References/Appendices

References/Appendices

(A)

Amenities Plan Part J

I. Amenities Plans

J. Sewer Team

The discussion around investigating a Sewer System requires a combined long-range planning along with the Fair Company, Crystal Systems and other companies who have legal involvement. This demands a coordinated planning capability where all are working together for the betterment of all who live in Hideaway.

The strategic planning committee, with the support of the Board of Directors and the City of Hideaway, formed a "sewer strategic planning team.: The mission of the team is to jointly coordinate, with the City of Hideaway, the Fair Company, Crystal Systems, and any other companies having legal involvement a long-rang plan regarding a potential sewer system integrated with all other community-wide strategic planning. The team will work with all parties involved to ensure a coordinated planning capability where all are working together.

The charter of the sewer strategic planning team is as follows:

- Consist of an assigned Team Lead and volunteers as needed
- Conduct research and development of needed issues to examine the need for a sewer system to include paid consultants as required.
- Be allowed to continue activities through the 2018 year and presenting their conclusion as part of the 2018 Strategic Planning Committee final report. However, the Team will give an interim report prior to June 30, 2018.
- Be formed November 2017 and will disband December 2018, unless further approval is obtained by the Board and City of Hideaway.
- Engage Hideaway members as part of our overall SPC Communications Plan to build awareness and collect wants and needs.
- The Team Lead should understand the infrastructure and rules of operation of the Board and the City.
- Also address other utilities which may impact a sewer system, the roads, and rights of way.

- Engage the Fair Company, Crystal Water and North Star, or any other organizations with potential involvement.
- Hold planning meetings as needed to research and discuss options and other planning discussions.
- A report will be presented at the Monthly Strategic Planning Committee public meeting.
- Using SPC Resources, conduct public town hall meetings, surveys and other member involvement throughout the term of its work to measure public opinion on specific topics relating to the committee's work.

References/Appendices

(B)

House Engineering Report

HOUSE ENGINEERING & CONSTRUCTION INC.
Randal R. House, P.E.
2614 Lansing Switch Road, Longview, Tx 75602
Phone (903) 660-1020

May 01, 2019

Mr. Richard Peacock
City of Hideaway Lake
Wastewater Committee

Project : Lakefront Wastewater Systems

Dear Sir:

Thank you for the opportunity to consult with The City of Hideaway Lake regarding On-Site Sewage Facilities on lake front properties. Having prepared many designs for Hideaway Lake properties, the concern regarding pollution of the water is understandable. Your foresight to get ahead of this matter is commendable.

The attached report addresses the specific areas detailed in the Scope of Work for my services.

Please let me know if any additional information is needed.

Sincerely,

Randal R. House, P.E.

ON-SITE SEWAGE FACILITIES

ON

LAKE FRONT PROPERTIES

HIDEAWAY, TEXAS

REPORT NUMBER 576-2593

R E P O R T

to

MR. RICHARD PEACOCK

HIDEAWAY LAKE, TEXAS

by

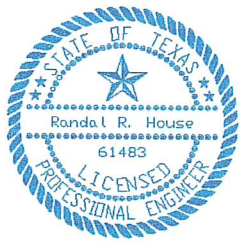
HOUSE ENGINEERING & CONSTRUCTION, INC.

2614 Lansing Switch Road

Longview, Texas 75602

TBPE Firm 6062

May 02, 2019



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City of Hideaway Lake

On-Site Sewage Facility Study

Introduction

Hideaway Lake has three lakes with lots along the shoreline. Some 292 homes are documented in Hideaway Lake Club records and Smith County's On-Site Sewage Facility (OSSF) permits on lake front lots. Smith County has maintained records of each system installed since the County was designated Authorised Agent of the Texas Commission for Environmental Quality (TCEQ) in 1989. Hideaway Lake Club development was started more than twenty years prior. The City of Hideaway Lake has requested the following:

A. Quantify the systems (lake front) permitted under the Smith County ordinance.

B. Provide a break down of types of permitted systems.

C. Provide a description of inspections required by current regulations.

D. Recommend additional inspection requirements for systems around the lake.

E. Provide analysis of administration options in the regulatory process.

On-Site Wastewater Systems On Lake Front Properties

Smith County's Designated Representative's (DR) files were researched by House Engineering personnel to determine how many On-site Sewage Facilities (OSSF) had been installed under the county's ordinance. Smith County's DR approves Applications for Construction and inspects installation of OSSF systems in most of the county including Hideaway Lake. Since the late 1990s TCEQ rules have been revised to require certain types of residential systems be inspected for proper operation three times annually. The DR is responsible for collecting and keeping these inspection records. The inspection requirements are addressed later in this report.

The number of OSSF permitted through Smith County compared to the total number of houses is Tabulated below.

	PERMITTED SYSTEMS	TOTAL SYSTEMS	% PERMITTED
LAKE 1	85	137	62%
LAKE 2	49	137	36%
LAKE 3	8	16	50%

Combined Results 63% are permitted

Hideaway Lake Club records were researched in an attempt to provide insight as to what type of systems were put in prior to the OSSF regulations. Documentation was found on all but sixty (60) properties at least indicating what type of disposal system was installed. The earliest document found was dated December 21, 1978. A letter in the file stated 'the submitted plan will not work'... The significance being as many as 90 homes are possibly on systems more than 30 years old.

Types of Systems Installed on Lake Front Lots

Life is Always Greener Over the Septic Tank was a popular book in the seventies. Author Ermma Bombek described life in the suburbs. The term "Septic" in OSSF Rules 30 TAC Chapter 285 refers to the anaerobic digestion which occurs as sewage is held without oxygen.

The following are types of Treatment Systems found in Chapter 285 Subchapter A are as follows:

(65) Septic tank--A watertight covered receptacle constructed to receive, store, and treat sewage by: separating solids from the liquid; digesting organic matter under anaerobic conditions; storing the digested solids through a period of detention; and allowing the clarified liquid to be disposed of by a method approved under this chapter.

(1) Aerobic digestion--The bacterial decomposition and stabilization of sewage in the presence of free oxygen. (Includes Aerobic Systems)

(3) Anaerobic digestion--The bacterial decomposition and stabilization of sewage in the absence of free oxygen.

Smith County records show only 25 of the 183 permitted systems on lake front lots have septic tanks for treatment.

"Disposal method" refers to how effluent from the treatment system is discharged. What is commonly referred to as a "Conventional system" is defined in Chapter 285.33 (b) as follows:

Standard disposal systems. Acceptable standard disposal methods shall consist of a drain field to disperse the effluent either into adjacent soil (absorptive) or into the surrounding air through evapo-transpiration (evaporation and transpiration).

There are several products used in subsurface disposal. Most common are gravel, leaching chambers and EZ Flow which are known by several other names. Disposal methods are selected based on soils, size of lot and proximity to water. The lake front lots at Hideaway generally are too small for surface application as a disposal method. The TCEQ requires a ten (10) feet setback from property lines and a fifty (50) feet setback from the waters edge for areas sprinkled with aerobically treated wastewater. Drip irrigation of aerobically treated and disinfected wastewater may be disposed up to twenty five (25) feet of the lake shore. A seventy five (75) feet setback is required for subsurface disposal of septic tank effluent. The following shows a breakdown of the number of different disposal systems on lake front lots and the relative strength of effluent expressed as Bichemical Oxygen Demand (BOD) in parts per million:

		EFFLUENT
DISPOSAL METHOD	NUMBER	*BOD
DRIP IRRIGATION	120	30
SPRAY IRRIGATION	13	30
SEPTIC/SUBSURFACE	25	140
AEROBIC/SUBSURFACE	25	30

*BOD VALUES ARE ESTIMATED

The significance to lake water quality is the concentration of effluent from septic tank is four (4) times that of effluent from a properly operating aerobic system. Average rainfall exceeds

evaporation from November to March. Wastewater entering the ground under these conditions will migrate to the lakes through the soil.

Maitenance Requirements

The following sections will contain excerpts from the On-Site Regulations which will be italicized with clarification comments in bold. It should be clear that all On-Site systems require maintenance, even if it is just having tanks pumped periodically. TCEQ requires either a homeowner maintain systems with secondary (aerobic) treatment or have a contract with a licensed provider. The level of work and reporting varies from system to system depending on working parts such as filters, aerators and pumps. The cost of maintenance depends on the periodic maintenance as with an automobile. Failure to clean or replace filters may result in a more costly repair later. Aerator parts retail prices range from $3 for a filter, $100 for a repair kit to $250 for a new one. Pumps are generally working or needing replaced. Prices on pumps vary greatly depending on the function, but range from $250 to over $500. Labor for installing the above listed items is extra.

RULE §285.39 On-Site Sewage Facilities Maintenance and Management Practices

(a) An installer shall provide the owner of an on-site sewage facility (OSSF) with written information regarding maintenance and management practices and water conservation measures related to the OSSF installed, repaired, or maintained by the installer.

(b) Owners shall have the treatment tanks pumped on a regular basis in order to prevent sludge accumulation from spilling over to the next tank or the outlet device. Owners of treatment tanks shall engage only persons registered with the executive director to transport the treatment tank contents. All OSSF systems require maintenance, not maintenance contracts. Systems required to have a maintenance contract with a licensed maintenance provider or a home owner who provides the maintenance are listed in 285.91 Table XII which is included in the Appendix of this report

(c) Owners shall not allow driveways, storage buildings, or other structures to be constructed over the treatment or disposal systems.

OSSF regulations regarding maintenance of systems are as follows:

Chapter 285.7 Maintenance Requirements.

(a) Maintenance contract requirements. Maintenance contract requirements for all on-site sewage facilities (OSSFs) are identified in §285.91(12) of this title (relating to Tables). The permit holder shall ensure that the OSSF is properly operated and maintained in accordance with this chapter. Homeowners who maintain their own systems are exempt from contract requirements, as provided in subsection (d)(4) of this section. **Please note this exemption is from having a contract with a licensed provider NOT the maintenance requirements.**

(b) Maintenance Provider . (3) Effective September 1, 2009, the maintenance provider must sign all maintenance reports. Reports are turned in to DR.

(c) Initial Two-Year Service Policy. The initial two-year service policy shall be effective for two years from the date the OSSF is first used. For a new single family dwelling, this date is the date of sale by the builder. For an existing single family dwelling this date is the date the notice of approval is issued by the permitting authority. The owner, or owner's agent shall provide the permitting authority with a copy of the signed initial two-year service policy before the system is approved for use. The initial service policy shall meet the minimum guidelines for maintenance contracts, as described in §285.7(d)(1)(A) - (E) and the individual fulfilling the service policy shall be a maintenance provider or a maintenance technician working under the supervision of a maintenance provider. This applies to newly installed systems.

(d) Maintenance contracts. OSSFs required to have maintenance contracts are identified in

§285.91(12) of this title.

(1) Contract provisions. The OSSF maintenance contract shall, at a minimum:

(A) list items that are covered by the contract;

(B) specify a time frame in which the maintenance provider or maintenance technician will visit the property in response to a complaint by the property owner regarding the operation of the system;

(C) specify the name of the maintenance provider who is responsible for fulfilling the terms of the maintenance contract;

(D) identify the frequency of routine maintenance and the frequency of the required testing and reporting;

(E) identify who is responsible for maintaining the disinfection unit; and

(F) indicate the business physical address and telephone number for the maintenance provider.

Recommended Additional Inspection Requirements

The TCEQ regulations provided exceptional requirements for OSSF systems installed on property above the Edwards Aquifer recognizing it's value as a water supply for the region. While the installations are in place on most lake front lots at Hideaway, protecting the Lakes remains important to the Hideaway community.

The authority to require stricter maintenance requirements rest with Smith County as the current Authorized Agent. Smith County maintenance requirements entail making sure mechanical and electrical components are working properly three times a year. A change to the Smith County OSSF Ordinance would be required.

Recommendations for Lake Front OSSFs

The following recommendations are intended to protect lake water quality. The legal means to

implement and enforce compliance must be met prior to enacting policy change. The benefit vs cost of any policy should be evaluated. All laws and ordinances regarding Municipal government shall be followed.

1. Require secondary treatment for OSSF on systems installed on lake front lots in the future. A properly working secondary treatment system produces an effluent with a third of the pollutants of septic tank effluent.

2. Require smart alarms be installed on lake front systems. These alarms can alert home owner, maintenance provider or the DR in cases where maintenance contracts are not in place.

3. Require lake front property owners to comply with existing Rule 285.39 *(b)Owners shall have the treatment tanks pumped on a regular basis in order to prevent sludge accumulation from spilling over to the next tank or the outlet device.* ...by requiring septic tank inspections if not pumped on a specified frequency.

4. Maintenance Report review and follow up. The rules are in place requiring routine maintenance and reporting 285.90 Table IV. Smith County's DR receives hundreds of reports monthly. A staff of two doesn't have time to read through the reports much less follow through with field inspections. Implement systematic inspections of aerobic units following receipt of reports and periodically on aerobic units maintained by home owners to audit the system. There are checks and tests which can be done to insure proper operating of systems.

285.7 (g) Inspections by authorized agents or commission. An authorized agent or the commission may inspect an on-site sewage system using aerobic treatment at any time.

5. Home owners who perform maintenance on their systems are not required test and report under TCEQ or Smith County regulations. This can be revised in the Order to require testing reporting or maintenance contracts with a licensed provider.

City of Hideaway Lake Options

Protection of lake water quality and the value of lake front properties is important to all in the Hideaway Community. Providing the best available protection affordable to the community and individual households is the focus of the Hideaway On-Site committee. Assessment of current lake water quality through sampling and testing can provide a baseline for decision making.

Options Available to City of Hideaway include:

1) Continue under Smith County as Authorised Agent/Order for OSSF program.

The Smith County OSSF Order provides for many of the necessary tools to keep OSSF systems operating in compliance with regulation and protecting lake water quality.

2) Seek changes to Smith County order and supplement DR's staff with a contracted DR for Hideaway. Smith County's DR doesn't have the resources to follow up on operating systems in Hideaway. A special DR could be provided by the City of Hideaway to inspect OSSF systems on the lake front properties or all of Hideaway.

3) City of Hideaway would seek Authorised Agent Status

City of Hideaway would create and enforce an order as unique as the community. It would provide a direct communication between the home owners and the City. The process to obtain Authorised Agent Status is included in the Appendix of this report.

4) Construct sanitary sewer collection system to transport wastewater to treatment facility off site.

A sewage collection system will require tanks and pumps on lake front properties to convey waste water to the sewer lines. This would continue the need for home owner maintenance of a sewage or grinder pump. Measures would need to be included to insure pump failure or long term power outage would not result in direct discharge into the lake.

Construction cost of a sewer collection system or connection from individual properties is outside the scope of this report.

Recommendation

The Hideaway Development started in the sixties with primarily part time residents and this trend continued through the eighties. The part time generally during warmer months. The 1990's saw an increase in new houses with full time residents, larger families and homes. These changes have increased water consumption and wastewater generation significantly. The wastewater being treated and disposed on the same area for 30 years.

The protection of water quality and property value associated with the On-Site Sewage program requires diligent enforcement of the existing regulations and initiating more stringent requirements as warranted.. The only means of insuring the On-Site program is providing the necessary protection, is for the City of Hideaway Lake to obtain status as Authorized Agent. TCEQ guidance for initiating this process is included in the Appendix.

APPENDIX

Figure: 30 TAC §285.91(4)

Table IV. Required Testing and Reporting.

Type and Size of Treatment Unit	Testing Frequency	Required Tests	Minimum Acceptable Test Results
Any Treatment Method in Conjunction with Surface Application	At least once every four months	One BOD_5 and TSS Grab Sample Per Year (non-single family residences only) Total Chlorine Residual or Fecal Coliform at Each Required Test	BOD_5 and TSS Grab Samples Not To Exceed 65 mg/l 0.1 mg/l Residual in Pump Tank or Fecal Coliform Not To Exceed 200 MPN/100 ml (CFU/100 ml)
Any Secondary Treatment System	At least once every four months	None	None
Non Standard	Permit Specific	Permit Specific	Permit Specific

Figure: 30 TAC §285.91(10)

Table X. Minimum Required Separation Distances for On-Site Sewage Facilities.

	TO					
FROM	Tanks	Soil Absorption Systems, & Unlined ET Beds	Lined Evapotranspiration Beds	Sewer Pipe With Watertight Joints	Surface Application (Edge of Spray Area)	Drip Irrigation
Public Water Wells[2]	50	150	150	50	150	150
Public Water Supply Lines[2]	10	10	10	10	10	10
Wells and Underground Cisterns	50	100	50	20	100	100
Private Water Line	10	10	5	10[5] except at connection to structure	No separation distances	10
Wells Completed in accordance with 16 TAC §76.1000(a)(1)	50	50	50	20	50	50
Streams, Ponds, Lakes, Rivers, Creeks (Measured From Normal Pool Elevation and Water Level); Salt Water Bodies	50	75 LPD with secondary treatment & disinfection - 50	50	20	50	25 when $R_a < 0.1$ 75 when $R_a > 0.1$ (With Secondary Treatment & Disinfection - 50)

(High Tide Only); Retention Ponds/Basin (Spillway elevation)						
Foundations, Buildings, Surface Improvements, Property Lines, Swimming Pools, and Other Structures	5	5	5	5 Pipe may run beneath driveways and sidewalks or up to surface improvements if it is Schedule 80 pipe or sleeved in Schedule 40 pipe Pipe containing secondary effluent has no setbacks from building foundations	No Separation Distances Except: Property lines - 20[6] Swimming Pools - 25	No Separation Distances Except[4]: Property Lines - 5
Underground Easements	1	1	1	1	May spray to edge of easement, but not into. Sprinkler heads must be 1 feet from easement edge	1
Overhead Easements	1 No setbacks if permission is granted by easement holder	1 No setbacks if permission is granted by easement holder	1 No setbacks if permission is granted by easement holder	1 No setbacks if permission is granted by easement holder	1 No setbacks if permission is granted by easement holder	1 No setbacks if permission is granted by easement holder

Slopes Where Seeps may Occur and detention ponds	5	25	5	10	10	10 when $R_a < 0.1$ 25 when $R_a > 0.1$
Edwards Aquifer Recharge Features (See Chapter 213 of this title relating to Edwards Aquifer)[3]	50	150	50	50	150	100 when $R_a < 0.1$ 150 when $R_a > 0.1$

1. All distances measured in feet, unless otherwise indicated.
2. For additional information or revisions to these separation distances, see Chapter 290 of this title (relating to Public Drinking Water).
3. No on-site sewage facility may be installed closer than 75 feet from the banks of the Nueces, Dry Frio, Frio, or Sabinal Rivers downstream from the northern Uvalde County line to the recharge zone.
4. Drip irrigation lines may not be placed under foundations.
5. Private water line/wastewater line crossings should be treated as public water line crossings, see Chapter 290 of this title.
6. Separation distance may be reduced to 10 feet when sprinkler operation is controlled by commercial timer. See §285.33(d)(2)(G)(i) of this title (relating to Criteria for Effluent Disposal Systems).

Figure: 30 TAC §285.91(12)

Table XII. OSSF Maintenance Contracts, Affidavit, and Testing/Reporting Requirements.

SYSTEM DESCRIPTION	Maintenance /Affidavit Required	Maintenance Activities Required	Testing and Reporting Requirements 2,4
Septic Tank & Absorptive Drainfield	No	See §285.39	No
Septic Tank & ET Drainfield (Unlined) Septic Tank & ET Drainfield (Lined)	No (3) No (3)	See §285.39 See §285.39	No No
Septic Tank & Pumped Drainfield	No	See §285.39	No
Septic Tank & Leaching Chamber	No	See §285.39	No
Septic Tank & Gravelless Pipe	No	See §285.39	No
Septic Tank & Low Pressure Dosing	No	See §285.39	No
Septic Tank & Absorptive Mounds	No	See §285.39	No
Septic Tank & Soil Substitution	No	See §285.39	No
Septic Tank, Secondary Treatment, Filter & Surface Application	Yes	Entire OSSF	Test & Report
Secondary Treatment & Standard Absorptive Drainfields	Yes	Treatment System	Report
Secondary Treatment & ET Drainfield	Yes	Treatment System	Report
Secondary Treatment & Leaching Chamber	Yes	Treatment System	Report
Secondary Treatment & Gravelless Pipe	Yes	Treatment System	Report
Secondary Treatment, Filter & Drip Emitter	Yes	Entire OSSF	Report
Secondary Treatment & Low Pressure Dosing	Yes	Treatment System	Report
Secondary Treatment & Absorptive Mounds	Yes	Treatment System	Report
Secondary Treatment & Surface Application	Yes	Entire OSSF	Test and Report
Any Other Treatment System	(1)	(1)	(1)
Any Other Subsurface Disposal System	(1)	(1)	(1)
Any Other Surface Disposal System	Yes	(1)	(1)
Non-Standard Treatment and Surface Application	Yes	Entire OSSF	Test and Report

			(1)
Holding Tank	Yes	Pump tank as needed	Keep pump records

(1) Determined by the permitting authority based upon review required by §285.5(b) of this title (relating to Submittal Requirements for Planning Materials).
(2) Requirements for Planning Materials. Testing criteria and reporting frequency for those systems not covered under (1) shall be according to §285.91(4) of this title.
(3) Required if design Q is less than required by §285.91(3) of this title.
(4) Not required if the homeowner maintains the system.

For questions about the process, or to obtain a copy of the current model order/ordinance/resolution, you may contact the following individuals or write to the following address:

James McCaine, Telephone 512-239-4777, e-mail james.mccaine@tceq.texas.gov

Tanya Mitchell, Telephone 512-239-1937, e-mail tanya.mitchell@tceq.texas.gov

TCEQ
MC-235
PO Box 13087
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References/Appendices

(C)

TCEQ Regulations/Rules/Responsibilities

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Texas Administrative Code

TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 285	ON-SITE SEWAGE FACILITIES
SUBCHAPTER A	GENERAL PROVISIONS
RULE §285.1	Purpose and Applicability

(a) Purpose. The purpose of this chapter is to provide a comprehensive regulatory program for the management of on-site sewage facilities (OSSFs), as prescribed by the Texas Health and Safety Code, Chapter 366. This chapter establishes minimum standards for planning materials, construction, installation, alteration, repair, extension, operation, maintenance, permitting, and inspection of OSSFs. This chapter also provides the procedures for the designation of local governmental entities as authorized agents. The licensing of installers, designated representatives, and site evaluators and the registration of apprentices is included in Chapter 30 of this title (relating to Occupational Licenses and Registrations). Unauthorized discharge of effluent into or adjacent to the waters in the state is prohibited.

(b) Applicability. This chapter applies to:

(1) any person who has an ownership interest in an OSSF; or

(2) any person who participates in any activity relating to the development of planning materials, construction, installation, alteration, repair, extension, operation, maintenance, permitting, inspection, or investigation of an OSSF; or

(3) any governmental entity that is, desires to be, or was, designated as an authorized agent.

Source Note: The provisions of this §285.1 adopted to be effective June 13, 2001, 26 TexReg 4115; amended to be effective December 17, 2001, 26 TexReg 10363

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Texas Administrative Code

TITLE 30	ENVIRONMENTAL QUALITY
PART 1	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CHAPTER 285	ON-SITE SEWAGE FACILITIES
SUBCHAPTER A	GENERAL PROVISIONS
RULE §285.3	General Requirements

(a) Permit required. A person shall hold a permit and an approved plan to construct, alter, repair, extend, or operate an on-site sewage facility (OSSF) unless the OSSF meets one of the exceptions in subsection (f) of this section.

(1) All aspects of the permitting, planning, construction, operation, and maintenance of OSSFs shall be conducted according to this chapter, or according to an order, ordinance, or resolution of an authorized agent.

(2) The executive director is the permitting authority unless a local governmental entity has an OSSF order, ordinance, or resolution approved by the executive director. In areas where the executive director is the permitting authority, the staff from the appropriate regional office shall be responsible for the proper implementation of this chapter.

(3) Permits shall be transferred to a new owner automatically upon sale or other legal transfer of an OSSF.

(4) Conditioning of Permits. The permitting authority may require conditions to a permit in order to ensure that the permitted OSSF system will operate in accordance with the planning materials and system approval. Failure to comply with these conditions is a violation of the permit and this chapter. Any violation of a condition of a permit that would be considered an alteration as defined in §285.2 (2) of this title (relating to Definitions) would require a new permit.

(b) General Application Requirements.

(1) The owner or owner's agent must obtain an authorization to construct from the permitting authority before construction may begin on an OSSF. Before an authorization to construct can be issued, the permitting authority shall require submittal of the following from the owner or owner's agent:

(A) an application, on the form provided by the permitting authority;

(B) all planning materials, according to §285.5 of this title (relating to Submittal Requirements for Planning Materials);

(C) the results of a site evaluation, conducted according to §285.30 of this title (relating to Site Evaluation); and

(D) the appropriate fee.

(2) Variance requests shall be submitted with the application and shall be reviewed by the permitting authority according to subsection (h) of this section.

(3) Before the permitting authority issues an authorization to construct, the owner of OSSFs identified in §285.91(12) of this title (relating to Tables) or the owner's agent, must record an affidavit in the county deed records of the county or counties where the OSSF is located. Additionally, the owner or the owner's agent must submit, to the permitting authority, an affidavit affirming the recording. An example of the affidavit is located in §285.90(2) of this title (relating to Figures). The affidavit must include:

(A) the owner's full name;

(B) the legal description of the property;

(C) that an OSSF requiring continuous maintenance is located on the property;

(D) that the permit for the OSSF is transferred to the new owner upon transfer of the property; and

(E) that at any time after the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days of the transfer or maintain the system personally.

(c) Action on Applications. The permitting authority shall either approve or deny an application within 30 days of receiving an application. If the application and planning materials are approved, the permitting authority shall issue an authorization to construct. If the application and planning materials are denied, the permitting authority shall explain the reasons for the denial in writing to the owner, and the owner's agent.

(d) Construction and Inspection.

(1) An authorization to construct is valid for one calendar year from the date of its issuance. If the installer does not request a construction inspection by the permitting authority within one year of the issuance of the authorization to construct, the authorization to construct expires, and the owner will be required to submit a new application and application fee before an OSSF can be installed. A new application and application fee are not required if the owner decides not to install an OSSF.

(2) The installer shall notify the permitting authority at least five working days (Monday through Friday, excluding holidays) before the date the OSSF will be ready for inspection.

(3) The permitting authority shall conduct a construction inspection.

(4) If the OSSF does not pass the construction inspection, the permitting authority shall:

(A) at the close of the inspection, advise the owner and the owner's agent, if present, of the deficiencies identified and that the OSSF cannot be used until it passes inspection; and

(B) within seven calendar days after the inspection, issue a letter to the owner and the owner's agent listing the deficiencies identified and stating that the OSSF cannot be used until it passes inspection.

(5) If a reinspection is necessary, a reinspection fee may be assessed by the permitting authority.

(6) The reinspection fee must be paid before the reinspection is conducted.

(e) Notice of Approval.

(1) Within seven calendar days after the OSSF has passed the construction inspection, the permitting authority shall issue, to the owner or owner's agent, a written notice of approval for the OSSF.

(2) The notice of approval shall have a unique identification number, and shall be issued in the name of the owner.

(f) Exceptions.

(1) An owner of an OSSF will not be required to comply with the permitting, operation, and installation requirements of this chapter if the OSSF is not creating a nuisance and:

(A) the OSSF was installed before September 1, 1989, provided the system has not been altered, and is not in need of repair;

(B) the OSSF was installed before the effective date of the order, ordinance, or resolution in areas where the local governmental entity had an approved order, ordinance, or resolution dated before September 1, 1989, provided the system has not been altered and is not in need of repair; or

(C) the owner received authorization to construct from a permitting authority before the effective date of this chapter.

(2) No planning materials, permit, or inspection are required for an OSSF for a single family dwelling located on a tract of land that is ten acres or larger and:

(A) the OSSF is not causing a nuisance or polluting groundwater;

(B) all parts of the OSSF are at least 100 feet from the property line;

(C) the effluent is disposed of on the property; and

(D) the single family dwelling is the only dwelling located on that tract of land.

(3) Connecting recreational vehicles or manufactured homes to rental spaces is not considered construction if the existing OSSF system is not altered.

(g) Exclusions. The following systems are not authorized by this subchapter and may require a permit under Chapter 205 or Chapter 305 of this title (relating to General Permits for Waste Discharges or Consolidated Permits, respectively):

(1) one or more systems that cumulatively treat and dispose of more than 5,000 gallons of sewage per day on one piece of property;

(2) any system that accepts waste that is either municipal, agricultural, industrial, or other waste as defined in Texas Water Code, Chapter 26;

(3) any system that will discharge into or adjacent to waters in the state; or

(4) any new cluster systems.

(h) Variances. Requests for variances from provisions of this chapter may be considered by the appropriate permitting authority on a case-by-case basis.

(1) A variance may be granted if the owner, or a professional sanitarian or professional engineer representing the owner, demonstrates to the satisfaction of the permitting authority that conditions are such that equivalent or greater protection of the public health and the environment can be provided by alternate means. Variances for separation distances shall not be granted unless the provisions of this chapter cannot be met.

(2) Any request for a variance under this subsection must contain planning materials prepared by either a professional sanitarian or a professional engineer (with appropriate seal, date, and signature).

(i) Unauthorized systems. Boreholes, cesspools, and seepage pits are prohibited for installation or use. Boreholes, cesspools, and seepage pits that treat or dispose of less than 5,000 gallons of sewage per day shall be closed according to §285.36 of this title (relating to Abandoned Tanks, Boreholes, Cesspools, and Seepage Pits). Boreholes, cesspools, and seepage pits that exceed 5,000 gallons of sewage per day must be closed as a Class V injection well under Chapter 331 of this title (relating to Underground Injection Control).

Source Note: The provisions of this §285.3 adopted to be effective June 13, 2001, 26 TexReg 4115; amended to be effective September 11, 2008, 33 TexReg 7536; amended to be effective December 27, 2012, 37 TexReg 9947

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CHAPTER 285	ON-SITE SEWAGE FACILITIES
SUBCHAPTER A	GENERAL PROVISIONS
RULE §285.7	Maintenance Requirements

(a) Maintenance contract requirements. Maintenance contract requirements for all on-site sewage facilities (OSSFs) are identified in §285.91(12) of this title (relating to Tables). The permit holder shall ensure that the OSSF is properly operated and maintained in accordance with this chapter. Homeowners who maintain their own systems are exempt from contract requirements, as provided in subsection (d)(4) of this section.

(b) Maintenance provider.

(1) Effective September 1, 2009, in order to perform maintenance on an OSSF, an individual must either be licensed by the TCEQ as a maintenance provider or registered by the TCEQ as a maintenance technician and employed by a licensed maintenance provider. Prior to September 1, 2009, in order to perform maintenance on an OSSF, an individual must be registered by the TCEQ as a maintenance provider.

(2) Effective September 1, 2009, the maintenance provider will be responsible for fulfilling the requirements of the maintenance contract. The maintenance provider will be responsible for the work performed by registered maintenance technicians under their direct supervision. Prior to September 1, 2009, the maintenance company will be responsible for fulfilling the requirements of the maintenance contract.

(3) Effective September 1, 2009, the maintenance provider must sign all maintenance reports.

(c) Initial Two-Year Service Policy. The initial two-year service policy shall be effective for two years from the date the OSSF is first used. For a new single family dwelling, this date is the date of sale by the builder. For an existing single family dwelling this date is the date the notice of approval is issued by the permitting authority. The owner, or owner's agent shall provide the permitting authority with a copy of the signed initial two-year service policy before the system is approved for use. The initial service policy shall meet the minimum guidelines for maintenance contracts, as described in §285.7(d)(1)(A) - (E) and the individual fulfilling the service policy shall be a maintenance provider or a maintenance technician working under the supervision of a maintenance provider.

(d) Maintenance contracts. OSSFs required to have maintenance contracts are identified in §285.91 (12) of this title.

(1) Contract provisions. The OSSF maintenance contract shall, at a minimum:

(A) list items that are covered by the contract;

(B) specify a time frame in which the maintenance provider or maintenance technician will visit the property in response to a complaint by the property owner regarding the operation of the system;

(C) specify the name of the maintenance provider who is responsible for fulfilling the terms of the maintenance contract;

(D) identify the frequency of routine maintenance and the frequency of the required testing and reporting;

(E) identify who is responsible for maintaining the disinfection unit; and

(F) indicate the business physical address and telephone number for the maintenance provider.

(2) Contract submittals. Unless the owner maintains the system, as excepted by paragraph (4) of this subsection, a copy of the signed maintenance contract shall be provided by the owner to the permitting authority 30 days before the expiration of the initial two-year service policy. For the time period after the initial two-year service policy, the owner is required to have a new maintenance contract signed and submitted to the permitting authority at least 30 days before the contract expires unless the owner maintains the system, as excepted by paragraph (4) of this subsection.

(3) Amendments or terminations.

(A) Effective September 1, 2009, if the maintenance provider discontinues the maintenance contract, the maintenance provider shall notify, in writing, the permitting authority, the manufacturer, and the owner at least 30 days before the date service will cease. Prior to September 1, 2009, if the maintenance company discontinues the maintenance contract, the maintenance company shall notify, in writing, the permitting authority, the manufacturer, and the owner at least 30 days before the date service will cease.

(B) Effective September 1, 2009, if the owner discontinues the maintenance contract, the maintenance provider shall notify, in writing, the permitting authority and the manufacturer at least 30 days before the date service will cease. Prior to September 1, 2009, if the owner discontinues the maintenance contract, the maintenance company shall notify, in writing, the permitting authority and the manufacturer at least 30 days before the date service will cease.

(C) Effective September 1, 2009, if a maintenance contract is discontinued or terminated, the owner shall contract with another maintenance provider and provide the permitting authority with a copy of the new signed maintenance contract no later than 30 days after termination, unless the owner meets the requirements of paragraph (4) of this subsection. Prior to September 1, 2009, if a maintenance contract is discontinued or terminated, the owner shall contract with another maintenance company and provide the permitting authority with a copy of the new signed maintenance contract no later than 30 days after termination, unless the owner meets the requirements of paragraph (4) of this subsection.

(4) Exceptions to maintenance contract. At the end of the initial two-year service policy, the owner of an OSSF for a single family residence shall either maintain the system personally or obtain a new maintenance contract.

(A) If the residence is sold before the end of the initial two-year service policy period, the terms of the initial service policy will apply to the new owner.

(B) An owner may not maintain an OSSF under the provisions of this section for commercial, speculative residential, or multifamily property.

(e) Testing and reporting. OSSFs that must be tested are identified in §285.91(12) of this title.

(1) Effective September 1, 2009, the maintenance provider shall test and report for each system as required in §285.91(12) of this title. Prior to September 1, 2009, the maintenance company shall test and report for each system as required in §285.91(12) of this title. The report must:

(A) include any responses to owner complaints; the results of the maintenance provider's findings as described in §285.90(3) of this title (relating to Figures) and the test results as required in §285.91 (4) of this title, including procedures for the maintenance of the unit approved by the executive director; and

(B) be submitted to the permitting authority and the owner within 14 days after the date the test is performed.

(2) To provide the owner with a record of the maintenance check, the maintenance provider shall install a weather resistant tag, or some other form of weather resistant identification, on the system at the beginning of each maintenance contract. This identification shall:

(A) identify the maintenance provider;

(B) list the telephone number of the maintenance provider;

(C) specify the start date of the contract; and

(D) be either punched or indelibly marked with the date the system was checked at the time of each maintenance check, including any maintenance check in response to owner complaints.

(3) The number of required tests may be reduced to two per year for all systems having electronic monitoring and automatic telephone or radio access that will notify the maintenance provider of system or components failure and will monitor the amount of disinfection in the system. The maintenance provider shall be responsible for ensuring that the electronic monitoring and automatic telephone or radio access systems are working properly.

(4) The owner of an OSSF for a single family residence who elects to maintain their unit through the exemption described in subsection (d)(4) of this section is not subject to testing and reporting requirements.

(f) Replacement parts. The manufacturer of the installed on-site aerobic system shall make available to the homeowner all replacement parts for that aerobic system to any homeowner who elects to maintain the on-site aerobic system as identified in subsection (d)(4) of this section. The manufacturer shall also make replacement parts available to installers and maintenance providers. Failure to do so may result in removal of the manufacturer's product(s) from the list of approved systems.

(g) Inspections by authorized agents or commission. An authorized agent or the commission may inspect an on-site sewage system using aerobic treatment at any time.

Source Note: The provisions of this §285.7 adopted to be effective September 11, 2008, 33 TexReg 7536

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CHAPTER 285	ON-SITE SEWAGE FACILITIES
SUBCHAPTER B	LOCAL ADMINISTRATION OF THE OSSF PROGRAM
RULE §285.10	Delegation to Authorized Agents

(a) Responsibility of the authorized agent. An authorized agent is responsible for the proper implementation of this chapter in its area of jurisdiction.

(1) An authorized agent shall administer its on-site sewage facility (OSSF) program according to the OSSF order, ordinance, or resolution approved by the executive director.

(2) An authorized agent shall enforce this chapter and Texas Health and Safety Code (THSC), Chapter 366.

(b) Requirements and procedures.

(1) Upon request from a local governmental entity, the executive director shall forward a description of the delegation process and provide a copy of the executive director's model order, ordinance, or resolution.

(2) If the OSSF program is delegated to a municipality, the jurisdiction of the authorized agent will be limited to the municipality's incorporated area.

(3) To receive delegation as an authorized agent, a local governmental entity shall draft an order, ordinance, or resolution that meets the requirements of this chapter and THSC, §366.032. The local governmental entity shall use the model order, ordinance, or resolution as a guide for developing its order, ordinance, or resolution.

(4) If the local governmental entity proposes more stringent standards than those in this chapter, the local governmental entity shall submit the proposed order, ordinance, or resolution to the executive director for review and comment before publishing notice.

(A) Each more stringent requirement shall be justified based on greater public health and safety protection. The written justification shall be submitted to the executive director with the draft order, ordinance, or resolution.

(B) The executive director shall review the draft order, ordinance, or resolution and provide written comments to the local governmental entity within 30 days of receipt.

(C) If the local governmental entity's draft order, ordinance, or resolution meets the requirements of this chapter, the executive director will notify the local governmental entity in writing to continue the process outlined in this subsection.

(D) If the local governmental entity's draft order, ordinance, or resolution does not meet the requirements of this chapter, the executive director will not continue the review process until all requirements have been met. The executive director will notify the local governmental entity in writing of all deficiencies.

(5) If the local governmental entity proposes using the model order, ordinance, or resolution without more stringent standards, or if the executive director has approved the draft order, ordinance, or resolution with more stringent standards, the local governmental entity shall hold a public meeting to discuss the proposed order, ordinance, or resolution.

(A) The local governmental entity shall publish notice of a public meeting that will be held to discuss the adoption of the proposed order, ordinance, or resolution. The notice must be published in a regularly published newspaper of general circulation in the entity's area of jurisdiction.

(B) The public notice shall include the time, date, and location of the public meeting.

(C) The public notice shall be published at least 72 hours before the public meeting, but not more than 30 days before the meeting.

(6) The local governmental entity shall provide the executive director with the following:

(A) a copy of the public notice as it appeared in the newspaper;

(B) a publisher's affidavit from the newspaper in which the public notice was published;

(C) a certified copy of the minutes of the meeting when the order, ordinance, or resolution was adopted; and

(D) a certified copy of the order, ordinance, or resolution that was passed by the entity.

(7) Upon receiving the information listed in paragraph (6) of this subsection, the executive director shall have 30 days to review the materials to ensure the local governmental entity has complied with the requirements of this chapter and THSC, Chapter 366.

(A) After the review has been completed and all the requirements have been met, the executive director shall sign the order approving delegation and notify the local governmental entity by mail.

(B) If the executive director determines during the review that the materials do not comply with the requirements of this section, the executive director will issue a letter to the local governmental entity detailing the deficiencies.

(8) The local governmental entity's order, ordinance, or resolution shall be effective on the date the order approving delegation is signed by the executive director.

(9) Any appeal of the executive director's decision shall be done according to §50.39 of this title (relating to Motion for Reconsideration).

(c) Amendments to existing orders, ordinances, or resolutions.

(1) To ensure that the authorized agent's program is consistent with current commission rules, the executive director may require periodic amendments of OSSF orders, ordinances, or resolutions.

(2) An authorized agent may initiate an amendment. The authorized agent shall use the procedures in subsection (b) of this section.

(3) The amendment shall be effective on the date the amendment is approved by the executive director.

(d) Relinquishment of delegated authority by authorized agent.

(1) When an authorized agent decides to relinquish authority to regulate OSSFs, the following shall occur:

(A) the authorized agent shall inform the executive director by certified mail at least 30 days before publishing notice of intent to relinquish authority;

(B) the authorized agent shall hold a public meeting to discuss its intent to relinquish the delegated authority;

(i) the authorized agent shall publish notice of a public meeting that will be held to discuss its intent to relinquish the delegated authority. The notice must be published in a regularly published newspaper of general circulation in the entity's area of jurisdiction;

(ii) the public notice shall include the time, date, and location of the public meeting;

(iii) the public notice shall be published at least 72 hours before the public meeting, but not more than 30 days before the meeting;

(C) the authorized agent must, either at the meeting discussed in subparagraph (B) of this paragraph, or at another meeting held within 30 days after the first meeting, formally decide whether to repeal the order, ordinance, or resolution; and

(D) the authorized agent shall forward to the executive director copies of the public notice, a publisher's affidavit of public notice, and a certified copy of the minutes of the meeting in which the authorized agent formally acted.

(2) Before the executive director will process a relinquishment order, the authorized agent and the executive director shall determine the exact date the authorized agent shall surrender its delegated authority. Until that date, the authorized agent will retain all authority and responsibility for the delegated program.

(3) The executive director shall process the request for relinquishment within 30 days of receipt of the copies of documentation required in paragraph (1)(D) of this subsection. After processing the request for relinquishment, the executive director will issue an order and shall assume responsibility for the OSSF program.

(4) On or after the date determined by the authorized agent and the executive director, the authorized agent shall repeal it's order, ordinance, or resolution. Within ten days after the authorized agent repeals it's order, ordinance, or resolution, the authorized agent shall forward a certified copy of the repeal to the executive director.

(5) Authorized agents who relinquish their OSSF authority may be subject to fees according to §285.14 of this title (relating to Charge-back Fee) after the date that delegation has been

relinquished, unless the authorized agent has relinquished its OSSF authority due to a material change in this chapter.

Source Note: The provisions of this §285.10 adopted to be effective June 13, 2001, 26 TexReg 4115; amended to be effective August 29, 2002, 27 TexReg 7917

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SUBCHAPTER B	LOCAL ADMINISTRATION OF THE OSSF PROGRAM
RULE §285.11	General Requirements

(a) General Administrative Requirements for Authorized Agents. On-site sewage facility (OSSF) permitting, construction, and inspection requirements are in §285.3 of this title (relating to General Requirements).

(b) Fees. The OSSF permit and inspection fees will be set by the authorized agent. Additionally, a fee of $10 shall be assessed for each OSSF permit for the commission as required in the Texas Health and Safety Code, Chapter 367.

(c) Complaints. The authorized agent shall investigate all complaints within 30 days after receipt. After completing the investigation, the authorized agent shall take appropriate and timely action according to §285.71 of this title (relating to Authorized Agent Enforcement of OSSFs).

(d) Appeals. Appeals of an authorized agent's decision will be made through the appeal procedures stated in the authorized agent's order, ordinance, or resolution.

(e) Authorized Agents Reporting Requirements.

(1) The authorized agent shall notify the executive director, in writing, of any change of the designated representative within 30 days after the date of the change.

(2) Each authorized agent shall provide to the executive director an OSSF monthly activity report on the form provided by the executive director, within ten days after the end of the month.

Source Note: The provisions of this §285.11 adopted to be effective June 13, 2001, 26 TexReg 4115; amended to be effective August 16, 2012, 37 TexReg 6055

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Texas Health and Safety Code

§ 366.001
Policy and Purpose

It is the public policy of this state and the purpose of this chapter to:

(1) eliminate and prevent health hazards by regulating and properly planning the location, design, construction, installation, operation, and maintenance of on-site sewage disposal systems;

(2) authorize the commission or authorized agent to impose and collect a permit fee for:

(A) construction, installation, alteration, repair, or extension of on-site sewage disposal systems; and

(B) tests, designs, and inspections of those systems;

(3) authorize the commission or authorized agent to impose a penalty for a violation of this chapter or a rule adopted under this chapter;

(4) authorize the commission to license or register certain persons; and

(5) allow the individual owner of a disposal system to install and repair the system in accordance with this chapter.

Acts 1989, 71st Leg., ch. 678, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 1995, 74th Leg., ch. 76, Sec. 11.113, eff. Sept. 1, 1995; Acts 2001, 77th Leg., ch. 880, Sec. 21, eff. Sept. 1, 2001.

Location: https://texas.public.law/statutes/tex._health_and_safety_code_section_366.001.

Original Source: Texas Legislature Online, *§ 366.001 — Policy and Purpose*, http://www.statutes.legis.state.tx.us/Docs/HS/htm/HS.366.htm#366.001 (last accessed Aug. 6, 2019).

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

OSSF Contacts Search Details

Authorized Agent	**SMITH COUNTY AUTHORIZED AGENT**
Permit Office Location	14000 State Highway 31 W TYLER, TX, 75709 - 0000
Web Address	Not Found
Area Served	Bullard,Tyler,Hide-Away Lake
Mailing Address	14000 STATE HIGHWAY 31 W TYLER, TX, 75709 - 4137
Primary Contact	MIKE PLEDGER
Primary Contact Phone	(903) 592-3636
Primary Contact Email	cherokeecountyes@yahoo.com
Office Hours	M-F 7:30am-11:30am
Fax	(903) 592-3638
Status	Current
Research Council Fee Account Number	620169
Current Order (Click to download)	620169.pdf

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Most Common Septic Systems in Texas - FAQ

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CUSTOMERS - OUR GREATEST ASSET!

Most Common Types of Septic Systems in Texas

Conventional Systems

Graveled Systems

The older-style graveled systems contain a layer of gravel in the drain field. While some treatment of waste occurs in the septic tanks, most of the treatment occurs as wastewater discharged from the tank enters the drain field and is filtered through the gravel and the soil below. Over time, bacteria and other organisms in the soil consume any organic material in the wastewater. These organisms multiply and form a layer called a bio-mat that sits on the soil layer. When the drain field is in balance, parasites and other organisms keep the bio-mat from becoming too thick to allow passage of wastewater to the soil.

If the drain field is not in balance there may be an overload of the drain field, which can occur when the water table rises above the drain pipe and stops the drain field from discharging water. At this point baths and toilets will start to back up.

Drain field overload can occur when there is overuse of water in the house, such as guests in the house for long periods of time, if faucets or toilets are left running for prolonged periods, if an unusually heavy amount of laundry is done over a short period of time, or if the drain field soil is saturated by heavy rains. If the system is overwhelmed by overuse of water, the drain field may fail to function properly and may become damaged to the point of needing to be replaced. Depending on your situation, many of these problems can be overcome by adding an Aerobic Treatment Unit and Effluent Unit to your existing septic system.

Low-Pressure Dosage Systems

Low-pressure dosage systems are used where soil and topographical conditions do not allow placement of a graveled septic system, such as when the drain field has to be located up-hill from the septic tanks or where the terrain is uneven.

Low-pressure dosage systems contain a standard septic tank and an additional tank called a pumping chamber. Under normal conditions, a low-pressure pump forces wastewater in the pumping chamber where it is then forced into the drain field to the point where the entire field is saturated. Then, the field is left to drain.

Alternative Systems

Aerobic

The basic aerobic septic system, aka aerobic treatment unit (ATU), aerobic wastewater treatment plant and aerobic treatment sewage disposal system, is a system that provides a suitable oxygen rich environment for organisms that can reduce the organic portion of the waste into carbon dioxide and water in the presence of oxygen.

Aerobic septic systems are similar to conventional septic systems in that they both use natural processes to treat wastewater. But unlike septic (anaerobic) treatment, the aerobic treatment process requires oxygen. Aerobic treatment units, therefore, use a mechanism to inject and circulate air inside the treatment tank.

Because aerobic septic systems use a higher rate process, they are able to achieve superior effluent quality. The effluent can be discharged to the subsurface as in a septic tank leach field or, in some cases, discharged directly to the surface.

The early aerobic systems consisted of little more than an aerator placed in a traditional septic tank. These were often referred to as an aeration septic system or aerator septic system.

The newer aerobic septic systems are pre-engineered and operate at a high level of efficiency.

The use of residential aerobic septic systems has been fairly limited, in part, because of the widespread use of conventional septic systems, which are relatively inexpensive and easy to maintain. Conventional septic systems are the most common onsite wastewater treatment systems in rural areas.

SHOULD BE USED FOR WASTEWATER CHLORINATION? Click here for more information!

SEPTIC ODORS. Click here for more information!

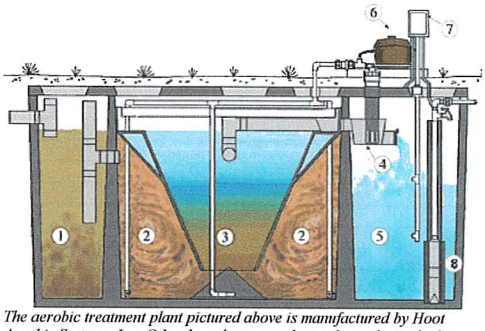
GOT FRUIT FLIES? Click here for more information!

RESPONDING TO POWER OUTAGES AND FLOODS. Click here for more information!

However, conventional septic systems are not suitable for all residential applications. Some homes may not have enough land area or appropriate soil conditions to accommodate the soil absorption drainfield. In some communities, the water table is too high to allow the drainfield to give adequate treatment to the wastewater before it is returned to groundwater.

One of the most common reasons to select an aerobic septic system is to replace failing conventional septic systems, which are a major source of groundwater pollution in some areas. If a failed conventional septic system needs to be replaced or if a site is inappropriate for a conventional septic system, an aerobic septic system may be a viable option.

- **Advantages:**
  - Can provide a higher level of treatment than a conventional septic systems
  - Helps protect valuable water resources where conventional septic systems are failing
  - Provides an alternative for sites not suited for conventional septic systems
  - May extend the life of a drain field
  - May allow for a reduction in drain field size
  - Reduces ammonia discharged to receiving waters



The aerobic treatment plant pictured above is manufactured by Hoot Aerobic Systems, Inc. Other brands may not be configured exactly the same. Hoot graphics and text used by permission.

1. Pretreatment tank where influent enters.
2. Aeration chamber where oxygen is pumped into the waste water.
3. Clarifier chamber where the clear, odorless effluent rises.
4. Chlorinator where the clear effluent passes through for disinfection.
5. Holding tank for disinfected effluent ready for discharge.
6. Quiet, efficient aerator and pump.
7. Solid-state monitors and controls the system.
8. Discharge Pump

"HOW IT WORKS"

The aeration chamber (2), the heart of this sewage treatment system, introduces oxygen by pump (6) into the sewage. The aeration mixes the organic materials of the sewage with the bacterial population, allowing the bacteria to attack and reduce the organic materials. Any activated sludge settling in the final clarifier chamber (3) is reintroduced into the aeration chamber by sewage movement in the aeration chamber.

As solids settle in the clarifier, a clear, odorless effluent rises. At this point the effluent passes through the chlorinator (4), which should contain disinfectant tablets, for final disinfection. The effluent then enters the chlorine contact chamber (5) or holding tank that stores the chlorinated effluent for discharge through sprinklers.

- **Surface Distribution (sprinklers)**

  A surface distribution system is very similar to a lawn irrigation system. Spray heads are used to distribute treated wastewater to the surface of the yard. In the State of Texas, the sprinkler heads used are required to be specially made for distribution of reclaimed wastewater and are purple, as is the piping used for the lines. Because this system has the highest potential for human contact with treated wastewater, it requires the greatest amount of wastewater treatment and the most attention to maintenance.

- **Mound Systems**

  When field lines need to be placed above ground in order to keep the proper distance from the water table, mound systems are used where lines are laid on top of the ground and covered with soil, grass and other foliage.

- **Drip Emitters**

  A drip emitter system is a system that forces the liquid effluent (wastewater) through tubing with drip emitters and into the substandard soil in cases where the soil will not absorb the effluent.

  Some uses for Drip Emitters:

  For Homeowners:
  Many homeowners eventually have a problem with their field lines. Drip emitter systems can be an expensive way to solve field line problems, but if your soil is the problem, then it may be the correct solution. Solving the septic problem and having piece of mind is also worth a great deal. If properly installed by a professional, this can be a fast process and ensure the resolution of the problem.

  For Homebuyers:
  Purchasing a home with a problematic septic system can often be solved using a drip emitter system.

  For Builders & Developers:
  Housing can be built on lots that could not formerly be developed.

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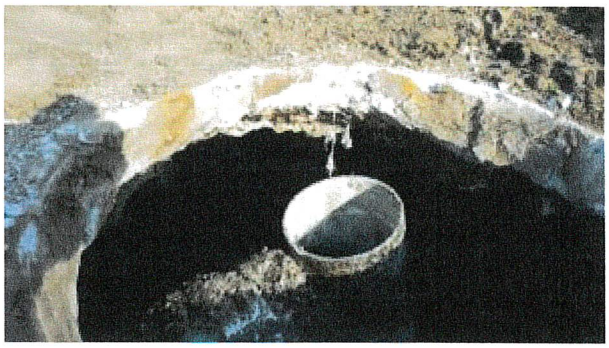
Top 5 Questions Homeowners Ask Us About Their Septic System

Posted on May 24, 2018 by Courtney Van Delden

With so many different septic system types, we answer a ton of questions each day, and it's our pleasure to help our customers understand their systems. Here are the top 5 most common questions our customers ask us about their septic systems.



1. How often should I pump my tank?

The recommended frequency for pumping your septic tank depends on several factors, including the number of people who contribute to adding waste to the septic tank, as well as the size of your tank. In short, the more occupants in your home, the faster solids accumulate in the tank, and the more often your tank should be cleaned. For a detailed explanation on how often you should pump your septic tank, click here.

2. How will I know it's time to pump my tank?

Most of the time, there aren't any visible signs that your septic tank requires maintenance. Usually when you start seeing signs, your tank is overdue for maintenance. These include:

- Liquids are surfacing over the top of your septic tank or over the drainfield
- You witness a backup or overflow out of a cleanout (the PVC pipe between your house and the tank)
- There is a backup in your home

For a detailed explanation on how to know if it's time to pump your septic tank, click here.

3. Should I use any additives?

Septic additives are not a replacement for regular pumping. These are "quick fixes" don't even slow the sludge accumulation in your tank. They can cause long-term damage when they are used in place of septic maintenance! For a detailed explanation on septic system additives, click here.

4. How is my septic tank cleaned?

Each septic system maintenance provider has their own process of cleaning a septic tank, but here at Van Delden Wastewater Systems, we locate your tank, expose its lids, pump the tank, replace the lids, and provide you a detailed ticket of the work we completed and any issues we encountered. For a detailed explanation on how we clean septic tanks, click here.

5. Is my backup from my septic system?

When your plumbing backs up and into your home, should you contact a plumber or a septic maintenance provider? There are a few places you can check to diagnose the problem and determine which professional to call.

- Check your septic system's cleanout, the short PVC pipe with removable cap that sticks out of the ground between your house and the septic tank. If you don't see any backup in that pipe, we recommend you call a plumber. If it does contain backup, the issue could be septic or plumbing-related.
- Check your septic tank's liquid level. If it is normal, you should call a plumber; if overfull, contact a septic company.
- How old is your septic system? The older the system (average life of a septic system is 25 years), the higher chance it is a septic problem.

For a detailed explanation on diagnosing septic system backups, click here.

If you still have questions, please do not hesitate to call us! Our professional office team is ready to help.

Leave a Reply

Your email address will not be published. Required fields are marked *

Comment

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Water Analysis Report

HAWL INDEPENDENT LAB WATER TEST SUMMARY

Bacteria In Surface Waters:

What are coliform bacteria?

Coliform bacteria are a large assemblage of various species of bacteria that are linked together because of the ease of culturing as a single group. They include both fecal coliform bacteria, or bacteria that are found naturally in the intestines of warm-blooded animals, and non-fecal coliform bacteria. Fecal coliforms include both pathogenic, or disease-causing species, and non-pathogenic species. The presence of fecal coliform bacteria indicates contamination of the waterbody by human and/or animal fecal material.

What is Escherichia coli?

Escherichia coli, commonly called E. coli, is one of the most common species of coliform bacteria. It is a normal component of the large intestines in humans and other warm-blooded animals. It is found in human sewage in high numbers. E. coli is used as an indicator organism because it is easily cultured, and its presence in water in defined amounts indicates that sewage MAY be present. If sewage is present in water, disease-causing bacteria may also be present.

Why do we measure bacteria?

Typhoid and cholera epidemics in the mid-19th century led to the discovery that certain gastro-intestinal diseases of humans are transmitted via water. The disease-causing organisms leave the infected individual via the feces, which can become discharged into surface waters. They then in turn can be consumed by and infect users of the water. These water-borne diseases include typhoid, cholera, enteric fevers, and bacterial dysentery. It is not feasible, however, to test waters for each possible type of disease-causing bacterium. E. coli is used to indicate, on a statistical basis, the likelihood of contracting a disease by consuming or recreating in such waters.

What level of E. coli is acceptable?

The acceptable level of E. coli is determined by risk analysis based on statistics to protect human health. Drinking water should have no E. coli after treatment. E. coli levels at designated swimming beaches should not exceed 88 per 100 milliliter (mL) in any one sample, or exceed a three-sample average over a 60-day period of 47/100mL. Recreational waters that are not designated beaches should not have more than 406 E. coli/100mL in any one sample, or more than 126/100mL in a 60-day, three-sample average. Occasional higher numbers are not unusual, particularly after storm events and where urban or agricultural runoff occurs. These levels are generally not considered unsafe unless investigation indicates the source to be sewage.

Source: EAL Analytical Labs

Fecal Coliform (MPN Colilert-18) MPN/100ml

Location	7/11/2014	8/10/2016	4/28/2017	9/11/2017	10/17/2017	5/15/2018
A	34.50	93.30	9.80	145.00	60.20	11.90
C	27.50			8.40	44.80	35.00
D	26.20	35.90	3.10	17.50	28.50	3.10
E	8.50	76.20	5.20	13.50	228.00	19.90
F	9.70	32.30	13.40	26.20	98.70	48.70
G	12.20	42.20	13.50	18.90	18.70	7.40
H	7.50	133.00	2.00	125.00	21.80	1.00
I	28.80	18.10	4.10	6.30	13.40	3.00

References/Appendices

(F)

Newspaper Articles

Published in various Hideaway email and news services in May

Hideaway Lake Wastewater Planning Team

To keep all residents of Hideaway well informed, the Hideaway Lake Wastewater Planning Team is sending this letter. More than a year ago, the Hideaway Board created the Strategic Planning Committee tasked with conducting a yearlong study to gather information, to define objectives, and to plan responsibly for the financial health of Hideaway over the next ten years. The Plan is available to members in hard copy form at the Member Services Building and it is posted online at hideawaytexas.net under the documents tab. Findings that grew out of the strategic planning pointed to a widespread desire for a study to be made of the many options for improvement of treatment of wastewater in Hideaway. The Hideaway Lake Wastewater Planning Team was created as a separate working group of the Strategic Planning Committee, and was given the task of exploring these options. The Hideaway Board of Directors has accepted the Strategic Plan and has asked the City of Hideaway to take the lead in directing the activities of the newly created Hideaway Lake Wastewater Planning Team. The City has accepted oversight of this effort.

In its consideration of various presently available treatment options and opportunities, this Team will look not only at sewer systems but also at the treatment of wastewater as a whole. The Team will attempt to determine the effects of our present septic systems on the quality of our water both above and below ground, and evaluate how septic systems may affect property values, overall sanitation, our environment and the future success of Hideaway.

Our charter is **NOT** to advocate for a sewer system, but to study the current management of wastewater and, based on these studies, to make recommendations to the Board of Directors, the City of Hideaway and to the residents of Hideaway for the future treatment of wastewater. Recommendations may include, but not be limited to, a sewer system, better septic system management, and/or improved septic systems. Projected construction costs and financing, long term costs, monthly cost comparisons and the estimated construction time will be considered.

Our main goal is, and will continue to be, the best long-term wastewater solution for Hideaway and its residents.

Richard Peacock – Team Leader

Team Members – Anita Anderson, Pat Bonds, Bernie Demers, Beverly Guthrie, Phil Guthrie, Doug Hoffman, Greg Newton and Ron Strickland

Published in the City Desk section of the October Hideaway News

Mayor Pat Bonds asked me to write the City Desk Article this month to give an update on the Hideaway Wastewater Planning Team. As I stated in my previous article in August, our team is hard at work gathering as much information as possible, so that we can make recommendations to the City of Hideaway on possible wastewater treatment options for our community. As was stated in the August article as well, our charter is not to advocate for a sewer system, but to study the correct and legal management of wastewater and to make recommendations for future Hideaway Wastewater treatment.

Our meetings are planned as needed for our team to work and discuss the information we are collecting. The planning team is not a governing body (which includes the city council, zoning commission and board adjustment) and therefore, not subject to the Texas Open Meeting Act. This was a legal opinion given to the City of Hideaway from the City Attorney, Rob Dillard. Our planning team is in the process of collecting information from experts in the field of Wastewater and Public Health. In the near future, we will begin conducting focus groups and town hall meetings to hear comments, questions and concerns regarding the wastewater issues.

Our team understands that the topic of wastewater is politically controversial and emotional. Our goal is to be objective, look at all possible options and make a recommendation. We want to be sure that our lakes, the environment and ecosystem are protected and that our groundwater and lakes are not contaminated.

Our team plans to give an update on our work to the City Council at the regular Hideaway City Council meeting in November. The work of the planning team is slow and tedious. Our team wants to be sure that we collect as much information as we can from as many sources as possible. Our goal is to have a complete understanding of the current and future Wastewater Treatment options available for our community.

We are blessed to live in Hideaway with all its beauty, amenities and friendly people. I can assure you that myself and the Hideaway Wastewater Planning Team want only what is in the best interest of Hideaway.

Hideaway Wastewater Planning Team members are Ron Strickland, Doug Hoffman, Beverly Guthrie, Phil Guthrie, Anita Anderson and Greg Newton.

Richard Peacock
Planning Team Leader

References/Appendices

(G)

Information From the 2011 Report

NORTH STAR UTILITY SERVICES, LC
P.O. Box 1084
Tyler, Texas 75710

February 9, 2011

City of Lindale
Attn: Owen Scott
City Administrator

Re: Agreement for waste water / sewage treatment

Dear Mr. Scott,

This letter will serve to confirm the intention of North Star Utility Services, LC, a Texas limited liability company ("North Star") and the City of Lindale, Texas (the "City") to enter into a written agreement for the City to treat and dispose of effluent from North Star's private waste water / sewage collection system (the "Contract").

North Star hereby approves the basic business terms of the Contract summarized in the Exhibit attached hereto. Please sign below to confirm that these terms have been approved by the City Council, and then return a copy of this letter to the undersigned. I will then have North Star's attorney prepare a draft of the formal comprehensive Contract.

Nothing contained in this letter or in the attached Exhibit shall be construed as an offer or acceptance, or as a binding agreement. No binding agreement shall exist unless and until the formal comprehensive Contract is signed by the President of North Star and by the City Administrator, after approval of the comprehensive Contract by the City Council.

Sincerely Yours,

North Star Utility Services, LC

By: _____
John R. Garrett, President

Agreed:

City of Lindale

By: _____
Owen Scott, City Administrator

EXHIBIT
To Letter of Intent

Recitals

WHEREAS, subject only to approval by TCEQ, North Star has the right to construct, own and operate a private system for collection of untreated waste-water/sewage from homes and businesses now and hereafter located in the City of Hideaway, Texas (the "System"); and

WHEREAS, as a condition to construction and permitting of the System, North Star desires to secure a reliable source for treatment and lawful disposal of effluent from the System (the "Effluent"); and

WHEREAS, the City of Lindale ("City") owns and operates a public waste water/sewage collection, treatment and disposal facility (the "Facility"); and

WHEREAS, the Facility currently has sufficient excess capacity to properly treat and lawfully dispose of Effluent from the System at a flow rate of up to 115 million gallons per year (phased in over several years);

WHEREAS, the City desires to use the Facility's excess capacity to generate revenue to support the operation, maintenance, repair and possible future expansion of the Facility; and

WHEREAS, North Star and the City desire to contract for the treatment and disposal of the Effluent on the terms and conditions hereinafter set forth.

Summary of Business Terms

1. This Agreement shall be for a term of twelve years (the "Term") commencing October 1, 2012,(the "Commencement Date"). The effective date of this Agreement shall be the date on which the City first accepts discharge of Effluent from the System, which date may precede October 1, 2012 (the "Effective Date").Provided, unless the Term is extended as provided in Section 12(a) or 13, North Star may, at its option, elect to terminate this Agreement at any time upon not less than twelve months written notice to the City.

2. Subject to TCEQ approval, North Star shall, at its expense, construct, operate and maintain the System in compliance with all applicable permits, regulations and laws.

3. The City shall, at its expense, operate and maintain the Facility in compliance with all applicable permits, regulations and laws.

4. The System shall extend to the following discharge point: immediately east of the intersection of Highway 849 and Interstate 20 (the "Discharge Point").

5. From the Effective Date and throughout the Term (including any extension as provided in

Section 12 or 13), North Star shall, at its sole risk and expense, deliver the Effluent to the Discharge Point.

6. From the Effective Date and throughout the Term (including any extension as provided in Section 12 or 13), the City shall accept the Effluent at the Discharge Point and shall, at the City's sole risk and expense, transport the Effluent from the Discharge Point to the Facility for treatment and disposal. Provided however, the City shall not be responsible for accepting, transporting, treating or disposing of Effluent originating from any commercial business or industrial plant that did not exist as of the Effective Date.

7. From the Effective Date and throughout the Term, the City shall, at its sole risk and expense, treat and dispose of the Effluent in compliance with all applicable permits, regulations and laws.

8. North Star shall, at its expense, install, calibrate and maintain, at the Discharge Point, a metering device for accurately measuring the volume of Effluent discharged from the System. The City may, at its expense, inspect and test the metering device from time to time to confirm that it is accurate.

9. No minimum volume of Effluent is required, but the City shall not be required to accept a flow rate that exceeds 115 million gallons per year.

10. The City shall invoice North Star monthly for treatment and disposal of Effluent accepted by the City at the Discharge Point. The initial amount payable by North Star shall be a fixed rate equal to the City's wholesale rate of $3.00 per 1,000 gallons of Effluent (the "Service Rate"). Provided, however, the City may, at its option, elect to adjust the Service Rate to reflect the City's Variable Rate for wholesale customers (hereinafter defined) as ofOctober 1, 2016 and every second anniversary thereafter beginning October 1, 2018 (each a "Determination Date"). The adjusted Service Rate shall be equal to the City's then current Variable Rate, plus $1.00 per 1,000 gallons of Effluent. The adjusted Service Rate shall become effective on the later of the Determination Date or 12 months after the City notifies North Star in writing of the adjusted Service Rate (a "Rate Change Notice").

11. "Variable Rate" for wholesale customers shall mean the variable rate calculated by a professional rate consultant, calculated as of the applicable Determination Date, using the same methodology applied by Water Resources Management, L.P. in its "Cost of Service and Rate Design Study", dated July 27, 2010, prepared for the City. The said consultant shall be engaged by the City, at the City's expense, and if other than Water Resources Management, L.P. shall be subject to approval by North Star, which approval shall not be unreasonably withheld or denied. If North Star fails to provide written approval within fourteen (14) days after notice of the name and address of the consultant is provided to North Star then North Star shall be deemed to have approved the consultant. Each determination of Variable Rate shall include a written report by the consultant detailing calculation of the Variable Rate as of the applicable Determination Date, and a copy of the report shall accompany the applicable Rate Change Notice.

12. At any time during the initial twelve year Term of this Agreement, if the Facility operates at more than 75% of its current capacity as defined by the City's wastewater permit issued by the State of Texas, and if the City approves an expansion of the Facility to add capacity or the construction of a separate waste water/sewage collection, treatment and disposal facility to add capacity (the "New Facility"), then the City may give North Star written notice of the intended expansion (the "Expansion Notice"), which notice shall include the estimated cost of the expansion and the estimated expanded capacity of the Facility or New Facility (which estimates shall be prepared at the City's expense by a licensed professional engineer). Within twelve months after receipt of the Expansion Notice, North Star shall notify the City in writing of North Star's election to:

(a) extend the Term as provided below, and increase the otherwise applicable Service Rate by a sum equal to North Star's pro-rata share (based on the actual amount of Effluent treated at the Facility during the twelve month period preceding the date of the Expansion Notice and the projected capacity of the expansion[1] of the Facility or New facility) of the City's debt service (i.e. payments of principal and interest made by the City) on indebtedness incurred by the City to finance the said expansion [provided, for purposes of this Section 12, the said indebtedness shall not exceed the lesser of (i) the actual cost of the expansion, or (ii) the estimated cost of the expansion as set forth in the Expansion Notice plus ten percent (10%)] which increase shall be effective upon the date the City incurs the indebtedness to finance the expansion; or

(b) terminate this Agreement as of an effective termination date specified by North Star (which date shall not be more than two year after North Star notifies the City in writing of its election to terminate this Agreement, absent the City's consent to a later date)(the "Specified Termination Date.")

If North Star fails to timely notify the City of its election, then North Star shall be deemed to have elected to extend the Term.

If the Term is extended as set forth in "(a)" above then the term of this Agreement shall be extended so as to terminate on the date that North Star has paid its pro rata share of the indebtedness incurred by the City to finance the expansion (i.e. principal and interest)(the "Extended Term").

13. Notwithstanding anything to the contrary in this Agreement, if the City is required by TCEQ or any other regulatory agency or authority or by any state or federal law or regulation to treat and dispose of the Effluent after the Specified Termination Date or the expiration of the Term or Extended Term of this Agreement, then this Agreement shall be automatically extended until the

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[1]For example, if the actual amount of Effluent from North Star that is treated at the Facility for the applicable 12 month period is 100 million gallons and the City projects that the capacity of the Facility will be increased by 300 million gallons per annum then North Star's pro rata share would be one-third.

later of (a) the date the City is no longer required by law to treat and dispose of the Effluent (the "Involuntary Term") or (b) the date North Star's pro rata portion of any indebtedness incurred by the City to finance an expansion of the Facility or New facility (including any indebtedness incurred during the Involuntary Term as provided herein) has been paid in full. At any time during the Involuntary Term of this Agreement, if the Facility operates at more than 75% of its then current capacity, and if the City approves an expansion of the Facility to add capacity or the New Facility to add capacity, then the City may give North Star the Expansion Notice as provided in paragraph 12. If the City is still required to treat and dispose of the Effluent one year after North Star receives the Expansion Notice then the applicable Service Rate shall be calculated in accordance with paragraph 12(a).

14. Notwithstanding the payment of a portion of the indebtedness incurred by the City to finance an expansion of the Facility or New Facility as provided herein, the Facility, including any expansion, and New Facility, shall at all times be and remain the property of the City.

North Star Utility Services, LC

P.O.BOX. 1084
TYLER, TX 75710-1084
Phone (903) 510-6534

May 24, 2011

Hide-A-Way Lake Sewage Alternatives Committee
C/O Mr. Dennis Godoy, General Manager
Hide-A-Way Lake Club, Inc.
101 Hide-A-Way Lane Central
Lindale, TX 75771

RE: Status of Sanitary Sewer Utility Proposal

Dear Committee:

This letter is in follow-up to our meeting with the Committee on May 18, 2011. As you know, for the past several months North Star Utility Services, LC (North Star) has been developing a proposal for providing sanitary sewer utility service to the Hide-A-Way Lake Community. This was in accordance with the desire of the Committee pursuant to a goal identified in the Hide-A-Way Lake Strategic Plan. North Star's methodology included the following actions:

1. Routinely met with and presented progress updates to the Committee.
2. Developed a Memorandum of Understanding with the City of Lindale for treatment and disposal of sewage collected within Hide-A-Way.
3. Engaged The Brannon Corporation Consulting Engineers for project design and Cost Estimates.
4. Engaged WRM Consultants (Austin) for developing Rate calculations, CCN Application and consulting services.
5. Met with TCEQ in Austin.
6. Conducted a Town Hall meeting, set up phone and email for customer contact.
7. Developed, distributed and analyzed Customer Surveys.
8. Developed mapping and data collection programs.

We received 810 survey responses. 55% of respondents agreed that the option of a collection system was desirable; 18% were neutral; 27% disagreed. About 33% of respondents gave responses indicating a desire for available service at a cost between $50 and $70 per month. This was the range of rates provided by the Consultant and based on early cost estimates. The distribution of these "likely" customers was fairly even throughout Hide-A-Way with the largest concentration within the northern 1/3rd of the Community. The Consulting Engineer was tasked to design and estimate the cost of the first phase which would incorporate the largest concentration of likely customers. The Rate Consultant was tasked with determining the feasibility of a rate between $50 and $70 given the number of likely customers identified and the Engineer's estimate.

The results of this study disappointingly revealed that a rate within this range cannot be achieved given the number of likely customers. The factors that contribute to these results are:

1. Insufficient numbers of likely customers within a concentrated geographic area.
2. Location of highest concentration being the farthest distance from the discharge point on the South end of Hide-A-Way.

The solution to this dilemma would be to dramatically increase the number of likely customers for phase I and/or determine means by which installation costs and infrastructure could be significantly decreased. It is necessary that we be able to demonstrate a stand alone system that is financially sound before we are able to gain the required approvals from TCEQ for moving forward. We continue to believe that successfully permitting and installing phase I will lead to broader interest within the Community and ultimate growth of the system over time. We will continue to look for solutions and work toward a viable proposal for the Community. However, we will not be able to move ahead with Phase I on the time schedule we had previously hoped for.

We appreciate the work of the Committee and the cooperation of the City of Lindale, without which, we could not have moved to this point. We will keep you informed as new developments occur.

Sincerely

North Star Utility Services, LC
John, R. (Bob) Garrett, President

CC:
Duane Speath, Mayor City of Hideaway
Mr. Bob Atwood, President HAWL Club, Inc
Mr. George Reid, Committee Chairman

Richard

Flood Damage Prevention Ordinance

EXHIBIT A

"ORDINANCE"

A Zone

BFE

1st Lake 457' above sea level

2nd Lake 444'

3rd Lake 418'

FEMA contours 2'

Lower level of building 2' above BFE

Ground adjacent 1' above BFE

Certificate of Elevation from Surveyor

60.3 (b) **FLOOD DAMAGE PREVENTION ORDINANCE**

ARTICLE I

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION A. STATUTORY AUTHORIZATION

The Legislature of the State of Texas has in the Flood Control Insurance Act, Texas Water Code, Section 16.315, delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the City } of {Hideaway}, Texas, does ordain as follows:
"Political Subdivision"

SECTION B. FINDINGS OF FACT

(1) The flood hazard areas of { City of Hideaway} are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.

(2) These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage.

objectives

SECTION C. STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

#1 (1) Protect human life and health;

#2 FEMA Flood Insurance access

(2) Minimize expenditure of public money for costly flood control projects;

(3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) Minimize prolonged business interruptions;

(5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;

(6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and

(7) Insure that potential buyers are notified that property is in a flood area.

SECTION D. METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance uses the following methods:

(1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;

(2) Require that uses vulnerable to floods, including facilities, which serve such uses, be protected against flood damage at the time of initial construction;

(3) Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;

(4) Control filling, grading, dredging and other development, which may increase flood damage;

(5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

ARTICLE 2

DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

ALLUVIAL FAN FLOODING - means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

APEX - means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

APPURTENANT STRUCTURE – means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure

AREA OF FUTURE CONDITIONS FLOOD HAZARD – means the land area that would be inundated by the 1-percent-annual chance (100 year) flood based on future conditions hydrology.

AREA OF SHALLOW FLOODING - means a designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD - is the land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed rate-making has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE or V.

BASE FLOOD - means the flood having a 1 percent chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE) – The elevation shown on the Flood Insurance Rate Map (FIRM) and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, or VE that indicates the water surface elevation resulting from the flood that has a 1% chance of equaling or exceeding that level in any given year - also called the Base Flood.

BASEMENT - means any area of the building having its floor subgrade (below ground level) on all sides.

BREAKAWAY WALL – means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

CRITICAL FEATURE - means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

DEVELOPMENT - means any man-made change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

ELEVATED BUILDING – means, for insurance purposes, a non-basement building, which has its lowest elevated floor, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

EXISTING CONSTRUCTION - means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION - means the preparation of additional sites by the construction

of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FLOOD OR FLOODING - means a general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) the overflow of inland or tidal waters.
(2) the unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD ELEVATION STUDY – means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

FLOOD HAZARD BOUNDARY MAP (FHBM) – means an official map of a community, issued by the Administrator, where the boundaries of the flood, mudslide (i.e., mudflow) related erosion areas having special hazards have been designated as Zones A, M, and/or E.

FLOOD INSURANCE RATE MAP (FIRM) - means an official map of a community, on which the Federal Emergency Management Agency has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY (FIS) – see *Flood Elevation Study*

FLOODPLAIN OR FLOOD-PRONE AREA - means any land area susceptible to being inundated by water from any source (see definition of flooding).

FLOODPLAIN MANAGEMENT - means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS - means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOOD PROTECTION SYSTEM - means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

FLOOD PROOFING - means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

FLOODWAY – see *Regulatory Floodway*

FUNCTIONALLY DEPENDENT USE - means a use, which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

HIGHEST ADJACENT GRADE - means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE - means any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

(4) Individually listed on a local inventory or historic places in communities with historic preservation programs that have been certified either:

(a) By an approved state program as determined by the Secretary of the Interior or;

(b) Directly by the Secretary of the Interior in states without approved programs.

LEVEE - means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

LEVEE SYSTEM - means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

LOWEST FLOOR - means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking or vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; **provided** that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirement of Section 60.3 of the National Flood Insurance Program regulations.

MANUFACTURED HOME - means a structure transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

MANUFACTURED HOME PARK OR SUBDIVISION - means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

MEAN SEA LEVEL - means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

NEW CONSTRUCTION - means, for the purpose of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

NEW MANUFACTURED HOME PARK OR SUBDIVISION - means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

RECREATIONAL VEHICLE - means a vehicle which is (i) built on a single chassis; (ii) 400 square feet or less when measured at the largest horizontal projections; (iii) designed to be self-propelled or permanently towable by a light duty truck; and (iv) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

RIVERINE – means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

SPECIAL FLOOD HAZARD AREA – see *Area of Special Flood Hazard*

START OF CONSTRUCTION - (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)), includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a

substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE – means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

SUBSTANTIAL DAMAGE - means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT - means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before "start of construction" of the improvement. This term includes structures, which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either: (1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or (2) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure."

VARIANCE – means a grant of relief by a community from the terms of a floodplain management regulation. (For full requirements see Section 60.6 of the National Flood Insurance Program regulations.)

VIOLATION - means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION - means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

ARTICLE 3

GENERAL PROVISIONS

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard with the jurisdiction of {City of Hideaway, Texas}. Zone "A"

SECTION B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "The Flood Insurance Study (FIS) for Smith County, Texas and the Incorporated Areas", dated September 26, 2008 with accompanying Flood Insurance Rate Maps and/or Flood Boundary-Floodway Maps (FIRM and/or FBFM) dated September 26, 2008, and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance.

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT

A Floodplain Development Permit shall be required to ensure conformance with the provisions of this ordinance.

SECTION D. COMPLIANCE

No structure or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

SECTION E. ABROGATION AND GREATER RESTRICTIONS

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SECTION F. INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be: (1) considered as minimum requirements; (2) liberally construed in favor of the governing body; and (3) deemed neither to limit nor repeal any other powers granted under State statutes.

SECTION G. WARNING AND DISCLAIMER OR LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions greater floods can and will occur and flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

designated of.. administrator

Δ to Board Appointing person ?.. mgr Maint.

ARTICLE 4

ADMINISTRATION

SECTION A. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The {Mayor} is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (Emergency Management and Assistance - National Flood Insurance Program Regulations) pertaining to floodplain management.

SECTION B. DUTIES & RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

(1) Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance. see FEMA Flood Plain Maps Service ↵ Search all products ↵

(2) Review permit application to determine whether to ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding.

(3) Review, approve or deny all applications for development permits required by adoption of this ordinance.

(4) Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.

(5) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the necessary interpretation. Map details vague ?

(6) Notify, in riverine situations, adjacent communities and the State Coordinating Agency which is the Texas Water Development Board (TWDB), prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

(8) When base flood elevation data has not been provided in accordance with Article 3, Section B, the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a Federal, State or other source, in order to administer the provisions of Article 5.

SECTION C. PERMIT PROCEDURES add to current permit req's ?

(1) Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location,

dimensions, and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard. Additionally, the following information is required:

(a) Elevation (in relation to mean sea level), of the lowest floor (including basement) of all new and substantially improved structures;

(b) Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed;

(c) A certificate from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Article 5, Section B (2);

(d) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.

(e) Maintain a record of all such information in accordance with Article 4, Section (B) (1).

(2) Approval or denial of a Floodplain Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance and the following relevant factors:

(a) The danger to life and property due to flooding or erosion damage;

(b) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(c) The danger that materials may be swept onto other lands to the injury of others;

(d) The compatibility of the proposed use with existing and anticipated development;

(e) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(f) The costs of providing governmental services during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical and water systems;

(g) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

(h) The necessity to the facility of a waterfront location, where applicable;

(i) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.

SECTION D. VARIANCE PROCEDURES

(1) The Appeal Board, as established by the community, shall hear and render judgment on requests for variances from the requirements of this ordinance.

(2) The Appeal Board shall hear and render judgment on an appeal only when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

(3) Any person or persons aggrieved by the decision of the Appeal Board may appeal such decision in the courts of competent jurisdiction.

(4) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.

(5) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this ordinance.

(6) Variances may be issued for new construction and substantial improvements to be erected on a lot of 1/2 acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section C (2) of this Article have been fully considered. As the lot size increases beyond the 1/2 acre, the technical justification required for issuing the variance increases.

(7) Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Article 1, Section C).

(8) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(9) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

(10) Prerequisites for granting variances:

(a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(b) Variances shall only be issued upon: (i) showing a good and sufficient cause; (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(c) Any application to which a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(11) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that (i) the criteria outlined in Article 4, Section D (1)-(9) are met, and (ii) the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

ARTICLE 5

PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION A. GENERAL STANDARDS

In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:

(1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

(3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;

(4) All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(5) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

(6) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters; and,

(7) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

SECTION B. SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided as set forth in (i) Article 3, Section B, (ii) Article 4, Section B (8), or (iii) Article 5, Section C (3), the following provisions are required:

See handout #1

(1) **Residential Construction** - new construction and substantial improvement of any residential structure shall have the lowest floor (including basement), elevated to two (2) feet above the base flood elevation. A registered professional engineer, architect, or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in Article 4, Section C (1) a., is satisfied.

(2) **Nonresidential Construction** - new construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to two (2) feet above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.

(3) **Enclosures** - new construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

(a) A minimum of two openings on separate walls having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding shall be provided.

(b) The bottom of all openings shall be no higher than 1 foot above grade.

(c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(4) **Manufactured Homes -**

(a) Require that all manufactured homes to be placed within Zone A on a community's FIRM shall be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(b) Require that manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the community's FIRM on sites (i) outside of a manufactured home park or subdivision, (ii) in a new manufactured home park or subdivision, (iii) in an expansion to an existing manufactured home park or subdivision, or (iv) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to two (2) feet above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

(c) Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section be elevated so that either:

(i) the lowest floor of the manufactured home is at two (2) feet above the base flood elevation, or

(ii) the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

SECTION C. <u>STANDARDS FOR SUBDIVISION PROPOSALS</u>

(1) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Article 1, Sections B, C, and D of this ordinance.

(2) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet Floodplain Development Permit requirements of Article 3, Section C; Article 4, Section C; and the provisions of Article 5 of this ordinance.

(3) Base flood elevation data shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided pursuant to Article 3, Section B or Article 4, Section B (8) of this ordinance.

(4)Base flood elevation data shall be generated by a detailed engineering study for all area within, or directly adjacent to Zone A, and unmapped FEMA streams, as indicated on the community's FIRM.

(5) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.

(6) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

SECTION D. SEVERABILITY

If any section, clause, sentence, or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Ordinance.

Slide 11

SECTION E. PENALTIES FOR NON COMPLIANCE tie to building final inspection

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this court order and other applicable regulations. Violation of the provisions of this court order by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this court order or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $(\$500.00)$ for each violation, and in addition shall pay all costs and expenses involved in the case. Each day a violation continues to exist will

constitute a new and separate violation. Nothing herein contained shall prevent {City of Hideaway} from taking such other lawful action as is necessary to prevent or remedy any violation.

SECTION F. CERTIFICATION OF ADOPTION

APPROVED: Bill Kashouty, MAYOR
(community official)

PASSED: 11/17/08
(adoption date)

ORDINANCE BECOMES EFFECTIVE: 11/17/08
(effective date)

I, the undersigned, { BILL KASHOUTY }, do hereby certify that the above is a true and correct copy of an ordinance duly adopted by the {City of Hideaway, Texas}, at a regular meeting duly convened on { NOVEMBER 17, 2008

Bill Kashouty
Mayor, City of Hideaway

{SEAL}

References/Appendices

(H)

Texas Town & City Article June 2019
Fee Summary

Water Fees by Population Category Summary 2019

Population Group	No. of Cities Reporting	Avg. Total Customers	Residential Water			Commercial Water	
			Average Usage	Average Fee for 5,000 Gal.	Average Fee for 10,000 Gal.	Average Fee for 50,000 Gal.	Average Fee for 200,000 Gal.
2,000 OR LESS	268	406	4,795	43.63	70.27	317.22	1,240.21
2,001 - 5,000	112	1,282	5,559	40.15	64.35	322.83	1,258.87
5,001 - 10,000	68	2,620	6,786	37.51	58.31	291.52	1,132.69
10,001 - 15,000	38	4,358	6,029	34.30	55.87	338.66	1,435.62
15,001 - 20,000	27	5,476	6,961	31.40	49.73	260.92	864.64
20,001 - 25,000	11	6,616	7,185	36.96	57.25	259.97	1,006.82
25,001 - 30,000	9	8,322	7,039	32.69	54.56	276.15	1,010.39
30,001 - 50,000	27	12,812	8,074	36.73	61.84	324.82	1,149.03
50,001 - 75,000	9	18,310	6,423	43.73	73.22	378.13	1,282.04
75,001 - 100,000	8	26,534	9,656	24.59	39.85	215.65	750.55
100,001 - 200,000	20	38,624	7,345	32.41	54.82	280.31	1,026.84
200,001 - 350,000	4	75,589	8,879	33.83	57.09	319.96	1,062.89
MORE THAN 500,000	4	321,808	6,866	25.32	46.05	244.68	943.64
Total / Averages	605	6,816	5,809	39.76	63.98	310.06	1,193.91

Wastewater Fees by Population Category Summary 2019

Population Group	No. of Cities Reporting	Avg. Total Customers	Residential Sewer		Commercial Sewer	
			Average Fee for 5,000 Gal.	Average Fee for 10,000 Gal.	Average Fee for 50,000 Gal.	Average Fee for 200,000 Gal.
2,000 OR LESS	242	408	27.15	35.71	140.52	480.86
2,001 - 5,000	115	1,172	33.50	49.42	208.12	782.13
5,001 - 10,000	66	2,401	31.52	44.46	211.68	769.44
10,001 - 15,000	38	4,126	36.30	64.24	269.31	909.13
15,001 - 20,000	27	5,593	32.68	51.15	241.52	917.71
20,001 - 25,000	11	7,409	41.11	131.44	214.29	866.72
25,001 - 30,000	9	8,200	34.40	57.55	242.57	976.34
30,001 - 50,000	27	12,825	34.18	55.09	251.97	948.15
50,001 - 75,000	9	17,820	35.23	55.70	268.85	945.89
75,001 - 100,000	8	24,132	26.50	42.59	192.68	697.32
100,001 - 200,000	20	38,210	28.25	45.04	220.16	807.89
200,001 - 350,000	4	72,181	30.90	49.83	251.20	912.58
MORE THAN 500,000	4	296,955	30.92	54.72	283.18	885.97
Total / Averages	580	6,704	30.67	46.17	193.27	699.49

References/Appendices

(I)

Smith County Rules For Onsite Sewage Facilities

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

OSSF Contacts Search Results

4 record(s) in this database matched your query.

View Search Results

If more than one record appears below, then a city or special district has been approved within the county you are searching. To determine which one to contact, follow the instructions of the first question you answer yes to:

- Do you live in a subdivision that contains property within 2000' of a lake or river? Find the name of the lake under the area served column. If the lake is not listed, contact the county.
- Do you live within the limits of a city? Find the name of the city under the Authorized Agent column. If the city is not listed, contact the county.
- Do you live in the county? Find the name of the county under the Authorized Agent column.

Search Results

Authorized Agent	Area Served
UPPER NECHES RIVER MWA AUTHORIZED AGENT LAKE PALESTINE	LAKE PALESTINE
SMITH COUNTY AUTHORIZED AGENT	Bullard,Tyler,Hide-Away Lake
CITY OF NOONDAY AUTHORIZED AGENT	
REGION 05 - TYLER	

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More Information about the Texas OSSF Program

Site Help | Disclaimer | Web Policies | Accessibility | Our Compact with Texans | TCEQ Homeland Security | Contact Us

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
(https://www.tceq.texas.gov)

Advice for an Owner of an On-Site Sewage Facility (Septic System)

Provides answers to commonly asked questions by homeowners regarding their system and tips to use in selecting an installer.

A person must hold a **permit (/permitting/ossf/ossfpermits.html)** and an approved plan to construct, alter, repair, extend, or operate an on-site sewage disposal facility (or septic system).

Which system should I select? ➜ (See the OSSF permit web page) (/permitting/ossf/ossfpermits.html)
Can I install my own OSSF? ➜ (See the OSSF permit web page) (/permitting/ossf/ossfpermits.html)

I'm having an OSSF installed. What are some tips I can follow?

How can I make sure that my OSSF works properly?

My OSSF is failing. What do I need to do?

I am selling a home that has an OSSF already. What do I need to do?

I am buying a home that has an OSSF already. What do I need to do?

Who can I call for more information?

Related Content

Contact TCEQ's OSSF program (https://www.tceq.texas.gov/permitting/ossf/ossf_contacts.html):
E-mail addresses and phone numbers for assistance with technical information, licensing, complaints, and other issues about on-site sewage facilities (septic systems).

External Quick Links

EPA Septic Systems Guidance, Policy, and Regulations (https://www.epa.gov/septic)

Texas Onsite Wastewater Association (http://txowa.org/)

Texas Department of Licensing and Regulation's Sanitarian Registration Program (https://www.tdlr.texas.gov/san/san.htm)

Texas Board of Professional Engineers (https://engineers.texas.gov/)

Texas A and M Engineering Extension Service (https://teex.org/Pages/Program.aspx?catID=16&courseTitle=Water/Wastewater)

On-Site Sewage Facilities (Septic Systems) Home (https://www.tceq.texas.gov/permitting/ossf/on-site.html)

Information for Homeowners (https://www.tceq.texas.gov/permitting/ossf/ossfhomeowners.html)

Information for Licensees (https://www.tceq.texas.gov/permitting/ossf/ossflicensees.html)

Information for Regulators (https://www.tceq.texas.gov/permitting/ossf/ossfregulators.html)

On-Site Activity Reporting System (OARS) (https://www.tceq.texas.gov/permitting/ossf/on-site-activity-reporting-system)

How are we doing? Take our customer satisfaction survey (/goto/customersurvey)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

(https://www.tceq.texas.gov)

On-Site Sewage Facilities (Septic Systems): Information for Homeowners

What to do if you need to choose, install, or maintain an on-site sewage facility (OSSF or septic system). Find out who your permitting authority is and who to contact. How to file a complaint or find more information.

Find a licensed OSSF professional (https://www2.tceq.texas.gov/lic_dpa/index.cfm?fuseaction=licall.searchgp)

List of Court Judgements against OSSF Professionals (/assets/public/compliance/compliance_support/regulatory/ossf/ossf-pro-court-judgements.pdf)

Find your permitting authority (https://www6.tceq.texas.gov/oars/index.cfm?fuseaction=search.county)

On-Site Sewage Facilities: General Information (https://www.tceq.texas.gov/permitting/ossf/ossfgeneral.html)

Choosing an On-Site Sewage Facility System (https://www.tceq.texas.gov/permitting/ossf/ossfsystems.html)

Permitting an On-Site Sewage Facility (https://www.tceq.texas.gov/permitting/ossf/ossfpermits.html)

Maintenance of On-Site Sewage Facilities (https://www.tceq.texas.gov/permitting/ossf/ossfmaintenance.html)

Filing a Complaint Related to an On-Site Sewage Facility (https://www.tceq.texas.gov/permitting/ossf/10381.html)

Find TCEQ-approved products for OSSFs (/permitting/ossf/ossf-products)

On-site Sewage Facility Program Contacts (https://www.tceq.texas.gov/permitting/ossf/ossf_contacts.html)

Advice for an Owner of an On-Site Sewage Facility (https://www.tceq.texas.gov/permitting/ossf/ossfadvice.html)

TCEQ Rules

Chapter 285 (OSSF) (https://www.tceq.texas.gov/rules/indxpdf.html#285)

Chapter 30 G (OSSF licenses and registrations) (https://www.tceq.texas.gov/rules/indxpdf.html#30)

Related Content

Contact TCEQ's OSSF program (https://www.tceq.texas.gov/permitting/ossf/ossf_contacts.html):
E-mail addresses and phone numbers for assistance with technical information, licensing, complaints, and other issues about on-site sewage facilities (septic systems).

External Quick Links

EPA Septic Systems Guidance, Policy, and Regulations (https://www.epa.gov/septic)

Texas Onsite Wastewater Association (http://txowa.org/)

Texas Department of Licensing and Regulation's Sanitarian Registration Program (https://www.tdlr.texas.gov/san/san.htm)

Texas Board of Professional Engineers (https://engineers.texas.gov/)

Texas A and M Engineering Extension Service (https://teex.org/Pages/Program.aspx?catID=16&courseTitle=Water/Wastewater)

On-Site Sewage Facilities (Septic Systems) Home (https://www.tceq.texas.gov/permitting/ossf/on-site.html)

Information for Homeowners (https://www.tceq.texas.gov/permitting/ossf/ossfhomeowners.html)

Information for Licensees (https://www.tceq.texas.gov/permitting/ossf/ossflicensees.html)

Information for Regulators (https://www.tceq.texas.gov/permitting/ossf/ossfregulators.html)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

(https://www.tceq.texas.gov)

On-Site Sewage Facilities (Septic Systems)

Permitting, maintenance, and construction requirements for on-site sewage facilities (septic systems). Information for local governments wanting to become authorized agents of the TCEQ and run the program. Information about how to make a complaint related to these facilities.

Information for Homeowners (/permitting/ossf/ossfhomeowners.html)
What to do if you need to choose, install, or maintain an on-site sewage facility (OSSF or septic system).

Information for Licensees (/permitting/ossf/ossflicensees.html)
If you hold or would like to acquire an OSSF license, find out how to get training, pay fees, or renew your license.

Information for Regulators (/permitting/ossf/ossfregulators.html)
Find licensed OSSF professionals, TCEQ-approved products, reporting information, and rules.

Getting a Permit for an On-Site Sewage Facility - Such as a Septic System (/permitting/ossf/ossfpermits.html)
Permitting for on-site sewage facilities, including septic systems, pump-out stations, holding tanks, and hauling systems.

Permitting Data for On-Site Sewage Facilities (Septic Systems) (/permitting/ossf/texas-historical-ossf-permitting-data)
Annual data reports of types of on-site sewage facilities (OSSF) or septic systems installed by county and by year.

NEW Texas On-Site Sewage Facility Grant Program (TOGP) (/permitting/ossf/ossf-grant-program)
Request for grant applications and required application forms

Related Content

Contact TCEQ's OSSF program (https://www.tceq.texas.gov/permitting/ossf/ossf_contacts.html):
E-mail addresses and phone numbers for assistance with technical information, licensing, complaints, and other issues about on-site sewage facilities (septic systems).

External Quick Links

EPA Septic Systems Guidance, Policy, and Regulations (https://www.epa.gov/septic)

Texas Onsite Wastewater Association (http://txowa.org/)

Texas Department of Licensing and Regulation's Sanitarian Registration Program (https://www.tdlr.texas.gov/san/san.htm)

Texas Board of Professional Engineers (https://engineers.texas.gov/)

Texas A and M Engineering Extension Service (https://teex.org/Pages/Program.aspx?catID=16&courseTitle=Water/Wastewater)

On-Site Sewage Facilities (Septic Systems) Home (https://www.tceq.texas.gov/permitting/ossf/on-site.html)

Information for Homeowners (https://www.tceq.texas.gov/permitting/ossf/ossfhomeowners.html)

Information for Licensees (https://www.tceq.texas.gov/permitting/ossf/ossflicensees.html)

Information for Regulators (https://www.tceq.texas.gov/permitting/ossf/ossfregulators.html)

On-Site Activity Reporting System (OARS) (https://www.tceq.texas.gov/permitting/ossf/on-site-activity-reporting-system)

How are we doing? Take our customer satisfaction survey (/goto/customersurvey)

Home
(/)About Us (/agency/about-the-tceq)
Online Services (/e-services)
Environmental Emergencies (/response)

References/Appendices

(J)

How To Maintain Your Septic System

HOW TO MAINTAIN YOUR SEPTIC SYSTEM

All Hideaway residents rely on Septic Systems except those residents who live on Oakridge Drive, West of the front gate. Those residents are connected to the Lindale Sewer System which is in close proximity. All other Hideaway residents have Septic Systems and are responsible for maintaining them in good working order.

Septic maintenance is critically important to prevent water borne diseases like typhoid, dysentery, hepatitis, meningitis and many others as well as to protect the water quality of our lakes.For new and replacement septic systems, the state requires inspections annually by a licensed professional for two years. After that, Hideaway homeowners have the sole responsibility for septic maintenance. While maintaining a Septic System may have some costs, it protects you, your family, your neighbors and your pets every day.

THE DO'S OF SEPTIC MAINTENANCE

DO limit what you put in your toilet to wastewater and toilet paper.

DO keep the diagram of your septic system readily accessible.

DO have your Septic System inspected annually by a qualified wastewater professional. Follow his recommendations.

Do have your Septic System pumped out at a minimum of once every three years. The frequency for cleaning the septic tank depends on the number of occupants in the home as well as the size of the tanks. Do not wait until the sludge enters the drainfield. This is a slow process and you won't know it is happening until the septic tank drainfield clogs to the point of failure and begins to back up. At this stage, pumping will not reverse the process.

DO inspect your Aerobic Septic System every 4 months. If your alarm goes off or your light turns on, call your maintenance provider immediately and reduce non-essential water usage.

DO check your chlorinator once a week on average depending on your water usage. Don't store your chlorine in water heater closets. . Store your chlorine in a cool, dry, ventilated area. Only use calcium hypochlorite tablets that are designed for treating wastewater NOT swimming pool chlorine tablets.

DO use an ant killer if they start mounding by any part of the system.

DO make sure all parts of the system are easily accessible at all times. Do not build over any part of the system or use landscaping that could grow over it.

THE DON'Ts OF SEPTIC MAINTENANCE

DON'T put anything in your toilet except wastewater and toilet paper.

DON'T turn your system off.

DON'T spray irrigation sprinklers over the same area as the aerobic system's distribution area, otherwise excessive saturation may occur.

DON'T allow plumbers, landscapers, irrigation companies to replace any parts or handle any part of the septic system except adding chlorine and silencing the alarm. Repairs made by the homeowner generally voids the system's warranty and will make future repairs more costly.

DON'T allow alteration to any part of the system or spray head locations.

DON'T plant landscaping around the system or spray heads. Keep vegetation mowed around the system and spray heads. Spray can only be applied to a vegetative surface.

DON'T treat the system like a city sewer. Economy in the use of water helps prevent overloading the system. Leaky faucets, running commodes, etc., should be repaired. Avoid doing all your laundry in one day, Surges of water entering the system may hydraulically overload the system and throw the bacteria off balance.

DON'T put harmful things into your system. It will increase the cost ofmaintenance and tank cleanings. This includes: excessive use of garbage disposal, fat, grease and oil, too many cleaners, too much fabric softener, bleach, cigarette butts, diapers, wipes, feminine products, paper towels, condoms, Q-tips, dental floss, kitty litter, unused medicine, hair combings, paint, paint thinners and varnishes, drain cleaners, automatic toilet cleaners, food, fruit peels, cola, wine, vinegar, salad oil, sugars, coffee grounds etc.

Source: Van Delden On-Site Wastewater Management Systems

References/Appendices

(K)

City of Hideaway Ordinances

RESOLUTION NO: 2018-2

STATE OF TEXAS
CITY OF HIDEAWAY
COUNTY OF SMITH

WHEREAS, upon being requested by the previous Hideaway Lake Club, Inc. President and a committee to take the lead, contingent upon the new HAWL Board affirming the request, regarding a potential sewer system within Hideaway, this Resolution is presented by the City of Hideaway; and

WHEREAS, the City of Hideaway Board of Aldermen wish to do a comprehensive analysis of the wastewater needs within this community to include the existing septic system and the potential need for a sewer system; and

WHEREAS, this Board of Aldermen will provide its findings to the Hideaway Club Board of Directors for evaluation and presentation the findings to the residents at large;

NOW, THEREFORE, BE IT RESOLVED, hereby:

1. The Board of Aldermen has appointed a citizen committee of nine to spend one year of study with the first report due six months from the date of this Resolution. This committee shall be known as Hideaway Lake Wastewater Planning Team. The goal of this committee will be to determine the best long-term wastewater solution for the residents of Hideaway.

2. This committee will adopt the general purposes as outlined in the Sewer Long Range Strategic Plan of 2017, but will also include all wastewater. Recommendations may include , but

not be limited to, a sewer system, better septic system management, and/or improved septic systems. Projected costs, long-term cost, monthly cost comparisons and the estimated time will be considered.

3. This committee is charged with the responsibility, authority, and means to: explore all aspects of the wastewater needs in the City of Hideaway.

    a. The committee will undertake to use the guidelines presented by Alderman Demers and Alderman Godfrey.

NOW, THEREFORE, on this 5 day of May, 2018 in a meeting of the Board of Aldermen of Hideaway, Texas, duly convened and acting in its capacity as governing body of Hideaway, the following members being present:

Pat Bonds Mayor

Ray Hutcheson Alderman

Jerry Godfrey Alderman

Bernie Demers Alderman

Billie Bynum Alderman

Richard Peacock Alderman

On motion of Alderman Peacock, seconded by Alderman Hutcheson, duly put and carried, this Resolution is hereby adopted.

The vote of the Board of Aldermen on this matter was as follows:

Voting AYE: 5
Voting NAY: Ø

RESOLUTION NO: 2018-3

STATE OF TEXAS
CITY OF HIDEAWAY
COUNTY OF SMITH

WHEREAS, upon being requested by the Hideaway Lake Club, Inc. to take the lead regarding a potential sewer system within Hideaway, this Resolution is presented by the City of Hideaway; and

WHEREAS, the City of Hideaway Board of Aldermen wish to do a comprehensive analysis of the wastewater needs within this community to include the existing septic system and the potential need for a sewer system; and

WHEREAS, this Board of Aldermen have found the Hideaway Clubhouse septic system is designed for regular use of the club, but is not adequate to handle heavy use days.

WHEREAS, the maintenance contractor has not been able to determine the origin of a noxious odor. And of further concern, on several occasions, the clubhouse septic holding tanks have overflowed onto the walkway, across Hideaway Central and down into the creek in front of the clubhouse.

WHEREAS, the Hideaway Club General Manager is in favor of exploring a hook up to the Lindale sewer system at this time because of the problems and the cost of the maintenance on the septic system.

NOW, THEREFORE, BE IT RESOLVED, hereby: The City of Hideaway Board of Aldermen recommend the Hideaway Lake Club Board of Directors explore the option of hooking up to the existing Lindale sewer located at the front gate area.

NOW, THEREFORE, on this 17th day of July in a meeting of the Board of Aldermen of Hideaway, Texas, duly convened and acting in its capacity as governing body of the City of Hideaway, the following members being present:

Pat Bonds Mayor

Jerry Godfrey Alderman

Bernie Demers Alderman

Ray Hutcheson Alderman

Billie Bynum Alderman

Richard Peacock Alderman

On motion of Alderman Demers, seconded by Alderman Bynum, duly put and carried, this Resolution is hereby adopted.

The vote of the Board of Aldermen on this matter was as follows:

Voting AYE: 4- Demers, Hutcheson, Bynum, Peacock
Voting NAY: 1- Jerry Godfrey

RESOLUTION NO:

STATE OF TEXAS
CITY OF HIDEAWAY
COUNTY OF SMITH

WHEREAS, upon being requested by the Hideaway Lake Club, Inc. to take the lead regarding a potential sewer system within Hideaway, this Resolution is presented by the City of Hideaway; and

WHEREAS, the City of Hideaway Board of Aldermen wish to do a comprehensive analysis of the waste water needs within this community to include the existing septic system and the potential need for a sewer system; and

WHEREAS, this Board of Aldermen will provide its findings to the Hideaway Club Board of Directors for evaluation and together present the findings to the residents at large;

NOW, THEREFORE, BE IT RESOLVED, hereby:

1. The Board of Aldermen has appointed a citizen committee of nine to spend one year of study with the first report due six months from the date of this Resolution. This committee shall be known as Hideaway Lake Waste Water Planning Team. The goal of this committee will be to determine the best long-term waste water solution for the residents of Hideaway.

2. This committee will adopt the general purposes as outlined in the Sewer Long Range Strategic Plan of 2017, but will also include all waste water. Recommendations may include , but not be limited to, a sewer system, better septic system

management, and/or improved septic systems. Projected costs, long-term cost, monthly cost comparisons and the estimated time will be considered.

3. This committee is charged with the responsibility, authority, and means to: explore all aspects of the waste water needs in the City of Hideaway.

    a. The committee will undertake to use the guidelines presented by Alderman Demers and Alderman Godfrey.

NOW, THEREFORE, on this _____ day of _____ in a meeting of the Board of Aldermen of Hideaway, Texas, duly convened and acting in its capacity as governing body of Hideaway, the following members being present:

_____Mayor

_____Alderman

_____Alderman

_____Alderman

_____Alderman

_____Alderman

On motion of Alderman_____, seconded by

Alderman _____, duly put and carried, this Resolution is hereby adopted.

The vote of the Board of Aldermen on this matter was as follows:

Voting AYE:
Voting NAY:

Jerry Godfrey

To allow the members of HAWL adequate information to make an informed decision the following minimum information shall be made available via this committee:

1. Current issues presented by the TCEQ regarding septic system impacts on our potable water system as supplied by Crystal Systems
2. Current issues presented by the TCEQ regarding septic system impacts on HAWL lakes water quality
3. Total cost line item breakout to HAWL members should a pressurized grinder pump system be implemented by North Star Utility Service, LC (a company primarily or entirely owned by the Fair corporation holdings) to include at a minimum:
    a. Initial installed cost for 50-75 gallon holding tank
    b. Initial installed cost for grinder pump to include electrical service (need amperage and voltage level & who will provide to the point of use), trenching, PVC line installation, connection tap fee to pressurized sewer main
    c. Where will on-site central collection be located, will it be a sealed system, if not then odor issues
    d. Proposed number and location of any lift stations within HAWL
    e. Cost to empty existing septic systems and bring the abandoned septic tanks in compliance with AHJ
    f. Guaranteed response time when individual home owner's system fails with itemized cost estimates
    g. Comfort impact when utility power outages occur with estimated motel & food costs per day. The proposed 50-75 gallon holding tanks would not allow continuing household activities
    h. Environmental impact when pressurized system effluent spillage occurs and, who is responsible for associated cleanup cost and environment restructure impact costs
    i. During and after completion, who pays for damage to roads and related excavation areas (currently HAWL is required to pay for road repair when Crystal water lines fail, and the road is excavated for water line repair)
    j. City of Lindale determines future sewage costs + adder from North Star
    k. Copy of required TCEQ Service Agreement

Possible options for ballot

Option #1: Agreeing to commit to the City of Lindale HAWL effluent capacity to be introduced via a pressurized grinder pump effluent stream into their planned sewer system expansion. To include removal of all water pumps from our lakes.

Option #2: Rejecting the option and continue utilizing the existing septic system concept.

Option #3: Same as #2 with the additional requirement for each septic system within HAWL to be inspected by a HAWL approved certified sanitarian on an annual basis with any corrective actions implemented within 30 days from time of corrective action notification.

NOTE: Our HAWL Maintneance Mgr. is currently training to become certified as a sanitarian

Gmail

Venita Peacock <peacockrv@gmail.com>

Sweer Committee Charter

2 messages

Bernard Demers <bdndemers@sbcglobal.net> Tue, May 8, 2018 at 2:31 PM
Reply-To: Bernard Demers <bdndemers@sbcglobal.net>
To: Beverly Guthrie <finwren@sbcglobal.net>, Don Bynum <dbbynum@att.net>, Greg Newton <greg.newton@att.net>, Jerry Godfrey <godfreyp68@yahoo.com>, Pat Bonds <patjbonds@att.net>, Patrick Bonds <patjbonds@icloud.com>, "Ray Hutcheson@att.net" <ray.hutcheson@att.net>, Valerie Bonds <patvalbonds@att.net>, Venita Peacock <peacockrv@gmail.com>
Cc: Judy Blossom <jblossom@sbcglobal.net>

If the Board of Aldermen (BOA) decide to accept the leadership role pertaining to the Sewer Committee (SC) the SC has asked that we provide guidance as to their mission. I propose that the following guidelines be provided to the SC if we take a leadership role. This is for information only and is a working draft for use at the May 10 meeting. Please do not respond to this message. Bernie

The Sewer Committee (SC) will undertake the following tasks ,not necessarily in the order listed:

1. Determine from available data and/or newly generated data the effect of currently and/or past operating septic systems upon the three Hideaway lakes.

2. Determine from available data and/or newly generated data the effects of our septic systems upon the purity of the water table and the purity of water provided by Crystal Systems.

3. Determine if our septic systems are causing any other environmental problems which may endanger the health and safety of Hideaway residents and the surrounding areas.

4. Study any available options to septic systems including, but not limited to, sewer systems.
   A. type of system (gravity, pressure, etc.)

5. Determine, as accurately as possible costs associated with implementation of alternatives to septic systems.
   A. cost to the city or club
   B. cost of resident hook up
   C. average monthly cost for individual homeowners.
   D. estimated time frame to install a new system in Hideaway
   E. Incremental cost if 25% 50% 60% 75%,80% 90% 100% hook on to any new system.
   F. Disposition of existing septic tanks

6. Study and report how many septic systems have had to be repaired or pumped over the past 20 years.
   A. average cost of repair
   B. average cost of pumping septic tanks
   C. Frequency of pumping.
   D. Which systems have been repaired under the current certification guidelines.

7. Conduct a survey of Hideaway residents
   A. How many would like to have a sewer system
   B. How many would hook up as soon as the system is available
   C. How many would not desire to hook up at all
   D. How many would defer hookup until some future date of their choosing

8. Based on hard data make recommendations to the City/Board of Directors to include back up data and sources.

A. Continue to use septic systems
B. Take action to implement a sewer system
C. Implement an alternative system

7. Compare the environmental impact of aerobic and drip septic systems.

It is recognized that in order to make informed decisions some outside expertise may be necessary. However, prior to using outside consultants please obtain approval of the City/Board of Directors for any costs that may be associated with their use.

Greg Newton <greg.newton@att.net> Wed, May 9, 2018 at 7:31 PM
Reply-To: Greg Newton <greg.newton@att.net>
To: Beverly Guthrie <finwren@sbcglobal.net>, Don Bynum <dbbynum@att.net>, Greg Newton <greg.newton@att.net>, Jerry Godfrey <godfreyp68@yahoo.com>, Pat Bonds <patjbonds@att.net>, Patrick Bonds <patjbonds@icloud.com>, "Ray Hutcheson@att.net" <ray.hutcheson@att.net>, Valerie Bonds <patvalbonds@att.net>, Venita Peacock <peacockrv@gmail.com>, Bernard Demers <bdndemers@sbcglobal.net>
Cc: Judy Blossom <jblossom@sbcglobal.net>

As we move forward, I think we need to contact our State Representative, and our State Senator, for any information that might be moving in the future on this subject. Pat Bonds as Mayor, you would be the lead. Phil Guthrie, 6 months ago you said you had contacts at Texas A&M, maybe some kind of support and information they might have.

Greg Newton

On Tue, 5/8/18, Bernard Demers <bdndemers@sbcglobal.net> wrote:

Subject: Sweer Committee Charter
To: "Beverly Guthrie" <finwren@sbcglobal.net>, "Don Bynum" <dbbynum@att.net>, "Greg Newton" <greg.newton@att.net>, "Jerry Godfrey" <godfreyp68@yahoo.com>, "Pat Bonds" <patjbonds@att.net>, "Patrick Bonds" <patjbonds@icloud.com>, "Ray Hutcheson@att.net" <ray.hutcheson@att.net>, "Valerie Bonds" <patvalbonds@att.net>, "Venita Peacock" <peacockrv@gmail.com>
Cc: "Judy Blossom" <jblossom@sbcglobal.net>
Date: Tuesday, May 8, 2018, 2:31 PM
[Quoted text hidden]

References/Appendices

(L)

Survey Questions

Are you located on a Lake Front?	Yes	20%
	No	80%
What Type of Septic System do you have?	Aerobic	52%
	Drip	10%
	Pump Out	13%
	Gravity Flow	14%
	Don't Know	11%
What year was your Septic System installed	Before 1986	26%
	1987-1997	21%
	1998-2010	33%
	2011 - Present	21%
Is this the original system installed with the home?	Yes	51%
	No	31%
	Don't Know	17%
Does your system show "stress if overused? (Odor, Backup, or Overflow)	Yes	18%
	No	76%
	Don't Know	6%
Do you have a working aerator?	Yes	53%
	No	33%
	Don't know	15%
When was the last time your system was pumped out?	New System or Within the last 3 years	64%
	3-6 years	19%
	7-11 years	4%
	More than 11 years	3%
	Don't know	10%
When was the last time your system was inspected?	Within the last 3 years	71%

	3-6 years	10%
	7-11 years	4%
	More than 11 years	3%
	Don't know	12%

Do you have a current contract with a Septic Company?	Yes	40%
	No	60%

Would you be interested to participate in a Focus Group regarding Wastewater to dis Open-Ended Response	25%

250 respondents

References/Appendices

(M)

Focus Group Questions

Focus Group Questions

Name

How long have you lived in Hideaway?

Do you live on one of the three lakes? the golf ? or neither

1) How many of you had or knew about septic systems before you moved to Hideaway?

2) Hideaway is one, if not the largest community in Texas with septic systems without managed rules and regulations. Should the community of Hideaway continue this approach?

3) How would you feel if Hideaway regulated and enforced rules for all septic systems?

4) On average, how many times a year do you have your septic tanks pumped out?

5) How do you use our lakes?

6) How important is it for Hideaway to keep our lakes clean and safe? Why?

7) If you had the ability to connect with a sewer system, would you connect to it? Why?

8) What might be the advantages/disadvantages of a sewer system vs septic system?

9) If you had to replace your septic system at a high cost, would you rather have the option to connect to a sewer system?

10) Is a sewer system something that Hideaway should explore for the future of our community?

References/Appendices

(N)

Team Meeting Sign In Sheets

Hideaway Sewer/Wastewater Exploration Committee

May 16, 2018

Agenda:

Minutes from previous meeting:

Handouts:

Resolution from the City:

Suggestions on a pathway forward:

Letter to the community:

Final thoughts:

Next Meeting:

May 30, 2018 4pm

Hideaway Wastewater Planning

Team Meeting

May 30, 2018

SIGN-IN

RCP Richard Peacock

RGS Ron Strickland

DH Doug Hoffman

MPG Phil Guthrie

BBG Beverly Guthrie

_____ Anita Anderson

GN Greg Newton

Bernie Demers

Pat Bonds

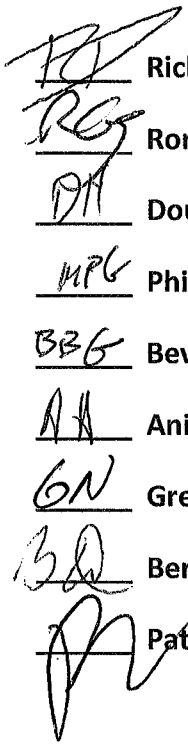
Guests:

Hideaway Wastewater Planning

Team Meeting

June 27, 2018

SIGN-IN



Richard Peacock

Ron Strickland

Doug Hoffman

Phil Guthrie

Beverly Guthrie

Anita Anderson

Greg Newton

Bernie Demers

Pat Bonds

Guests:

Hideaway Wastewater Planning

Team Meeting

August 8, 2018

SIGN-IN

RP Richard Peacock

RCS Ron Strickland

DH Doug Hoffman

MPG Phil Guthrie

BBG Beverly Guthrie

____ Anita Anderson

GN Greg Newton

_____ Bernie Demers

Guests:

Hideaway Wastewater Planning

Team Meeting

September 12, 2018

SIGN-IN

RP Richard Peacock
RGS Ron Strickland
DH Doug Hoffman
PG Phil Guthrie
BBG Beverly Guthrie
____ Anita Anderson
GN Greg Newton
____ Bernie Demers

Guests:

Next meeting Sept 26 4pm

Hideaway Wastewater Planning

Team Meeting

September 26, 2018

SIGN-IN

RP Richard Peacock

RGS Ron Strickland

DH Doug Hoffman

___ Phil Guthrie

___ Beverly Guthrie

____ Anita Anderson

GN Greg Newton

____ Bernie Demers

Pat Bones

Guests:

Thursday Oct 11, 4PM

North Marina

Hideaway Wastewater Planning

Team Meeting

October 11, 2018

SIGN-IN

RP **Richard Peacock**

RGS **Ron Strickland**

DH **Doug Hoffman**

PMG **Phil Guthrie**

BBG **Beverly Guthrie**

_____ **Anita Anderson**

GN **Greg Newton**

_____ **Bernie Demers** resigned as a planning

Guests: Patt Bonds

Hideaway Wastewater Planning

Team Meeting

October 16, 2018

SIGN-IN

RP **Richard Peacock**

RGS **Ron Strickland**

_____ **Doug Hoffman** VIA phone

PHG **Phil Guthrie**

_____ **Beverly Guthrie** VIA phone

AA **Anita Anderson**

_____ **Greg Newton**

Guests:

Randal Boone

Hideaway Wastewater Planning

Team Meeting

October 31, 2018

SIGN-IN

RP **Richard Peacock**

RCS **Ron Strickland**

_____ **Doug Hoffman** → via phone

PRG **Phil Guthrie**

BBG **Beverly Guthrie**

AA **Anita Anderson**

_____ **Greg Newton**

Guests:

Hideaway Wastewater Planning

Team Meeting

November 9, 2018

SIGN-IN

RP Richard Peacock

RGS Ron Strickland

_____ Doug Hoffman VIA phone

MPG Phil Guthrie

BBG Beverly Guthrie

_____ Anita Anderson VIA phone

GN Greg Newton

Guests:

Pat Bonds

Hideaway Wastewater Planning

Team Meeting

December 5, 2018

SIGN-IN

RP Richard Peacock

RLS Ron Strickland

DH Doug Hoffman

PG Phil Guthrie

BG Beverly Guthrie

AA Anita Anderson

GN Greg Newton

Guests: Pat Bonds

JIM CARRAS

Hideaway Wastewater Planning

Team Meeting

January 9, 2019

SIGN-IN

TGP **Richard Peacock**

RGS **Ron Strickland**

DH **Doug Hoffman**

______ **Phil Guthrie**

BBG **Beverly Guthrie**

AA **Anita Anderson**

______ **Greg Newton**

Guests:

Jim Carras

Robert [illegible]

Randy [illegible]

Hideaway Wastewater Planning

Team Meeting

January 30, 2019

SIGN-IN

RP Richard Peacock

RGS Ron Strickland

_____ Doug Hoffman via phone

_____ Phil Guthrie

BBG Beverly Guthrie

_____ Anita Anderson

GN Greg Newton

Guests:

Hideaway Wastewater Planning

Team Meeting

February 13, 2019

SIGN-IN

Richard Peacock

Ron Strickland

Doug Hoffman

Phil Guthrie

Beverly Guthrie

Anita Anderson

Greg Newton

Jim Carras

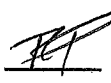
Guests:

Hideaway Wastewater Planning

Team Meeting

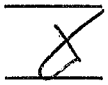
April 3, 2019

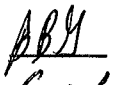
SIGN-IN


Richard Peacock


Ron Strickland

_____ Doug Hoffman


Phil Guthrie


Beverly Guthrie


Greg Newton


Jim Carras


Pat Bonds

Guests:

Hideaway Wastewater Planning

Team Meeting

April 17, 2019

SIGN-IN

_____ Richard Peacock

RGS Ron Strickland

_____ Doug Hoffman

PHG Phil Guthrie

BHG Beverly Guthrie

_____ Greg Newton

_____ Jim Carras

_____ Pat Bonds

Ray Hutchison

Randy House

Guests:

Hideaway Wastewater Planning

Team Meeting

May 1, 2019

SIGN-IN

RP Richard Peacock

RGS Ron Strickland

phone Doug Hoffman

Phil Guthrie

BGH Beverly Guthrie

GN Greg Newton

_____ Jim Carras

Pat Bonds

Randy Moore

Guests:

Ray Stanton

Hideaway Wastewater Planning

Team Meeting

April 17, 2019

SIGN-IN

absent **Richard Peacock**

✓ **Ron Strickland**

phone **Doug Hoffman**

✓ **Phil Guthrie**

✓ **Beverly Guthrie**

✓ **Greg Newton**

✓ **Jim Carras**

✓ **Pat Bonds**

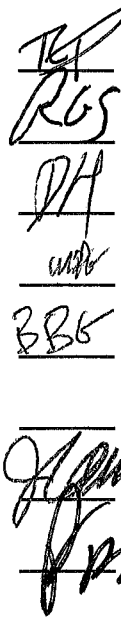
Guests:

Hideaway Wastewater Planning

Team Meeting

May 15, 2019

SIGN-IN



Richard Peacock

Ron Strickland

Doug Hoffman

Phil Guthrie

Beverly Guthrie

Greg Newton

Jim Carras

Pat Bonds

Guests:

Hideaway Wastewater Planning

Team Meeting

July24, 2019

SIGN-IN


Richard Peacock

Ron Strickland


Doug Hoffman

_____ Phil Guthrie


Beverly Guthrie

_____ Greg Newton


Jim Carras

Pat Bonds

Guests: