

**PERMIT NO. WQ0015095001**

**APPLICATION BY  
633-4S-RANCH, LTD., AND  
STAHL LANE, LTD.  
FOR TPDES PERMIT NO.  
WQ0015095001**

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**BEFORE THE TEXAS  
COMMISSION ON  
ENVIRONMENTAL QUALITY**

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**Executive Director's Response to Public Comment**

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The Executive Director of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment on the application by 633-4S-Ranch, LTD., and Stahl Lane, Ltd (4S-Ranch), for a major amendment to Texas Land Application Permit (TLAP) Permit Number WQ0015095001 and on the Executive Director's Preliminary Decision. As required by 30 Texas Administrative Code (TAC) Section (§) 55.156, before an application is approved, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk received timely comment letters from Jennifer L. Elmendorf and Annalisa Peace on behalf of the Greater Edwards Aquifer Alliance, Gary Rose on behalf of South West Water Company, and the following individuals:

Maranda Alexandre  
Bob Barton  
Robert I. Boyd  
Jack Brinks  
Chris Brodeur  
Kenneth Brothers  
Leslie Brothers  
Marilee Brown  
Dennis G. Burrer  
Kimberly Butler  
Erin P. Cantu  
Carl F. Chapman  
Yvonne L. Chapman  
Bill Clark  
Stephanie Clark  
William C. Coe  
Joel Cunningham  
Brenda Davis

Judith Dunn  
Carol Fisher  
Donald Fishlock  
Ernest Fishlock  
Janice Fishlock  
James Garvin  
Carolina Gordon  
P. Graham  
Terrell Graham  
Henry Grothues  
Drew Hall  
Gary Hall  
Nancy Hall  
Terri Hall  
Patricia A. Haney  
Michael Heersche  
Connie Hilburn  
Kathy Hojnacki

Tony Hojnacki  
Brad Holt  
S. A. Houser-Amaya  
Donald K. Howard  
Jeanne Howe  
Cynthia Johnson  
Ann Kainer  
Carol Keith  
Richard Keith  
John A. Kirby  
Kelly Knight  
Melissa Laster  
Deborah Leas  
Rodney W. Leas  
Christine Lively  
Jay D. Lord  
M. J. Maldonado  
Ralph D. Mann

Michael L. Maurer  
Roseann Maurer  
Tessye Maurer  
Theresa McClung  
Douglas A. McDougall  
Luana Merlino  
John Miller  
Weslea Miller  
Terrilyn E. Molina  
Alan Montemayor  
Sonia L. Moore  
Albert Mote  
David S. Moulton  
Marcus A. Murphy  
George Olvera

Nancy Olvera  
Gregory Pasztor  
Robert S. Perry  
Sara Ranzau  
George Rice  
Estella Rich  
Keith Richard  
Elizabeth Rodgers  
Jomar Rose  
Kathy Rust  
Rocky Rust  
Nancy Sandoval  
Emily Sauls  
Philip Schroeder  
Carol Smith

David Smith  
Weldon R. Smith  
Sarah A. Stevick  
Paul Stoeber  
Caryl Swann  
Jeff Thompson  
Stacy Warner  
Cheryl Watson  
Francesca Watson  
Debra White  
Nancy D. Williams  
Chad Wooten  
Dina Wooten  
Benjamin Youngblood

This response addresses all such 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 Public Education Program at 1-800-687-4040. General information about the TCEQ can be found at our website at [www.tceq.state.gov](http://www.tceq.state.gov).

## **I. Background**

### ***A. Description of Facility***

4S-Ranch applied for a major amendment to Permit No. WQ0015095001 to convert its existing Texas Land Application Permit (TLAP) to a Texas Pollutant Discharge Elimination System (TPDES) Permit and to change the disposal method from land application to discharge to water in the state. If issued, the permit will authorize the discharge of treated domestic wastewater at a daily average flow not to exceed 480,000 gallons per day (gpd). The proposed wastewater treatment facility will serve a portion of Comal County Water Control and Improvement District No. 6.

The effluent limitations in all phases of the draft permit, based on a 30-day average, are 5 mg/l five-day carbonaceous biochemical oxygen demand (CBOD<sub>5</sub>), 5 mg/l total suspended solids (TSS), 2 mg/l ammonia-nitrogen (NH<sub>3</sub>-N), 0.5 mg/l total phosphorus, 126 colony forming units (CFU) or most probable number (MPN) of *E. coli*

per 100 ml and 4.0 mg/l minimum dissolved oxygen (DO). Additionally, the effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes based on peak flow.

If the proposed permit is issued, the treated effluent will be discharged to an unnamed tributary to Lewis Creek; thence to Lewis Creek; thence to Upper Cibolo Creek in Segment No. 1908 of the San Antonio River Basin. The unclassified receiving water uses are minimal aquatic life use for the unnamed tributary to Lewis Creek and limited aquatic life use for Lewis Creek.

The designated uses for Segment No. 1908 are primary contact recreation, public water supply, aquifer protection, and high aquatic life use. The use of aquifer protection applies to the contributing, recharge, and transition zones of the Edwards Aquifer for Segment No. 1908. The effluent limitations in the draft permit will maintain and protect the existing instream uses.

The wastewater treatment facility (WWTF) site will be located approximately 6,500 feet north-northeast of the intersection of Smithson Valley Road and Farm-to-Market Road 1863, approximately 1,200 feet north of the confluence of Lewis Creek and Dripping Springs Creek, in Comal County, Texas 78163.

## ***B. Procedural Background***

The application was received on August 12, 2014 and declared administratively complete on October 21, 2014. The Notice of Receipt of Application and Intent to Obtain Permit (NORI) was published on October 24, 2014 in the *New Braunfels Herald-Zeitung*, Comal County, Texas. The Executive Director completed the technical review of the application on January 20, 2015 and prepared a draft permit. The Notice of Application and Preliminary Decision (NAPD) was published on March 6, 2015, in the *New Braunfels Herald-Zeitung*, in Comal County, Texas. The NAPD was also published in Spanish on August 5, 2015, in the *La Voz*, Comal County Texas. The NORI was published in Spanish in the *La Voz*, Comal County Texas, on January 6, 2016. A public meeting was held at the Bulverde Spring Branch Emergency Services building on

November 19, 2015. The public comment period ended at the close of the Public Meeting. Notice of the public meeting was published on October 6, 2015, in the *New Braunfels Herald-Zeitung*, Comal County, Texas. 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, 76<sup>th</sup> Legislature, 1999.

### ***C. Access to Rules, Laws, and Records***

Please consult the following websites to access the rules and regulations applicable to this permit:

- to access the Secretary of State website: [www.sos.state.tx.us](http://www.sos.state.tx.us);
- for TCEQ rules in Title 30 of the Texas Administrative Code: [www.sos.state.tx.us/tac/](http://www.sos.state.tx.us/tac/) (select “TAC Viewer” on the right, then “Title 30 Environmental Quality”);
- for Texas statutes: [www.statutes.legis.state.tx.us](http://www.statutes.legis.state.tx.us);
- to access the TCEQ website: [www.tceq.texas.gov/](http://www.tceq.texas.gov/) (for downloadable rules in Adobe PDF format, select “Rules” then “Download TCEQ Rules”);
- for Federal rules in Title 40 of the Code of Federal Regulations: [www.gpoaccess.gov/cfr/index.html](http://www.gpoaccess.gov/cfr/index.html); and
- for Federal environmental laws: [www.epa.gov/epahome/laws.htm](http://www.epa.gov/epahome/laws.htm).

Commission records for this facility are available for viewing and copying at TCEQ’s main office in Austin, 12100 Park 35 Circle, Building F, 1<sup>st</sup> Floor (Office of the Chief Clerk), for the current application until final action is taken. The application for this facility has been available for viewing and copying at the Bulverde/Spring Branch Library, 131 Bulverde Crossing, Bulverde, Texas, since publication of the NORI. The draft permit, statement of basis/technical summary, and the ED’s preliminary decision have been available for viewing and copying at the same location since publication of the NAPD.

## **II. Comments and Responses**

### **A. General Concerns**

#### **COMMENT 1:**

Several commenters expressed general concern and opposition to the draft permit.

#### **RESPONSE 1:**

The Executive Director acknowledges the comments.

#### **COMMENT 2:**

A commenter stated that TCEQ has not done its due diligence regarding the 4S-Ranch application.

#### **RESPONSE 2:**

The Executive Director performed a thorough administrative and technical review of the application submitted by 4S-Ranch. Initially, the Applications Team reviewed the application. The Applications Team reviews all applications for TPDES permits to ensure the application is administratively complete. The administrative review ensures that the Applicant provided all information required by the Administrative Report (Application Domestic Administrative Report 1.0). If more information is necessary, the applicant is sent a notice of deficiency and has up to 30 days to respond. In this case, the Executive Director sent 4S-Ranch a request for additional information on September 18, 2014. The Application Team received additional information on September 24, 2014.

After the administrative review was complete, staff conducted a technical review of the 4S-Ranch application. The review included staff from the Water Quality Assessment Section and the Municipal Permitting Team. Initially an Aquatic Scientist from the Water Quality Standards Implementation Team reviewed the application to determine if the discharge route was accurately represented in the application. After the Aquatic Scientist completed her review, the application was reviewed by a Modeler from the Water Quality Assessment Team who determined the dissolved oxygen criteria for the receiving water. Both the Aquatic Scientist and the Modeler provided their

recommendations to the permit coordinator in memoranda. The permit coordinator performed a technical review and developed a draft permit in accordance with the appropriate state and federal regulations, guidance, and policies to protect waters of the state. Finally, each draft permit is reviewed by a senior member of the municipal permitting team for accuracy and consistency.

The draft permit was also submitted to the EPA. On March 10, 2015, EPA notified the Executive Director that it was declining review of the draft permit.

Additionally, to ensure full public participation, two public notices are published and mailed to adjacent landowners. The first notice, the NORI, is published after an application is determined administratively complete. 4S-Ranch published the NORI in on October 24, 2014, in the *New Braunfels Herald-Zeitung*, Comal County, Texas. The second notice, the Notice of Application and Preliminary Decision (NAPD), is published after an application is determined technically complete. The NAPD was published on March 6, 2015 in the *New Braunfels Herald-Zeitung*, in Comal County, Texas. Additionally, the NAPD was also published in Spanish on August 5, 2015, in the *La Voz*, Comal County, Texas; and the NORI was published in Spanish in the *La Voz*, Comal County, Texas on January 6, 2016. Finally, a public meeting was held on November 19, 2015, in Spring Branch, Texas. Notice of the public meeting was published on October 6, 2015, in the *New Braunfels Herald-Zeitung*, Comal County, Texas.

**COMMENT 3:**

Several commenters expressed concern over the invasion of private property rights and the developer's right to discharge into a dry creek where people play.

Similarly, several commenters asked why 4S-Ranch will be allowed to discharge sewage water, treated or not, into creeks and tributaries that run onto and through property owned by others. Several commenters expressed concern that the discharge will create a boggy area along Lewis Creek and Cibolo creek. Several commenters expressed concern that the boggy areas created by the discharge will be on private property.

Additionally, a commenter stated that TCEQ should not be able to infringe on private property.

### **RESPONSE 3:**

4S-Ranch applied for authorization to discharge wastewater under the TPDES program. TPDES permits establish terms and conditions that are intended to provide water quality pollution control, as directed by federal law, state law, and the Texas Administrative Code. Specifically, the 4S-Ranch proposed permit provides:

The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.<sup>1</sup>

The Texas Water Code provides that the TCEQ is the agency primarily responsible for “implementing the constitution and laws for this state relating to the conservation of natural resources and the protection of the environment.”<sup>2</sup> The TWC prohibits the discharge of waste or pollution into or adjacent to water in the state without authorization from the Commission.<sup>3</sup> To implement this policy, the TCEQ was given the authority to issue TPDES permits for the discharge of waste or pollutant into or adjacent to water in the state.<sup>4</sup> Historically, Texas courts have held water in a watercourse is the property of the State, held in trust for the public.<sup>5</sup> Accordingly, the TCEQ is authorized to permit the discharge of treated domestic wastewater into water in the state.

The court of appeals considered whether the flow of treated wastewater from a city’s wastewater treatment facility caused a taking of or damage to downstream landowners’ property in *Domel v. City of Georgetown*.<sup>6</sup> In *Domel*, downstream landowners (Ethel and Norman Domel) sued the City of Georgetown, alleging that the value of their property was diminished by the City's discharge of treated wastewater into

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<sup>1</sup>4S-Ranch Draft Permit, page 1. *See also*, 30 TEX. ADMIN. CODE § 305.122(b) and (c).

<sup>2</sup>TEX. WATER CODE § 5.012.

<sup>3</sup>TEX. WATER CODE § 26.121.

<sup>4</sup>TEX. WATER CODE § 26.027.

<sup>5</sup>*Goldmith & Powell v State*, 159 S.W. 2d 534, 535 (Tex.Civ.App.-Dallas 1942).

<sup>6</sup>*Domel v. City of Georgetown* 6 S.W.3d, 349, 358 (Tex. App.-Austin 1999).

an intermittent stream that crossed their land. The question before the court was whether the City of Georgetown needed permission from downstream landowners in order to discharge treated wastewater into a watercourse on privately-owned land pursuant to a state-issued permit.<sup>7</sup>

The court held “[the State] does not need title to use the bed and banks of a watercourse for the purpose of transporting water. . .” and “the State has the right to use the channel of the watercourse to meet its constitutionally mandated duty to conserve and develop the State’s water resources.”<sup>8</sup> Finally, the court considered the language that is on the first page of every TPDES permit (quoted above), and determined the City did not need additional authority to use the watercourse for the discharge of treated domestic wastewater.<sup>9</sup>

Because the State is authorized to use the bed and banks to transport water, and the TCEQ has authority to authorize a discharge of treated domestic wastewater into water in the state through a TPDES permit, the applicant for a TPDES permit does not need permission from downstream landowners to use the watercourse running through their property.

**COMMENT 4:**

A commenter asked if the draft permit has been approved.

**RESPONSE 4:**

The draft permit has not been approved. The Texas Water Code provides that before an application is approved, Executive Director must file a response (referred to as an RTC) to each relevant and material public comment filed on an application during the comment period.<sup>10</sup> As noted above the comment period ended on this application at the close of the public meeting held November 19, 2015, at the Bulverde Spring Branch Emergency Services building. This RTC addresses all timely, relevant and material, or significant comments. After the RTC is mailed, the public has 30 days to request the

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<sup>7</sup>*Domel v. City of Georgetown* 6. S.W. 3d 349, 350 (Tex. App.-Austin 1999).

<sup>8</sup>*Domel v. City of Georgetown* 6. S.W. 3d 349, 358 (Tex. App.-Austin 1999).

<sup>9</sup>*Domel v. City of Georgetown* 6 S.W. 3d 349, 361 (Tex. App.-Austin 1999).

<sup>10</sup>TEX. WATER CODE § 5.555.

Commission reconsider the Executive Director's decision or request a contested case hearing.<sup>11</sup>

The Executive Director has already received several requests for a contested case hearing; therefore, unless 4S-Ranch requests the application be sent directly to the State Office of Administrative Hearings (SOAH), the Commission will consider the hearing requests at a public meeting.<sup>12</sup> If the Commission determines there are affected persons, and relevant and material issues, it will send the 4S-Ranch application to SOAH for a contested case hearing.<sup>13</sup>

At the conclusion of the contested case hearing, the Administrative Law Judge (ALJ) will issue a Proposal for Decision which will be presented to the Commission during an open meeting. At the open meeting, the Commission may grant the permit, deny the permit, remand the application back to SOAH, or take other action as appropriate.<sup>14</sup>

**COMMENT 5:**

Several commenters expressed concern that the TCEQ does not consider the cumulative impacts from all of the nearby proposed or existing WWTFs. Similarly, one commenter expressed concern about the cumulative impact of multiple high density developments will have on the quality of the water recharging the aquifer to supply local wells and Comal Springs.

Similarly, several commenters asked if there has been any study on the cumulative effect of the wastewater discharge from all of the new developments discharging into Lewis Creek. One commenter expressed concern on there being no study on the cumulative effects of nitrogen and phosphates going into Lewis Creek.

Additionally a commenter requested that TCEQ rules be modified to take the cumulative effect of all treatment systems into account in the application process.

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<sup>11</sup>TEX. WATER CODE § 5.556; 30 TEX. ADMIN. CODE § 55.201.

<sup>12</sup>30 TEX. ADMIN. CODE § 55.211.

<sup>13</sup>An affected person is defined in 30 TAC § 55.203.

<sup>14</sup>30 TEX. ADMIN. CODE § 80.267.

**RESPONSE 5:**

When there is a significant chance that multiple discharges will combine to create an enhanced impact, the TCEQ considers the potential cumulative impacts from all permitted or proposed discharges in an area when performing the dissolved oxygen modeling. In the case of the evaluation of 4S-Ranch, other facilities were not included in the analysis because they were not close enough to affect the results of the modeling. Currently, 4S-Ranch is the only proposed discharge on Lewis Creek.

Additionally, TCEQ's Surface Water Quality Team monitors surface water quality throughout the state of Texas. These reports, Texas Integrated Reports, are published on a basin wide schedule. It is through these monitoring reports where water quality in the surface waters of the basin, including those with WWTF discharges, where Water Quality Assessment staff can assess the loading in a watershed when reviewing an individual permit.

**COMMENT 6:**

Several commenters expressed concern over air quality.

**RESPONSE 6:**

The Texas Clean Air Act provides that certain facilities may be exempt from the requirements of an air quality permit if, upon review, it is found that those facilities will not make a significant contribution of air contaminants to the atmosphere and that human health and the environment will be protected. According to the TCEQ rules, WWTFs have undergone this review and are permitted by rule, provided the WWTF only performs the functions listed in the rule 30 TAC §106.532. The treatment process proposed for the 4S-Ranch WWTF will not make a significant contribution of air contaminants to the atmosphere pursuant to the Texas Health and Safety Code, the Texas Clean Air Act, §382.057 and §382.05196, and is therefore, permitted by rule.

**COMMENT 7:**

A commenter asked if any TCEQ staff has been to the site, and if they have, who was at the site and when. Similarly, one commenter asked how many staff members have visited the site of the facility previous to the request for a public meeting or a hearing. The commenter stated the TCEQ staff only visits a site if the application is

controversial. Similarly, a commenter stated the TCEQ should consider visiting additional areas of Lewis Creek, including asking landowners for access to see portions of the creek on private property.

**RESPONSE 7:**

The TCEQ does not require staff site visits for every permit application received at the Agency. Typically during the application review process, the Water Quality Standards Implementation Team reviews available aerials, USGS maps, and photographs included in the application, to evaluate the discharge route and the flow status of the receiving waters. However, there have been two site visits for this Application.

The initial site visit was to determine if a Receiving Water Assessment (RWA) was needed. When a TPDES permit application is received by the administrative review team, as part of standard practice, it goes through a RWA review to determine if an RWA is needed in order to determine the flow status and uses of the receiving waters. Peter Schaefer was assigned the task of determining if an RWA was needed. He conducted a reconnaissance of the site on September 10, 2014, and made a determination that an RWA was not required and informed the Water Quality Standards Implementation reviewer of his conclusions from the site visit.

A second site visit was conducted on November 19, 2015, in conjunction with the Public Meeting. On November 19, 2015, TCEQ staff conducted a site visit to observe the discharge route, proposed facility site, and neighboring properties in preparation for the public meeting. TCEQ staff that visited the site on November 19, 2015, from the Austin Headquarters included: John Onyenobi, Mark Rudolph, Lili Murphy, Kathy Humphreys, and Hollis Henley. Staff from the Region 13 office that visited the site on November 19, 2015, included: Lynn Bumguardner, Joel Anderson, Joy Thurston-Cook, and Chris Dziuk.

**COMMENT 8:**

A commenter stated that the TCEQ must recheck, by physical investigation, the ponds which form in Lewis Creek and its tributaries, especially between Smithson Valley Road and Sunlight Drive near the low water crossing and along Smithson Valley Road in

the City of Bulverde limits and in the development area because the developer may not have accounted for all of them. They are visible on Google Earth 2009 maps.

A commenter requested that a TCEQ engineer go to the properties located west of Smithson Valley Road and just south of the proposed wastewater treatment facility before allowing a permit to be issued and also where the creek crosses Smithson Valley Road south of Antler Pass and north of Keswick Drive. Similarly, a commenter requested that a TCEQ engineer evaluate the homes near the floodplain along Circle Oak Drive west and north. Additionally a commenter stated that the TCEQ must physically investigate the area before issuing the permit. A commenter expressed concern about the TCEQ not looking at anything on the ground in the application process.

**RESPONSE 8:**

Lewis Creek was assessed as intermittent with perennial pools with a limited aquatic life use based on ponds identified on aerial photos. The pools cited in the comment are detectable on aerial photographs. There is a sizeable pond above the discharge point on the unnamed tributary; however, no ponds were identified below the discharge point on the unnamed tributary prior to its confluence with Lewis Creek. When a receiving water is identified as intermittent with perennial pools, the uses and the associated water quality criteria apply to all the pools on Lewis Creek.

**COMMENT 9:**

One commenter asked if the health, safety, and welfare of citizens whose land or water supply may be impacted by the treated sewer water discharge is considered during the TPDES permitting process.

**RESPONSE 9:**

Yes, the Executive Director considers a variety of factors during the development of a TPDES permit. According to the Texas Water Code “[i]t is the policy of this state and the purpose of this subchapter to maintain the quality of water in the state consistent with the public health and enjoyment, the propagation and protection of terrestrial and aquatic life. . .”<sup>15</sup> To meet this objective, the Executive Director reviews

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<sup>15</sup> 30 TEX. WATER CODE § 26.003.

each application for a TPDES permit to ensure that a permit can be drafted that meets all of the applicable statutory and regulatory requirements.

**COMMENT 10:**

Several commenters expressed concern about the Applicant applying for a permit and later applying for and obtaining a major amendment to that permit in the future that could cause harm to citizens in the area.

**RESPONSE 10:**

TCEQ's rules allow permittees to request various changes to issued permits, including changing the method of discharge (i.e. changing from a TLAP to a TPDES permit), provided the permittee submits an application for a major amendment. According to TCEQ's rules, a "major amendment is an amendment that changes a substantive term, provision, requirement, or a limiting parameter of a permit."<sup>16</sup> Every application for a major amendment is thoroughly reviewed by staff to ensure that, if issued, the new permit complies with all the applicable statutory and regulatory requirements and will be protective of human health and the environment.

**COMMENT 11:**

Several commenters expressed concern that the discharge from 4S-Ranch will negatively impact their use and enjoyment of their property.

**RESPONSE 11:**

If the permit is issued, it does not grant 4-S Ranch the right to use private or public property for conveyance of wastewater along the discharge route. This includes property belonging to any individual, partnership, corporation or other entity. The permit does not authorize any invasion of personal rights or any violation of federal, state, or local laws or regulations. It is 4-S Ranch's responsibility to acquire the necessary property rights to use the site of the planned treatment facility and the discharge route. Also, the draft permit does not limit the ability of nearby landowners to use common law remedies for trespass, nuisance, or other causes of action in response to activities that may or actually do result in injury or adverse effects on human health

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<sup>16</sup>30 TEX. ADMIN. CODE § 305.62(c).

or welfare, animal life, vegetation, or property, or that may or actually do interfere with the normal use and enjoyment of animal life, vegetation, or property.

### ***B. Groundwater and Edwards Aquifer Concerns***

#### **COMMENT 12:**

Several commenters stated they oppose direct discharge of effluent into waterways that recharge the Edwards Aquifer. According to the commenters the discharge that would be authorized by this permit has the potential to negatively impact the water quality of the Edwards Aquifer and local wells.

Several commenters expressed concern that the discharge from 4S-Ranch will negatively impact the Edwards Aquifer Recharge Zone. Some of the commenters note there are numerous caves in the area that recharge to the Edwards Aquifer. A commenter expressed concern that the effluent will negatively impact the spring-fed pools in New Braunfels and San Marcos. Similarly a commenter stated that Cibolo Creek is a full recharge feature to the Edwards Aquifer. One commenter stated that discharging into a dry drainage a few hundred feet from the recharge zone is no different from discharging directly over the recharge zone.

#### **RESPONSE 12:**

The Texas Water Code (TWC) provides that the Commission may issue permits into and adjacent to water in the state.<sup>17</sup> The term “water in the state” is defined quite broadly and includes groundwater, streams, and creeks.<sup>18</sup> The draft permit complies with all applicable statutory requirements, including the rules governing the Edwards Aquifer.<sup>19</sup> Specifically, the draft permit was developed to protect aquatic life and human health in accordance with the Texas Surface Water Quality Standards (TSWQS).<sup>20</sup> The requirements in the draft permit were established to be protective of human health and the environment as long as 4S-Ranch operates and maintains the facility according to TCEQ rules and the requirements in the draft permit.

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<sup>17</sup>TEX. WATER CODE § 26.027.

<sup>18</sup>TEX. WATER CODE § 26.001.

<sup>19</sup>The rules governing the Edwards Aquifer are found at 30 TAC Chapter 213.

<sup>20</sup>30 TEX. ADMIN. CODE Chapter 307.

As part of the application review process, the ED determines the uses of the receiving water and sets effluent limits that are protective of those uses. In this case, the receiving stream uses are primary contact recreation, public water supply, aquifer protection, and high aquatic life use. The use of aquifer protection applies to the contributing, recharge, and transition zones of the Edwards Aquifer for Segment No. 1908.

Additionally, the TSWQS (found at 30 TAC Chapter 307) state that “surface waters will not be toxic to man, or to terrestrial or aquatic life.” The procedure of deriving permit limits outlined in the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010) (Implementation Procedures) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.<sup>21</sup> The Executive Director determined these uses will be protected if the facility is operated and maintained as required by the proposed permit and regulations.

As specified in the TSWQS, water in the state must be maintained to preclude adverse toxic effects on aquatic life, terrestrial life, livestock, and domestic animals resulting from contact, consumption of aquatic organisms, consumption of water, or any combination of the three.<sup>22</sup>

The effluent limitations in the proposed permit will maintain and protect the existing instream uses. In accordance with 30 TAC § 307.5 and the TCEQ *Implementation Procedures*, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in the Upper Cibolo Creek,

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<sup>21</sup>Procedures to Implement the Texas; Surface Water Quality Standards.

<sup>22</sup>Procedures to Implement the Texas; Surface Water Quality Standards.

which has been identified as having high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The effluent limits contained in the proposed permit are also consistent with the requirements stipulated in the Edwards Aquifer Rules for discharges between five and ten miles upstream from the recharge zone.<sup>23</sup> The Total Suspended Solids (TSS) effluent limit of 5 mg/L is taken from the effluent set required by the rule for discharges between zero and five miles upstream from the Edwards Aquifer recharge zone.<sup>6</sup>

Additionally, because the proposed WWTF will be on the contributing zone of the Edwards Aquifer, 4S-Ranch may be required to submit a Contributing Zone Plan (CZP).<sup>24</sup> A CZP outlines best management practices that will be implemented in order to protect water quality when a regulated activity is conducted in the contributing zone of the Edwards Aquifer.

**COMMENT 13:**

A commenter stated that the permit amendment violates Chapter 213 which prohibits new discharges over the Edwards Aquifer Recharge Zone. The commenter stated that using a dry creek as a conduit to Cibolo Creek is the same as piping the effluent directly to Cibolo Creek because the vast majority of the time, no dilution will take place prior to the effluent reaching the Edward Aquifer Recharge Zone.

**RESPONSE 13:**

TCEQ's rules regarding discharges upstream of the Edwards Aquifer prohibits discharges directly into the recharge zone. According to 4S-Ranch's application, the discharge from the WWTF will be in the Edwards Aquifer Contributing Zone, approximately 2.26 miles upstream of the Edwards Aquifer Recharge Zone. The effluent limits in the proposed permit comply with the effluent limits required for discharges within zero to five miles upstream of the recharge zone. The effluent limit of 0.5 mg/l

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<sup>23</sup>30 TEX. ADMIN. CODE § 213.6(c).

<sup>24</sup>30 TEX. ADMIN. CODE Chapter 213, Subchapter B.

for Total Phosphorus in the proposed permit is more stringent than required by the Edwards Aquifer rules.

According to TCEQ's rules all new or increased discharges of treated wastewater within zero to five miles upstream from the recharge zone discharges must, at a minimum, meet the following effluent limits:<sup>25</sup>

<u>Parameter</u>	<u>Average of Daily Avg</u>
CBOD <sub>5</sub> , mg/l	5.0
TSS, mg/l	5.0
NH <sub>3</sub> -N, mg/l	2.0
Total Phosphorus, mg/l	1.0

The effluent limits in the draft permit are:<sup>26</sup>

<u>Parameter</u>	<u>Average of Daily Avg</u>
CBOD <sub>5</sub> , mg/l	5.0
TSS, mg/l	5.0
NH <sub>3</sub> -N, mg/l	2.0
Total Phosphorus, mg/l	0.5

**COMMENT 14:**

Several commenters expressed concern of wastewater influencing the water quality of the middle Trinity Aquifer, from which the Oak Village North wells withdraw their drinking water. A commenter stated that Cibolo Creek is a full recharge feature to the Trinity Aquifer. (<http://pubs.usgs.gov/sir/2007/5202/>). Similarly, several commenters expressed concern about the facility's impact on the flow of Lewis Creek into Cibolo Creek and into the Edwards Aquifer. The commenters also expressed concern on the facility's impact on the Trinity Aquifer.

One commenter stated that the TCEQ should consider the studies at the USGS proving that Lewis Creek is recharge for the Trinity Aquifer and Edwards Aquifer.

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<sup>25</sup>30 TEX. ADMIN. CODE § 213.6(c).

<sup>26</sup>4S-Ranch Draft Permit, pages 2, 2a, and 2b.

Several commenters expressed concern that the discharge from the 4S-Ranch WWTF will negatively impact the Trinity and Glen Rose aquifers.

Several commenters expressed concern that the discharge from 4S-Ranch will contaminate their drinking water. Additionally, several commenters noted that everyone in their neighborhood gets their water from private wells. One commenter expressed concern about her opinion that no consideration is being given to private wells in the permitting process. Several commenters asked how they would know if their well water was safe. Several commenters asked who would provide clean drinking water if their wells are contaminated. One commenter expressed concern that a study has not been conducted to determine how the proposed discharge is going to impact the groundwater system. Several commenters expressed concern over long term health effects of wastewater saturating the recharge zone of drinking water wells.

Similarly, a commenter expressed concern that there are public wells owned by Canyon Lake Water Supply, which is the company that has the CCN for the entire area of Bulverde.

A commenter expressed concern over the nearby quarry blasting fracturing the rock in the creek leading to wastewater filtering into the drinking water.

**RESPONSE 14:**

The Water Quality Division has determined that the draft permit complies with the TSWQS. The TSWQS ensure effluent discharges are protective of aquatic life, human health and the environment. The review process for surface water quality is conducted by the Standards Implementation Team and Water Quality Assessment Team. According to the *Texas Groundwater Protection Strategy*, AS-188, if the surface water quality is protected, then the groundwater quality in the vicinity will not be impacted by the discharge.

According to 4-S Ranch's application, the proposed facility will comply with TCEQ's siting requirements.<sup>27</sup> The siting requirements do not allow wastewater treatment plant units to be located in a 100-year floodplain (unless the units are

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<sup>27</sup>The siting requirements are found at 30 TEX. ADMIN. CODE § 309.13(a)-(d).

protected from inundation and damage that may occur during that flood event) or in wetlands. Additionally, a wastewater treatment plant unit must be located a minimum horizontal distance of 500 feet from public water wells and 250 feet from private water wells, springs, and similar sources of public drinking water. According to 4-S Ranch's application, there are no surface water intakes for domestic drinking water supplies within five miles downstream of the proposed outfall.

In addition, the proposed permit requires disinfection of the treated effluent before discharge.<sup>28</sup> Chlorination of the treated effluent is required to provide adequate disinfection and reduce pathogenic organisms. 4-S Ranch's draft permit requires that its effluent be chlorinated in a chlorine contact chamber to a chlorine residual of 1.0 mg/l with a minimum detention time of 20 minutes. According to the draft permit requirements, the chlorine residual must be monitored five times per week by grab sample.<sup>29</sup> Additionally, to ensure the effluent has been appropriately disinfected, the draft permit contains effluent limits for *E. coli*.<sup>30</sup>

**COMMENT 15:**

A commenter asked how often and for what the water will be tested that flows down around the wells in Oak Village North (OVN), and where results of that testing will be made public. Similarly, a commenter asked if Southwest Water Company will be required to more rigorously and frequently test for contaminants passing the costs onto its customers.

**RESPONSE 15:**

The draft permit requires that the effluent from the WWTF be tested following the final treatment unit.<sup>31</sup> Any concerns regarding OVN's wells or Southwest Water Company should be addressed with either OVN or Southwest Water Company, as appropriate.

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<sup>28</sup>4-S Ranch draft permit, pages 2, 2a and 2b.

<sup>29</sup>4-S Ranch draft permit, pages 2, 2a and 2b.

<sup>30</sup>4-S Ranch draft permit, pages 2, 2a and 2b.

<sup>31</sup>4-S Ranch draft permit, pages 2, 2a and 2b.

**COMMENT 16:**

Several commenters stated that the TCEQ has identified the water system owned by SWWC as a GUI: groundwater under the influence of surface water.

**RESPONSE 16:**

Ground water under the direct influence of surface water means any water beneath the surface of the ground with significant occurrence of insects or other macro-organisms, algae, or large diameter pathogens such as Giardia lamblia or Cryptosporidium, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions.

The Water Quality Division has determined that the draft permit is in accordance with the TSWQS, which ensure that the effluent discharge is protective of aquatic life, human health, and the environment. The review process for surface water quality is conducted by the Standards Implementation Team and Water Quality Assessment Team surface water modelers. The Water Quality Division has determined that if the surface water quality is protected, then the groundwater quality in the vicinity will not be impacted by the discharge.

**COMMENT 17:**

A commenter asked whether the Wastewater section included the Edwards Aquifer Region 13 staff in analyzing this water quality permit and if not why not.

**RESPONSE 17:**

The Edwards Aquifer Region 13 staff did not participate in the drafting of the 4S-Ranch TPDES permit; however, Region 13 staff had the opportunity to review and comment on the TPDES permit, and they did not provide comments.

Region 13 staff will review and, if appropriate, approve the Edwards Aquifer Contributing Zone Plan (CZP) for 4S-Ranch. A TPDES permit authorizes the discharge of treated wastewater to water in the state, while the CZP outlines best management practices that will be implemented in order to protect water quality when a regulated activity is conducted in the contributing zone of the Edwards Aquifer. The contributing

zone is the area or watershed where runoff from precipitation flows to the recharge zone of the Edwards Aquifer. Because of the significant differences between a TPDES permit and a CZP, each is developed separately by staff with different levels of expertise.

Additional information regarding CZPs can be found at:

<https://www.tceq.texas.gov/field/eapp/czplan.html>.

**COMMENT 18:**

Several commenters asked questions directly related to the Edwards Aquifer Contributing Zone Plan including: whether permanent BMPs or measures were included in the Contributing Zone Application; what the drainage paths and patterns are from the site to surface streams; whether staff verified that Best Management Practices are used as stated; where the storm water generated by the project will be diverted to; what the BMPs are for onsite storm water; whether the application was complete and submitted to the appropriate entities; what BMPs will be used for surface streams; what measures for minimizing surface steam contamination will be; what the impervious cover will be; whether EPA has been notified of the large cavern on 4S-Ranch and how karst features will be protected from storm water runoff; and whether the TCEQ should look at the karst survey of George Veney.

A commenter stated the state of Texas needs to address the issue of sanitation infrastructure as it impacts the Edwards Aquifer on a permit by permit basis.

A commenter stated high density development is inconsistent with impervious cover limits of 8-15% recommended by karst scientists to protect water quality of the Edwards Aquifer recharge zone and nearby contributing zone.

A commenter stated the boundaries of the Edwards Aquifer are imprecise, which is leading to less protection because areas that should be are not considered part of the recharge zone.

A commenter stated that the contributing zone plan is not as protective as recharge zone plan.

A commenter stated the Applicant must ensure that the silt screens are adequate to prevent contamination of public and private wells by physically checking them.

**RESPONSE 18:**

This RTC is limited to issues relating to 4S-Ranch's application for a TPDES permit. As discussed above, the review of a TPDES permit and the review of a CZP require different types of expertise and are considered separately. Information regarding the CZP for this application may be obtained by contacting the Region 13 office at 210-490-3096.

***C. Wastewater Treatment Facility Design/Effluent Limits*****COMMENT 19:**

A commenter stated that he has worked on a method of sewage treatment that produces completely sterile products. He stated that he is opposed to any discharge of a non-sterile waste stream into surface waters and strongly opposes the practice if the surface water feeds a potable water supply as the Edwards Aquifer.

Similarly, a commenter expressed concern about the effluent being less than 100% clean, free of phosphates and chemicals.

**RESPONSE 19:**

TCEQ's rules do not require that sewage treatment systems produce completely sterile effluent. Even if the effluent was treated to such standards, once it flows into the receiving water, it would no longer be sterile. Sterile waterbodies would not support aquatic life. The purpose of the TSWQS is "to maintain the quality of water in the state consistent with . . . propagation and protection of terrestrial and aquatic life . . ."32

**COMMENT 20:**

A commenter asked why the effluent limits in the draft permit are 5, 5, and .5.

**RESPONSE 20:**

The effluent limits of 5, 5, and 0.5 refer to the effluent limits (in milligrams per liter or mg/L) for carbonaceous biochemical oxygen demand (CBOD), total suspended solids (TSS) and total phosphorus (TP), respectively that are incorporated in the draft permit. The effluent limits for CBOD and TSS are from the rules governing new or increased discharge of treated wastewater that are within zero to five miles upstream

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<sup>32</sup>30 TEX. ADMIN. CODE § 307.1.

from the Edwards Aquifer recharge zone.<sup>33</sup> The effluent limit for TP was added to help preclude degradation to Lewis Creek and Upper Cibolo creek and is based on the recommendation of the Standards Implementation team. Additionally, the draft permit includes an effluent of two milligrams per liter of ammonia nitrogen, based on the Edwards Aquifer rules.<sup>34</sup>

**COMMENT 21:**

A commenter asked why the 5, 5, 2, .5 standard in this application is different from effluent limits in the Belterra permit issued in 2007.

**RESPONSE 21:**

The Executive Director evaluates each application for a wastewater discharge permit individually. Permit-specific factors, such as the volume of discharge and the type and quality of receiving water, are considered for each permit application. The Belterra permit is a unique permit that includes provisions from a settlement agreement and contested case hearing. Additionally, the Belterra permit authorizes discharges to a different watershed than the watershed that 4-S Ranch requested authorization to discharge into, therefore, it is not appropriate to include many of the provisions in the Belterra permit in the draft permit for 4-S Ranch.

The level of treatment related to oxygen-demanding constituents (specifically CBOD<sub>5</sub> and ammonia-nitrogen) required in other permits is not considered in a permit application analysis, other than if the two (or more) permitted discharges are expected to potentially have a combined impact on dissolved oxygen levels in the surface waters along the discharge route. A dissolved oxygen (DO) modeling analysis was performed for the application submitted by 4-S Ranch, in order to ensure that DO levels will be maintained above the criteria established by the Standards Implementation Team for the unnamed tributary to Lewis Creek (2.0 mg/L) and Lewis Creek (3.0 mg/L). The proposed effluent limits of 5 mg/L CBOD<sub>5</sub>, 2 mg/L ammonia-nitrogen, and 4.0 mg/L

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<sup>33</sup>30 TEX. ADMIN. CODE § 213.6.

<sup>34</sup>30 TEX. ADMIN. CODE § 213.6.

minimum effluent DO are predicted to be adequate to ensure that instream DO concentrations will be maintained above these levels.

In addition, the Belterra permit application was evaluated to ensure that the effluent limits included in the permit are consistent with the requirements of the Edwards Aquifer Rules.<sup>35</sup> The discharge point authorized by the Belterra permit is located between five and ten miles upstream of the Edwards Aquifer Recharge Zone; however the discharge point that would be authorized by the 4-S Ranch permit is located 2.26 miles upstream of the Edwards Aquifer Recharge Zone.

**COMMENT 22:**

A commenter expressed concern that the proposed facility's discharge will not be tertiary, otherwise known as drinking water standards.

**RESPONSE 22:**

As discussed in Comment 13 above, the effluent limits in the draft permit comply with the rules governing new discharges within 0-5 miles upstream of the Edwards Aquifer.<sup>36</sup> The rules do not require that any domestic wastewater be treated to tertiary standards before it is discharged to water in the state.

**COMMENT 23:**

Several commenters stated that the Applicant should be required to contain the discharged effluent for its subdivision within the confines of its own property. Several commenters stated that the permit amendment should not be granted and that the developer should be required to use the effluent on its property. Several commenters stated that developers should not be allowed to change the method of disposal after the master plan for the development has been approved by the City. One commenter asked why the Applicant does not put a retention lake on its property or provide water for lawn

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<sup>35</sup>30 TEX. ADMIN. CODE Chapter 213.

<sup>36</sup> 30 TEX. ADMIN. CODE § 213.6(c).

use. Some commenters asked if the Applicant had considered any alternatives before opting to discharge into Lewis Creek.

Several commenters asked why the TCEQ does not require 4S-Ranch to reuse its effluent.

**RESPONSE 23:**

The Texas Water Code provides the TCEQ may authorize discharges into water in the state.<sup>37</sup> The ED does not have the authority to mandate a different discharge location or different type of wastewater treatment plant. The ED evaluates applications for wastewater treatment plants based on the information provided in the application.

Additionally, TCEQ's rules require that before an entity can obtain a 30 TAC Chapter 210 reuse authorization, the entity must have a wastewater permit that provides for an alternative means of disposal during times when there is no demand for the use of the reclaimed water.<sup>38</sup> The Chapter 210 authorization is a separate authorization.

**COMMENT 24:**

Several commenters expressed concern that drugs from the wastewater would reach their drinking water. One commenter expressed concern that personal care products would reach the area's drinking water. A commenter asked if the WWTF can remove medications, chemicals and metals from the influent. Similarly, a commenter stated that her family would be negatively impacted by medications in the wastewater.

**RESPONSE 24:**

Neither the TCEQ nor the EPA has promulgated rules limiting Pharmaceutical and Personal Care Products (PPCPs). The EPA is investigating PPCPs, and has stated that scientists have not found evidence of adverse human health effects from PPCPs in the environment. PPCP removal during municipal wastewater treatment has been documented in the literature; however, standard removal efficiencies have not been established. In addition, there are currently no federal or state effluent limits for PPCPs.

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<sup>37</sup> TEX. WATER CODE § 26.027.

<sup>38</sup> 30 TEX. ADMIN. CODE § 210.5.

Examples of pharmaceuticals in water bodies are antibiotics analgesics, and examples of personal care products in water bodies are cosmetics and fragrances. PPCP removal during municipal wastewater treatment has been documented in scientific literature.<sup>39</sup> However, the science on PPCPs is currently evolving, and while the EPA and other agencies continue to study the presence of PPCPs, there is currently no clear regulatory regime available to address the treatment PPCPs in domestic wastewater. Accordingly, neither the TCEQ nor the EPA has rules on the treatment of contaminants such as pharmaceuticals in domestic wastewater.

**COMMENT 25:**

Several commenters stated that the 4S-Ranch should not be allowed to discharge more than 180,000 gallons per day.

**RESPONSE 25:**

The Executive Director cannot deny an application for a permit, if the application and resulting permit comply with all applicable statutory and regulatory requirements. 4S-Ranch submitted an application for a major amendment to change its existing TLAP to a TPDES permit. 4S-Ranch requested authorization to discharge 90,000 gallons per day in the Interim I Phase; 270,000 gallons per day in the Interim II Phase; and 480,000 gallons per day in the final phase. The Executive Director reviewed the application and drafted a permit with the phases 4S-Ranch requested.

**COMMENT 26:**

Several commenters expressed concern that the wastewater treatment facility could fail due to flooding. Similarly, a commenter asked how the treated effluent would be handled during a flood event.

**RESPONSE 26:**

The Texas Water Code prohibits the discharge of untreated or partially treated wastewater, except under certain limited circumstances.<sup>40</sup> The Applicant may discharge during a flood event; however, the effluent must be treated to the permit standards.

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<sup>39</sup> See Lee, Howe and Thompson, 2009; Oulton, Kohn and Cuiertny, 2012; EPA-820-R-10-002, 2010.

<sup>40</sup>TEX. WATER CODE § 26.121; 30 TEX. ADMIN. CODE § 305.535(c).

Additionally, to ensure that the facility is designed to minimize the potential of the discharge of untreated wastewater, the draft permit requires that 4S-Ranch shall provide facilities for the protection of its wastewater treatment facilities from a 100-year flood.<sup>41</sup>

**COMMENT 27:**

Several commenters expressed concern wastewater treatment facility could fail due to human error or mechanical problems. Similarly, a commenter asked if there is a contingency plan if the WWTF fails.

**RESPONSE 27:**

To help ensure that a WWTF will not fail, the TCEQ issues permits describing the conditions under which the WWTF must operate. All WWTFs must be designed, operated, and maintained consistent with applicable TCEQ rules. All permits include: provisions for monitoring effluent; sludge disposal; reporting requirements (including test procedures, instrument calibration, records management, and notification); and operational requirements (including process control, provision of adequate power supply, and flow monitoring). These provisions ensure that the WWTF is properly operated and maintained at all times.

**COMMENT 28:**

Several commenters expressed concern over odors from the WWTF.

**RESPONSE 28:**

The TCEQ rules require domestic wastewater treatment facilities to meet buffer zone requirements for the abatement and control of nuisance odor according to 30 TAC § 309.13(e). The buffer zone requirements are applicable to municipal wastewater treatment facilities. TCEQ's rules require that the buffer zone distance for the proposed facility must be at least 150 feet from any treatment unit to the nearest property line.<sup>42</sup> Residential structures are prohibited within the parts of the buffer zone not owned by

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<sup>41</sup>4S-Ranch Draft Permit, Other Requirements, Item No. 5, Page 31.

<sup>42</sup> 30 TEX. ADMIN. CODE § 309.13 (e)(1).

the Applicant, but property use is not limited within the buffer zones by these rules in any other way.

According to 4S-Ranch, no treatment units will be built closer than 150 feet from the nearest property line. The TCEQ rules provide three options for Applicant to use to satisfy the nuisance odor abatement and control requirement: ownership of the buffer zone area, obtaining a restrictive easement from the adjacent property owner(s) for any part of the buffer zone not owned by the Applicant, or by providing odor control. According to the application, 4S-Ranch plans to meet the buffer zone requirement by ownership of the required buffer zone area.<sup>43</sup>

**COMMENT 29:**

A commenter asked what type of treatment the 4S-Ranch WWTF will use. Similarly, a commenter stated the treatment method should be clearly defined. Similarly, a commenter stated 4S-Ranch should be required to use the best treatment methods.

**RESPONSE 29:**

According to the application, 4S-Ranch Wastewater Treatment Facility will be a moving bed biofilm reactor (MBBR) including an activated sludge process plant operated in the extended aeration mode.<sup>44</sup> Interim I phase treatment units will include lift station, one primary side-hill screen, one flow equalization basin, one aerated sludge holding tank, one aerated moving bed biofilm reactor, one extended aeration basin, one final clarifier with mechanical scrapers, coagulation alum dosing tank, one duplex filtration, and one chlorine contact chamber.<sup>45</sup> Interim II phase treatment units will include lift station, two primary side hill screen, two flow equalization basins, two aerated sludge holding tanks, two aerated moving bed biofilm reactors, two extended aeration basins, two final clarifiers with mechanical scrapers, two coagulation alum dosing tanks, two duplex filtrations, and two chlorine contact chambers.<sup>46</sup> Final phase treatment units will include lift station, three primary side hill screens, three flow

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<sup>43</sup>4S-Ranch, Application, Administrative Report, pg. 16 of 18, item 2.b.

<sup>44</sup>See, 4S-Ranch Application, Technical Report, Letter from South Texas Wastewater Treatment (July 15, 2014).

<sup>45</sup>See, 4S-Ranch Application, Technical Report, Letter from South Texas Wastewater Treatment (July 15, 2014).

<sup>46</sup>See, 4S-Ranch Application, Technical Report, Letter from South Texas Wastewater Treatment (July 15, 2014).

equalization basins, three aerated sludge holding tanks, three aerated moving bed biofilm reactors, three extended aeration basins, three final clarifier, with mechanical scrapers, three coagulation alum dosing tanks, three duplex filtrations, and three chlorine contact chambers.<sup>47</sup> Additional technical information regarding the MBBR can be found in the Technical Report, Attachment A to the application.

**COMMENT 30:**

A commenter stated 4S-Ranch should be required to install a denitrification unit at the WWTF to limit the total nitrogen in the treated wastewater.

**RESPONSE 30:**

The MBBR system selected for 4S-Ranch wastewater treatment facility uses denitrification system and removes chemical oxygen demand, total phosphorus, ammonia-nitrogen, and turbidity at the highest rate.<sup>48</sup>

**COMMENT 31:**

A commenter stated that the effluent from anaerobic waste treatment is not allowed to be sprayed on neighboring properties of individual residences for valid reasons; therefore, following the same logic, the discharge of effluent from these type sewage treatment facilities should not be allowed.

**RESPONSE 31:**

The quality of effluent from an individual anaerobic onsite sewage disposal system (OSSF) and a WWTF is significantly different. An OSSF treats a limited volume of domestic wastewater to primary treatment standards. Additionally, the owner of the OSSF is responsible for ensuring that the sprayed effluent is chlorinated, but there is no regular oversight of the performance of the OSSF.

If the permit is issued, the effluent from the proposed 4S-Ranch WWTF will be treated to effluent limits designed to protect the Edwards Aquifer, a much higher level of treatment than the effluent from an OSSF using primary treatment. The operator of the WWTF must be at the WWTF at least five days a week, and must ensure the effluent is

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<sup>47</sup>See, 4S-Ranch Application, Technical Report, Letter from South Texas Wastewater Treatment (July 15, 2014).

<sup>48</sup>Water Environment Research, vol. 78, No. 4 (April 2006). Pp. 392—396.

properly disinfected. Additionally, the proposed permit includes a limit for *E. coli* in order to maintain the uses of the receiving water for primary contact recreation.<sup>49</sup>

**COMMENT 32:**

Several commenters expressed concern over chemicals in the effluent.

**RESPONSE 32:**

According to the application, the facility will serve a subdivision, without any industrial contributions; therefore, all of the wastewater treated at the WWTF will be domestic in nature.<sup>50</sup> Domestic wastewater is defined in TCEQ's rules as:

[w]astewater which originates primarily from kitchen, bathroom, and laundry sources, including waste from food preparation, dishwashing, garbage grinding, toilets, baths, showers, and sinks of a residential dwelling. Domestic wastewater may contain commercial or industrial wastewater contributions.<sup>51</sup>

Because the 4S-Ranch facility will not receive industrial wastewater contributions, the effluent is not likely to contain chemicals, other than the residual chlorine from the disinfection system.

**COMMENT 33:**

A commenter asked what county, state, or federal sampling regulations are included in the draft permit. Similarly several commenters stated 4S-Ranch should be required to test quarterly, and the test should include: heavy metals, emerging contaminants, bacteria, excess nutrient (including nitrogen), and chemicals resulting from pesticide runoff.

**RESPONSE 33:**

The state of Texas assumed the authority to administer the National Pollutant Discharge Elimination System (NPDES) program in Texas on September 14, 1998. NPDES is a federal regulatory program to control discharges of pollutants to surface waters of the United States. TCEQ's TPDES program has federal regulatory authority over discharges of pollutants to Texas surface water. TCEQ's rules governing the TPDES

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<sup>49</sup>4S-Ranch Draft Permit, pgs. 2, 2a, and 2b.

<sup>50</sup>4S-Ranch Application, Technical Report, pg. 11 of 44, Item 2c.

<sup>51</sup>30 TEX. ADMIN. CODE 217.2(23).

program provide that TCEQ adopted many of the EPA's rules by reference.<sup>52</sup> The TCEQ does not incorporate county rules in TPDES permits.

TCEQ's rules delineate the monitoring frequency for flow, TSS, BOD, residual chlorine and pH based on the size of the WWTF.<sup>53</sup> The draft permit requires that the effluent must be tested once a week for CBOD<sub>5</sub>, TSS, Ammonia Nitrogen, and total phosphorus. Additionally, the effluent must be tested for *E. coli* once per quarter in the Interim I phase and once a month in the Interim II and Final phases.<sup>54</sup> The TCEQ does not have rules that require the effluent from a domestic WWTF to be tested for substances such as heavy metals, excess nutrients or pesticide runoff because all of the wastewater treated at the WWTF will be domestic in nature.<sup>55</sup> Domestic wastewater should not contain significant contributions of heavy metals, pesticides or nutrients. Additionally, as noted in Response 24 above, neither the TCEQ nor the EPA has promulgated rules limiting pharmaceutical and personal care products (PPCPs).

**COMMENT 34:**

A commenter asked who would inspect the 4S-Ranch WWTF, and how often inspections would be performed.

**RESPONSE 34:**

Inspections of WWTFs are performed by TCEQ's regional offices. For the 4S-Ranch WWTF, the inspector would be from the Region 13 office in San Antonio. WWTFs of this size are routinely inspected every five years. The first inspection of a new WWTF typically occurs in the year that the permit becomes active. The inspection typically consists of evaluating whether the plant is operating and being maintained within the permit's requirements. Additionally, the public can make a complaint to the TCEQ at any time either online through <http://www2.tceq.texas.gov/oce/complaints/index.cfm> or by calling 1-888-777-3186.

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<sup>52</sup>30 TEX. ADMIN. CODE § 305.541.

<sup>53</sup>30 TEX. ADMIN. CODE § 319.9(a).

<sup>54</sup>4S-Ranch Draft Permit, Pages 2, 2a, and 2b.

<sup>55</sup>4S-Ranch Application, Technical Report, pg. 11 of 44, Item 2c.

The TCEQ holds all complainant information confidential. Complaints are prioritized according to the characteristics of an event and potential impact on human health, safety, and the environment. If contact information has been provided, the investigator will contact the complainant to discuss the complaint process. Upon completion of the investigation, the complainant will be sent the final investigation report. In situations where the complaint received does not fall under the TCEQ's statutory jurisdiction, the information is referred to the appropriate regulatory authority, if one exists.

**COMMENT 35:**

A commenter expressed concern that there are not sufficient, clear, and understandable, safeguards in place.

**RESPONSE 35:**

If the permit is issued, 4S-Ranch will be required to take certain steps to minimize the possibility of an accidental discharge of untreated wastewater. For example, 4S-Ranch must maintain adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.<sup>56</sup>

Additionally, to ensure that the treated effluent meets the draft permit effluent limitations, the plans and specifications for domestic collection systems and WWTFs must be approved by TCEQ,<sup>57</sup> and when the flow from the WWTF reaches 75 percent of the permitted daily average flow for three consecutive months, 4S-Ranch must initiate engineering and financial planning for expansion or upgrade of the domestic wastewater treatment or collection facilities. When the flow reaches 90 percent of the permitted daily average flow for three consecutive months, 4S-Ranch must obtain authorization from TCEQ to begin constructing the necessary additional treatment or collection facilities.<sup>58</sup>

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<sup>56</sup>4S-Ranch Draft Permit, Operational Requirements, Item 4, pg. 13.

<sup>57</sup>30 TEX. ADMIN. CODE § 305.123(a).

<sup>58</sup> 30 TEX. ADMIN. CODE § 305.126(a).

Moreover, to ensure the WWTF is appropriately designed, the design must comply with all applicable aspects of 30 TAC Chapter 217, Subchapter M (Safety).

**COMMENT 36:**

Several commenters stated that 4S-Ranch should be required to use UV disinfection. Similarly, a commenter stated that 4S-Ranch should be required to use the best disinfection method.

**RESPONSE 36:**

The Executive Director cannot mandate which method of disinfection an applicant requests. In its application, 4S-Ranch requested authorization to use chlorination to disinfect its effluent. The chlorination system must comply with the design requirements in 30 TAC §§ 217.271-283 which specify requirements for: the sizing of gaseous chlorine disinfection system; redundancy requirements; capacity and sizing of gaseous chlorine disinfection systems; cylinder requirements for gaseous chlorine disinfection systems; dosage control for gaseous chlorine disinfection systems; requirements for 150 pound cylinders used in gaseous chlorine disinfection systems; requirements for one-ton and larger cylinders used in gas-withdrawal chlorine disinfection; requirements for one-ton and larger cylinders used in liquid-withdrawal chlorine disinfection; safety requirements for gaseous chlorine disinfection; equipment and material requirements for gaseous chlorine disinfection; design of sodium hypochlorite disinfection; application of chlorination chemicals; other chemical disinfection; and post-disinfection requirements.

**COMMENT 37:**

Several commenters expressed concern over bacteria in the wastewater.

**RESPONSE 37:**

TCEQ's rules require that a WWTF must be "designed to provide adequate disinfection and when operated properly should not add to the bacterial impairment of the segment." 30 TAC § 309.3(g)(1). To ensure that the effluent meets the stream bacterial standard, an effluent limitation of 126 colony forming units (CFU) or most probable number (MPN) of *E. coli* per 100 ml has been added to the draft permit to protect and maintain the primary contact recreational use of all the receiving waters.

Since Upper Cibolo Creek is in Segment 1908, which is listed for bacteria, the Executive Director cannot issue a permit that would increase the loading to Segment 1908. The effluent limit for *E. coli* in the draft permit also complies with the requirements in 30 TAC § 307.7(b)(1)(A), which applies to discharges to freshwater that have been classified as primary contact recreation 1.

**COMMENT 38:**

A commenter asked if the Guadalupe Blanco River Authority can be the operator of the WWTF.

**RESPONSE 38:**

In the application, 4S-Ranch indicated that the operator of the proposed facility has not yet been determined.<sup>59</sup> The draft permit requires that 4S-Ranch employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration.<sup>60</sup>

**COMMENT 39:**

A commenter asked what sampling data was used to establish limitations for BOD [biochemical oxygen demand] and nutrients.

**RESPONSE 39:**

Effluent limits for BOD and nutrients were developed through the use of dissolved oxygen modeling and other water quality evaluations considering the minimum level of treatment specified in the Edwards Aquifer rule for discharges into the Contributing Zone. Using dissolved oxygen modeling, the BOD limit specified in the rule (5 mg/L CBOD<sub>5</sub>) was determined to maintain the dissolved oxygen criterion for the receiving waters.

The TCEQ Standards Implementation reviewer assigned a total phosphorus limit of 0.5 mg/L to preclude excess accumulation of algae in the receiving waters. A more stringent total phosphorus limit than required by the Edwards Aquifer Rule (1.0 mg/L)

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<sup>59</sup>4S-Ranch, Technical Report, page 4 of 44.

<sup>60</sup>4S-Ranch, Draft Permit, Other Requirement 1, pg. 31

was recommended for this permit in order to protect the freshwater ponds on Lewis Creek as well as the water quality in the Edwards contributing and recharge zones.

**COMMENT 40:**

A commenter asked if the ED performed a Tier 1 antidegradation review. Additionally the commenter asked how the public can access the review.

**RESPONSE 40:**

The Executive Director performed an antidegradation review. In accordance with 30 TAC § 307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Upper Cibolo Creek, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

A copy of the antidegradation review is available in the TCEQ Chief Clerk's office located at 12100 Park 35 Circle, Austin, Texas 78753.

**COMMENT 41:**

A commenter expressed concern about facilities self-reporting with discharge monitoring.

**RESPONSE 41:**

All holders of waste discharge permits are required to periodically report the status of their compliance with the terms and conditions of their permits and with other relevant statutes in a manner approved by the Executive Director. The report shall contain results of flow measurements and results of analyses of samples taken, or the equivalent information determined by methods approved by the Executive Director. The status of all requirements of the permit shall be reported. The report may contain such other information concerning the discharges covered by the permit as the Executive

Director may reasonably prescribe in order to establish a system for monitoring the quantity and quality of waste discharged into or adjacent to any water in the state and for monitoring the quality of any water in the state.

The monitoring and reporting system must include the following: parameters to be monitored; required sampling location and frequency of analysis or measurement; quality assurance; documentation of monitoring activities; required signatures for effluent reports; self-monitoring and quality assurance schedules; sampling and laboratory testing methods; and alternate sampling and laboratory testing methods may be considered by the Executive Director upon receipt of a written request for authorization to use alternate test procedures.

For TPDES permits a permittee shall only use procedures included in the references cited in 30 TAC § 319.11 (relating to Sampling and Laboratory Testing Methods) unless other test procedures have been specified in the permit. Additionally, the effluent testing must be performed by a TCEQ accredited laboratory.<sup>61</sup>

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and Texas Health and Safety Code Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

**COMMENT 42:**

A commenter expressed concern about facilities being given a 14 day grace period regarding reporting an unauthorized discharge.

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<sup>61</sup>Tex. Water Code § 5.134.

**RESPONSE 42:**

TCEQ's rules do not provide a 14 day grace period regarding reporting of an unauthorized discharge. The 14 day grace period only applies to compliance schedule reports.<sup>62</sup> Both the draft permit and TCEQ rules require that 4S-Ranch report any unanticipated bypass which exceeds any effluent limitation in a TPDES, any violation of a maximum daily discharge limitation for any pollutants listed in a TPDES permit, or any noncompliance which may endanger human health or safety or the environment to the TCEQ within 24 hours of becoming aware of the noncompliance.<sup>63</sup> Additionally, the rules require that Applicants provide a written submission containing a description of the noncompliance and its cause; the potential danger to human health or safety or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects to the TCEQ within five days of the noncompliance.<sup>64</sup>

**COMMENT 43:**

A commenter expressed concern about the TCEQ giving the facility a 39% leeway for maximum discharge.

**RESPONSE 43:**

The TCEQ rules require that Applicants report any effluent violation which deviates from the permitted effluent limitation by more than 40% within five working days of becoming aware of the noncompliance. Deviations may be subject to enforcement actions. Additionally, TCEQ's rules require that if the flow measurements for 4S-Ranch domestic wastewater treatment facility reach 75% of the permitted daily average flow for three consecutive months, 4S-Ranch permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities.<sup>65</sup> If the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, 4S-Ranch shall

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<sup>62</sup>4S-Ranch Draft Permit, Monitoring Requirements, Item 6, pgs. 6-7.

<sup>63</sup>30 TEX. ADMIN. CODE § 305.125.

<sup>64</sup>30 TEX. ADMIN. CODE § 305.125.

<sup>65</sup>30 TEX. ADMIN. CODE § 305.126(a).

obtain necessary authorization from the TCEQ to begin construction of the necessary additional treatment or collection facilities.<sup>66</sup>

**COMMENT 44:**

A commenter expressed concern about the TCEQ only requiring one sample a month for *E. coli*. The commenter stated more frequent sampling is needed to prevent the release of raw sewage and to protect human health and safety.

**RESPONSE 44:**

TCEQ's rules provide that water in the state must be maintained to preclude adverse toxic effects on human health, aquatic life, terrestrial life, livestock and domestic animals resulting from contact, consumption of aquatic organisms, consumption of drinking water or any combination of the three.<sup>67</sup> To ensure that the effluent from a WWTF is being adequately disinfected, the rules require that WWTFs with a permitted flow less than 0.1 MGD, and that use a chlorine disinfection system, sample and analyze *E. coli* once a quarter.<sup>68</sup> WWTFs with a permitted flow between 0.1 MGD and 0.5 MGD, and that use a chlorine disinfection system, must sample and analyze *E. coli* once a month.<sup>69</sup>

**COMMENT 45:**

A commenter expressed concern about the TCEQ not using the best data available in considering the application.

**RESPONSE 45:**

All applications for a TPDES permit include data from various sources, depending on the data it may have certain quality requirements. For example, the effluent data must be from an accredited laboratory, the WWTF must be designed by a Texas Licensed Professional Engineer, and certain maps have to be USGS maps.

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<sup>66</sup>30 TEX. ADMIN. CODE § 305.126(a).

<sup>67</sup>30 TEX. ADMIN. CODE § 307.6(b).

<sup>68</sup>30 TEX. ADMIN. CODE § 319.9(b).

<sup>69</sup>30 TEX. ADMIN. CODE § 319.9(b).

#### ***D. Water Quality Concerns***

##### **COMMENT 46:**

Several commenters express concern about the proposed discharge negatively affecting water quality. Several commenters expressed concern about their children, grandchildren, or pets being able to play in the creek. Several commenters expressed concern over wildlife ingesting undiluted effluent.

##### **RESPONSE 46:**

According to 30 TAC § 307.6(b), water in the state must be maintained to preclude adverse toxic effects on human health, aquatic life, terrestrial life, livestock and domestic animals resulting from contact, consumption of aquatic organisms, consumption of drinking water or any combination of the three.

The draft permit contains permit limits of 126 CFU or MPN of *E. coli* per 100 ml of treated effluent. This limit has been found to be protective of human health in primary contact recreation uses, which would include playing in the creek.

##### **COMMENT 47:**

A commenter expressed concern that the discharge will cause an increase in algal growth in the creek.

##### **RESPONSE 47:**

In order to preclude an excessive accumulation of algae, the draft permit includes a 0.5 mg/L Total Phosphorus limit, which is stricter than required by the Edwards Aquifer Rule.

#### ***E. Concerns Regarding the Location of the WWTF or the Discharge Route***

##### **COMMENT 48:**

Several commenters expressed concern that dangerous wildlife will be attracted to the water source. Some commenters expressed concern about the facility attracting rodents, insects, and wildlife, such as snakes and wild hogs.

##### **RESPONSE 48:**

The TPDES permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers,

lakes, and coastal waters. The potential that the facility attracting rodents, insects, and wildlife, such as snakes and wild hogs is outside the scope of the evaluation of a wastewater discharge permit application.

**COMMENT 49:**

Several commenters expressed concern there will be a mosquito infestation in Lewis Creek. One commenter expressed concern about Lewis Creek overflowing, creating pockets of stagnant water where deer carcasses could rot and create a problem with mosquitoes.

**RESPONSE 49:**

As noted above, the TPDES permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters and concerns over mosquitos is outside of the Executive Director's review of an application for a TPDES permit. However, there are currently ponds on Lewis Creek, which contain aquatic organisms, including mosquito larvae; the fish in the ponds serve as a control mechanism for mosquitos. The additional treated effluent from the WWTF should not cause any additional concerns regarding mosquitos.

**COMMENT 50:**

A commenter asked if the effluent from 4S-Ranch would cause Lewis Creek to flow continuously. A commenter asked how much water would it take for a "dry creek" to become a "wet creek." A commenter asked if 480,000 gallons per day would make water run across neighboring yards and roads, and if it would, how deep the water would be. A commenter asked whether the discharge from the 4S-Ranch WWTF flow across the neighboring yards and roads, or will the water just seep into the ground.

**RESPONSE 50:**

To meet the TSWQS definition for perennial (flow continuously), the 7Q2 (lowest average stream flow for seven consecutive days at a recurrence interval of two years) flow would have to be equal to or greater than 0.1 cfs and not have zero flow for greater than a week during most years. At the daily average flow during the final phase of 0.48

MGD, the flow would reach 0.7 cfs. Dependent on width of the receiving stream, there should not be a sizeable depth associated with the discharge.

**COMMENT 51:**

Several commenters expressed concern that Lewis Creek will have an odor.

**RESPONSE 51:**

This facility is designed to provide adequate disinfection and when operated properly should not add to the bacterial impairment of the segment. In addition, in order to ensure that the proposed discharge meets the stream bacterial standard to protect primary recreational use, an effluent limitation of 126 colony forming units (CFU) or most probable number (MPN) of *E. coli* per 100 ml has been added to the draft permit. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample to ensure no odor in Lewis Creek.

**COMMENT 52:**

A commenter asked if the 4S-Ranch WWTF would be in a flood plain. A commenter expressed concern about the treatment plant being in the waterway. One commenter stated that the application should be denied because the WWTF site is not completely clear of any flood plain, stating the site of the WWTF should not even be near a flood plain. Similarly, a commenter expressed concern that the design provides that the wastewater treatment plant will be located in a flood plain and its force main will be located along the edge of Lewis Creek.

**RESPONSE 52:**

According to the application, the 4S-Ranch WWTF will be located above the 100-year frequency flood level.<sup>70</sup> Additionally, the draft permit requires 4S-Ranch to provide facilities for the protection of its wastewater treatment facilities from a 100-year flood.<sup>71</sup>

The draft permit does not address design of the force main. However, Other Requirement 8 in the draft permit requires 4S-Ranch submit a summary letter and then

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<sup>70</sup>TCEQ Domestic Wastewater Permit Application, Domestic Technical Report 1.0, page 12, Item No. 5 (a), Facility Site.

<sup>71</sup>4S-Ranch Draft Permit, Other Requirements, Item No. 5, pg. 31.

if requested, submit plans, specifications and a final engineering design.<sup>72</sup> Finally, the rules governing the design criteria for domestic wastewater systems do not prohibit force mains from being located along the edge of a creek; however, the rules require that all force main appurtenances must be located above the 100-year flood plain.<sup>73</sup>

**COMMENT 53:**

One commenter stated there should be sampling points along Cibolo Creek directly after the confluence of the Lewis and Dripping Springs Creeks. Several commenters stated that the TCEQ needs an additional sampling station.

**RESPONSE 53:**

The draft permit requires that the effluent from the WWTP be sampled following the final treatment unit.<sup>74</sup> The draft permit does not require 4S-Ranch to perform any off-site sampling, however, there are numerous USGS sampling stations on Cibolo Creek in the vicinity of the discharge where Lewis Creek flows into Cibolo Creek. Information on the USGS sampling sites is available at: <http://waterdata.usgs.gov/nwis/qw>.

***F. Miscellaneous Concerns***

**COMMENT 54:**

A commenter asked if an impact study has been done for turning a seasonal creek into a wetlands. Similarly, a commenter stated that the area at and near the WTTFF should be looked into to determine if it is a wetland.

**RESPONSE 54:**

An Environmental Impact Study is required as part of a U.S. Army Corps of Engineers 404 Dredge and Fill Permit and is only prepared when there is potential for significant impacts to the human environment. An Environmental Impact Study is not part of the Executive Director's review of an application for a TPDES permit.

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<sup>72</sup>4S-Ranch Draft Permit, Other Requirements, Item No. 8, pg. 32.

<sup>73</sup>See generally, 30 TEX. ADMIN. CODE Chapter 217, Subchapter C.

<sup>74</sup>4S-Ranch Draft Permit, Pages 2, 2a, and 2b.

**COMMENT 55:**

A commenter requested the TCEQ look at the EPA Wetlands Inventory for the 4S-Ranch and the Lewis Creek watershed. The commenter also requested the TCEQ conduct studies and tests to make sure that waste runoff are not going to affect ponds that are in the Wetlands Inventory.

**RESPONSE 55:**

Staff reviewed the EPA Wetlands Inventory, which is a link to the U.S. Fish and Wildlife's National Wetlands Inventory (NWI). A freshwater pond was identified on Lewis Creek, which is identifiable on a USGS Topographic map as well as aerial photos. The limited aquatic life use and associated criteria that were assigned to Lewis Creek, which is intermittent with perennial pools, should also be protective of the freshwater pond. A limited aquatic life use has an associated dissolved oxygen criterion of 3.0 mg/L that will be protective of the aquatic life occurring in the freshwater pond.

**COMMENT 56:**

Several commenters expressed concern the developer will build homes, which will be occupied before the WWTF is operational. Similarly, several commenters asked how many lots can be sold and occupied by homeowners before the wastewater processing plant is operational and processing wastewater.

**RESPONSE 56:**

There is no limit to the number of homes that can be occupied before the WWTF is operational and processing wastewater, provided that the wastewater generated is properly handled, transported to another permitted wastewater treatment facility for treatment, and discharged to the waters of the state.

**COMMENT 57:**

Several commenters asked if a developer can get a beneficial wastewater reuse permit if the developer already has a TLAP permit.

**RESPONSE 57:**

Yes, a permittee may obtain a beneficial wastewater reuse permit if it has either a TLAP or TPDES permit. According to TCEQ's rules, "[p]rior to discharging any

reclaimed water to the waters in the state, the provider or user shall obtain a permit from the commission in accordance with the requirements of Chapter 305 of this title (relating to Consolidated Permits) except as provided for by § 210.22(e) of this title (relating to General Requirements).”<sup>75</sup>

**COMMENT 58:**

A commenter asked which engineering firm is responsible for this permit application and how many other applications in the Lewis Creek Watershed area have also been completed by the same engineering firm. Similarly, a commenter asked if the Pape-Dawson Engineering worked on the permit application and how many other permit applications Pape-Dawson Engineering has worked on.

**RESPONSE 58:**

The 4S-Ranch application was submitted by South Texas Wastewater Treatment on behalf of 4S-Ranch.<sup>76</sup> Mr. Oscar D. Graham, P.E. prepared the application for 4S-Ranch.<sup>77</sup> TCEQ’s rules do not require the Executive Director to consider the number of applications prepared by an engineer or engineering firm during the review of an application for a TPDES permit. The application does not indicate that Pape-Dawson Engineering prepared any part of the application.

**COMMENT 59:**

Several commenters expressed concern that the discharge from 4S-Ranch will cause additional flooding. Several commenters expressed concern about future developments in the area causing additional flooding.

**RESPONSE 59:**

TPDES permits establish terms and conditions that are intended to provide water quality pollution control; therefore, the TCEQ’s review of an application for a TPDES permit focuses on controlling the discharge of pollutants into water in the state. The TCEQ does not have jurisdiction to address flooding in the wastewater permitting process, unless there is an associated water quality concern.

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<sup>75</sup>30 TEX. ADMIN. CODE § 210.5.

<sup>76</sup>4S-Ranch Application, Cover letter.

<sup>77</sup>4S-Ranch Application, Administrative Report, pg. 6 of 18.

Additionally, the Federal Emergency Management Agency (FEMA) has programs designed to mitigate damage caused by flooding. You may contact your local floodplain administrator if you have additional flooding concerns.

**COMMENT 60:**

A commenter expressed concern that stretches of the creek bed have been filled in over the years, causing the stream to alter its course. Similarly, several commenters expressed concern that the discharge from 4S-Ranch will cause erosion.

**RESPONSE 60:**

The TPDES permitting process is limited to controlling the discharge of pollutants into water in the state and protecting the water quality of the state's rivers, lakes, and coastal waters. A proposed facility's potential impact on erosion or soil conservation is outside the scope of the evaluation of a wastewater discharge permit application.

**COMMENT 61:**

A commenter asked why new developments are not on septic systems.

**RESPONSE 61:**

The Executive Director cannot mandate what type of sewage disposal method an Applicant requests. In its application, 4S-Ranch requested authorization to discharge treated domestic wastewater into water in the state. After a technical review of the application, the Executive Director determined the application and draft permit comply with all applicable statutory and regulatory requirements.

**COMMENT 62:**

A commenter asked if FEMA had been consulted. Similarly, a commenter stated that the developers map in the public notice shows an outdated version of the flood plain. One commenter requested that the TCEQ use Comal County flood data, which shows new areas that flooded during the October 30, 2015 storm event, to determine whether the permit should be approved. One commenter expressed concern that the TCEQ relied on a FEMA map instead of a map created by people in the Bulverde area. Similarly one commenter expressed concern that the TCEQ relied on FEMA 2009 flood

plain maps, instead of a 2014 watershed study. One commenter stated that the permit amendment should be denied because the FEMA flood plains maps the application relied on are outdated. A commenter stated that the Executive Director should require that the developer use the updated Floodplain Maps from 2014, located at [www.bulverdetx.gov](http://www.bulverdetx.gov).

**RESPONSE 62:**

The TCEQ's rules do not require the ED to consult with FEMA. If the proposed facilities will not be located above the 100-year frequency flood level, the application requires the Applicant to submit a map that shows the 100 year flood plain.<sup>78</sup> According to the application, the WWTF will be located above the 100-year frequency flood level, however, 4S-Ranch provided the location of the proposed wastewater treatment plant will be above the 100-year flood plain.<sup>79</sup> TCEQ's rules do not require applicants to use locally derived maps or watershed studies.

***G. Procedural Concerns***

**COMMENT 63:**

A commenter asked why TCEQ did not notify neighboring residents of the 4S-Ranch application.

**RESPONSE 63:**

For new permit and major amendment applications, the Applicant must provide a list of affected landowners and a map showing their locations. Affected landowners are landowners located adjacent to the wastewater treatment plant site and landowners with property on either side of the receiving stream approximately one mile downstream from the point of discharge. The TCEQ mails notice of the application to the affected landowners and others on the mailing list for the application, which is maintained by the Office of the Chief Clerk. The Office of Chief Clerk mailed the NORI and NAPD to everyone on the mailing list for this application.

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<sup>78</sup>4S-Ranch Application Technical Report, Item 5.a. pg. 12 of 44.

<sup>79</sup>4S-Ranch Application Technical Report, Attachment 9 to Item 5, pg. 12 of 44.

Additionally, for all applications (new, major amendment and renewal applications), the agency prepares two public notices; the Notice of Receipt of Application and Intent to Obtain Permit (NORI) and the Notice of Application and Preliminary Decision (NAPD). The Applicant is required to publish these notices in a local newspaper and to provide a copy of the application, draft permit, and Executive Director's Preliminary Decision in a public place for viewing.

The NORI for this application was published on October 24, 2014 in the *New Braunfels Herald-Zeitung*, Comal County, Texas. The Executive Director completed the technical review of the application on January 20, 2015, and prepared a draft permit. The NAPD was published on March 6, 2015, in the *New Braunfels Herald-Zeitung*, in Comal County, Texas. The NAPD was also published in Spanish on August 5, 2015, in the *La Voz*, Comal County Texas, and the NORI was published in Spanish in the *La Voz*, Comal County Texas, on January 6, 2016. Additionally, the notice of the public meeting was published on October 6, 2015, in the *New Braunfels Herald-Zeitung*, Comal County, Texas.

Commission records for this facility are available for viewing and copying at TCEQ's main office in Austin, 12100 Park 35 Circle, Building F, 1<sup>st</sup> Floor (Office of the Chief Clerk), for the current application until final action is taken. The application for this facility has been available for viewing and copying at the Bulverde/Spring Branch Library, 131 Bulverde Crossing, Bulverde, Texas, since publication of the NORI. The draft permit, statement of basis/technical summary, and the Executive Director's Preliminary Decision have been available for viewing and copying at the same location since publication of the NAPD.

**COMMENT 64:**

One commenter asked why a 30 day public notice has a meeting that ends on the last day of that period. She asked why the meeting is not earlier, so citizens can make additional written comments.

**RESPONSE 64:**

TCEQ's rule provide that the public notice period ends either 30 days from the date the NAPD is published or at the close of a public meeting.<sup>80</sup> Based on the number of written comments and the participation at the public meeting, it is evident the individuals that could potentially be affected by the permit, if it is issued, are aware of 4S-Ranch's application.

The TCEQ encourages any member of the public that needs additional understanding of the wastewater permitting process to contact the TCEQ Public Education Program at 800-687-4040. Any member of the public who has concerns regarding the contested case hearing process should contact the Office of Public Interest Counsel at 512-239-6363.

**COMMENT 65:**

One commenter asked why the Applicant chooses the venue for the public meeting.

**RESPONSE 65:**

Typically the Applicant chooses location of the public meeting and pays venue costs, rather than the TCEQ. Usually the Applicant is more familiar with the area the public meeting is to be held and more familiar with the availability of venues. The TCEQ requires that the Applicant choose a venue in the county of the facility or proposed facility and that the venue can hold the anticipated number participants.

**COMMENT 66:**

One commenter stated that the in public meetings, the formal comments portion should be first, followed by the informal comment portion.

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<sup>80</sup>30 TEX. ADMIN. CODE § 55.152.

**RESPONSE 66:**

Public meetings enable the public to learn about the application, ask questions of the Applicant and the TCEQ, and offer formal comments. A public meeting consists of two parts, an Informal Discussion Period and a Formal Comment Period.

During the Informal Discussion Period, the public is encouraged to ask questions of the Applicant and TCEQ staff concerning the application and the Executive Director's preliminary decision, but these informal comments made during the informal period will not be considered by the Commissioners before reaching a decision on the permit and no formal response will be made. During the Formal Comment Period, members of the public may state their formal comments into the official record. While there is no statute or rule regarding the order of the informal and formal portions of public meetings, the informal portion preceding the formal portion has been the traditional format of public meetings for at least ten years. This format gives members of the public the opportunity to collect and discuss their concerns, so once the formal comment section begins, citizens can make sure all of their concerns, questions, and comments are on the record. During the informal portion of the meeting, issues are raised that might not have been raised without a back and forth discussion between members of the public, TCEQ staff, and the Applicant. Also, if during the informal comment section a question is not answered to the public's satisfaction, that person will have the opportunity to ask that same question during the comment period, which is required to be answered in writing.

**COMMENT 67:**

Several commenters requested another public meeting or an extension of the comment period because people were not adequately informed of the procedures for the public meeting.

**RESPONSE 67:**

Notice of the public meeting was published on October 6, 2015 in the *New Braunfels Herald-Zeitung*, Comal County, Texas. Regarding the procedures for this public meeting, the notice stated:

A public meeting will be held and will consist of two parts, an Informal Discussion Period and a Formal Comment Period. A public meeting is not a contested case hearing under the Administrative Procedure Act. During the Informal Discussion Period, the public will be encouraged to ask questions of the applicant and TCEQ staff concerning the permit application. The comments and questions submitted orally during the Informal Discussion Period will not be considered before a decision is reached on the permit application and no formal response will be made. Responses will be provided orally during the Informal Discussion Period. During the Formal Comment Period on the permit application, members of the public may state their formal comments orally into the official record. A written response to all timely, relevant and material, or significant comments will be prepared by the Executive Director. All formal comments will be considered before a decision is reached on the permit application. A copy of the written response will be sent to each person who submits a formal comment or who requested to be on the mailing list for this permit application and provides a mailing address. Only relevant and material issues raised during the Formal Comment Period can be considered if a contested case hearing is granted on this permit application.

The Executive Director held a public meeting on 4S-Ranch's application in Spring Branch on November 19, 2015. The moderator of the public meeting, verbally reiterated this procedure at the start of the public meeting and multiple times during the informal portion of the public meeting.

During the public meeting, formal comments were received by the Chief Clerk's Office, both orally and in writing. Also comments were filed with the Chief Clerk's Office up until the last day of the comment period. Based on the number of written comments and the participation during the informal and formal portion of the public meeting, it is evident the individuals that could potentially be affected by the permit, if it is issued, had adequate opportunity to raise their concerns. Consequently, the ED has decided not

to hold another public meeting on 4S-Ranch's permit application or extend the comment period.

**COMMENT 68:**

Several commenters requested a copy of all the comments made at the public meeting.

**RESPONSE 68:**

All comments received by the TCEQ on the 4S-Ranch application are available on the TCEQ Commissioners' Integrated Database which is available at:

<http://www14.tceq.texas.gov/epic/eCID/>.

**COMMENT 69:**

One commenter stated that the TCEQ Commissioners should have no standing in determining whether the application is approved. Rather, the commenter thinks the decision of the SOAH judge should be the final decision. Similarly, one commenter expressed concern about the Commissioners being the decision makers in the application process

**RESPONSE 69:**

The Legislature granted the Commission the authority to "call and hold hearings, receive evidence at hearings . . . and make findings of fact and decisions with respect to its jurisdiction . . ." <sup>81</sup> Additionally, the legislature provided that the Commission may delegate the responsibility to hear matters before the Commission to an administrative law judge (ALJ) of the State Office of Administrative Hearings (SOAH), but requires that the ALJ report her findings to the Commission. <sup>82</sup>

**COMMENT 70:**

One commenter ask how private citizens will receive timely notice if the WTTTF compromises their drinking water, so citizens will not get sick.

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<sup>81</sup>TEX. WATER CODE § 5.102(b).

<sup>82</sup>TEX. WATER CODE § 5.311.

## **RESPONSE 70:**

TCEQ's rules require that the owner of a facility must notify local government officials and the local media whenever one of the following types of spills occurs from the facility:

(b) In addition to the noncompliance notification to the commission required by §305.125(9) of this title (relating to Standard Permit Conditions) and any notification required under Chapter 327 of this title (relating to Spill Prevention and Control), the owner of a facility, through its responsible individual, must notify appropriate local government officials and the local media (see §319.301 of this title (relating to Definitions)) whenever one of the following types of spills occurs from the facility:

(1) a spill, regardless of volume, that the facility owner knows or has reason to know, will adversely affect a public or private source of drinking water;

(2) a spill with a volume of 50,000 gallons or more where one or more of the following conditions also exists:

(A) the spill occurs within 1/2-mile of a public or private source of drinking water;

(B) the spill occurs within 1/2-mile of a private drinking water well which is located within 1/2-mile of a public water supply well;

(C) the spill occurs within 1/2-mile up-gradient of a surface water intake of a public or private source of drinking water;

(D) the spill occurs in an active groundwater recharge area;

(E) the spill occurs up-gradient and within 1/2-mile of a karst terrain or shallow alluvial well that is a source of drinking water;

(3) a spill of 100,000 gallons or more.

(c) The responsible individual must issue the notice as quickly as possible, but not later than 24 hours after the facility becomes aware of the spill. The notice may be hand-delivered, sent by facsimile, e-mail, or by phone with follow-up written notice. The contents of the notice must comply with §319.303 of this title (relating to Notice to Local Officials and Local Media).

(d) Within 48 hours of providing notice to appropriate local government officials and local media, the responsible individual must provide to the commission regional office in whose region the spill occurred a copy of the notice, the date notice was provided to local officials and local media, and a list of notice recipients.<sup>83</sup>

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<sup>83</sup>30 TEX. ADMIN. CODE § 319.302.

## ***H. Concerns that are Outside of the Scope of the Review of a TPDES Application***

### **COMMENT 71:**

A commenter expressed concern about the proposed discharge negatively affecting the quality of life in the area.

### **RESPONSE 71:**

TCEQ was charged by the Texas Legislature to maintain the quality of water in Texas, consistent with public health and enjoyment; thus, TCEQ's jurisdiction in a wastewater permit application is limited to water quality issues, and TCEQ does not have authorization to consider quality of life or living conditions, as long as water quality is maintained. The wastewater permit, however, does not allow the permit holder to create or maintain a nuisance that interferes with a landowner's use and enjoyment of his or her property. The permit does not limit the ability of a landowner to seek relief from a court in response to activities that interfere with the landowner's use and enjoyment of their property.

### **COMMENT 72:**

Several commenters asked what recourse they have if their drinking water is contaminated.

### **RESPONSE 72:**

The permitting process is intended to control the discharge of pollutants into water in the state and to protect the water quality of the state's rivers, lakes, and coastal waters. Concerns regarding the recourse for contaminated drinking water is outside the scope of the wastewater permitting process. However, the draft permit provides that "[n]either does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations."<sup>84</sup>

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<sup>84</sup>4S-Ranch Draft Permit, page 1.

**COMMENT 73:**

A commenter noted that the October 30, 2015 storm damaged the Johnson Ranch subdivision weir located at Stahl Lane, and dislodged a sewer pipe from the lift station located immediately adjacent to the weir. Subsequent to the storm event, TCEQ received an "unauthorized discharge" report from GBRA, the entity managing the wastewater treatment plant system for Johnson Ranch. The commenter asked why the TCEQ approved the Johnson Ranch WWTF since it is inadequate.

Similarly, several commenters expressed concern that they were not notified of the Johnson Ranch system failure until two weeks after the failure.

**RESPONSE 73:**

The volume of the unauthorized discharge of wastewater reported was 35,000 gallons, which does not meet the criteria requiring public notice of spills from wastewater facilities owned or operated by local governments.<sup>85</sup>

**COMMENT 74:**

Several commenters expressed concern over contamination of lawns and yards from septic wastewater.

**RESPONSE 74:**

The draft permit only authorizes 4S-Ranch to discharge the treated effluent to an unnamed tributary to Lewis Creek.<sup>86</sup> Additionally, the draft permit does not grant 4S-Ranch the right to use private or public property to discharge its effluent.<sup>87</sup>

**COMMENT 75:**

A commenter asked if a soil analysis was completed and submitted as part of the WQ application.

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<sup>85</sup>30 TEX. ADMIN. CODE § 319.302.

<sup>86</sup>4S-Ranch, draft permit, pg. 1.

<sup>87</sup>4S-Ranch, draft permit, pg. 1.

**RESPONSE 75:**

A soil analysis was not required in the application because the application is for a TPDES permit. A soil analysis is only required for applications for the land disposal of sewage effluent in accordance with 30 TAC § 309.20(4).

**COMMENT 76:**

One commenter stated that Bulverde should be allowed to hold the Applicant to stricter guidelines than those in the TCEQ rules.

**RESPONSE 76:**

The legislature gave the TCEQ the primary responsibility for implementing the laws relating to the protection of the environment.<sup>88</sup> Additionally, the legislature gave the TCEQ general jurisdiction over Texas's water quality program including issuance of permits, and enforcement of water quality rules and permits.<sup>89</sup> The legislature also provided TCEQ with the authority to issue permits for the discharge of wastewater into or adjacent to water in the state.<sup>90</sup> Finally, the legislature requires TCEQ to adopt rules that are necessary to carry out its legislatively mandated powers and duties.<sup>91</sup> To comply with its responsibilities, the TCEQ adopted rules governing the TPDES permitting process, including rules governing the effluent limits for TPDES permits.<sup>92</sup>

The Executive Director reviewed the application submitted by 4S-Ranch and drafted a permit according to the applicable rules. It is beyond the scope of the TCEQ's jurisdiction to hold 4S-Ranch to any other guidelines than those set out in the Texas Water Code and the TCEQ rules in the Texas Administrative Code.

**COMMENT 77:**

A commenter expressed concern about nutrient enriched sludge being spread onto land as fertilizer, then flowing down to rivers and lakes during periods of rain.

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<sup>88</sup>Tex. Water Code § 5.012.

<sup>89</sup>Tex. Water Code §5.013(a)(3).

<sup>90</sup>Tex. Water Code § 26.027.

<sup>91</sup>Tex. Water Code § 5.103.

<sup>92</sup> See generally, 30 TAC Chapter 309 et.al.

**RESPONSE 77:**

The draft permit does not authorize 4S-Ranch to land apply sludge. 4S-Ranch did not request authorization to land apply sewage sludge for beneficial use.<sup>93</sup> According to the application, 4S-Ranch intends to use South Texas Wastewater Treatment to haul its liquid sludge via trucks to another permitted wastewater treatment plant or permitted sludge processing facility.<sup>94</sup> Additionally, the draft permit includes a Sludge Provisions section which describes, in detail, the sludge disposal requirements.<sup>95</sup>

**COMMENT 78:**

A commenter expressed concern that a regular flow of 480,000 gallons per day from the WWTF will change the characteristic of the water flow across his property.

**RESPONSE 78:**

The draft permit does not authorize a discharge across private property. Rather the permit allows 4S-Ranch's facility to discharge into Water in the State. Even at the fully permitted flow of 0.480 MGD, the flow through the unnamed tributary may not be noticeable. A flow of 0.480 MGD is roughly the equivalent of 14 garden hoses.<sup>96</sup>

**COMMENT 79:**

A commenter asked several questions regarding 401 certification. Specifically the commenter asked: if the 401 certification had been sent to the City of Bulverde, the Groundwater Conservation district and the United States Army Core of Engineers (USACE) district engineer; how the public can access the review; if the notice required by 30 TAC Chapter 279 was provided; and if the 401 certification is on file at the library.

**RESPONSE 79:**

401 certifications are state certification of USACE 404 Dredge and Fill Permits for waters of the United States. The discharge of effluent into water in the state is not considered "fill" into waters of the U.S. and therefore, does not require a USACE 404 Dredge and Fill Permit. The 401 Certification permitting program is separate and

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<sup>93</sup> Domestic Wastewater Permit Application, Technical Report, pg. 4 of 44, Item 7.a.

<sup>94</sup> Domestic Wastewater Permit Application, Technical Report, pg. 4 of 44, Item 6.

<sup>95</sup> 4S-Ranch, draft permit, Sludge provisions, pgs. 17-30.

<sup>96</sup> Assumes a 25-foot, 5/8-inch diameter, garden hose flowing at 14.65 pounds per square inch (psi).

distinct from the Executive Director's review of an application for a TPDES permit.

More information on TCEQ's 401 Certification Reviews can be found at:

[https://www.tceq.texas.gov/permitting/401certification/401certification\\_definition.html](https://www.tceq.texas.gov/permitting/401certification/401certification_definition.html).

**COMMENT 80:**

A commenter stated that the Applicant must prevent the pre-development stormwater run-off from exacerbating the floodplain.

**RESPONSE 80:**

Stormwater run-off is not considered during the Executive Director's review of an application for a TPDES permit; however, 4S-Ranch may be required to obtain separate authorization for stormwater discharges under a stormwater general permit. For additional information regarding stormwater permits, please see:

[https://www.tceq.texas.gov/permitting/wastewater/stormwater/sw\\_permits.html](https://www.tceq.texas.gov/permitting/wastewater/stormwater/sw_permits.html).

**COMMENT 81:**

A commenter requested the TCEQ use the City of Bulverde's data in its study for water drainage.

**RESPONSE 81:**

An application for a TPDES permit does not require information regarding water drainage.

**COMMENT 82:**

A commenter expressed concern about the credentials of the developer.

**RESPONSE 82:**

TCEQ does not have authorization to evaluate the credentials of the developer. All applications for TPDES permits must be submitted by the owner and operator of the facility.<sup>97</sup> Mr. Kenneth Wolf, manager and authorized representative of 4S-Ranch signed the application.<sup>98</sup> Additionally, the WWTF and collection system must be designed by a professional engineer, licensed by the Texas Board of Professional Engineers.

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<sup>97</sup>30 TEX. ADMIN. CODE § 305.43(a)

<sup>98</sup>4S-Ranch Application, Administrative Report, pg. 14 or 18.

**COMMENT 83:**

A commenter stated that Johnson Ranch would ask for an increase in the amount of wastewater it could discharge into Lewis Creek. The commenter also expressed concern over effluent from Johnson Ranch adding to the flooding issues in her neighborhood, and the impact of the Johnson Ranch effluent on her drinking water.

**RESPONSE 83:**

This RTC is limited to concerns regarding the application submitted by 4S-Ranch. The RTC for Johnson Ranch (also referred to as DHJB) is available online.<sup>99</sup>

**COMMENT 84:**

A commenter stated that the laws are wrong and the process is broken.

**RESPONSE 84:**

The Executive Director acknowledges the comment.

**COMMENT 85:**

A commenter expressed concern about gravel wash, which she states is not natural to creek beds in the area.

**RESPONSE 85:**

The draft permit does not authorize the installation or contribution of a gravel wash.

**COMMENT 86:**

Various individuals commented about various issues outside of the scope of the TPDES permitting process. Those comments include the following:

A commenter asked who will ensure that houses in the floodplain are not flooded out by wastewater during the development process when stormwater is allowed to flow off of the development property.

A commenter asked who gave the developer permission to build homes without a solution for wastewater. Similarly, a commenter stated if this development will result in

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<sup>99</sup>The permit number for Johnson Ranch is WQ0014975001.

so much sewage that it has to be discharged onto neighboring properties, perhaps the number of homes they intend to build is far beyond what should be built.

A commenter expressed concern about high density development destroying the beauty of the Hill Country in Bulverde. A commenter stated that the permit is for the purpose of implementing sewage infrastructure for high density development, which is inconsistent with current land use patterns in the area.

A commenter expressed concern about unplanned growth in the community and the approval of this and other high density developments in the area requiring expensive drainage, transportation, and other infrastructure projects in the near future. Similarly one commenter stated that the area was never intended for high density developments. One commenter expressed concern about rapid population growth in the county due to over development.

A commenter asked why builders and developers are allowed to clear cut heritage oak trees. Similarly, a commenter asked why builders and developers are allowed to change topical geographical properties of homeowners.

Several commenters expressed concern that the discharge from 4S-Ranch will adversely impact their property values.

Several commenters asked who would be responsible if the WWTF fails. Similarly, one commenter expressed concern about it not being clear who is responsible if there is a system failure beforehand, instead of after the fact. Additionally, a commenter expressed concern that the taxpayers, and not the Applicant, would be financially responsible if something at the WWTF goes wrong. Similarly two commenters asked who is responsible for cleaning up private wells and providing clean water to those adversely affected by a system failure.

Several commenters expressed concern that the proposed development will negatively impact the security of the community.

A commenter stated that the developer is aware that the construction of this subdivision will increase the floodplain and therefore gave \$500,000 to the City of Bulverde to mitigate flooding issues. The City of Bulverde has only committed to using

this funding to conduct more floodplain studies. Many citizens have sent e-mails to Bulverde officials in regard to these concerns but, according to the commenter, no one has viewed the properties in danger of flooding since 2007.

A commenter stated that the City of Bulverde has continued to support the developer at the expense of citizens by accepting this money and not enforcing its floodplain regulations. In the meantime, if the developer receives this permit and the creek bed drainage is not improved before the wastewater discharge begins, it will back up in some areas of Lewis Creek and could possibly cause flooding to homes even when there is a small storm event.

A commenter asked how much water a contractor requires. He went on to say that the TCEQ can consult the Texas Water Development Board and find out how much of the 90,000 acre feet of water authorized by the state for GBRA to draw out of Canyon Lake.

Similarly, a commenter asked where the water supply for the development will come from. Similarly, one commenter expressed concern about the water source for the development not being determined yet.

A commenter expressed concern about the time wasted due to congestion because of all the homes being built in the Bulverde community.

A commenter stated that he should be entitled to an easement and remuneration as a result of the WTTF's discharge.

One commenter suggested that a study be performed to address sustainable zero impact development for the Lewis Creek watershed.

A commenter asked if the developer can drill into the ground and make their own water wells and send that water to San Antonio, expressing concern about water grabbing depleting private water wells. Commenter also suggested the TCEQ visit [watergrab.org](http://watergrab.org).

Several commenters asked if there is a contingency plan if the water wells are contaminated.

Several commenters expressed concern that there are three water storage facilities that run along Lewis Creek that may be affected by a discharge to Lewis Creek.

A commenter stated that the full impact of the rapid development in the area will not be evident until it is too late.

Several commenters expressed concern that there is not sufficient water available to meet the needs of the proposed development.

**RESPONSE 86:**

The permitting process is intended to control the discharge of pollutants into water in the state and to protect the water quality of the state's rivers, lakes, and coastal waters. TCEQ does not have jurisdiction to address the concerns expressed in Comment 86.

## **Changes Made to the Draft Permit in Response to Comments**

No changes were made to the draft permit in response to comments.

Respectfully submitted,

Texas Commission on Environmental Quality

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