatic life. Therefore, nitrogen and phosphorous entering the Edwards Aquifer and Barton Springs through Onion Creek may result in further degradation of the Barton Springs aquatic life habitat.

## **RESPONSE 5**

The nitrogen application rate for a subsurface area drip disposal system must be calculated using the anticipated nitrogen concentration of wastewater effluent prior to disposal. Under section 222.151, seepage of effluent from the drip field into groundwater is prohibited. Section 222.77 requires drip dispersal systems to be designed and operated efficiently such that groundwater quality shall not be polluted. Therefore, any nitrogen or phosphorous from the subsurface area drip disposal system should not reach Union Creek or the Edwards Aquifer.

## **COMMENT 6**

SOSA is concerned that the attachments to the Administrative Report of the permit application, which indicates that the Applicant intends to pump effluent a half mile northwest of the treatment plant to the effluent disposal site, were vague and do not properly explain the routing to other drip fields shown in the maps provided.

## **RESPONSE 6**

The Applicant has submitted a revised map which shows the routing to other drip fields for the disposal of treated effluent. The revised map has been placed in the permit file as public record at the TCEQ Office of the Chief Clerk.

## **COMMENT 7**

SOSA is concerned that the three days of effluent storage capacity is inadequate to ensure that irrigation will not occur during saturated conditions and prolonged rain events.

## **RESPONSE 7**

The storage requirement in Special Provision No. 13 of the draft permit is in accordance with section 222.127, which states that the Applicant must design and install temporary storage that equals at least three days of the design flow of the facility for times when the subsurface area drip dispersal system is out of service due to an emergency or scheduled maintenance. That Special Provision would also require the Applicant to pump and haul wastewater from the facility to prevent the discharge of treated or untreated wastewater if complete shutdown of the wastewater treatment facility becomes necessary or if the storage capacity is exceeded. Accordingly, the Applicant should meet the regulatory requirements of dealing with emergency disposal.

## **COMMENT 8**

SOSA states that it is unclear from the application if a procedure will be in place for prohibiting use of the irrigation fields during irrigation with effluent.

## **RESPONSE 8**

The proposed wastewater treatment facility does not include surface irrigation fields, it includes subsurface area drip fields. With the drip occurring at least six inches below the ground, public access to the dispersal area during irrigation periods is not limited by chapter 222. However, in the event of effluent surfacing due to damage to the drip irrigation lines, effluent application shall be shut-off to the drip irrigation zone and public access to the zone shall be restricted.

Special Provision No. 12 of the draft permit would require the subsurface drip irrigation system to consist of a sufficient number of different dispersal zones. The minimum depth of soil above the drip irrigation lines would be at least six inches, and the minimum depth of soil below the drip irrigation lines would consist of at least twelve inches of usable soil. In the event of effluent surfacing due to damage to the drip irrigation lines, effluent application shall be shut-off to the drip irrigation zone and public access to the zone shall be restricted.

## **COMMENT 9**

SOSA is concerned that the proximity of the proposed treatment facilities to nearby homes will expose homeowners and their families to nuisance odors, noise and visual pollution, as well as the possibility that groundwater seepage could result in contamination of wells or springs.

## **RESPONSE 9**

Nuisance odor is governed by section 309.13(e). Special Provision No. 6 of the draft permit provides that "The permittee shall comply with the requirements of 30 TAC Section 309.13 (a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC Section 309.13(e)."

It is not clear what noise and visual pollution might be generated by the facilities, but that is not something addressed in the permitting process.

As to the potential well pollution, section 222.151 prohibits seepage or percolation, surfacing or ponding of effluent or creating a condition at the treatment facility or the drip dispersal zones that contributes to vector attraction or odor.

Additionally, under section 222.77, a subsurface area drip dispersal system shall not contribute to groundwater pollution. Special Provision No. 22 of the draft permit would require the permittee to develop a Seeps/Springs Monitoring Plan and submit the plan to the TCEQ Water Quality Assessment Team for review and approval within 30 days of permit issuance.

Moreover, under section 222.81(a), the permittee would be required to locate the subsurface area drip dispersal system a minimum horizontal distance of 500 feet from

public water wells, springs, or other similar sources of public drinking water; 150 feet from private water wells as described in section 309.13(c)(1); and 100 feet from surface waters in the state.

**COMMENT 10**

SOSA is concerned that the draft permit does not adequately ensure that there will be no discharge of effluent into Onion Creek.

**RESPONSE 10**

TCEQ rules and criteria for drip area dispersal systems are in place to ensure that the system is designed and operated in a manner that ensures no effluent leaves the drip fields. The proposed wastewater treatment facility surpasses the operating criteria for similar treatment facilities in the area. Accordingly, the ED does not anticipate that there will be discharge into Onion Creek.

**CHANGES MADE TO THE DRAFT PERMIT IN RESPONSE TO COMMENT**

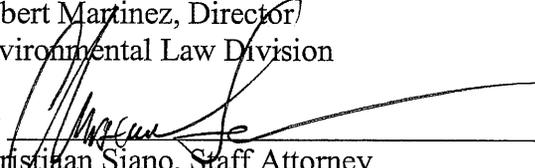
No changes to the draft permit have been made in response to public comment.

Respectfully submitted,

Texas Commission on Environmental Quality

Mark R. Vickery, P.G.  
Executive Director

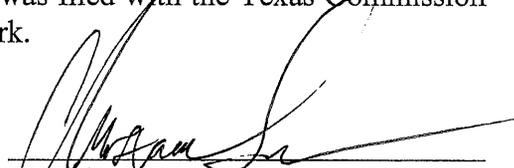
Robert Martinez, Director  
Environmental Law Division

By   
Christian Siano, Staff Attorney  
Environmental Law Division  
State Bar No. 24051335  
P.O. Box 13087, MC 173  
Austin, Texas 78711-3087  
Tel: (512) 239-6743  
Fax: (512) 239-0606

REPRESENTING THE  
EXECUTIVE DIRECTOR OF THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**CERTIFICATE OF SERVICE**

I certify that on November 12, 2008, the "Executive Director's Response to Public Comment" for Permit No. WQ0014824001 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.



Christian Siano, Staff Attorney  
Environmental Law Division

TEXAS  
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CHIEF CLERKS OFFICE