(A) If fewer than 100 accommodation units without ground storage, the system must meet the following requirements:

(i) a well capacity of 1.0 gpm per unit; and

(ii) a pressure tank capacity of ten gallons per unit with a minimum of 220 gallons.

(B) For systems serving fewer than 100 accommodation units with ground storage or serving 100 or more accommodation units, the system must meet the following requirements:

(i) a well capacity of 0.6 gpm per unit;

(ii) a ground storage capacity of 35 gallons per unit;

(iii) two or more service pumps which have a total capacity of 1.0 gpm per unit; and

(iv) a pressure tank capacity of ten gallons per unit.

(2) Surface water supplies, regardless of size, must meet the following requirements:

(A) a raw water pump capacity of 0.6 gpm per unit with the largest pump out of service;

(B) a treatment plant capacity of 0.6 gpm per unit;

(C) a transfer pump capacity (where applicable) of 0.6 gpm per unit with the largest pump out of service;

(D) a ground storage capacity of 35 gallons per unit with a minimum of 1,000 gallons as clearwell capacity;

(E) two or more service pumps with a total capacity of 1.0 gpm per unit; and

(F) a pressure tank capacity of ten gallons per unit with a minimum requirement of 220 gallons.

(3) A noncommunity public water system that is an affected utility shall meet the requirements of subsection (h) of this section.

(d) Noncommunity water systems serving other than transient accommodation units.

(1) The following table is applicable to paragraphs (2) and (3) of this subsection and shall be used to determine the maximum daily demand for the various types of facilities listed.

Attached Graphic

(2) Groundwater supplies must meet the following requirements.

(A) Subject to the requirements of subparagraph (B) of this paragraph, if fewer than 300 persons per day are served, the system must meet the following requirements:

(i) a well capacity which meets or exceeds the maximum daily demand of the system during the hours of operation; and

(ii) a minimum pressure tank capacity of 220 gallons with additional capacity, if necessary, based on a sanitary survey conducted by the executive director.

(B) Systems which serve 300 or more persons per day or serve fewer than 300 persons per day and provide ground storage must meet the following requirements:

(i) a well capacity which meets or exceeds the maximum daily demand;

(ii) a ground storage capacity which is equal to 50% of the maximum daily demand;

(iii) if the maximum daily demand is less than 15 gpm, at least one service pump with a capacity of three times the maximum daily demand;

(iv) if the maximum daily demand is 15 gpm or more, at least two service pumps with a total capacity of three times the maximum daily demand; and

(v) a minimum pressure tank capacity of 220 gallons with additional capacity, if necessary, based on a sanitary survey conducted by the executive director.

(3) Each surface water supply or groundwater supply that is under the direct influence of surface water, regardless of size, must meet the following requirements:

(A) a raw water pump capacity which meets or exceeds the maximum daily demand of the system with the largest pump out of service;

(B) a treatment plant capacity which meets or exceeds the system's maximum daily demand;

(C) a transfer pump capacity (where applicable) sufficient to meet the maximum daily demand with the largest pump out of service;

(D) a clearwell capacity which is equal to 50% of the maximum daily demand;

(E) two or more service pumps with a total capacity of three times the maximum daily demand; and

(F) a minimum pressure tank capacity of 220 gallons with additional capacity, if necessary, based on a sanitary survey conducted by the executive director.

(4) A noncommunity public water system that is an affected utility shall meet the requirements of subsection (h) of this section.

(e) Water wholesalers. The following additional requirements apply to systems which supply wholesale treated water to other public water supplies.

(1) All wholesalers must provide enough production, treatment, and service pumping capacity to meet or exceed the combined maximum daily commitments specified in their various contractual obligations.

(2) For wholesale water suppliers, minimum water system capacity requirements shall be determined by calculating the requirements based upon the number of retail customer service connections of that wholesale water supplier, if any, fire flow capacities, if required by §290.46(x) and (y) of this title and adding that amount to the maximum amount of water obligated or pledged under all wholesale contracts.

(3) Emergency power is required for each portion of the system which supplies more than 250 connections under direct pressure and does not provide an elevated storage capacity of at least 100 gallons per connection. If emergency power is required, it must be sufficient to deliver 20% of the

minimum required service pump capacity in the event of the loss of normal power supply. When the wholesaler provides water through an air gap into the purchaser's storage facilities it will be the purchaser's responsibility to meet all minimum water system capacity requirements including emergency power.

(4) A wholesaler that is an affected utility must meet the requirements specified in subsection (h) of this section.

(f) Purchased water systems. The following requirements apply only to systems which purchase treated water to meet all or part of their production, storage, service pump, or pressure maintenance capacity requirements.

(1) The water purchase contract must be available to the executive director in order that production, storage, service pump, or pressure maintenance capacity may be properly evaluated. For purposes of this section, a contract may be defined as a signed written document of specific terms agreeable to the water purchaser and the water wholesaler, or in its absence, a memorandum or letter of understanding between the water purchaser and the water wholesaler.

(2) The contract shall authorize the purchase of enough water to meet the monthly or annual needs of the purchaser.

(3) The contract shall also establish the maximum rate at which water may be drafted on a daily and hourly basis. In the absence of specific maximum daily or maximum hourly rates in the contract, a uniform purchase rate for the contract period will be used.

(4) The maximum authorized daily purchase rate specified in the contract, or a uniform purchase rate in the absence of a specified daily purchase rate, plus the actual production capacity of the system must be at least 0.6 gpm per connection.

(5) For systems which purchase water under direct pressure, the maximum hourly purchase authorized by the contract plus the actual service pump capacity of the system must be at least 2.0 gpm per connection or provide at least 1,000 gpm and be able to meet peak hourly demands, whichever is less.

(6) The purchaser is responsible for meeting all production requirements. If additional capacity to meet increased demands cannot be attained from the wholesaler through a new or amended contract, additional capacity must be obtained from water purchase contracts with other entities, new wells, or surface water treatment facilities. However, if the water purchase contract prohibits the purchaser from securing water from sources other than the wholesaler, the wholesaler is responsible for meeting all production requirements.

(7) All other minimum capacity requirements specified in this section and §290.46(x) and (y) of this title shall apply.

(g) Alternative capacity requirements. Public water systems may request approval to meet alternative capacity requirements in lieu of the minimum capacity requirements specified in this section. Any water system requesting to use an alternative capacity requirement must demonstrate to the satisfaction of the executive director that approving the request will not compromise the public health or result in a degradation of service or water quality and comply with the requirements found in §290.46(x) and (y) of this title. Alternative capacity requirements are unavailable for groundwater systems serving fewer than

50 connections without total storage as specified in subsection (b)(1) of this section or for noncommunity water systems as specified in subsections (c) and (d) of this section.

(1) Alternative capacity requirements for public water systems may be granted upon request to and approval by the executive director. The request to use an alternative capacity requirement must include:

(A) a detailed inventory of the major production, pressurization, and storage facilities utilized by the system;

(B) records kept by the water system that document the daily production of the system. The period reviewed shall not be less than three years. The applicant may not use a calculated peak daily demand;

(C) data acquired during the last drought period in the region, if required by the executive director;

(D) the actual number of active connections for each month during the three years of production data;

(E) description of any unusual demands on the system such as fire flows or major main breaks that will invalidate unusual peak demands experienced in the study period;

(F) any other relevant data needed to determine that the proposed alternative capacity requirement will provide at least 35 psi in the public water system except during line repair or during fire fighting when it cannot be less than 20 psi; and

(G) a copy of all data relied upon for making the proposed determination.

(2) Alternative capacity requirements for existing public water systems must be based upon the maximum daily demand for the system, unless the request is submitted by a licensed professional engineer in accordance with the requirements of paragraph (3) of this subsection. The maximum daily demand must be determined based upon the daily usage data contained in monthly operating reports for the system during a 36 consecutive month period. The 36 consecutive month period must end within 90 days of the date of submission to ensure the data is as current as possible.

(A) Maximum daily demand is the greatest number of gallons, including groundwater, surface water, and purchased water delivered by the system during any single day during the review period. Maximum daily demand excludes unusual demands on the system such as fire flows or major main breaks.

(B) For the purpose of calculating alternative capacity requirements, an equivalency ratio must be established. This equivalency ratio must be calculated by multiplying the maximum daily demand, expressed in gpm per connection, by a fixed safety factor and dividing the result by 0.6 gpm per connection. The safety factor shall be 1.15 unless it is documented that the existing system capacity is adequate for the next five years. In this case, the safety factor may be reduced to 1.05. The conditions in §291.93(3) of this title (relating to Adequacy of Water Utility Service) concerning the 85% rule shall continue to apply to public water systems that are also retail public utilities.

(C) To calculate the alternative capacity requirements, the equivalency ratio must be multiplied by the appropriate minimum capacity requirements specified in subsection (b) of this section. Standard rounding methods are used to round calculated alternative production capacity requirement values to the nearest one-hundredth.

(3) Alternative capacity requirements which are proposed and submitted by licensed professional engineers for review are subject to the following additional requirements.

(A) A signed and sealed statement by the licensed professional engineer must be provided which certifies that the proposed alternative capacity requirements have been determined in accordance with the requirements of this subsection.

(B) If the system is new or at least 36 consecutive months of data is not available, maximum daily demand may be based upon at least 36 consecutive months of data from a comparable public water system. A licensed professional engineer must certify that the data from another public water system is comparable based on consideration of the following factors: prevailing land use patterns (rural versus urban); number of connections; density of service populations; fire flow obligations; and socio-economic, climatic, geographic, and topographic considerations as well as other factors as may be relevant. The comparable public water system shall not exhibit any of the conditions listed in paragraph (6)(A) of this subsection.

(4) The executive director shall consider requests for alternative capacity requirements in accordance with the following requirements.

(A) For those requests submitted under the seal of a licensed professional engineer, the executive director must mail written acceptance or denial of the proposed alternative capacity requirements to the public water system within 90 days from the date of submission. If the executive director fails to mail written notification within 90 days, the alternative capacity requirements submitted by a licensed professional engineer automatically become the alternative capacity requirements for the public water system.

(B) If the executive director denies the request:

(i) the executive director shall mail written notice to the public water system identifying the specific reason or reasons for denial and allow 45 days for the public water system to respond to the reason(s) for denial;

(ii) the denial is final if no response from the public water system is received within 45 days of the written notice being mailed; and

(iii) the executive director must mail a final written approval or denial within 60 days from the receipt of any response timely submitted by the public water system.

(5) Although elevated storage is the preferred method of pressure maintenance for systems of over 2,500 connections, it is recognized that local conditions may dictate the use of alternate methods utilizing hydropneumatic tanks and on-site emergency power equipment. Alternative capacity requirements to the elevated storage requirements may be obtained based on request to and approval by the executive director. Special conditions apply to systems qualifying for an elevated storage alternative capacity requirement.

(A) The system must submit documentation sufficient to assure that the alternate method of pressure maintenance is capable of providing a safe and uninterrupted supply of water under pressure to the distribution system during all demand conditions.

(i) A signed and sealed statement by a licensed professional engineer must be provided which certifies that the pressure maintenance facilities are sized, designed, and capable of providing a minimum pressure of at least 35 psi at all points within the distribution network at flow rates of 1.5 gpm per connection or greater. In addition, the engineer must certify that the emergency power facilities are capable of providing the greater of the average daily demand or 0.35 gpm per connection while maintaining distribution pressures of at least 35 psi, and that emergency power facilities powering production and treatment facilities are capable of supplying at least 0.35 gpm per connection to storage.

(ii) The system's licensed professional engineer must conduct a hydraulic analysis of the system under peak conditions. This must include an analysis of the time lag between the loss of the normal power supply and the commencement of emergency power as well as the minimum pressure that will be maintained within the distribution system during this time lag. In no case shall this minimum pressure within the distribution system be less than 20 psi. The results of this analysis must be submitted to the executive director for review.

(iii) For existing systems, the system's licensed professional engineer must provide continuous pressure chart recordings of distribution pressures maintained during past power failures, if available. The period reviewed shall not be less than three years.

(iv) A public water system that is an affected utility must conduct the modeling requirements contained in clauses (i) - (iii) of this subparagraph using the requirements specified in subsection (h) of this section.

(B) Emergency power facilities must be maintained and provided with necessary appurtenances to assure immediate and dependable operation in case of normal power interruption. A public water system that is an affected utility must meet the requirements specified in subsection (h) of this section.

(i) The facilities must be serviced and maintained in accordance with level 2 maintenance requirements contained in the current NFPA 110 Standard and the manufacturers' recommendations.

(ii) The switching gear must be capable of bringing the emergency power generating equipment on-line during a power interruption such that the pressure in the distribution network does not fall below 20 psi at any time.

(iii) The minimum on-site fuel storage capacity shall be determined by the fuel demand of the emergency power facilities and the frequency of fuel delivery. An amount of fuel equal to that required to operate the facilities under-load for a period of at least eight hours must always be maintained on site.

(iv) Residential rated mufflers or other means of effective noise suppression must be provided on each emergency power motor.

(C) Battery-powered or uninterrupted power supply pressure monitors and chart recorders which are configured to activate immediately upon loss of normal power must be provided for pressure maintenance facilities. These records must be kept for a minimum of three years and made available

for review by the executive director. Records must include chart recordings of all power interruptions including interruptions due to periodic emergency power under-load testing and maintenance.

(D) An emergency response plan must be submitted detailing procedures to be followed and individuals to be contacted in the event of loss of normal power supply.

(6) Any alternative capacity requirement granted under this subsection is subject to review and revocation or revision by the executive director. If permission to use an alternative capacity requirement is revoked, the public water system must meet the applicable minimum capacity requirements of this section.

(A) The following conditions, if attributable to the alternative capacity requirements, may constitute grounds for revocation or revision of established alternative capacity requirements or for denial of new requests, if the condition occurred within the last 36 months:

(i) documented pressure below 35 psi at any time not related to line repair, except during fire fighting when it cannot be less than 20 psi;

(ii) water outages due to high water usage;

(iii) mandatory water rationing due to high customer demand or overtaxed water production or supply facilities;

(iv) failure to meet a minimum capacity requirement or an established alternative capacity requirement;

(v) changes in water supply conditions or usage patterns which create a potential threat to public health; or

(vi) any other condition where the executive director finds that the alternative capacity requirement has compromised the public health or resulted in a degradation of service or water quality.

(B) If the executive director finds any of the conditions specified in subparagraph (A) of this paragraph, the process for revocation or revision of an alternative capacity requirement shall be as follows, unless the executive director finds that failure of the service or other threat to public health and safety is imminent under subparagraph (C) of this paragraph.

(i) The executive director must mail the public drinking water system written notice of the executive director's intent to revoke or revise an alternative capacity requirement identifying the specific reason(s) for the proposed action.

(ii) The public water system has 30 days from the date the written notice is mailed to respond to the proposed action.

(iii) The public water system has 30 days from the date the written notice is mailed to request a meeting with the agency's public drinking water program personnel to review the proposal. If requested, such a meeting must occur within 45 days of the date the written notice is mailed.

(iv) After considering any response from or after any requested meeting with the public drinking water system, the executive director must mail written notification to the public drinking water system

of the executive director's final decision to continue, revoke, or revise an alternative capacity requirement identifying the specific reason(s) for the decision.

(C) If the executive director finds that failure of the service or other threat to public health and safety is imminent, the executive director may issue written notification of the executive director's final decision to revoke or revise an alternative capacity requirement at any time.

(h) Affected utilities. This subsection applies to all affected utilities and is in addition to any other requirements pertaining to emergency power requirements found in this subchapter.

(1) Affected utilities must provide one of the following options of sufficient power to meet the capacity requirements of paragraph (1) or (2) of this subsection, whichever is applicable, and in accordance with the affected utility's approved emergency preparedness plan:

(A) the maintenance of automatically starting auxiliary generators;

(B) the sharing of auxiliary generator capacity with one or more affected utilities;

(C) the negotiation of leasing and contracting agreements, including emergency mutual aid agreements with other retail public utilities, exempt utilities, or providers, or conveyors of potable or raw water service, if the agreements provide for coordination with the division of emergency management in the governor's office;

(D) the use of portable generators capable of serving multiple facilities equipped with quick-connect systems;

(E) the use of on-site electrical generation or electrical distributed generation facilities;

(F) hardening of the electric transmission and electric distribution system against damage from natural disasters during an extended power outage;

(G) for existing facilities, the maintenance of direct engine or right angle drives; or

(H) any other alternative determined by the executive director to be acceptable.

(2) Each affected utility that supplies, provides, or conveys surface water to wholesale customers shall install and maintain automatically starting auxiliary generators or distributive generation facilities for each raw water intake pump station, water treatment plant, pump station, and pressure facility necessary to provide water to its wholesale customers.

(3) Emergency generators used as part of an approved emergency preparedness plan must be maintained, tested, and operated in accordance with the manufacturer's specifications.

(4) An affected utility may adopt and is encouraged to enforce limitations on water use while the utility is providing emergency operations.

(5) As soon as safe and practicable following the occurrence of a natural disaster, an affected utility must operate in accordance with its approved emergency preparedness plan, which may include using elevated storage. An affected utility may meet the requirements of Texas Water Code, §13.1395, including having a currently approved emergency preparedness plan, in lieu of any other rules regarding elevated storage requirements, provided that, under normal operating conditions, the

affected utility continues to meet the pressure requirements of §290.46(r) of this title and the production, treatment, total storage and service pump capacity requirements of this subchapter.

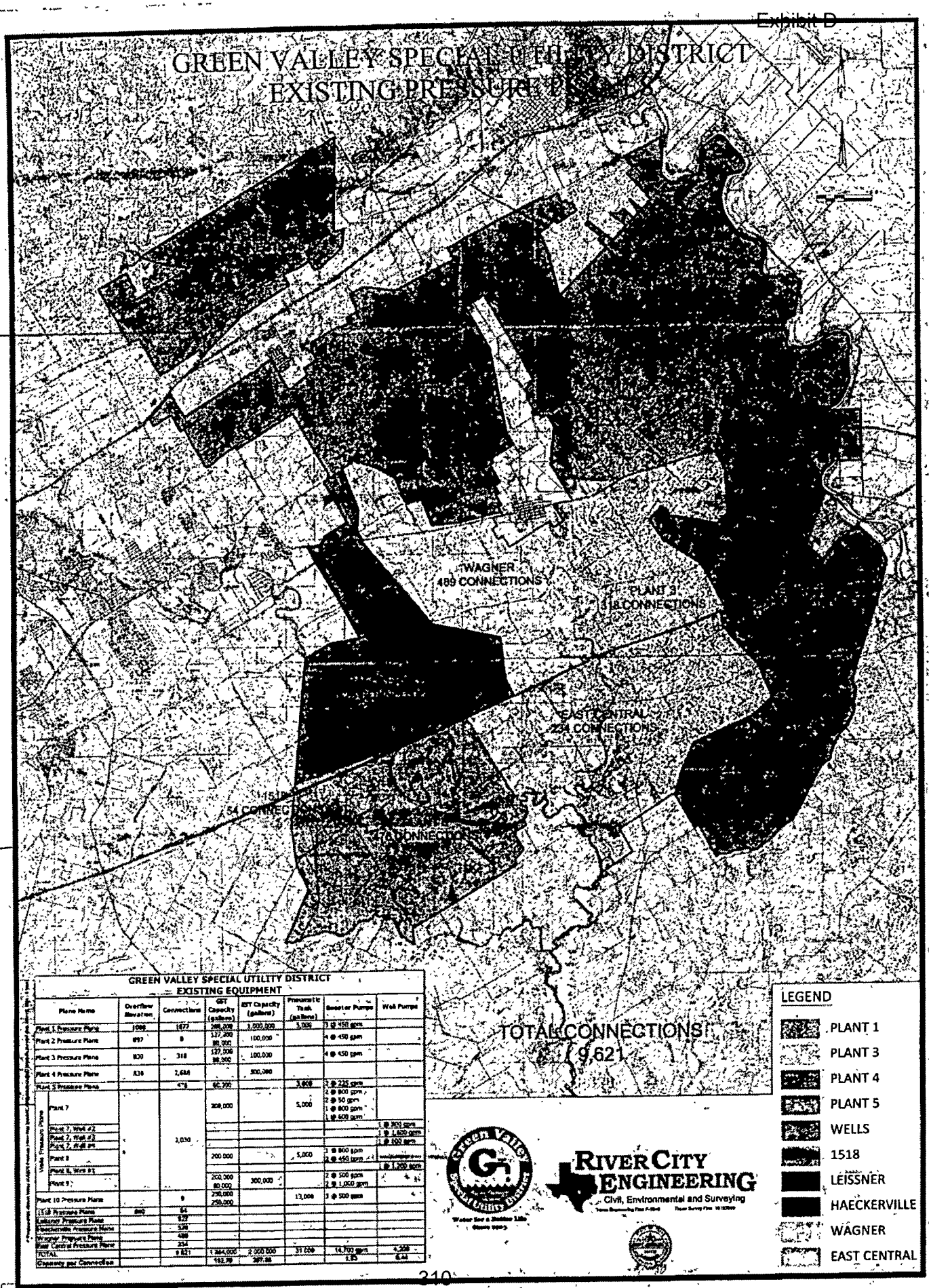
(6) An affected utility must maintain on-site, or make readily available during emergency operations, an amount of fuel necessary to operate any required emergency power equipment necessary to maintain emergency operations.

Source Note: The provisions of this §290.45 adopted to be effective October 1, 1992, 17 TexReg 6455; amended to be effective November 3, 1995, 20 TexReg 8620; amended to be effective February 4, 1999, 24 TexReg 731; amended to be effective September 13, 2000, 25 TexReg 8880; amended to be effective May 16, 2002, 27 TexReg 4127; amended to be effective January 30, 2003, 28 TexReg 697; amended to be effective February 19, 2004, 29 TexReg 1373; amended to be effective January 9, 2008, 33 TexReg 198; amended to be effective December 10, 2009, 34 TexReg 8744; amended to be effective September 11, 2014, 39 TexReg7145

ATTACHMENT A
EXISTING PRESSURE PLANES MAP

Exhibit D

GREEN VALLEY SPECIAL UTILITY DISTRICT
EXISTING PRESSURE PLANES



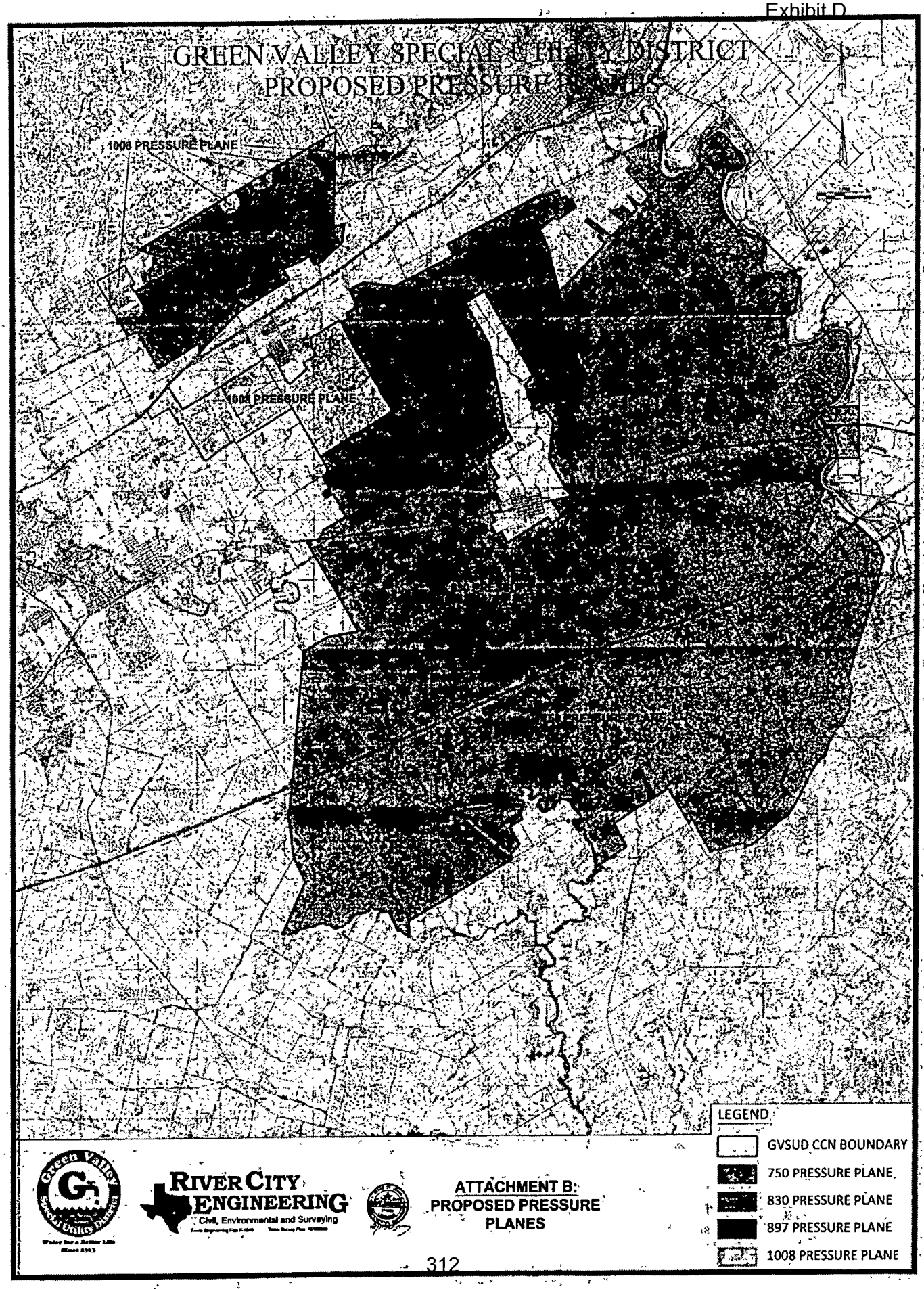
GREEN VALLEY SPECIAL UTILITY DISTRICT
EXISTING EQUIPMENT

Plane Name	Overflow Elevation	Connections	GST Capacity (gallons)	EST Capacity (gallons)	Pneumatic Tank (gallons)	Booster Pumps	Well Pumps
Plant 1 Pressure Plane	1080	1677	288,000	1,000,000	5,000	3 @ 450 gpm	
Plant 2 Pressure Plane	897	0	137,000 80,000	100,000		4 @ 450 gpm	
Plant 3 Pressure Plane	830	318	137,000 80,000	100,000		4 @ 450 gpm	
Plant 4 Pressure Plane	836	2,684		300,000			
Plant 5 Pressure Plane		478	65,000		3,000	2 @ 225 gpm	
Plant 7		3,030	308,000		5,000	2 @ 800 gpm 2 @ 50 gpm 1 @ 800 gpm 1 @ 600 gpm	
Plant 7, Well #2							1 @ 800 gpm
Plant 7, Well #3							1 @ 1,600 gpm
Plant 7, Well #4							1 @ 600 gpm
Plant 8			200,000		5,000	1 @ 800 gpm 2 @ 450 gpm	
Plant 8, Well #1							1 @ 1,200 gpm
Plant 9			200,000 80,000	300,000		2 @ 500 gpm 2 @ 1,050 gpm	
Plant 10 Pressure Plane		9	250,000		13,000	3 @ 500 gpm	
1518 Pressure Plane	890	54					
Leissner Pressure Plane		927					
Haeckerville Pressure Plane		539					
Wagner Pressure Plane		489					
East Central Pressure Plane		224					
TOTAL		9,621	1,364,000	2,000,000	31,000	14,700 gpm	4,200
Capacity per Connection			142.00	207.88		1.53	0.44

RIVER CITY ENGINEERING
Civil, Environmental and Surveying

ATTACHMENT B
PROPOSED PRESSURE PLANES MAP

GREEN VALLEY SPECIAL UTILITY DISTRICT
PROPOSED PRESSURE PLANES



Green Valley Special Utility District

RIVER CITY ENGINEERING
Civil, Environmental and Surveying

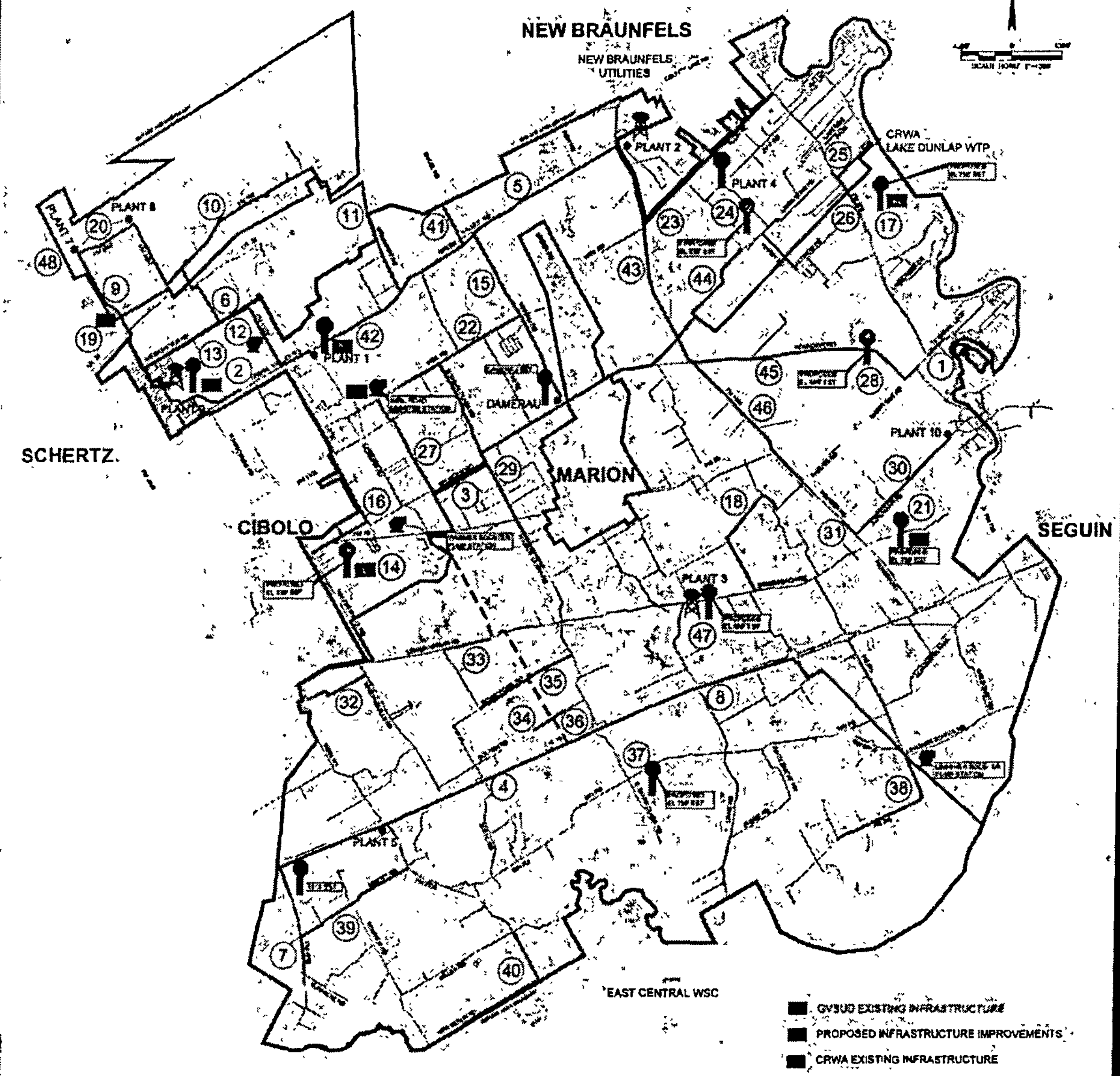
ATTACHMENT B:
PROPOSED PRESSURE PLANES

ATTACHMENT C
PROPOSED CAPITAL IMPROVEMENTS MAP

Exhibit D

GREEN VALLEY SPECIAL UTILITY DISTRICT

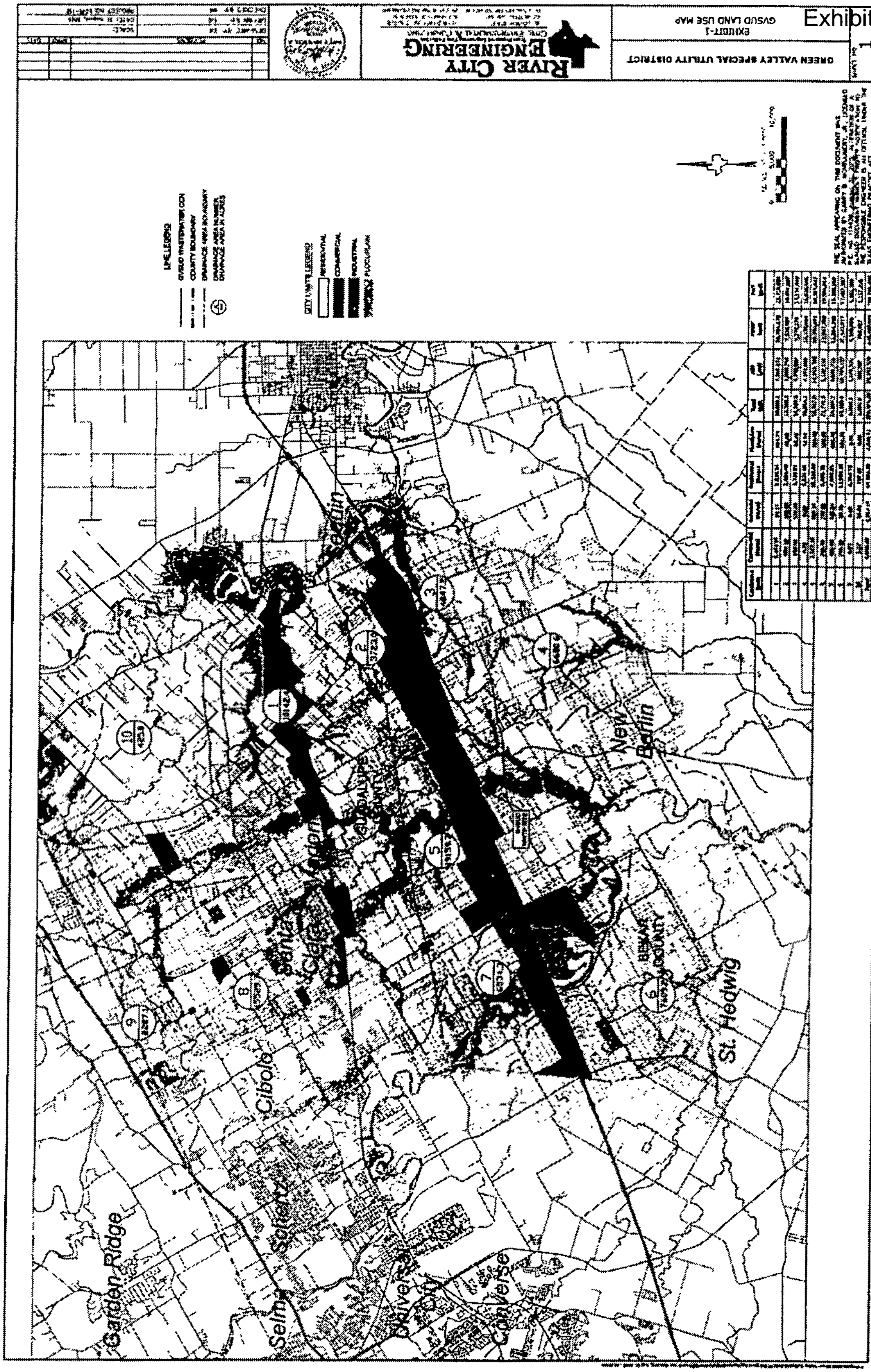
RIVER CITY ENGINEERING
Civil, Environmental and Surveying



Project	Description		Total Cost
1	16" Pipe Line along "[illegible]" Loop	$	426,291
2	24" Pipe Line that Connects Plant 1 to Plant 2	$	943,910
3	12" Pipe along Youngsford Road from Country Lane to Santa Clara	$	681,482
4	GVSUD Take-Point Meter Station at Zuehl Road & IH10	$	170,678
5	16" Pipe Line Along Green Valley Road, Plant 1 to Plant 2	$	7,447,498
6	12" Pipe from Wells to Plant 1	$	885,851
7	12" Pipe along FM 1518 from Abbott to [illegible]	$	616,671
8	GVSUD Take-Point Meter Station at Linne Road & IH10	$	224,428
9	24" Pipe Line from Wells to Plant 8 Improvements	$	4,579,782
10	12" Pipe Line Along FM 482	$	3,573,620
11	24" Pipe Line IH-35 Crossing	$	999,679
12	Well Field Booster Pump Station	$	2,178,979
13	Plant 8 Improvements	$	2,621,296
14	800' Elevated Storage Tank at Most Western FM 78	$	2,347,493
15	12" Pipe Line along Mattke Road from CRWA Pipe to GV Road	$	1,954,748
16	12" Pipe Line along Tolle Road & Country Lane	$	1,178,782
17	750' Elevated Water Storage Tank at McQueeney	$	3,965,167
18	12" Pipe along Schwab & Weiss	$	1,470,904
19	Common Ground Storage Tank and Booster Pump Station	$	2,526,097
20	24" Pipe Line connects Existing Wells	$	1,596,338
21	750' Elevated Storage Tank at South of Plant 10	$	3,980,267
22	12" Pipeline along Weil Road - BPS relocation to Mattke Road	$	1,390,828
23	Pipeline along Zipp Road - FM 1044 to FM 725	$	2,585,868
24	850' EST @ Haney Rd and Union Wine	$	2,323,445
25	Pipeline from FM 725 to CRWA Lake Dunlap WTP	$	344,875
26	16" Pipeline along FM 725 - Union Wine to Altwein	$	487,853
27	16" Weil Road BPS Fill Pipeline - Youngsford to Weil Rd BPS	$	1,650,262
28	850' EST @ Youngsford and Short Cut Rd	$	2,106,695
29	12" Pipeline along N Santa Clara Rd - Weil Rd to [illegible] Rd	$	2,388,355
30	16" Pipeline along Schumann Rd - Pioneer Rd to Plant 10	$	1,846,536
31	16" Pipeline along Pioneer Rd (connect)	$	325,999
32	8" Pipeline along Lower Valley Ln - Weil Rd to [illegible] Rd	$	380,557
33	8" Pipeline along Lower Seguin Rd (connect)	$	482,457
34	8" Pipeline along Bolton Rd (connect)	$	733,417
35	8" Pipeline along [illegible] Rd - [illegible] Rd to Santa Clara Rd	$	932,823
36	GVSUD Take-Point Meter Station at Santa Clara Rd & IH10	$	154,996
37	750' EST @ [illegible] Road	$	2,385,493
38	8" Pipeline along FM 725 - [illegible] School Rd to [illegible] Ln	$	2,177,803
39	12" Pipeline along Abbott Road - FM 1518 to FM 2538	$	3,335,437
40	8" Pipeline along New Berlin Rd - [illegible] to [illegible] Rd	$	1,171,154
41	8" Pipeline along Engel Rd - Green Valley Rd to Service Boundary	$	318,798
42	Plant 1 - 1MG Ground Storage Tank	$	1,402,572
43	16" Pipeline along FM 1044 from Green Valley Rd to Youngsford	$	4,324,957
44	16" Pipeline along Union Wine from FM 1044 to Sunshine Lane	$	3,686,664
45	16" Pipeline along Youngsford from FM 1044 to FM 725	$	3,708,314
46	16" Pipeline along FM 1044 from Youngsford to [illegible] Road	$	2,496,866
47	550' EST @ Plant 3	$	2,361,993
48	Trinity Well Development	$	3,300,000

PROPOSED CAPITAL IMPROVEMENTS MAP

Exhibit D


GREEN VALLEY SPECIAL UTILITY DISTRICT
GVSUD LAND USE MAP
EXHIBIT-1
RIVER CITY ENGINEERING
Garden Ridge
Selma
Schertz
Cibolo
Santa Clara
Marion
New Berlin
St. Hedwig
Converse

Texas Commission on Environmental Quality

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR TPDES PERMIT FOR MUNICIPAL WASTEWATER NEW

PERMIT NO. WQ0015360001

APPLICATION AND PRELIMINARY DECISION. Green Valley Special Utility District, P.O. Box 99, Marion, Texas 78124, has applied to the Texas Commission on Environmental Quality (TCEQ) for new Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0015360001, to authorize the discharge of treated domestic wastewater at an annual average flow not to exceed 5,000,000 gallons per day. TCEQ received this application on April 1, 2015.

The facility will be located at 3930 Linne Road, Seguin, in Guadalupe County, Texas 78155. The treated effluent will be discharged to Santa Clara Creek; thence to Lower Cibolo Creek in Segment No. 1902 of the Guadalupe River Basin. The unclassified receiving water use is high aquatic life use for Santa Clara Creek. The designated uses for Segment No. 1902 are high aquatic life use and primary contact recreation. In accordance with 30 Texas Administrative Code Section 307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Santa Clara Creek, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Marion City Hall, 303 South Center Street, Marion, in Guadalupe County, Texas. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application. http://www.tceq.texas.gov/assets/public/hb610/index.html?lat=29.5253&lng=-98.114166&zoom=13&type=r

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ holds a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision.** A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name; address, phone number; applicant's name and permit number; the location and distance of your property/activities relative to the facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; and the statement "I/we request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are germane to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission will only grant a contested case hearing on disputed issues of fact that are relevant and material to the Commission's decision on the application. Further, the Commission will only grant a hearing on issues that were raised in timely filed comments that were not subsequently withdrawn.

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, TX 78711-3087 or electronically at www.tceq.texas.gov/about/comments.html within 30 days from the date of newspaper publication of this notice.

AGENCY CONTACTS AND INFORMATION. If you need more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040. General information about the TCEQ can be found at our web site at: www.TCEQ.texas.gov.

Further information may also be obtained from Green Valley Special Utility District at the address stated above or by calling Mr. Pat Allen at 830-914-2330.

Issuance Date: October 12, 2015

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0015360001, TX0136352, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	Green Valley Special Utility District P.O. Box 99 Marion, Texas 78124
Prepared By:	Larry Diamond Municipal Permits Team Wastewater Permitting Section (MC 148) Water Quality Division (512) 239-0037
Date:	August 13, 2015 and October 2, 2015
Permit Action:	New Permit

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **March 1, 2020,** according to 30 Texas Administrative Code (TAC) § 305.71, Basin Permitting.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit to authorize the discharge of treated domestic wastewater at an annual average flow not to exceed 0.25 million gallons per day (MGD) in the Interim I phase, an annual average flow not to exceed 2.5 MGD in the Interim II phase, and an annual average flow not to exceed 5.0 MGD in the Final phase. The proposed wastewater treatment facility will serve proposed developments in the Santa Clara Creek watershed in Guadalupe County, Texas.

3. FACILITY AND DISCHARGE LOCATION

The plant site will be located at 3930 Linne Road, Seguin, in Guadalupe County, Texas 78155.

The treated effluent will be discharged to Santa Clara Creek; thence to Lower Cibolo Creek in Segment No. 1902 of the Guadalupe River Basin. The unclassified receiving water use is high aquatic life use for Santa Clara Creek. The designated uses for Segment No. 1902 are high aquatic life use and primary contact recreation.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The Santa Clara Creek No. 1 Wastewater Treatment Facility will be an activated sludge process plant operated in the extended aeration mode. Treatment units in the Interim I phase will include a lift station, bar screen, equalization basin, aeration basin, final clarifier, sludge digester, a belt filter press, a chlorine contact chamber, and disk filter. Treatment units in the Interim II and Final phase will include a lift station, bar screen, two sequencing batch reactor basins, equalization basin, sludge digester, a belt filter press, a UV disinfection system, and disk filter. The facility has not been constructed.

The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, or wastewater treatment facility.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The Green Valley Special Utility District facility is not yet constructed and does not appear to receive significant industrial wastewater contributions upon time of operation.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

Self-reporting data is not available since the facility is not yet constructed.

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. INTERIM I PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The daily average flow of effluent shall not exceed 0.25 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 521 gallons per minute (gpm).

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	10	21	15	25
TSS	15	31	25	40
NH_3-N	3	6.3	6	10
Total Phosphorus (P)	0.5	1.0	1	2
DO (minimum)	4.0	N/A	N/A	N/A
E. coli, colony forming units (CFU) or most probable number (MPN) per 100 ml	126	N/A	N/A	N/A

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample. There shall be no

discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored five times per week by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	One/week
TSS	One/week
NH_3-N	One/week
Total P	One/week
DO	One/week
E. coli	One/month

B. INTERIM II PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 2.5 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 5,208 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	7	146	12	22
TSS	15	313	25	40
NH_3-N	2	42	5	10
Total Phosphorus	0.5	10	1	2
DO (minimum)	6.0	N/A	N/A	N/A
E. coli, CFU or MPN/100 ml	126	N/A	N/A	399

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Two/week
TSS	Two/week
NH_3-N	Two/week
Total P	Two/week
DO	Two/week
E. coli	Daily

C. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS,

The annual average flow of effluent shall not exceed 5.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 10, 417 gpm.

Parameter	30-Day Average		7-Day Average	Daily Maximum
	mg/l	lbs/day	mg/l	mg/l
$CBOD_5$	5	209	10	20
TSS	5	209	10	20
NH_3-N	1.8	75	5	10
Total Phosphorus	0.5	21	1	2
DO (minimum)	6.0	N/A	N/A	N/A
E. coli, CFU or MPN/100 ml	126	N/A	N/A	399

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five times per week by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Parameter	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Five/week
TSS	Five/week
NH_3-N	Five/week
Total P	Five/week
DO	Five/week
E. coli	Daily

D. SEWAGE SLUDGE REQUIREMENTS.

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, or wastewater treatment facility.

E. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 315, which references 40 Code of Federal Regulations (CFR) Part 403, "General Pretreatment Regulations for Existing and New Sources of Pollution" *[rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798]*. The permit includes specific

requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

F. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

(1) The draft permit includes 7-day chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 31%, 42%, 56%, 74%, and 99%. The low-flow effluent concentration (critical dilution) is defined as 99% effluent.

(a) Chronic static renewal 7-day survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

(2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:

(a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).

(b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

G. BUFFER ZONE REQUIREMENTS

The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).

H. SUMMARY OF CHANGES FROM APPLICATION

None.

I. SUMMARY OF CHANGES FROM EXISTING PERMIT

Standard Permit Conditions, Sludge Provisions, Other Requirements, Pretreatment Requirements, and Biomonitoring sections have been included in the draft permit.

E. coli bacteria limits have been added to the draft permit in accordance with the recent amendments to 30 TAC Chapters 309 and 319.

SECTION IV, REQUIREMENTS APPLYING TO SLUDGE TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING, has been added to the Sludge Provisions of the draft permit to allow the transportation of sludge to another facility.

The Standards Implementation Team recommends the inclusion of a total phosphorus limit of 0.5 mg/L for all phases of the proposed facility. This should help to insure that no significant degradation of water quality will occur.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated in Title 40 CFR require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b).

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged to Santa Clara Creek; thence to Lower Cibolo Creek in Segment No. 1902 of the Guadalupe River Basin. The unclassified receiving water use is high aquatic life use for Santa Clara Creek. The designated uses for Segment No. 1902 are high aquatic life use and primary contact recreation. The effluent limitations in the draft permit will maintain and protect the existing instream uses. In accordance with 30 TAC § 307.5 and the TCEQ implementation procedures (June 2010) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Santa Clara Creek, which has been identified as having high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS's) biological opinion on the State of Texas authorization of the TPDES (September 14, 1998; October 21, 1998, update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical

concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment 1902 is currently listed on the State's inventory of impaired and threatened waters (the 2012 Clean Water Act Section 303(d) list). The listing is for elevated bacteria levels and impaired fish community in various reaches. The bacteria impairment extends from the lower Segment boundary upstream to the confluence with Clifton Branch (AUs 1902_01, 1902_02, 1902_03). The impaired fish community listing is restricted to a reach extending from 5 miles upstream of the confluence with the San Antonio River to FM 541 (AU 1902_02). This facility is designed to provide adequate disinfection and when operated properly should not add to the bacterial impairment of the segment. In addition, in order to ensure that the proposed discharge meets the stream bacterial standard, an effluent limitation of 126 colony forming units (CFU) or most probable number (MPN) of *E. coli* per 100 ml has been added to the draft permit. The proposed plant will serve a planned residential development. Effluent limits including nutrients limits for ammonia-nitrogen and Total Phosphorus have been included in the draft permit and have been modeled to be protective of Texas Surface Water Quality Standards for aquatic and human health. The facility is not expected to add to the impaired fish community.

The effluent limitations and conditions in the draft permit comply with the Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Biochemical Oxygen Demand or Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The effluent limits recommended above have been reviewed for consistency with the WQMP. The proposed limits are not contained in the approved WQMP. However, these limits will be included in the next WQMP update.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

The facility is not located in the Coastal Management Program boundary.

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

Water quality-based effluent limitations are calculated from freshwater aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters Lower Cibolo Creek. The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters Lower Cibolo Creek.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the final permitted flow of 5.0 MGD and the 7-day, 2-year (7Q2) flow of 0.10 cfs for Lower Cibolo Creek. The estimated dilution at the edge of the ZID is calculated using the final permitted flow of 5.0 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %: 99.68% Chronic Effluent %: 98.72%

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a

selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards, June 2010." The segment values are 257 mg/l for hardness (as calcium carbonate), 100 mg/l chlorides, 7.6 standard units for pH, and 8.8 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation.

(b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the final permitted flow of 5.0 MGD and the harmonic mean flow of 0.20 cfs for Lower Cibolo Creek. The following critical effluent percentage is being used:

Human Health Effluent %: 97.48%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent

limitations for aquatic life protection: A 99th percentile confidence level in the long-term average calculation is used with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation.

(b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1902, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

(b) PERMIT ACTION

None.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

A reasonable potential (RP) determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous five years of chronic WET testing. The table below identifies the number of test failures required to necessitate that a WET limit be placed in the permit or the consideration of additional Best Professional Judgment (BPJ) factors, such as the duration and magnitude of the failures.

WET Reasonable Potential Determination Thresholds
More than 3 failures in the past five years = WET limit
3 failures with 2 or 3 occurring in the past 3 years = WET limit
1 to 3 failures in the past five years but 1 or less in last 3 years = BPJ
0 failures = No limit

With zero failures, a determination of no RP was made for both test species. With no RP, additional WET limits are not required and both test species are eligible for the testing frequency reduction.

The permit includes 7-day chronic freshwater biomonitoring requirements. The facility has yet to be constructed. Therefore, there is no WET testing history to review.

The applicant is not currently monitoring whole effluent toxicity because the requirements do not take effect until the Final phase.

(b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

No analytical data is available because the facility is not in operation.

(6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)

(a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language. The facility has yet to be constructed. Therefore, there is no WET testing history to review.

(b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit to begin in the Final phase. The applicant is not currently monitoring whole effluent toxicity because the requirements do not take effect until the Final phase.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application, and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application. This notice sets a deadline for public comment.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment, and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Larry Diamond at (512) 239-0037.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. APPLICATION

Application received on April 1, 2015, and additional information received on May 4, 2015, May 8, 2015, and September 3, 2015.

B. MEMORANDA

Interoffice memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice memorandum from the Stormwater & Pretreatment Team of the TCEQ Water Quality Division.

C. MISCELLANEOUS

Federal Clean Water Act, § 402; Texas Water Code § 26.027; 30 TAC Chapters 30, 305, 309, 312, 319,; Commission policies; and U.S. Environmental Protection Agency guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by theU.S. Environmental Protection Agency, and the IP, January 2003, for portions of the 2010 IP not approved by the U.S. Environmental Protection Agency.

Texas 2012 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, February 21, 2013; approved by the U.S. Environmental Protection Agency on May 9, 2013.

TNRCC Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

TPDES PERMIT NO.
WQ0015360001
[For TCEQ office use only - EPA I.D. No. TX0136352]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

Green Valley Special Utility District

whose mailing address is

P.O. Box 99
Marion, Texas 78124

is authorized to treat and discharge wastes from the Santa Clara Creek No. 1 Wastewater Treatment Facility, SIC Code 4952

located at 3930 Linne Road, Seguin in Guadalupe County, Texas 78155

to Santa Clara Creek; thence to Lower Cibolo Creek in Segment No. 1902 of the Guadalupe River Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, **March 1, 2020**.

ISSUED DATE:

For the Commission

INTERIM I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through completion of expansion to the 2.5 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The daily average flow of effluent shall not exceed 0.25 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 521 gallons per minute (gpm).

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Single Grab Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	10 (21)	15	25	35	One/week	Grab
Total Suspended Solids	15 (31)	25	40	60	One/week	Grab
Ammonia Nitrogen	3 (6.3)	6	10	15	One/week	Grab
Total Phosphorus	0.5 (1.0)	1	2	3	One/week	Grab
E. coli, colony forming units or most probable number per 100 ml	126	N/A	N/A	399	One/month	Grab

2. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored five times per week by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per month by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

INTERIM II EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS Outfall Number 001

1. During the period beginning upon the completion of expansion to the 2.5 million gallons per day (MGD) facility and lasting through the completion of expansion to the 5.0 MGD facility, the permittee is authorized to discharge subject to the following effluent limitations:

   The annual average flow of effluent shall not exceed 2.5 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 5,208 gpm.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	7 (146)	12	22	32	Two/week	Composite
Total Suspended Solids	15 (313)	25	40	60	Two/week	Composite
Ammonia Nitrogen	2 (42)	5	10	15	Two/week	Composite
Total Phosphorus	0.5 (10)	1	2	3	Two/week	Composite
E. coli, colony forming units or most probable number per 100 ml	126	N/A	399	N/A	Daily	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored twice per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the completion of expansion to the 5.0 million gallons per day (MGD) facility and lasting through the date of permit expiration, the permittee is authorized to discharge subject to the following effluent limitations:

   The annual average flow of effluent shall not exceed 5.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 10,417 gpm.

Effluent Characteristic	Discharge Limitations				Min. Self-Monitoring Requirements	
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Daily Max. Measurement Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (209)	10	20	30	Five/week	Composite
Total Suspended Solids	5 (209)	10	20	30	Five/week	Composite
Ammonia Nitrogen	1.8 (75)	5	10	15	Five/week	Composite
Total Phosphorus	0.5 (21)	1	2	3	Five/week	Composite
E. coli, colony forming units or most probable number per 100 ml	126	N/A	399	N/A	Daily	Grab

2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five per week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored five per week by grab sample.
7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

   a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.

   b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

   c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

   d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

   e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

   f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

   a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

      i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

e. Bacteria concentration (*E. coli* or Enterococci) - Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, a monthly effluent report shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be reported on an approved self-report form that is signed and certified as required by Monitoring and Reporting Requirements No. 10.

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

2. Test Procedures

a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period

of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

c. Records of monitoring activities shall include the following:

i. date, time and place of sample or measurement;

ii. identity of individual who collected the sample or made the measurement.

iii. date and time of analysis;

iv. identity of the individual and laboratory who performed the analysis;

v. the technique or method of analysis; and

vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) 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 (MC 224) 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.

b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

i. Unauthorized discharges as defined in Permit Condition 2(g).

ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.

iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. One hundred micrograms per liter (100 µg/L);

ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or

iv. The level established by the TCEQ.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. Five hundred micrograms per liter (500 µg/L);

ii. One milligram per liter (1 mg/L) for antimony;

iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or

iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

11. All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Executive Director of the following:

a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

c. For the purpose of this paragraph, adequate notice shall include information on:

i. The quality and quantity of effluent introduced into the POTW; and

ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

i. Violation of any terms or conditions of this permit;

ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, 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 Other Requirements section of this permit.

h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.

b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or

ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;

iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy

a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

i. the permittee;

ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

b. This notification must indicate:

i. the name of the permittee and the permit number(s);

ii. the bankruptcy court in which the petition for bankruptcy was filed; and

iii. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).

7. Documentation

   For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not

confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

   a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

      If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 169) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

   b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

   c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and

related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:

    a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

    b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

    c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Environmental Cleanup Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

    d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

    e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

    f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:

        i. Volume of waste and date(s) generated from treatment process;
        ii. Volume of waste disposed of on-site or shipped off-site;

iii. Date(s) of disposal;
iv. Identity of hauler or transporter;
v. Location of disposal site; and
vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site or co-disposal landfill. **The disposal of sludge by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of sludge. This provision does not authorize land application of Class A or Class AB Sewage Sludge. This provision does not authorize the permittee to land apply sludge on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

3. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

B. Testing Requirements

1. Sewage sludge shall be tested once during the term of this permit in the Interim phase; annually in the Interim II and Final phases in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division and the Regional Director (MC Region 13) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 13) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year.

2. Sewage sludge shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C.

TABLE 1

Pollutant	Ceiling Concentration (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B pathogen requirements.

a. For sewage sludge to be classified as Class A with respect to pathogens, the density of fecal coliform in the sewage sludge be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information.

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB with respect to pathogens, the density of fecal coliform in the sewage sludge be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met.

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%.

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information.

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

c. Sewage sludge that meets the requirements of Class AB sewage sludge may be classified a Class A sewage sludge if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.

d. Three alternatives are available to demonstrate compliance with Class B criteria for sewage sludge.

Alternative 1

i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition, the following site restrictions must be met if Class B sludge is land applied:

i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.

vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.

viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

ix. Land application of sludge shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 - i. Sewage sludge shall be injected below the surface of the land.

ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10- i. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

ii. When sewage sludge that is incorporated into the soil is Class A or Class AB with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test	- once during the term of this permit in the Interim phase; annually in Interim II and the Final phase
PCBs	- once during the term of this permit in the Interim phase; annually in Interim II and the Final phase

All metal constituents and fecal coliform or Salmonella sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of sewage sludge (*) metric tons per 365-day period	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) *The amount of bulk sewage sludge applied to the land (dry wt. basis).*

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

Table 2

Pollutant	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B pathogen reduction requirements as defined above in Section I.B.3.

3) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.

4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control.

6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.

7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.

8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

1) Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:

a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or

b) use the closest downstream perennial water unaffected by the discharge.

2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;

b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and

c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.

2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the

effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

5) The effluent samples shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.

1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.

2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TLP3B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For the water flea, Parameter TOP3B, report the NOEC for survival.

3) For the water flea, Parameter TXP3B, report the LOEC for survival.

4) For the water flea, Parameter TWP3B, enter a "1" if the NOEC for reproduction is less than the critical dilution; otherwise, enter a "0."

5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.

6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.

7) For the fathead minnow, Parameter TLP6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.

9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.

10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."

11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.

12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this Part apply only when a test demonstrates a significant effect at the critical dilution. Significant lethality and significant effect were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction in the control.

a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.

b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.

d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.

e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show

significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE activities report shall also be submitted to the U.S. EPA Region 6 office.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no

significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

TABLE 1. (SHEET 1 OF 4)

BIOMONITORING REPORTING

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

Dates and Times Composites Collected — Date Time / Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

REP	Percent effluent					
	0%	31%	42%	56%	74%	99%
A						
B						
C						
D						
E						
F						
G						
H						
I						
J						
Survival Mean						
Total Mean						
CV%*						
PMSD						

*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)

Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION (98%): _____ YES _____ NO

PERCENT SURVIVAL

	Percent effluent					
Time of Reading	0%	31%	42%	56%	74%	99%
24h						
48h						
End of Test						

2. Fisher's Exact Test:

Is the mean survival at test end significantly less than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (98%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

a.) NOEC survival = _____% effluent

b.) LOEC survival = _____% effluent

c.) NOEC reproduction = _____% effluent

d.) LOEC reproduction = _____% effluent

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

FATHEAD MINNOW GROWTH DATA

Effluent Concentration	Average Dry Weight in replicate chambers					Mean Dry Weight	CV%*
	A	B	C	D	E		
0%							
31%							
41%							
55%							
74%							
98%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to significant nonlethal effects?

   CRITICAL DILUTION (98%): _____ YES _____ NO

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent Concentration	Percent Survival in replicate chambers					Mean percent survival			CV%*
	A	B	C	D	E	24h	48h	7 day	
0%									
31%									
41%									
55%									
74%									
98%									

* Coefficient of Variation = standard deviation x 100/mean

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (98%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for WET testing.

1. Scope, Frequency, and Methodology

a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.

b. Within 90 days of initial discharge of the 2.5 MGD facility, the toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:

1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.

b. Dilution Water - In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

c. Samples and Composites

1) The permittee shall collect one composite sample from Outfall 001.

2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

5) The effluent sample shall not be dechlorinated after sample collection.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.

1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 24 hours.

a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.

b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE activities report shall also be submitted to the U.S. EPA Region 6 office.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances

beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

Attachment 'A'
WQ0015360001

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

The following is required for facilities with a permitted or proposed flow of 1.0 mgd or greater, or facilities with an approved pretreatment program. See instructions for further details.

***Worksheet not required for minor amendments without renewal**

1. TABLE 4.0(1) – Toxic Materials

(Instructions, Page 84)

Table 1 sample information - indicate type of sample.

☑ Grab ☐ Composite

Date and time sample(s) collected: _____

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) (*1)				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide (*2)				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane (Lindane)				0.05
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) (*3)				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

2. TABLE 4.0(2) – Priority Pollutants

(Instructions, Page 84)

Table 2 sample information: indicate type of sample.

☐ Grab ☐ Composite

Date and time sample(s) collected: _____

Table 4.0(2)A – Metals, Cyanide, Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Trl) (*1)				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5

Cyanide (*2)				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				2
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane [Bromodichloromethane]				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. ( )	MAX Effluent Conc. ( )	No. of Samples	MAL ( )
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10

Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(o)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(p)Dichlorobenzene				10
3,3-Dichlorobenzidine				5
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenylhydrazine (as Azo-benzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	No. of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC				0.05

(Hexachlorocyclohexane)				
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (Hexachlorocyclohexane)				0.05
Chlordane				0.2
4,4-DDT				0.02
4,4-DDE				0.1
4,4-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Endrin Aldehyde				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
PCB-1242				0.2
PCB-1254				0.2
PCB-1221				0.2
PCB-1232				0.2
PCB-1248				0.2
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

TABLE 4.0(2)F (DIOXINS/FURAN COMPOUNDS)
(Instructions page 91)

Complete Table 4.0(2)F as directed. (Instructions, Pages 91-93)

a. Are any of the following compounds used by a contributing industrial user or significant industrial user that is part of the collection system for the facility that you have reason to believe are present in the influent to the WWTP?

☐ Yes ☐ No

If yes, indicate with a check mark which compound(s) are potentially sent to the facility and provide a brief description of the conditions of its/their presence at the facility.

☐	2,4,5-trichlorophenoxy acetic acid	(2,4,5-T)	CASRN 93-76-5
☐	2-(2,4,5-trichlorophenoxy) propanoic acid	(Silvex, 2,4,5-TP)	CASRN 93-72-1
☐	2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate	(Erbon)	CASRN 136-25-4
☐	0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate	(Ronnel)	CASRN 299-84-3
☐	2,4,5-trichlorophenol	(TCP)	CASRN 95-95-4
☐	hexachlorophene	(HCP)	CASRN 70-30-4

Description:

b. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

☐ Yes ☐ No

If yes, provide a brief description of the conditions for its presence.

c. If you responded yes to either item a or b, complete Table 12 as instructed.

Table 12 for Outfall No. _____

Samples are (check one): ☐ Composites ☐ Grabs

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

DOMESTIC WORKSHEET 5.0

TOXICITY TESTING REQUIREMENTS

Worksheet not required for minor amendments without renewal.

1. Required Tests

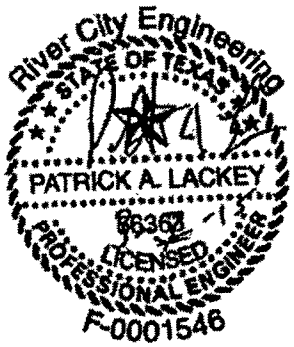
(Instructions, Page 94)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic:_____ 48-hour Acute:_____

GREEN VALLEY SUD – SANTA CLARA CREEK NO. 1
WASTEWATER TREATMENT PLANT
TCEQ DOMESTIC WASTEWATER PERMIT APPLICATION

March 2015



PREPARED FOR:

Green Valley Special Utility District

Attn: Pat Allen – General Manager
P.O. Box 99
Marion, Texas 78124
6096-104

BY:

RIVER CITY ENGINEERING, PLLC

Civil, Environmental, Consulting & Surveying

3801 S. First Street, Austin, TX 78704 BUS: (512) 442-3008
1011 W. County Line Road, Suite C, New Braunfels, Texas 78130 BUS: (830) 626-3588

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GREEN VALLEY SPECIAL UTILITY DISTRICT – SANTA CLARA CREEK NO. 1 WASTEWATER TREATMENT PLANT
TCEQ DOMESTIC WASTEWATER PERMIT APPLICATION

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TCEQ DOMESTIC WASTEWATER PERMIT APPLICATION DOMESTIC ADMINISTRATIVE REPORT

Submit this checklist with the application. Do not submit the instructions with the application. Indicate if the following are included in the application.

APPLICANT Green Valley Special Utility District

PERMIT NUMBER _____

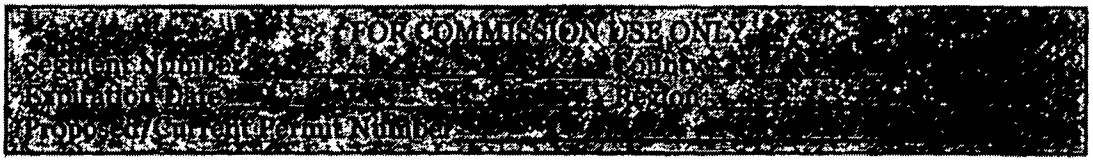
WORKSHEET	Y	N		Y	N
Administrative Report 1.0	☒	☐	Affected Landowner Map	☒	☐
Administrative Report 1.1	☒	☐			
SPIF	☒	☐	Buffer Zone Map	☒	☐
Technical Report 1.0	☒	☐	Flow Diagram	☒	☐
Technical Report 1.1	☒	☐	Site Drawing	☒	☐
Worksheet 2.0	☒	☐	Original Photographs	☒	☐
Worksheet 2.1	☒	☐	Design Calculations	☒	☐
Worksheet 3.0	☒	☐	Design Features	☒	☐
Worksheet 3.1	☒	☐	Solids Management Plan	☒	☐
Worksheet 4.0	☐	☒	Water Balance	☒	☐
Worksheet 5.0	☐	☒	Landowner Disk or Labels	☒	☐
Worksheet 6.0 (required for all POTWs)	☒	☐	Copy of Application Fee Check	☒	☐
Worksheet 7.0	☐	☒	All Fees Owed TCEQ are Paid	☒	☐
Original USGS Map	☒	☐			

Please indicate the amount submitted for the application fee (check only one):

Flow	New/Major Amendment	Renewal
<0.05 MGD	☐ $350.00	☐ $315.00
≥0.05 but < 0.10 MGD	☐ $550.00	☐ $515.00
≥0.10 but < 0.25 MGD	☐ $850.00	☐ $815.00
≥0.25 but < 0.50 MGD	☐ $1,250.00	☐ $1,215.00
≥0.50 but < 1.0 MGD	☐ $1,650.00	☐ $1,615.00
≥ 1.0 MGD	■ $2,050.00	☐ $2,015.00

Minor Amendment (any flow) ☐ $115.00

A copy of the application fee check must be submitted with the application.



DOMESTIC ADMINISTRATIVE REPORT 1.0

The following is required for all applications: Renewal, New, and Amendment

Type of application:

- ☒ New TPDES
- ☐ New TLAP
- ☐ Major amendment with renewal
- ☐ Minor amendment with renewal
- ☐ Major amendment without renewal
- ☐ Minor amendment without renewal
- ☐ Renewal (no changes)
- ☐ Minor modification of permit

If applying for an amendment or renewal with changes, describe the request in detail.

N/A

1. Applicant Information

(Instructions, Page 24)

a. Facility owner

(Owner of the facility must apply for the permit.)

Provide the Legal Name of the entity (applicant) applying for this permit (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.):

Green Valley Special Utility District

If the applicant is currently a customer with TCEQ, provide the Customer Number (CN):
CN: 600684294

What is the applicant's contact information and mailing address as recognized by the **US Postal Service?**

Phone No.: (830) 914-2330 Extension:

Fax No.: (830) 420-4138 E-mail Address: pallen@gvsud.org

Organization Name: Green Valley Special Utility District

Mailing Address: P.O. Box 99

Internal Routing (Mail Code, Etc.):

City: Marion State: TX ZIP Code: 78124

Mailing Information if outside USA

Territory:_____ Country Code:_____ Postal Code:_____

Indicate the type of Customer:

☐ Individual	☐ Sole Proprietorship-D.B.A.
☐ Limited Partnership	☐ Corporation
☐ Trust	☐ Estate
☐ Federal Government	☐ State Government
☐ County Government	☐ City Government
☑ Other Government	☑ Other: Special Utility District

Independent entity

☒ Yes ☐ No *(If governmental entity, subsidiary, or part of a larger corporation)*

Number of Employees:

☐ 0-20; ■ 21-100; ☐ 101-250; ☐ 251-500; or ☐ 501 or higher

Customer Business Tax and Filing Numbers

(Not applicable to individuals, governments, general partnerships or sole proprietors. ***REQUIRED*** *for corporations and limited partnerships)*

State Franchise Tax ID Number: N/A

TX SOS Charter (filing) Number: N/A

Federal Tax ID: N/A

DUNS Number (if known): N/A

b. Co-permittee information

Complete only if the operator must be a co-permittee).

Provide the Legal Name of the entity (operator) applying for this permit (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.):

Operator: N/A

If the operator is currently a customer with TCEQ, provide the Customer Number (CN)?
CN: N/A

Provide the co-permittee's contact information and mailing address as recognized by the **US Postal Service:**

Organization Name: N/A

Mailing Address: N/A

Internal Routing (Mail Code, Etc.): N/A

City: N/A State: N/A ZIP Code: N/A

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

Indicate the type of Customer:

- ☐ Individual
- ☐ Sole Proprietorship-D.B.A.
- ☐ Limited Partnership
- ☐ Corporation
- ☐ Trust
- ☐ Estate
- ☐ Federal Government
- ☐ State Government
- ☐ County Government
- ☐ City Government
- ☐ Other Government
- ☐ Other:

Independent entity

☐ Yes ☐ No *(If governmental entity, subsidiary, or part of a larger corporation)*

Number of Employees:

☐ 0-20; ☐ 21-100; ☐ 101-250; ☐ 251-500; or ☐ 501 or higher

Customer Business Tax and Filing Numbers

(Not applicable to individuals, governments, general partnerships or sole proprietors. ***REQUIRED*** *for corporations and limited partnerships)*

State Franchise Tax ID Number: N/A

TX SOS Charter (filing) Number: N/A

Federal Tax ID: N/A

DUNS Number (if known): N/A

Provide a brief description of the need for a co-permittee:

N/A

c. Individual Information

Complete only if the facility owner or co-permittee is an individual.

Provide the full Legal Name of the Individual (Owner/Co-permittee) applying for this permit: N/A

If the owner/co-permittee is currently a customer with TCEQ, provide the Customer Number (CN): N/A

Provide the applicant's contact information and mailing address as recognized by the **US Postal Service?**

Mailing Address: N/A

Internal Routing (Mail Code, Etc.): N/A

City: N/A State: N/A ZIP Code: N/A

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

2. Billing Contact

(Instructions, Page 28)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits **in effect on September 1 of each year.** *TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed using TCEQ form number 20029.*

Is the billing address the same as the permittee or co-permittee?

■ Permittee ☐ Co-permittee ☐ No, fill out this section

Prefix (Mr, Ms, Miss):

First/Last Name:

Suffix (Jr, Sr, III): N/A Title: Credential: N/A

Phone No.: Extension: N/A

Fax No.: E-mail Address:

Organization Name:

Mailing Address:

Internal Routing (Mail Code, Etc.): N/A

City: State: ZIP Code:

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

3. Application Contact Information

(Instructions, Page 28)

If TCEQ needs additional information regarding this application, who should be contacted?

a. First application contact

Prefix (Mr, Ms, Miss): Mr

First/Last Name: Pat Allen

Suffix (Jr, Sr, III): N/A Title: General Manager Credential: N/A

Phone No.: (830) 914-2330 Extension: N/A

Fax No.: (830) 420-4138 E-mail Address: pallen@gvsud.org

Organization Name: Green Valley Special Utility District

Mailing Address: P.O. Box 99

Internal Routing (Mail Code, Etc.): N/A

City: Marion State: TX ZIP Code: 78124

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

Check one or both: ■ Administrative contact ■ Technical Contact

b. Alternate application contact

Prefix (Mr, Ms, Miss): Mr
First/Last Name: Garry Montgomery
Suffix (Jr, Sr, III): N/A Title: Project Manager Credential: P.E.
Phone No.: (830) 626-3588 Extension: 153
Fax No.: (830) 420-4138 E-mail Address: garry@rcetx.com
Organization Name: River City Engineering, PLLC
Mailing Address: 1011 W. County Line Road
Internal Routing (Mail Code, Etc.): N/A
City: New Braunfels State: TX ZIP Code: 78130

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A
Check one or both: ■ Administrative contact ■ Technical Contact

4. DMR/MER Contact Information

(Instructions, Page 28)

Contact Responsible for Discharge Monitoring Reports (EPA 3320-1) or Monthly Effluent Reports. Provide the name of the person and their complete mailing address delegated to receive and submit Discharge Monitoring Report Forms.

Prefix (Mr, Ms, Miss): Mr
First/Last Name: Pat Allen
Suffix (Jr, Sr, III): N/A Title: General Manager Credential: N/A
Phone No.: (830) 914-2330 Extension:
Fax No.: (830) 420-4138 E-mail Address: pallen@gvsud.org
Organization Name: Green Valley Special Utility District
Mailing Address: P.O. Box 99
Internal Routing (Mail Code, Etc.): N/A
City: Marion State: TX ZIP Code: 78124

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

Did you know you can submit DMR data on line?
Go to Sign up now at:
http://www.tceq.texas.gov/field/netdmr/netdmr.html
Establish an electronic reporting account when you get your permit number.

5. Permit Contact Information

(Instructions, Page 28)

Provide two names of individuals that can be contacted throughout the permit term.

Prefix (Mr, Ms, Miss): Mr.
First/Last Name: Pat Allen
Suffix (Jr, Sr, III): N/A Title: General Manager Credential: N/A
Phone No.: (830) 914-2330 Extension: N/A
Fax No.: (830) 420-4138 E-mail Address: pallen@gvsud.org
Organization Name: Green Valley Special Utility District
Mailing Address: P.O. Box 99
Internal Routing (Mail Code, Etc.): N/A
City: Marion State: TX ZIP Code: 78124

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

Prefix (Mr, Ms, Miss): Mr.
First/Last Name: Garry Montgomery
Suffix (Jr, Sr, III): Jr Title: Project Manager Credential: N/A
Phone No.: (830) 626-3588 Extension: 153
Fax No.: (830) 626-3601 E-mail Address: garry@rcetx.com
Organization Name: River City Engineering, PLLC
Mailing Address: 1011 W. County Line Road
Internal Routing (Mail Code, Etc.): N/A
City: New Braunfels State: TX ZIP Code: 78130

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

6. Notice Information

(Instructions, Page 29)

a. Individual associated with the applicant responsible for publishing the notices

Prefix (Mr. Ms, Miss): Mr

First/Last Name: Pat Allen

Suffix (Jr, Sr, III): N/A Title: General Manager Credential: N/A

Phone No.: (830) 914-2330 Extension: N/A

Fax No.: (830) 420-4138 E-mail Address: pallen@gvsud.org

Organization Name: Green Valley Special Utility District

Mailing Address: P.O. Box 99

Internal Routing (Mail Code, Etc.): N/A

City: Marion State: TX ZIP Code: 78124

Mailing Information if outside USA

Territory: N/A Country Code: N/A Postal Code: N/A

b. Method for receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Indicate by a check mark the preferred method for receiving the first notice and instructions:

- [x] E-mail Address: pallen@gvsud.org
- [ ] Fax No.: _____
- [ ] Overnight/Priority mail: (self addressed, prepaid envelope required)
- [ ] Regular Mail:

  Mailing Address: _____

  Internal Routing (Mail Code, Etc.): _____

  City: _____ State: _____ ZIP Code: _____