

Kathleen Hartnett White, *Chairman*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 22, 2006

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

Re: Lazy Nine MUD and Forest City Sweetwater Limited Partnership for Permit No. WQ0014629001

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY
2006 SEP 22 PM 3:19
CHIEF CLERKS OFFICE

Dear Ms. Castañuela:

Enclosed for filing in the above styled application is the original:
"Executive Director's Response to Comments."

This case has been directly referred to SOAH at the request of the Applicant. Title 30 Texas Administrative Code Section 55.210 does not require the Office of Chief Clerk to mail a copy of the attached Response to Comments (RTC) to commenters, but as a courtesy to the public the Office of Legal Services has mailed a copy of the RTC to all parties to the hearing at SOAH and to all commenters.

If you have any questions or comments, please call me at 239-6994. Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Michael F. Northcutt, Jr." with a large flourish at the end.

Michael F. Northcutt, Jr.
Staff Attorney
Environmental Law Division MC-173

Enclosures

PROPOSED TCEQ PERMIT NO. WQ0014629001

APPLICATION BY LAZY NINE
MUNICIPAL UTILITY DISTRICT
AND FOREST CITY SWEETWATER
LIMITED PARTNERSHIP

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BEFORE THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

For Permit No. 14629-001

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY
2006 SEP 22 PM 3:18
CHIEF CLERKS OFFICE

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the Lazy Nine Municipal Utility District and Forest City Sweetwater Limited Partnership's (Applicant) application and ED's preliminary decision. As required by 30 Texas Administrative Code (TAC) Section 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant comments. The Office of Chief Clerk timely received comment letters or comments at the public meeting from the following persons: Ann Barnett, Jon Beall, Stuart and Alanya Berthiaume, Bill Bunch with the Save Our Springs Alliance (SOSA), William Cahill, Mike and Patricia Cooper, Linda Doherty, Kathy Dutton, Dan Gildor with SOSA, Laura and Brad Grulke, Malcolm Harris, John Hatchett, Larry Hoffman, Ronnie Jones, Mark and Laurie Kiedrowski, Craig Kissock, Margie and Bobby Lemons, Eugene Lowenthal, Pepper Morris, Christy Muse, Stephen and Gail Nash, Holly Noelke with the City of Austin, Kevin and Alecia Ormsby, Jesse M. and Jan H. Patton, Ed Peacock with the City of Austin, Alicia Reinmund with the Lower Colorado River Authority (LCRA), Anna and Dan Rodgers, John Salazar, Pat Sinnott, Raymond M. Slade, Jr., the Travis County Commissioners Court, Dr. John M Uecker, David Venhuizen, and Larry Williams. In addition, Senator Gonzalo Barrientos requested a public meeting. This response addresses all such timely public comments received, whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Office of Public Assistance at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.state.tx.us.

BACKGROUND

Description of Facility

Lazy Nine Municipal Utility District and Forest City Sweetwater Limited Partnership have applied to the TCEQ for a new permit, Proposed Permit No. WQ0014629001, that would authorize the disposal of treated domestic wastewater at a daily average flow not to exceed 700,000 gallons per

day via surface irrigation of 285 acres of non-public access land. The wastewater treatment facility will serve the Sweetwater subdivision.

The wastewater treatment facility will be located approximately 6.2 miles west of the Village of Bee Cave near State Highway 71 in Travis County, Texas. The disposal site will be located on the south side of State Highway 71, approximately 3 miles west of the Village of Bee Cave in Travis County, Texas.

Procedural Background

The permit application for a new permit was received on June 8, 2005 and declared administratively complete on July 29, 2005. The Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) was published on August 4, 2005 in the Austin American Statesman. The Notice of Application and Preliminary Decision (NAPD) for a Water Quality Permit was published on April 23, 2006 in the Austin American Statesman. The Notice of Public Meeting was published on June 23, 2006 in the Austin American-Statesman. A public meeting was held on July 25, 2006 in Austin. The public comment period ended on July 25, 2006. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999. A preliminary hearing was held at the State Office of Administrative Hearings on August 7, 2006.

COMMENTS AND RESPONSES

COMMENT 1:

David Venhuizen asks why the proposed wastewater treatment system is being planned and designed to "land-dumped" the effluent even though there would be significant demand for non-potable quality water for landscape irrigation all along the route of the pipeline from the proposed treatment to the proposed dispersal area.

RESPONSE 1:

The ED evaluates what the Applicant proposes in its permit application, in this case the beneficial use of the treated wastewater via irrigation. The ED does not have the authority to require the Applicant to explore other potential uses of the effluent if the Applicant's proposal is environmentally protective and complies with TCEQ's regulations.

COMMENT 2:

David Venhuizen asks by what means will the Applicant meet the management requirements, including showing the fiscal ability to pay for the proper completion of the requirements. He also suggests that the Applicant be required to show its institutional capability to organize and run such

management system. Additionally, SOSA notes that the Applicant does not demonstrate the means to meet the proposed permit's management requirements and the application does not have any institutional or fiscal analysis. Christy Muse also questions the "capability of the MUD to run and manage the system." Stuart and Alanya Berhiauume are concerned about resource management, lack of technical and management expertise to fulfill the requirements of the permit. Linda Doherty and Laura and Brad Grulke express similar concerns.

RESPONSE 2:

TCEQ rules do not require the Applicant to show that it can meet the management requirements for the operation of the proposed wastewater treatment facility and irrigation system in the wastewater permitting process. These issues are typically addressed in any district or certificate of convenience and necessity administrative proceeding here at the agency. TCEQ rules require that each holder of a wastewater disposal permit for a wastewater treatment facility shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration. The Applicant stated ECO Resources will operate the facility and they have operator certification number 20025.

COMMENT 3:

David Venhuizen states that there has been no explicit demonstration that the proposed irrigation area has the soil depth and plant cover that would be necessary to provide a proper environment to assure the necessary functions, most particularly the assimilation of excess nutrient loadings. He further stated that there was no bona fide attempt to accurately characterize the irrigation area in any but the most general terms.

Anna and Dan Rodgers also have concern over the inadequacy of soil depth and ground cover. Stuart and Alanya Berthiaume express concern about inadequacy of the irrigation area with regard to soil depth and plant cover. Larry Hoffmann expresses his concern regarding soil and ground cover capability in containing the treated water. Laura and Brad Grulke are concerned about the inadequacy of the dispersal area with regard to soil depth and plant cover. Dr. John M. Uecker has similar concerns. Christy Muse expressed concern about soil depth and cover crops and that there is no bona fide attempt to accurately characterize the dispersal area. Linda Doherty is concerned about "lack of proper absorption" in the irrigation area. During the public meeting, William Cahill stated the project analysis is flawed.

RESPONSE 3:

The permit application contained a soil sampling map which showed that the 8 submitted soil samples were composites composed of 14 or 15 sampling locations out of 115 total sampling locations. The 115 soil sample locations were determined adequate for the permit application.

The ED determined that the soil sampling presented in the permit application was evenly distributed

throughout the proposed irrigation area (115 soil sampling locations over 285 acres). The soil sampling yielded results for the 0-6 inch depth, 6-18 inch depth, and the 18-36 inch depth. A site visit confirmed that the proposed irrigation area supports native grasses, trees, and shrubs that exhibit good to fair density, distribution, establishment, and indicates an adequate rootable soil depth.

COMMENT 4:

David Venhuizen recommends, based on his understanding of the proposed treatment process, that "an effluent total nitrogen concentration in the range of 40 mg/l should be presumed." He also notes that, according to the Applicant's storage analysis, there will often be minimal retention time in the pond proposed. Stuart and Alanya Berthiaume state that the nitrogen levels assumed are lower than expected. Linda Doherty, Laura and Brad Grulke, and Dr. John M. Uecker expresses concern that the nitrogen levels will exceed 10 mg/l, as cited in the application.

RESPONSE 4:

The total nitrogen effluent concentration of 10 mg/l used in the nitrogen balance calculations was based on actual measurements from similar land application activities and similar wastewater treatment processes. The draft permit provides a storage capacity equivalent to 60 days at the final phase flow and approximately 100 days in the interim phases.

COMMENT 5:

David Venhuizen states that the public is offered no assurance that nitrogen pollution would not issue from the proposed land application process and there has been no bona fide attempt to determine the degree to which the plants in the dispersal area could assimilate nitrogen. He also suggests that TCEQ require the Applicant to review the impact of a step increase in nitrogen loading on the rangeland ecology and to provide reasonable assurance that it will not result in shedding nitrogen into the creek. Christy Muse is concerned about nitrogen pollution.

RESPONSE 5:

The nitrogen balance submitted with the permit application showed that with an effluent total nitrogen concentration of 10 mg/l, the nitrogen supplied by the effluent will not be sufficient to meet the nitrogen requirements by the crop, precluding the possibility of leaching nitrogen into the soil. The site, however, also has juniper trees and mixed hardwood trees which the Applicant believes will increase the uptake rate. The ED has determined that the crop nitrogen requirement of 100 lbs. total nitrogen per acre per year is a reasonable estimate within the agronomic range for grass/native grass. In view of this, the draft permit was revised to require the growing and harvesting of common bermuda grass in the proposed irrigation area.

The TCEQ rule in 30 TAC Chapter 309 does not require a review of the impact of a step increase in nitrogen loading. It requires that the annual liquid loading shall not exceed that which would

introduce more nitrogen than is annually required by the crop plus 20% volatilization.

COMMENT 6:

David Venhuizen notes that the Applicant has not demonstrated that it can apply the effluent to the area proposed for dispersal without causing runoff or pooling of effluent. He also recommends that TCEQ require the irrigation plan (required by Special Provision No. 16 of the draft permit) and the emergency plan (required by Special Provision No. 18 of the draft permit) be subject to review by interested parties.

RESPONSE 6:

The Applicant is proposing a design application rate of the effluent below the maximum hydraulic application rate. In addition, the Applicant may not land-apply treated effluent during rainfall events or when the ground is frozen or saturated.

The draft permit special provision requires that the Applicant submit a Final Irrigation Management Plan which will require approval before any wastewater is applied to the permitted area. The Final Irrigation Management Plan shall describe the type of irrigation system, the layout or distribution of fixed head side roll, pivot, or traveling gun and main lines of the irrigation system, the locations and coverage of each spray nozzle, wastewater dosing schedule, and a proposal to prevent freezing, rupture or averting mechanical damage to the irrigation lines. The plan shall include a weekly schedule of monitoring and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or damaged vegetation, the results of which must be recorded in a site log book and retained on the facility property for inspection. The plan must indicate that corrective measures will be implemented immediately upon identification of problems related to surface erosion, stressed or damaged vegetation, or problems in maintaining an annual vegetative cover system that will use wastewater nutrients throughout the year.

COMMENT 7:

David Venhuizen points out that there is no evidence, such as the presence of pumps, which will assure that the effluent volumes indicated in the application can be moved from the treatment facility to the storage pond, noting that the proposed wastewater treatment facility does not have provisions for holding capacity.

RESPONSE 7:

The design information in the permit application is preliminary. Upon evaluation of the permit application and if the permit is issued, the conditions and specifications in the permit will be used as design criteria, along with applicable TCEQ design criteria and generally accepted engineering design principles, in the development of the final engineering design for the facility. In addition, the permit application also explains that the design uses a peaking factor of 5 to provide flexibility for

accommodation of peak flows in the incoming wastewater volumes.

COMMENT 8:

David Venhuizen inquires why has all the wastewater been routed to one point, adjacent to Bee Creek, and other options not considered.

RESPONSE 8:

The location of the wastewater treatment facility is proposed by the Applicant for evaluation in its permit application. The ED does not have the authority to require the Applicant to explore other potential uses of the effluent if the Applicant's proposal is environmentally protective and complies with TCEQ's regulations.

COMMENT 9:

David Venhuizen suggests that the design criterion of 300 gallons per LUE and influent BOD₅ of 200 mg/l be re-evaluated in view of flow reductions imparted by water conservation and more efficient fixtures. Additionally, SOSA raises the question about the bases of the assumed wastewater flow of 300 gallons per day per connection and asks whether an allowance for infiltration and inflow is included. SOSA further notes that flow reductions imparted by water conservation efforts, would tend to make the BOD₅ higher.

RESPONSE 9:

The Applicant clarifies that the flow estimate was based on the City of Austin criterion of 275 gallons per day per single family residential connection with a factor of safety added that would include contributions from infiltration and inflow. The Applicant believes this to be a conservative estimate based on experience with other utilities.

To date, there is no new TCEQ design rule that revises the design influent five -day biochemical oxygen demand (BOD₅) concentration criterion in 30 TAC Section 317.4(a). Consequently, unless existing data from "nearby plants with similar service areas" are available, the wastewater strength recommended in the stated section remains a valid basis for design. Nonetheless, based on this suggestion, the Applicant may review its design loading in preparation of putting together the final engineering design if the permit is issued.

COMMENT 10:

SOSA states that the permit application does not contain details about management and operation of the proposed wastewater treatment plant. SOSA claims that the cropping plan is vague and in deferring the development of the Final Irrigation Management Plan, the TCEQ is issuing a permit without the necessary demonstration that the proposed permitted activities will not adversely affect

ground and surface waters. Craig Kissock is also concerned about the cropping plan. Stuart and Alanya Berthiaume are also concerned about groundwater contamination.

RESPONSE 10:

An evaluation of the information provided in the permit application, i.e., size and location of the proposed irrigation area, cropping plan, soil and well information, storage, water and nitrogen balance calculations, and effluent quality indicate the potential effects on the proposed irrigation activity on ground and surface waters. Comments on the draft permit and the permit application have also been considered and, as a result, provisions to comply with holding pond design and Edwards Aquifer rule have been added. The scope of the final irrigation management plan (Special Provision No. 16) has also been expanded, while vegetative cover has been expanded to include common bermuda grass to ensure crops capable of utilizing the effluent nitrogen without accumulation in the root zone (Special Provision No. 20). By complying with the terms and conditions of the draft permit, the permittee will prevent adverse impacts to surface and ground waters. TCEQ rules do not require details about management and operation of the proposed wastewater treatment facilities and effluent land application system in the wastewater permitting process.

COMMENT 11:

SOSA questions the Applicant's assumption of 10 mg/l total nitrogen concentration in the storage pond effluent, because it was based on actual measurement from storage ponds the storage retention times of which are unknown. David Venhuizen indicates that there has been no bona fide attempt to establish the level of total nitrogen that would be present in the irrigation water applied to the irrigation area. He also recommends an effluent total nitrogen limit. Additionally, SOSA points out that the design calculations assumed an effluent ammonia-nitrogen concentration of 20 mg/l. Also, SOSA claims that the assumed nitrogen uptake of the vegetation in the proposed irrigation area is unsubstantiated. Laura and Brad Grulke suggest that nitrogen in the effluent should be measured as total nitrogen, not ammonia-nitrogen.

RESPONSE 11:

The Applicant indicates that the total nitrogen concentration of 10 mg/l was based on actual measurements from storage pond effluent of similar land application systems (two systems were considered). The two systems have design storage hydraulic retention times of 75 days for the Travis County Municipal Utility District No. 4, and 112 days, for the Hurst Creek Municipal Utility District, according to their permits. Activated sludge, single-stage nitrification, similar to the treatment process being proposed by the Applicant, can achieve effluent total nitrogen concentration of 20 - 30 mg/l. The biochemical and physical processes in the storage pond can be expected to further reduce this total nitrogen concentration significantly.

In addition, the draft permit was revised to require the growing and harvesting of common bermuda grass in the proposed irrigation area. This ensures that a crop nitrogen requirement of more than 100

lbs. total nitrogen per acre per year, which can utilize the nitrogen in the effluent, can be achieved. With these considerations, no effluent total nitrogen limit is necessary. Regarding the observation that the permit application's process design calculations assumed an effluent ammonia-nitrogen concentration of 20 mg/l, a well-operated activated sludge process can be expected to have an effluent ammonia-nitrogen concentration better than 2 mg/l.

COMMENT 12:

SOSA claims that the Applicant failed to perform the necessary geological, soils and groundwater studies. SOSA cites, as an example, the recommendation to conduct a soil depth survey within a minimum grid density of 100x100 feet over the entire disposal fields with spot measurements where field observations indicate shallow soils or rock outcrop was not conducted. In addition, the City of Austin suggests that the Applicant should collect representative soil sample at the irrigation site with sample analyses including depth, texture, structure, and percent coarse fragments for each horizon in the soil column.

RESPONSE 12:

The permit application contained a soil sampling map which showed that the 8 submitted soil samples were composites composed of 14 or 15 sampling locations out of 115 total sampling locations. These 115 sampling locations were evenly distributed throughout the application area and evenly distributed throughout like soil types. The sampling locations sampled the 0-6 inch, 6-18 inch, and the 18-36 inch depth. The 115 soil sample locations were determined adequate for the permit application.

The ED did not recommend a soil depth survey because a site visit showed that generally the irrigation soils achieve a maximum value for soil depth described by the USDA Soil Survey of Travis County. The site visit also showed that the application area generally showed native grasses, trees, and shrubs, with good to fair density and distribution. The soil appeared to be supporting a good rooting depth for these native plants and appropriate to receive the treated wastewater.

COMMENT 13:

SOSA suggests further analysis to be conducted regarding vulnerability in the proposed activities to catastrophic spills or bypasses. SOSA cites the example that the pumps delivering effluent to the storage pond might fail and SOSA does not believe that the provision of an emergency generator, an automatic alarm dialer, and the Wastewater Treatment Plant Emergency Plan are sufficient. Craig Kissock claims that the facility is vulnerable to catastrophic spills and bypasses. He also would like security issues related to the facility to be addressed in the draft permit. SOSA also claims that "wastewater entering the Edwards Aquifer due to line breaks, lift station failure, poor or improper maintenance, vandalism and severe weather conditions is one of the top ten pollutant sources of Barton Springs." At the public meeting John Hatchett expressed concerns regarding vandalism or malicious acts.

RESPONSE 13:

In addition to the safeguards against spills and bypasses, i.e., an emergency generator, an automatic alarm dialer and the Wastewater Treatment Plant Emergency Plan, bypasses and unauthorized discharges are prohibited. An unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Special Provisions section of the draft permit.

If the permit is issued, the permittee shall translate the permit's provisions into specifications, for example the number of pumps, location and capacity, for delivering effluent to the storage pond, in the final engineering design. 30 TAC Section 317.7 requires the design of the wastewater treatment facility to address safety issues, including plant protection.

COMMENT 14:

SOSA states that the permit and application fail to account for or specify the manner in which public contact will be precluded in order to justify primary instead of secondary treatment and notes that facilities that irrigate non-public access still engage in secondary treatment with 5/5/2 effluent set.

RESPONSE 14:

The proposed effluent set of 10 mg/l BOD₅ and 15 mg/l total suspended solids (TSS), based on a 30-day average, is more stringent than the secondary treatment quality specified in 30 Texas Administrative Code (TAC) Section 309.1(b) and required for irrigation systems which apply effluent on land to which the public has access. This 10/15 effluent quality, with disinfection, is required by the draft permit to be the quality of the treated wastewater, even though the effluent is proposed to be land applied on land to which the public does not have access. In the latter case, 30 TAC Section 309.4 only requires the effluent quality to be 100 mg/l BOD₅, based on a single grab, with no disinfection.

The Applicant indicates that there will be a fence around the proposed irrigation area with signs to preclude public access to the irrigation area.

COMMENT 15:

SOSA claims that the draft permit and the permit application fail to account for the proximity of the facilities to nearby homes such that owners and families will be exposed to nuisance odors from the facilities as well as visual and noise pollution.

During the public meeting held on July 25, 2006, William H. and Hazel S. Cahill provided written comments from Laura Grulke stating that the potential for odor exists due to the neighborhood's location adjacent to Sweetwater and the prevailing southerly winds.

RESPONSE 15:

As a compliance requirement to abate and control a nuisance of odor, the Applicant proposes to locate all wastewater treatment plant units no closer than 150 feet to the nearest property line as required by 30 TAC Section 309.13(e)(1). In addition, the proposed wastewater treatment process is an aerobic biological wastewater treatment process in which sludge particles produced in raw or settled sewage wastewater by the growth of organisms in aeration tanks in the presence of dissolved oxygen, is added to the wastewater and the mixture is aerated and agitated to speed up the decomposition of wastes. Maintaining an adequate dissolved oxygen concentration in the early stages of treatment helps to minimize odorous sulfide generation. Oxygen turns the sulfide compounds into odorless sulfates.

Texas Water Code Chapter 26 and applicable wastewater regulations do not authorize the agency to consider visual and noise pollution when reviewing a permit application. Thus, the TCEQ has no regulatory authority to consider visual and noise pollution when reviewing wastewater applications and draft permits. 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 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.

COMMENT 16:

SOSA claims that the draft permit and the application fail to account for other pollutants in the waste stream such as endocrine disruptors including pesticides, persistent organochlorides, alkylphenolic compounds, cadmium, lead, mercury, phytoestrogens and pharmaceuticals that are typical of domestic sewage.

RESPONSE 16:

The wastewater will be coming from a residential subdivision, which generates domestic sewage. Typical characteristics of domestic sewage are TSS, pH, fecal coliform, and BOD₅. The proposed permit authorizes irrigation of treated effluent and does not authorize the discharge to water in the state. A discharge of effluent is a violation of the permit and could subject the Applicant to enforcement.

COMMENT 17:

SOSA states that the draft permit and application fail to account for the need for lysimeters, periodic monitoring or other methods to detect migrating soil water and the emergence of any seeps and springs, soil moisture monitoring, adequate number of annual soil samples and a spring located in the south/southeast portion of the disposal area.

RESPONSE 17:

Soil Moisture monitoring and lysimeters were not recommended because the wastewater application rate of 2.75 acre-ft/acre/year is well within the need for common bermuda and rye grasses. The 115 individual soil samples, composited into 8 samples, of the 0-6 inch, 6-18 inch, and 18-36 inch soil depth interval, were determined adequate for the permit review.

The Applicant located a seep that fell within a buffer to an intermittent stream and a seep which fell within a buffer to the property boundary. The buffer areas excludes the application of wastewater.

COMMENT 18:

Craig Kissock would like to know why TCEQ did not recommend that the Applicant conduct a survey of soil depths over the entire dispersal area. He asserts that "blindly using the SCS soils map as the base map without a detailed soils investigation constitutes misuse of this information." Mr. Kissock suggests that the Applicant be required to perform a detailed site characterization of the proposed irrigation area, conducting infiltration tests, determining rock outcrops and areas having insufficient treatment zone depth. Christy Muse also expresses concerns over soil depths.

RESPONSE 18:

The ED did not recommend a soil depth survey because a site visit showed that generally the irrigation soils achieve a maximum value for soil depth described by the USDA Soil Survey of Travis County. The site visit also showed that the application area generally supported native grasses, trees and shrubs, with good to fair density and distribution. The soil appeared to be supporting a good rooting depth for these native plants and is appropriate to receive the treated wastewater.

The permit application contained a soil sampling map which showed that the 8 submitted soil samples were composites composed of 14 or 15 sampling locations out of 115 total sampling locations. These 115 sampling locations were evenly distributed throughout the application area and evenly distributed throughout like soil types. The sampling locations sampled the 0-6 inch, 6-18 inch, and the 18-36 inch depth. The 115 soil sample locations were determined adequate for the permit application.

The applicant is not permitted to allow runoff from irrigation practices. The draft permit special provisions require that the applicant submit a Final Irrigation Management Plan that will describe the type of irrigation system, the layout or distribution of fixed head side roll, pivot, or traveling gun and main lines of the irrigation system, the locations and coverage of each spray nozzle, and wastewater dosing schedule. These parameters will form the basis for proper application. With a special requirement that a weekly schedule of monitoring and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or

concern about property values.

RESPONSE 42:

The draft permit provides that the "permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment." Thus, a smell that results from a leak could be subject to enforcement. Draft permit Special Provision No. 5 requires the Applicant to comply with all rules in 30 TAC Section 309.13 regarding odors from the plant.

Texas Water Code Chapter 26 and applicable wastewater regulations do not authorize the agency to consider the property value when reviewing a permit application. Thus, the TCEQ has no regulatory authority to consider property value when reviewing wastewater applications and draft permits.

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 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.

COMMENT 43:

Stephen and Gail Nash, Kevin and Alecia Ormsby, John M. Salazar, Mark and Laurie Kiedrowski note that the wastewater permit application is not specific in detailing how the plant functioning will be monitored.

RESPONSE 43:

Once a permit is issued, the permittee will use the provisions in the permit as criteria in preparing the final engineering design. The design engineer will then provide the owner of the facility an operation and maintenance manual prior to completion of construction. In addition, the Applicant stated ECO Resources will operate the facility and they have operator certification number 20025.

Special Provision No.16 includes a Final Irrigation Management Plan. It requires a weekly monitoring schedule and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or damaged vegetation, the results of which must be recorded in a site log book and retained on the facility property for inspection. The plan must indicate that corrective measures will be implemented immediately upon identification of problems related to surface erosion, stressed or damaged vegetation, or problems in maintaining an annual vegetative cover system that will use wastewater nutrients throughout the year.

COMMENT 44:

Stephen and Gail Nash, Kevin and Alecia Ormsby, John M. Salazar, Kathy Dutton, Mark and Laurie Kiedrowski state that vague plans are outlined for plant management. Anna and Dan Rodgers are concerned about the lack of management and technical expertise required to build and monitor the plant.

RESPONSE 44:

TCEQ rules do not require the Applicant to show management expertise to build and monitor the proposed plant. The draft permit requires the permittee to secure approval of the final plans and technical specifications of the proposed wastewater treatment facility. In addition, the Applicant stated ECO Resources will operate the facility and they have operator certification number 20025.

COMMENT 45:

Stephen and Gail Nash, Kevin and Alecia Ormsby, John M. Salazar, Mark and Laurie Kiedrowski state that in Travis County, there are no wastewater plants this close to Lake Travis. William H. and Hazel S. Cahill provided written comments from Laura Grulke who notes that the location of the wastewater treatment plant is highly vulnerable because of its location on the southwest side of the Bee Creek less than half a mile from Lake Travis. Laura Grulke claims that she and the Travis Settlement Homeowners do not know of another wastewater treatment plant located this close to Lake Travis.

RESPONSE 45:

There are wastewater treatment plants that are as close as the proposed facility to Lake Travis. An example is the wastewater treatment facility permitted under the Lakeway Municipal Utility District. Regardless, of a facility's proximity to any type of water in the state, the permittee must take steps to protect against unauthorized discharges.

Any discharge is a violation of the permit and could subject the Applicant to enforcement.

COMMENT 46:

Stephen and Gail Nash, Kevin and Alecia Ormsby, John M. Salazar, Kathy Dutton, Dr. John M. Uecker, Mark and Laurie Kiedrowski state that Bee Creek, its tributaries, and Lake Travis are vulnerable to catastrophic spills or irrigation overflow from the proposed facility. They further state that the proposed facility relies on mechanical pumps and lift stations to move the effluent over 300 yards uphill to an inadequate dispersal area in the Barton Creek watershed. They are also concerned about contamination of groundwater and wells. Christy Muse also notes the vulnerability to spills and bypasses in Bee Creek. Dr. John M. Uecker is concerned about

contamination of surface and groundwater. Stuart and Alanya Berthiaume are also concerned about contamination of the creek and wells. Larry Hoffmann is concerned about the vulnerability of the creek, its tributaries, and, ultimately, Lake Travis. Linda Doherty is concerned about the contamination of groundwater and wells. Laura and Brad Grulke are concerned about wells, groundwater contamination, catastrophic spills or irrigation overflow and note that the proposed facility relies on mechanical pumps and lift stations to move the effluent approximately 300 yards uphill to an inadequate dispersal area in Barton Creek watershed. During the public meeting held William H. and Hazel S. Cahill provided written comments from Laura Grulke stating that the potential for water contamination is twofold - degradation of water quality in the creek and the potential for contamination of wells due to shallow groundwater resources in the area. In addition, they were concerned about well contamination and contamination of Lake Travis. Also during this meeting, Malcolm Harris expressed his concern over the adequacy of plans, the potential for contamination of Little Barton Creek and groundwater, while John Hatchett expresses concern about risk to the groundwater for adjacent properties. Anna and Dan Rodgers are concerned about the contamination of Bee Creek and the surrounding environment as it involves contamination of drinking water and affects safe recreation.

RESPONSE 46:

The draft permit prohibits bypasses and unauthorized discharges. An unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Special Provisions section of the draft permit. Any discharge is a violation of the permit and could subject the Applicant to enforcement.

The effluent application rate is limited to a maximum rate that will not exceed the effluent contribution to the total water needs of the crops. This will prevent over-application of effluent and the potential for runoff or the effluent ever reaching the groundwater. Further, the draft permit will not allow land application during rainfall events or when the ground is saturated, nor will it allow effluent ponding. Hence, storage of effluent is necessary, and is provided in the draft permit, so that when conditions are not conducive for irrigation, the effluent is stored to be used at some later time when needed by the crops. The proposed storage pond will be lined and provided with a leak detection system. A site visit by the TCEQ Water Quality Assessment staff indicated good to fair density, distribution, and establishment of vegetative cover in the proposed irrigation area, as well as adequate rootable soil depth. The draft permit contains provisions for the Applicant to comply with the separation distances and buffers to private and public water wells, potable storage tanks, public water well sites, springs, or other similar sources of public drinking water.

COMMENT 47:

Stephen and Gail Nash, Kevin and Alecia Ormsby, John Salazar, Linda Doherty, Kathy Dutton, Dr. John M. Uecker, Mark and Laurie Kiedrowski, Larry Hoffman, Anna and Dan Rodgers,

Stuart and Alanya Berthiaume, and Laura and Brad Grulke note that a commercial tract has been added to this development and the application does not address the size or water volumes related to this commercial property.

RESPONSE 47:

The Applicant has clarified that the proposed wastewater volumes include a small percentage coming from light commercial land uses, the characteristics of which would be typical of domestic wastewater.

COMMENT 48:

Mike and Patricia Cooper state that "the application has not received the proper evaluation, nor has anyone produced any evidence that a professional engineer specializing in Wastewater Treatment and Groundwater contamination, in the employ of the State of Texas, has seen and reviewed the proposal for Sweetwater." They also ask whether "there is an approved document with the P.E. stamp and name of said engineer on file."

RESPONSE 48:

The permit application was reviewed by state employees who are qualified by education and experience. TCEQ rules do not require the technical reviewer of the permit application to be a professional engineer. Upon permit issuance, the final plans and technical specifications will be reviewed and approved by an employee of TCEQ who is a professional engineer licensed in the State of Texas.

COMMENT 49:

Larry Williams asks whether these planned communities are building quality, long lasting, green homes taking advantage of the latest in conservation innovations, whether these homes are meant to retain their values. He further asks "does the Agave Neighborhood in Manor have something to learn from." Further, Mr. Williams asks whether the project will not affect the wells, the quality of the water in Bee Creek and will there be no excess runoff that will affect M. Williams property along the creek's edge. Pepper Morris claims that the proposed subdivision is being built on steep slopes and on very thin soil. Christy Muse points out that the "project has the potential for close to 3,000 homes on extremely steep slopes that lead to Bee Creek." Her concern is that Bee Creek will suffer if the project is built as planned.

RESPONSE 49:

The proposed permit is not for the subdivision development, but for the treatment and beneficial use of the domestic wastewater generated from the subdivision. The wastewater from residential

and light commercial or retail flows is proposed to be treated to secondary level, disinfected, stored, and then land-applied for beneficial use. The draft permit does not authorize the discharge of pollutants into water in the state. In addition, wastewater generated from nonpoint source, such as runoff from a subdivision, is not a component of that wastewater flow calculation.

The TCEQ cannot address home building concerns in the wastewater permitting process. Texas Water Code Chapter 26 and applicable wastewater regulations do not require an applicant to address home building issues to obtain a wastewater discharge permit. The 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 proposed facility is in the Edwards Aquifer Contributing Zone and is subject to 30 TAC Chapter 213, subchapter B. The rule requires the submission, review, and approval by the TCEQ of a contributing zone plan before the construction of any regulated activity.

COMMENT 50:

Pat Sinnott claims that "LCRA has made an agreement with the Sweetwater developers to process the Sweetwater waste at the Lake Pointe wastewater treatment facility until their own wastewater treatment comes on line." She also claims that "Sweetwater and the LCRA have discussed the potential for the LCRA to own or manage the new Sweetwater plant in the future."

RESPONSE 50:

The TCEQ does not have any jurisdiction over or knowledge of an agreement mentioned nor does it have any jurisdiction over or knowledge of discussion on the ownership or management of the wastewater treatment facility proposed under draft TCEQ Permit No. WQ0014629001.

COMMENT 51:

Margie and Bobby Lemons are concerned that the slightest accident of oversight would threaten their water source and quality of life. They stated that their water source is the Glen Rose Aquifer and the water table was reached at less than 80 feet.

RESPONSE 51:

The proposed facility is in the contributing zone of the Edwards Aquifer. The draft permit requires that the permittee take all reasonable steps to minimize or prevent any discharge, or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment. Given the application rate, soil types, and crop requirements, the ED does not anticipate that the effluent will migrate beyond the root zone.

COMMENT 52:

Jon Beall states that granting the application will degrade the water quality in Barton Creek. He further states that water quality at Barton Springs will suffer as pollution from the wastewater flows from the Recharge Zone and enters the Barton Springs section of the Edwards Aquifer.

RESPONSE 52:

The wastewater is proposed to be treated to secondary level, disinfected, stored, and then land-applied for beneficial use. The effluent application rate is limited to a maximum rate that will not exceed the water needs of the crops. This will prevent over-application of effluent and the potential for runoff. Further, the draft permit will not allow land application during rainfall events or when the ground is saturated, nor will it allow effluent ponding. Hence, storage of effluent is necessary, and is provided in the draft permit, so that when conditions are not conducive for irrigation, the effluent is stored to be used at some later time when needed by the crops. The proposed storage pond will be lined and provided with a leak detection system.

The proposed facility is in the Edwards Aquifer Contributing Zone and is subject to 30 TAC Chapter 213, subchapter B. The rule requires the submission, review, and approval by the TCEQ of a contributing zone plan before the construction of any regulated activity.

COMMENT 53:

Jon Beall states that harm will occur to nearby and downstream home owners who have water wells as their sole source of drinking water.

RESPONSE 53:

TCEQ rules establish the required buffer zone distances from a wastewater treatment facility and the drip irrigation fields to public and private drinking wells. TCEQ has determined that the draft permit meets the requirements of this rule. The provisions in the draft permit, when implemented and managed properly, will be protective of groundwater.

The TCEQ Water Quality Assessment Team evaluated the potential for impact to groundwater and made appropriate recommendations that are protective of the environment. These recommendations are incorporated in the draft permit.

COMMENT 54:

Eugene Lowenthal states that "the application anticipates spraying 700,000 gallons per day of treated effluent on just 285 acres of rocky slopes with characteristically poor, shallow soils and inadequate vegetation." His organization believes that this will inevitably and significantly

pollute Little Barton, Barton Creek and the Barton Springs segment of the Edwards Aquifer. In addition, nitrogen leaching will lead to the destruction of habitat downstream from the development.

RESPONSE 54:

The permit application contained a soil sampling map which showed that the 8 submitted soil samples were composites composed of 14 or 15 sampling locations out of 115 total sampling locations. The 115 soil sample locations were determined adequate for the permit application.

The TCEQ finds that the soil sampling presented in the permit application was evenly distributed throughout the proposed irrigation area out of 115 soil sampling locations over 285 acres. The soil sampling yielded results for the 0-6 inch depth, 6-18 inch depth and the 18-36 inch depth. A site visit confirmed that the proposed irrigation area supports native grasses, trees, and shrubs that exhibit good to fair density, distribution, establishment, and indicates an adequate rootable soil depth. Twelve of twenty-five pictures from the site visit show the proposed irrigation area and the existing vegetative cover.

The effluent application rate is limited to a maximum rate of 2.75 acre-feet per acre per year that will not exceed the effluent contribution to the total water needs of the crops. This will prevent over-application of effluent and the potential for runoff.

The nitrogen balance submitted with the permit application showed that with an effluent total nitrogen concentration of 10 mg/l, the nitrogen supplied by the effluent will not be sufficient to meet the nitrogen requirements by the crop, precluding the possibility of leaching nitrogen into the soil. The site, however, also has juniper trees and mixed hardwood trees which the Applicant believes will increase the uptake rate. The TCEQ has determined that the crop nitrogen requirement of 100 lbs. total nitrogen per acre per year is a reasonable estimate within the agronomic range for bermuda grass/native grass. In view of this, the draft permit was revised to require the growing and harvesting of common bermuda grass in the proposed irrigation area.

COMMENT 55:

Jesse M. and Jan H. Patton observe that the application has unspecific plans and controls for the irrigation design and operations. Dr. John M. Uecker also has concerns about the design and operation of the irrigation system. Christy Muse expresses concern about irrigation system design. During the public meeting William H. and Hazel S. Cahill provided written comments from Laura Grulke suggesting additional casings on the pipeline since they traverse the creeks and tributaries.

RESPONSE 55:

The design information in the permit application is preliminary. Upon evaluation of the permit application and if the permit is issued, the conditions and specifications in the permit will be used as design criteria, along with applicable TCEQ design criteria, essentially in 30 TAC Chapters 317 and 309, and generally accepted engineering design principles, in the development of the final engineering design for the facility.

The operation will be covered in an operation and maintenance manual for the entire facility. The permit has to be obtained first so that the criteria in the permit can be translated into the final engineering design. The manual shall be furnished to the owner of the sewerage system by the design engineer prior to the completion of the facility.

COMMENT 56:

Jesse M. and Jan H. Patton state that the treatment operations would have a very high chance of failure.

RESPONSE 56:

The design and specifications of the proposed wastewater treatment facility, collection system and irrigation system shall conform with TCEQ rules, in particular Title 30 TAC Chapter 317, Design Criteria for Sewerage Systems, Title 30 TAC Chapter 309, Domestic Wastewater Effluent Limitation and Plant Siting, and the generally accepted engineering design principles or procedures.

COMMENT 57:

Jesse M. and Jan H. Patton ask what the developer's detailed emergency plans are and the standards to be applied. They note that the wastewater flow is planned to move from the plant site to "an effluent pool that is located over a mile away and 300 feet higher, and a pipe break, loss of power for the pump station or other failures would move the wastewater and possibly raw, untreated sewage down the hills, into the aquifers, into the Bee Creek and our back yard, finally flowing into Lake Travis." During the public meeting William H. and Hazel S. Cahill provided written comments from Laura Grulke requesting more information about emergency management plans. Christy Muse states that she does not know what kind of plan there is to deal with, for example, spill of raw sewage or what emergency plan is available.

RESPONSE 57:

The draft permit requires the wastewater treatment plant emergency plan to be submitted together with the final plans and technical specifications for the facility. The emergency plan shall be developed to address the situations indicated in the draft permit and shall follow design standards and specifications in applicable TCEQ rules, federal, local and industry standards and best

professional judgment. In addition to the emergency management plan, the plant must have an emergency generator and an automatic alarm dialer

COMMENT 58:

Laura and Brad Grulke suggested a freeboard of 2 feet for the storage pond.

RESPONSE 58:

The following provision has been added to the draft permit:

Holding ponds shall conform to the Texas Commission on Environmental Quality "Design Criteria for Sewerage Systems" requirements for stabilization ponds with regard to construction and levee design, and a minimum of 2 feet of freeboard shall be maintained.

COMMENT 59:

Linda Doherty is concerned about illegal discharge and odors emanating from the wastewater treatment facility.

RESPONSE 59:

The draft permit prohibits unauthorized discharge. An unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Special Provisions section of the draft permit. The draft permit also requires that the permittee provide the required buffer zone to control and abate a nuisance of odor. The Applicant states that it can meet the buffer zone requirements by providing the required buffer zone distances within its own property which is a permissible option in 30 TAC Section 309.13.

COMMENT 60:

Dr. John M. Uecker is concerned about road traffic on Highway 71 that would result from the development.

RESPONSE 60:

Road traffic is not addressed by the TCEQ in its wastewater permitting process. The water quality 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.

COMMENT 61:

Christy Muse expresses concern about the water balance and storage calculations.

RESPONSE 61:

The Applicant used a daily water balance and storage calculations to calculate a maximum hydraulic application rate and storage requirement using the wettest year and lowest net evaporation in the last 25 years. The procedure calculates the maximum hydraulic application rate and the required storage for the effluent. The proposed design effluent application rate of 2.75 acre-feet per year per acre of irrigated land is below the maximum hydraulic application rate. The proposed storage equivalents of 60 days in the final phase and approximately 100 days in the interim phases are all higher than the calculated storage.

COMMENT 62:

Mark and Laurie Kiedrowski state that they have to hire a certified engineer to put up their septic system and conform to LCRA rules. They indicate that the "Sweetwater plan is nowhere as detailed and seems to be free of the same regulations."

RESPONSE 62:

Until a permit is issued, a permittee does not know what conditions and effluent limits will be required so that he can develop detailed engineering plans and specifications therefore, the design information in the permit application is preliminary. If the permit is issued the conditions and specifications in the permit will be used as design criteria, along with applicable TCEQ regulations and generally accepted engineering design principles, in the development of the final engineering design for the facility. The Applicant will then submit for review and approval the final plans and technical specifications for the proposed activated sludge facility, signed, sealed and dated by a professional engineer registered in the State of Texas. The design criteria are found in 30 TAC Chapter 317.

A septic tank by nature and definition treats domestic sewage by an anaerobic process. An anaerobic process is a biological decomposition and stabilization of sewage in the absence of oxygen. The septic tank is the most commonly used primary treatment system. The tank provides primary treatment by creating quiescent conditions inside a covered, watertight rectangular, oval, or cylindrical vessel, which is typically buried. The TCEQ rules in 30 TAC Chapter 285 provide for the design criteria for septic tanks. Typical BOD₅ removal efficiencies are 30 to 50 percent and TSS removal efficiencies are 40 to 60 percent. A septic tank need not be designed by a professional engineer.

The proposed activated sludge process, on the other hand, is an aerobic biological wastewater

treatment process in which sludge particles produced in raw or settled sewage wastewater by the growth of organisms in aeration tanks in the presence of dissolved oxygen, is added to the wastewater and the mixture is aerated and agitated to speed up the decomposition of wastes. Before entering the aeration tank, the wastewater is proposed to be screened in order to remove large particles which cannot decompose biologically. The basic activated sludge treatment process consists of: (1) a reactor where microorganisms responsible for treatment are kept in suspension and aerated; (2) liquid-solids separation, usually a sedimentation tank; (3) a recycle system for returning solids removed from the sedimentation tank back to the reactor. Air will have to be supplied as the source of oxygen. The activated sludge process has typical BOD₅ and TSS removal efficiencies of 90%. In addition, the maintenance of oxygen residuals throughout the process curtail anaerobic generation of odorous gasses. As a final treatment, the effluent is proposed by the Applicant to be disinfected by means of chlorination. The proposed disposal system utilizes the effluent to supply the growth needs of the vegetation in the irrigation area as determined by the water and nitrogen balance. Effluent storage is also required and proposed to be constructed.

COMMENT 63:

During the public meeting William H. and Hazel S. Cahill provided written comments from Laura Grulke requesting more information about lift stations, where will they be located and how will the Applicant protect the lift stations from overflow.

RESPONSE 63:

The design information in the permit application is preliminary and therefore detailed information about lift stations is not available at this time. Upon evaluation of the permit application and permit issuance, the conditions and specifications in the permit will be used as design criteria, along with applicable TCEQ design criteria, essentially in 30 TAC Chapters 317 and 309, and generally accepted engineering design principles, in the development of the final engineering design for the facility. The Design Criteria for Sewerage Systems, for example, contain the design criteria for lift stations in 30 TAC Section 317.3.

COMMENT 64:

During the public meeting, William H. and Hazel S. Cahill provided written comments from Laura Grulke requiring that the Applicant conform to the City of Austin Standards for wastewater plants. They stated the City's standards should apply to the irrigation area since it lies in the City's ETJ.

RESPONSE 64:

The draft permit does not supersede any stricter applicable standards by the City of Austin.

COMMENT 65:

During the public meeting, William H. and Hazel S. Cahill provided written comments from Laura Grulke stating that soil depths may not have been accurately assessed and are not likely sufficient to absorb the effluent properly. She thinks that the Applicant will bring truckloads of dirt to create a base and it will be difficult to hold the dirt on slopes where the native soil has eroded. She claims that runoff from the proposed irrigation, whether dirt or unabsorbed effluent would cause sedimentation and contamination in Little Barton Creek. Finally, she claims that the soil samples should not have been collected during a drought.

RESPONSE 65:

The permit application contained a soil sampling map which showed that the 8 submitted soil samples were composites composed of 14 or 15 sampling locations out of 115 total sampling locations. These 115 sampling locations were evenly distributed throughout the application area and evenly distributed throughout like soil types. The sampling locations sampled the 0-6 inch, 6-18 inch, and the 18-36 inch depth. The 115 soil sample locations were determined adequate for the permit application. In addition, the Applicant identified rock outcrops on a map submitted to the TCEQ. These rock outcrops were excluded from receiving wastewater application. The draft permit requires that any areas that will receive wastewater and contain surface rock fragments greater than 50% shall be amended with fill soil to support and maintain vegetation cover over an annual schedule.

COMMENT 66:

During the public meeting, William H. and Hazel S. Cahill provided written comments from Laura Grulke who recommends that slopes must be properly assessed inside and outside the irrigation fields and would like the environmental features of the irrigation fields evaluated in more detail than offered in the application.

RESPONSE 66:

The draft permit Special Provisions require that the applicant submit a Final Irrigation Management Plan which will require approval before any wastewater is applied to the permitted area. The Final Irrigation Management Plan shall describe the type of irrigation system, the layout or distribution of fixed head side roll, pivot, or traveling gun and main lines of the irrigation system, the locations and coverage of each spray nozzle, wastewater dosing schedule. Review of these criteria will be evaluated for the appropriateness of the proposed irrigation system to the irrigation area.

COMMENT 67:

damaged vegetation, corrective measures will be implemented immediately to prevent an unauthorized discharge.

COMMENT 19:

Craig Kissock observes that there is a spring located along the southeast corner of the proposed wastewater disposal facility. He notes “[s]everal erosion channels exist running through these areas described in the proposed permit as the two intermittent streams and valley areas.” He said that there is no discussion in the permit application regarding how erosion will be controlled on the proposed irrigation area or the site in general. He also mentioned:(1) an old dipping vat for cattle that exists south of the ranch house in the proposed irrigation area that raises the possibility of various concentrations of chemicals used in the process in the surrounding soils; and (2) at least two water wells that are located within 850 feet of the northwestern boundary of the proposed irrigation area neither of which has been shown in the permit application. He claims that other wells may exist within the one-mile irrigation area buffer that have not been identified in the permit application. Stephen and Gail Nash and Kevin and Alecia Ormsby also express concern about their water well.

RESPONSE 19:

30 TAC Section 309.13 establishes the required buffer zone distances from a wastewater treatment facility and the drip irrigation fields to public and private drinking wells. The ED has determined that the draft permit meets the requirements of this rule. The provisions in the draft permit, when implemented and managed properly, will be protective of groundwater.

The draft permit requires that the Applicant submit a Final Irrigation Management Plan that will include a weekly schedule of monitoring and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or damaged vegetation, the results of which shall be recorded in a site log book and retained on the facility property for inspection. The plan shall indicate that corrective measures will be implemented immediately upon identification of problems related to surface erosion, stressed or damaged vegetation, or problems in maintaining an annual vegetative cover system that will use wastewater nutrients throughout the year.

The Applicant identified rock outcrops and springs on a map submitted to the TCEQ. These rock outcrops were excluded from receiving wastewater application. The spring area is associated with an intermittent stream which will be buffered from wastewater application. The draft permit requires that any areas that will receive wastewater and contain surface rock fragments greater than 50% shall be amended with fill soil to support and maintain vegetation cover over an annual schedule.

The ED will review and evaluate any information concerning additional water wells or dipping vats on the site. The Applicant said in a meeting on July 31, 2006, that no livestock dipping vats

are known to exist on the property and that all water wells on the property have been located.

COMMENT 20:

Craig Kissock suggests that all Juniper clusters with trees over 6 feet tall be removed and vegetation reestablished on the disturbed portion, the salt tolerance of the vegetation proposed be firmly established and considered in the design and long-term operation of the wastewater disposal facility, periodic mowing and removal of the harvested vegetation be utilized, and the nitrogen uptake of the rangeland area be firmly established.

RESPONSE 20:

The draft permit was revised to require common bermuda, over-seeded with rye, to be established and well maintained throughout all months of the year. The common bermuda will be maintained by cuttings and removed from the site to decrease the accumulation of nitrogen in the soil profile. The bermuda will be cut to maintain a maximum grass height of 10 inches and a minimum grass height of 4 inches. Maintaining the bermuda by cutting and removal from the site will beneficially use more than 100 lbs. total nitrogen per acre per year and prevent excess accumulation of nutrients in the soil.

COMMENT 21:

The City of Austin states that the geology, hydrogeology, and soils information submitted during the application process is inadequate to determine that no discharge of pollutants will be made to surface or groundwater resources from the proposed disposal system.

RESPONSE 21:

Based upon the wastewater application rate of 2.75 acre-ft/acre/year, the various irrigation systems available to the Applicant, the approval of the Final Irrigation Management Plan before wastewater can be irrigated with a proposal to adequately disperse the effluent without a discharge from the site, the establishment of common bermuda and rye grass, buffer distances to sensitive surface features, and approximately a two-month storage volume of the retention pond, it is unlikely that the irrigation area will discharge from the site.

COMMENT 22:

The City of Austin suggests that the Applicant be required to provide the location, type of irrigation application system, installation methods and on-going maintenance prior to obtaining a permit from the TCEQ.

RESPONSE 22:

The draft permit requires that the Applicant submit a Final Irrigation Management Plan with a proposal to adequately disperse the effluent without a discharge from the site. This plan will require agency approval before any wastewater is applied to the permitted area. The site visit and photographs showed good density of grass growing on the application site, and vigor reflecting adequate rootable soil depth. Generally the soil development was greater than the soil survey of Travis County reports.

The installation methods for the proposed irrigation system shall be addressed in the final engineering design, while the maintenance will be covered in an operation and maintenance manual for the entire facility. The permit has to be obtained first so that the criteria in the permit can be translated into the final engineering design. The manual shall be furnished to the owner of the sewerage system by the design engineer prior to the completion of the facility.

COMMENT 23:

The City of Austin states that no explanation is made as to how the "severe limitations" of Brackett soils for wastewater disposal are overcome at the irrigation site. The LCRA recommends that the Applicant perform a soil depth survey of the proposed irrigation area. The Travis County Commissioners Court supports this recommendation.

RESPONSE 23:

The site visit showed that a good density of grasses was growing on the application site which reflects adequate rootable soil depth. The visit also showed that generally the soil development depth was greater than the USDA soil survey of Travis County reports.

The permit application contained a soil sampling map which showed that the 8 submitted soil samples were composites composed of 14 or 15 sampling locations out of 115 total sampling locations. These 115 sampling locations were evenly distributed throughout the application area and evenly distributed throughout like soil types. The sampling locations sampled the 0-6 inch, 6-18 inch, and the 18-36 inch depth. The 115 soil sample locations were determined adequate for the permit application.

Based upon the site evaluation and the sampling performed by the Applicant Brackett shallow soils are not a concern.

COMMENT 24:

The City of Austin states that no monitoring beyond routine effluent and annual soil monitoring is provided in the draft permit.

RESPONSE 24:

The Final Irrigation Management Plan special provision contains an additional plan that includes weekly monitoring and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or damaged vegetation, the results of which must be recorded in a site log book and retained on the facility property for inspection. The plan must indicate that corrective measures will be implemented immediately upon identification of problems related to surface erosion, stressed or damaged vegetation, or problems in maintaining an annual vegetative cover system that will use wastewater nutrients throughout the year.

COMMENT 25:

The City of Austin recommends that on-site infiltration tests should be used to establish a maximum irrigation application rate to prevent saturation of the surface soil.

RESPONSE 25:

The Final Irrigation Management Plan will be reviewed for an appropriate distribution, locations, and coverage of each spray nozzle, wastewater dosing schedule, and a proposal to adequately disperse the effluent without a discharge from the site. The irrigation of wastewater is contingent upon the ED approval of the Final Irrigation Management Plan.

COMMENT 26:

The City of Austin recommends that the draft permit should specify that the daily irrigation application rate cannot exceed the daily ET rate.

RESPONSE 26:

Surface irrigation permits at the present time limit the wastewater application rate to a yearly average. Daily irrigation rates based on evapotranspiration would vary throughout the growing season and an enforceable static value in the permit is not recommended.

COMMENT 27:

The City of Austin recommends that the draft permit should specify that required leaching should only occur during seasons of active vegetative growth to insure uptake of nutrients.

RESPONSE 27:

The permit requires warm and cool season vegetation. Annual vegetative growth uses nutrients throughout the year. Dormancy of cover vegetation is minimal and a restriction of leaching was not recommended.

COMMENT 28:

The City of Austin observes that the draft permit does not require run-on and run-off controls for an emergency, making the discharge of pollutants during irrigation system malfunction possible.

RESPONSE 28:

The draft permit does not specifically require these controls since the permit prohibits unauthorized discharge and the permittee must use all necessary steps in the design to do so. Nonetheless, Special Provision No. 8 of the draft permit requires that tailwater control facilities shall be provided as necessary to prevent the discharge of any wastewater from the irrigated land. The wastewater treatment plant emergency plan will be reviewed by the Water Quality Division professional engineer for adequacy in the event of an emergency. Any discharge is a violation of the permit and could subject the Applicant to enforcement.

COMMENT 29:

The City of Austin observes that no survey information of the land application site was provided concerning potential geological features or springs.

RESPONSE 29:

A feature identification map was submitted by the Applicant that shows seep locations, erosional features, exposed rock areas, and intermittent streams. These features are buffered from wastewater application.

COMMENT 30:

The City of Austin observes that annual nitrogen uptake rates were used to show adequacy for nutrient addition based on limited effluent quality data from various operating treatment plants and effluent holding ponds. The City notes that if the nitrogen concentration were doubled from the value assumed by the Applicant (10 mg/l total nitrogen), several months of applied nitrogen would be higher than the nitrogen need for plant uptake. The City also notes that no nitrogen or phosphorous limitations are included in the draft permit.

RESPONSE 30:

The inclusion of common bermuda grass among the cover crops in the proposed irrigation area and the provision of cutting and harvesting the grass would ensure a nitrogen uptake of more than 100 lbs. total nitrogen per acre per year. Consequently, the vegetation could take up the nitrogen in the effluent even if the concentration were to double. The need for providing nitrogen and phosphorus effluent limits will depend on analyses of the effluent and an evaluation of the soil tests results for these constituents. These analyses did not indicate that effluent limits for nitrogen or phosphorus were required.

COMMENT 31:

LCRA recommends that the Applicant be required to perform infiltration tests over the proposed irrigation area to determine the most appropriate application system.

RESPONSE 31:

The USDA Soils series for Travis County reports permeability rates for soils found in the application area ranging from 0.2 – 0.6 in/hr. The Final Irrigation Management Plan will be reviewed for appropriate distribution, locations, and coverage of each spray nozzle, wastewater dosing schedule, and a proposal to adequately disperse the effluent without a discharge from the site.

Based upon the amount of wastewater the applicant will be permitted to apply, the various irrigation systems available to the applicant, the approval of the Final Irrigation Management Plan before wastewater can be irrigated, a proposal to adequately disperse the effluent without a discharge from the site, the establishment of common bermuda and rye grass, buffer distances to sensitive surface features, and approximately a two-month storage volume of the retention pond, if the Applicant complies with the terms and conditions of their permit there should be no discharge to water in the state.

COMMENT 32:

LCRA states that the Federal Emergency Management Agency has proposed new Flood Insurance Rate Maps for the Colorado River Basin, effective 2007. LCRA recommends the TCEQ re-evaluate the location of the proposed facility with respect to the new 100-year flood plain information.

RESPONSE 32:

Special Provision No. 14 of the draft permit specifies that the “permittee shall provide facilities for the protection of its wastewater treatment facilities from a 100-year flood.” The facility can be located in the 100-year flood plain, but it must meet the requirements of Special Provision No. 14, and ensure protection.

COMMENT 33:

LCRA recommends removing junipers and hardwood over 8 feet tall, unless the Applicant proposes to use a solid or fixed-set system, to help ensure uniform application. LCRA also recommends the use of native winter grasses such as Texas Wintergrass to minimize runoff and soil erosion during winter rain events, a recommendation shared by the Travis County Commissioners Court.

RESPONSE 33:

The TCEQ Water Quality Assessment Team did not recommend removal of trees because of the increased chance that tree removal may increase soil disturbance which would encourage erosion of the soils. Special Provision No. 20 of the draft permit provides that during the cool season dormancy of the native grasses, the irrigation acreage will be over-seeded with a cool season grass that will use the wastewater nutrients that are applied on an annual schedule. Vegetation will be established and maintained throughout all months of the year. Any areas that will receive wastewater and contain surface rock fragments greater than 50%, will be amended with fill soil to support and maintain vegetation cover over an annual schedule.

COMMENT 34:

LCRA recommends the Applicant use a CN of 79 - 80 where there is evidence of rock outcrops and steeper slopes. LCRA further recommends that the Applicant identify and remove those areas in the proposed application area that have mid to upper slopes on the hilly knobs containing rock outcrops or include plans for erosion control and re-vegetation. Christy Muse expresses concern about steep slopes, and runoff potential because of the soil types and rock outcrops.

RESPONSE 34:

The proposal to use a higher runoff curve number (CN) is acknowledged. A higher CN correspondingly increases the maximum effluent hydraulic application rate, which the design effluent application rate should not exceed. A higher CN, however, does not change the design effluent application rate, which is already lower than the maximum hydraulic application calculated using a lower CN.

The Applicant has stated that the mid to upper slopes on the hilly knobs containing rock outcrops have been removed from the application area. The Applicant also stated in a P.E. certified letter dated January 23, 2006, that exclusion of wastewater application from areas noted as rock outcrops are not justified. The Applicant has explained that "exposed rock", as defined on the map "Feature Identification" is not solid rock, it is simply an area that has more rock pieces on the surface than other areas on the tract. The area denoted as "exposed rock" is described by the Applicant as relatively small, and that they should not substantially affect the ability to irrigate on the tract. The draft permit will require a provision to provide fill soil to improve the area identified by the Applicant as exposed rock locations.

COMMENT 35:

LCRA states that there should be no problem for the site to handle an application rate of 2.75 inches per month or even considerably higher during the dry summer months when the ponds are pumped out. LCRA also states that more than adequate storage has been designed into the proposed system and "building 60 days of storage into the system should result in the pond or

ponds never exceeding about 60 percent capacity.”

RESPONSE 35:

The comments are noted.

COMMENT 36:

LCRA states that nitrogen applied at an annual rate of 92 pounds per acre should not result in any significant accumulation in the soil since the vegetation will assimilate that amount annually. LCRA recommends annual soil tests in the irrigation area to determine nitrogen concentrations. LCRA expects phosphorus application to be low and not exceed the uptake rate of the vegetation.

RESPONSE 36:

The nitrogen balance submitted with the permit application shows that, at an effluent total nitrogen concentration of 10 mg/l, the effluent will contribute 63 lb. N per acre per year. To ensure that the nitrogen contributed by the effluent does not exceed the nitrogen requirement of the vegetation in the irrigation area, the draft permit requires common bermuda grass to be planted as a crop, in addition to the existing vegetation, and harvested accordingly.

COMMENT 37:

The Travis County Commissioners Court inquires whether drip irrigation could be used with the proposed spray irrigation.

RESPONSE 37:

The manner of land application of treated wastewater is proposed by the Applicant for evaluation by the ED. The ED does not have the authority to require the Application to explore other options if the proposed method is environmentally protective and complies with the regulations.

COMMENT 38:

The Travis County Commissioners Court recommends that specific contingency plans in the event of spill or release should be stated, reviewed and approved by the TCEQ and the LCRA.

RESPONSE 38:

Since the draft permit does not allow an unauthorized discharge, the operation and maintenance manual for the entire facility must include plans for preventing unauthorized discharge or a contingency plan in case it happens. TCEQ rules only requires notification of the TCEQ about the submission of the operation and maintenance manual to the facility owner. Any unauthorized

discharge is a violation of the permit, and could subject the Applicant to enforcement.

COMMENT 39:

The Travis County Commissioners Court seeks written documentation for the following clearances: U.S. Fish and Wildlife Service or Texas Commission on Environmental Quality consultation regarding potential Barton Springs Salamander impacts, U.S. Army Corps of Engineers status of nationwide or individual permitting activities regarding river crossings, TCEQ Edwards Aquifer Contributing Zone permitting for the proposed facility and the City of Austin development permit approval.

RESPONSE 39:

TCEQ rules do not require clearances from the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the City of Austin for the processing and issuance of TCEQ land application permits. These agencies, though, are on the mailing list for this permit application. Copies of any reviews or approvals may be obtained from the specific government agency.

Texas law establishes that the policy of this state is to maintain the quality of the water consistent with the public health and enjoyment, and the protection of terrestrial and aquatic life. TCEQ's rules require facilities to meet applicable local, state, or federal laws.

The draft permit was revised to include a provision stating that the facility is subject to the Edwards Aquifer rules in chapter 213, Title 30 of the Texas Administrative Code. The contributing zone plan for the facility should be filed with and will be submitted for review and approval by the TCEQ Region 11 Office prior to any construction.

COMMENT 40:

Mr. Raymond M. Slade, Jr. is concerned about the impacts of the development on the water resources of the area. He described the development as building up to six housing units per acre throughout most of the project area. He observes that the development intensity and associated impervious cover probably represent the highest such levels in the Hill Country area. He also states that the completed development would cause substantial water-quality degradation in Bee Creek and the receiving waters, at least partly due to the abundance of automobiles, applied fertilizers, insecticides and herbicides and domestic animals in the intensely developed area. He is also concerned about urban runoff. During the public meeting William H. And Hazel S. Cahill provided written comments from Laura Grulke stating that the developer should consider on-site reuse for landscape irrigation. Ms. Grulke suggested that the developer consider decreased density of housing to decrease the amount of effluent to be sprayed.

RESPONSE 40:

Texas Water Code Chapter 26 and applicable wastewater regulations do not authorize the agency to consider the subdivision development when reviewing a permit application. Thus, the TCEQ has no regulatory authority to consider subdivision development when reviewing wastewater applications and draft permits.

COMMENT 41:

Mr. Slade notes that wastewater holding ponds and transmission lines leak and overflow to at least some extent, which would cause water quality degradation. He points out that during and immediately following storm runoff periods, it is likely that at least some of the irrigated wastewater would be discharged to Barton Creek. Stephen and Gail Nash, Kevin and Alecia Ormsby, Kathy Dutton, Mark and Laurie Kiedrowski, John Salazar, and Larry Hoffmann, also express concern about pump malfunction and pipeline leakage. Linda Doherty, Laura and Brad Grulke are concerned about leaks in the irrigation system. Kathy Dutton is concerned about her well being affected by a leak or should some other disruptive incident occur.

RESPONSE 41:

The draft permit prohibits bypasses and unauthorized discharges. An unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Special Provisions section of the draft permit. The draft permit prohibits the land application of the treated wastewater during rainfall events or when the ground is frozen or saturated.

The draft permit provides that the storage ponds should be lined and provided with a leak detection system. The draft permit also requires the submission of a Wastewater Treatment Plant Emergency Plan which shall consider the separation distance from the facility to points of discharge to surface water. The permittee shall consider the case of emergency storage of effluent and containment structures around the treatment plant, emergency power generators, or lift stations in the case of emergency shut down of the plant or failure of the effluent storage tanks. Design of pipelines and pumps will follow 30 TAC Chapter 317: Design Criteria for Sewerage Systems and industry standards with regard to design, installation, and testing.

COMMENT 42:

Stephen and Gail Nash, Kevin and Alecia Ormsby are concerned about leaks which could result in malodorous smell and loss of property value. John M. Salazar has a similar comment. Mark and Laurie Kiedrowski, and Kathy Dutton are concerned that a leak or discharge would result in bad smell and unsightliness with loss of property value. Stuart and Alanya Berthiaume, Laura and Brad Grulke, and Linda Doherty, and Kathy Dutton are also concerned about the loss in property value if the creeks become contaminated due to leaks and seepage. Larry Hoffmann is concerned about the loss in property value that might result from a "leak or other disruptive incident associated with the treatment plant." In addition, Anna and Dan Rodgers express

During the public meeting, Ed Peacock of the City of Austin expressed concern about leaching, cover crops not being specified in the permit application, and what will protect the groundwater and the water resources downstream of the application.

RESPONSE 67:

Common bermuda and over-seeding with rye grass will develop an annual vegetative cover. The bermuda will be maintained by cuttings and harvesting. The common bermuda will be cut to maintain a maximum grass height of 10 inches and a minimum grass height of 4 inches. These crop practices will beneficially use the wastewater nutrients and prevent nutrient build up in the soil profile as well as protect water resources.

COMMENT 68:

During the public meeting, William H. and Hazel S. Cahill provided written comments from Laura Grulke suggesting that the developer could also create assurances for downstream and adjacent neighbors with water monitoring or a bond for clean up should there be overflow or leaks.

RESPONSE 68:

If there is any overflow or leak from the proposed wastewater treatment facility, it would be considered an unauthorized discharge. In accordance with the Standard Permit Conditions of the draft permit, the permittee shall provide an oral and written report to the TCEQ. Report of such information shall be provided orally or by facsimile transmission to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division within five working days of becoming aware of the noncompliance. The written submission shall contain 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.

COMMENT 69:

During the public meeting, William H. and Hazel S. Cahill provided written comments from Laura Grulke suggesting a soil monitoring program, more frequently than the annual monitoring mentioned in the application.

RESPONSE 69:

Annual soil sampling has been accepted as adequate for new municipal permits. Special Provision No.16 includes a Final Irrigation Management Plan. It requires a weekly monitoring schedule and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or damaged vegetation, the results of which shall be recorded in a site log book and retained on the facility property for inspection. The plan shall indicate that corrective measures will be implemented immediately upon identification of problems related to surface erosion, stressed or damaged vegetation, or problems in maintaining an annual vegetative cover system that will use wastewater nutrients throughout the year.

COMMENT 70:

During the public meeting, William H. and Hazel S. Cahill provided written comments from Laura Grulke recommending that, if the permit is granted, the permit will not be allowed to be changed to a discharge permit.

RESPONSE 70:

Changing from a land application permit to a discharge permit is a substantial change and would require a major amendment. The application would then be subject to the full House Bill 801 public participation process.

COMMENT 71:

During the public meeting Craig Kissock requested that the hearing scheduled for August 7th be postponed at least 30 days to allow time for legal counsel to review this case and prepare for the contested case hearing.

RESPONSE 71:

Once the chief clerk of the TCEQ has referred the case to SOAH, the SOAH Administrative Law Judge has jurisdiction. The Administrative Law Judge is now in control of the case, and only he can move the date of the hearing.

COMMENT 72:

During the public meeting Bill Bunch, representing SOSA, stated that SOSA has already submitted written comments. He added that a lot of plants in the Barton Springs Watershed have about 75 days of storage and SOSA is concerned whether there is adequate storage to assure that there is not a need to irrigate during prolonged wet weather spells.

RESPONSE 72:

The storage requirements were calculated based on the highest rainfall and lowest evaporation in the last 25 years. The storage calculations submitted with the permit application resulted in a storage equivalent of 12.47 days at the final phase flow of 700,000 gallons per day. Instead of using this as the design storage volume, the Applicant proposed 60 days, equivalent to a storage volume of 129 acre-feet. For the Interim II Phase flow of 440,000 gallons per day, the storage remains the same; hence, the storage provided in the Interim II Phase is approximately 96 days. At the Interim I Phase, the daily average flow is 180,000 gallons per day and the storage to be provided is 117 days.

COMMENT 73:

During the public meeting Christy Muse of the Hill Country Alliance raised concern over the proposed development because of the extreme density that is proposed over steep slopes and soils that lead into Bee Creek and Lake Travis.

RESPONSE 73:

Texas Water Code Chapter 26 and applicable wastewater regulations do not authorize the agency to consider the subdivision development when reviewing a permit application. Thus, the TCEQ has no regulatory authority to consider subdivision development when reviewing wastewater applications and draft permits.

COMMENT 74:

During the public meeting Christy Muse requested that all of the issues raised by the organizations and individuals be addressed before the hearing gets started and before the permit gets further consideration and approval. Ann Barnett asked why won't there be a delay on the hearing on the merits until the ED's response to comments is submitted. In addition, Ann Barnett asked how would the ED be able to weigh in on new issues that are brought into the contested case hearing after the response to comments have been submitted.

RESPONSE 74:

30 TAC Section 55.210 states that after receipt of a request filed under this section and after the executive director has issued his preliminary decision on the application, the Office of the Chief Clerk shall refer the application directly to SOAH for a hearing on whether the application complies with all applicable statutory and regulatory requirements. In this instance the Applicant requested a direct referral to SOAH and the ED had already made is preliminary decision, so pursuant to 30 TAC Section 55.210 this case was directly referred to SOAH. The Response to Comments will be completed within 60 days of the close of the comment period. This is allowed for in 30 TAC Section 55.210(d).

COMMENT 75:

During the public meeting Ann Barnett asked whether the ED's staff is going to participate in the hearing and if not, why. She further asks when will the ED's participation be decided and who will decide this.

RESPONSE 75:

30 TAC 80.108(a)(7) states the ED shall not participate as a party in contested case hearings concerning applications to authorize solely the irrigation of domestic or municipal wastewater effluent meeting the requirements for secondary treatment in Chapter 309 of this title. Secondary treatment standards are met in this case, so the rules require the ED abstain from this contested case hearing.

COMMENT 76:

During the public meeting Ann Barnett asked what OPIC's role is and why does OPIC not have any technical expertise on its staff.

RESPONSE 76:

The ED's staff can not speak for OPIC. OPIC does not work under the ED, but is a separate office at the TCEQ.

COMMENT 77:

During the public meeting Ann Barnett asked whether the application can be pulled back before the SOAH judge takes jurisdiction. If yes, what are the situations in which that could or would occur.

RESPONSE 77:

Once the Office of the Chief Clerk of the TCEQ has docketed the case at SOAH, the SOAH Administrative Law Judge has jurisdiction. Generally, the case can only be sent back to the TCEQ if the parties reach a settlement and it is uncontested or the Applicant withdraws his application.

COMMENT 78:

During the public meeting Ann Barnett noted that the notice of public meeting states that "only relevant and material issues raised during the formal comment period can be considered if a contested case hearing is granted." However, she said that the contested case hearing has already

been granted and it appears that the notice is faulty.

RESPONSE 78:

30 TAC Section 55.210 states that after receipt of a request filed under this section and after the executive director has issued his preliminary decision on the application, the chief clerk shall refer the application directly to SOAH for a hearing on whether the application complies with all applicable statutory and regulatory requirements. The Applicant must prove that the application meets all applicable statutory and regulatory requirements. In a direct referral the issues are not narrowed by the commission, so those who are participants at a SOAH hearing are allowed to bring in information that shows the Applicant is not meeting all statutory and regulatory requirements. In doing this protestors are giving more rights, therefore the notice is not defective.

COMMENT 79:

During the public meeting Ann Barnett asked who the third-party referred to is and who the landowner is.

RESPONSE 79:

This application is for the wastewater treatment plant and associated irrigation fields. Texas Water Code Chapter 26 and applicable wastewater regulations do not authorize the agency to consider the development when reviewing a permit application. Thus, the TCEQ has no regulatory authority to consider a third party development landowner when reviewing wastewater applications and draft permits. All owners of the actual facility are required to submit the application for the wastewater treatment plant.

COMMENT 80:

During the public meeting Ann Barnett asked whether the operator has experience with the specific design. If not, why not. If so, what is the experience.

RESPONSE 80:

The TCEQ permitting process requires the Applicant to provide the name of the proposed facility operator and the operator certification number. The operator of this facility must have a Class C license. To obtain a Class C license a person must have graduated from high school or have a GED, two years of experience, and 60 hours of training. The Applicant provided the following information: ECO Resources as the proposed facility operator with operator certification number 20025.

COMMENT 81:

During the public meeting John Hatchett expressed concern about how the area of the proposed irrigation field will be affected as upstream properties are further developed and the flow in the stream changes over the course of the next ten years. He said that "it is relatively undeveloped at this point, but it will receive more developments; I think stream flows will change, and perhaps the flood plain in that creek will change."

RESPONSE 81:

The Applicant is responsible for maintaining the integrity of the irrigation area. The Applicant must take steps to ensure that the irrigation areas can adequately function for their intended use.

COMMENT 82:

During the public meeting Ronnie Jones expressed concern over the direct referral process and said it circumvents the entire substantive and procedural process. Also, during the public meeting William Cahill stated that the procedural aspects also appear to be flawed, that is why he is opposed to granting the permit.

RESPONSE 82:

30 TAC Section 55.210 states that after receipt of a request filed under this section and after the executive director has issued his preliminary decision on the application, the chief clerk shall refer the application directly to SOAH for a hearing on whether the application complies with all applicable statutory and regulatory requirements. In this instance the Applicant requested a direct referral to SOAH and the ED had already made is preliminary decision, so pursuant to 30 TAC Section 55.210 this case was directly referred to SOAH. No process has been eliminated and the public has a full opportunity to participate in a Contested Case Hearing.

CHANGES MADE TO THE DRAFT PERMIT IN RESPONSE TO COMMENT

In response to public comment, the Executive Director made the following changes to the draft permit:

1. Expanding the scope of Special Provision No. 16:
 16. The permittee shall submit a Final Irrigation Management Plan to the TCEQ Water Quality Assessment Team (MC-150) for approval and/or modification before any wastewater is applied to the permitted area. The Final Irrigation

Management Plan shall describe the type of irrigation system, the layout or distribution of fixed head side roll, pivot, or traveling gun and main lines of the irrigation system, the locations and coverage of each spray nozzle, wastewater dosing schedule, and a proposal to prevent freezing, rupture or averting mechanical damage to the irrigation lines and confirm the cover vegetation that will remove nutrients throughout the year. The plan shall include a weekly schedule of monitoring and inspecting the physical condition of the irrigation fields for any problems associated with surface runoff, erosion, and stressed or damaged vegetation, the results of which shall be recorded in a site log book and retained on the facility property for inspection. The plan shall indicate that corrective measures will be implemented immediately upon identification of problems related to surface erosion, stressed or damaged vegetation, or problems in maintaining an annual vegetative cover system that will use wastewater nutrients throughout the year.

2. Amending Special Provision No. 20 on the cover crops:

20. Vegetation shall be established and well maintained throughout all months of the year. The permittee shall establish and maintain Common bermuda grass or other managed cover grasses in the application areas and over-seed with rye grass to maintain an annual vegetative cover. Common bermuda grass will be cut to maintain a maximum grass height of 10 inches and a minimum grass height of 4 inches. Grass cuttings shall be removed from the application areas. Any areas that will receive wastewater and contain surface rock fragments greater than 50% shall be amended with fill soil to support and maintain vegetation cover throughout the year.

3. Adding two provisions: one on the holding pond design and another on the installation of permanent transmission lines from the holding pond to land to be irrigated:

25. Holding ponds shall conform to the Texas Commission on Environmental Quality "Design Criteria for Sewerage Systems" requirements for stabilization ponds with regard to construction and levee design, and a minimum of 2 feet of freeboard shall be maintained.

26. Permanent transmission lines shall be installed from the holding pond to each tract of land to be irrigated utilizing effluent from that pond.

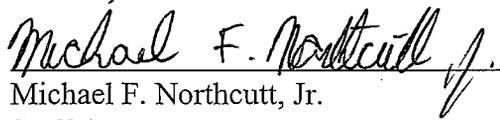
4. Adding a provision on the Edwards Aquifer Contributing Zone:

27. The facility is located on the Edwards Aquifer Contributing Zone, as mapped by the TCEQ, and is subject to 30 TAC Chapter 213, Subchapter B.

Respectfully submitted,

Texas Commission on Environmental Quality

Robert Martinez, Director
Environmental Law Division

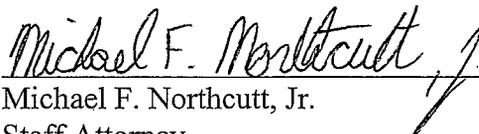

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REPRESENTING THE
EXECUTIVE DIRECTOR OF THE
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on September 22, 2006, the "Executive Director's Response to Public Comment" for Permit No. WQ0014629001 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk. In addition, a copy of the "Executive Director's Response to Public Comment" was mailed through regular mail or interagency mail to all people on the attached mailing list.



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MAILING LIST

Lazy 9 MUD and Forest City Sweetwater Limited Partnership

SOAH Docket No. 582-06-2596

PERMIT NO. WQ0014629001

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