The resource guide should be developed in such a manner that the Designated Representatives can use individual sections independent of information from other sections. The resource guide should also include specific recommendations on steps that could be taken to implement each topic. Additionally, the recommendations should be based upon case studies of other Texas communities that have effectively developed and implemented programs to address various OSSF problems.

Recommendation 4: Conduct Further Regional Research

In order obtain an understanding of the magnitude of, and reasons for, malfunctioning OSSF systems in Region III, which includes the area of South Texas know as the Lower Rio Grande Valley, the project team recommends that the Council fund additional research in this area of the State. This research is needed because the survey response rate for this region was significantly lower than the response rates for the other four regions of the State. This research would ideally build from the research completed through this study.

This future research could be conducted through a combination of case studies, interviews and/or surveys. This additional research could be especially helpful in determining potential infrastructure or other resource needs in this area of the State. Information gathered through the additional research would be valuable and useful for Region III since there are several state and federal programs that can provide financial assistance for water and wastewater infrastructure problems in the border region.

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Study to Determine the Magnitude of. and Reasons for, Chronically Malfunctioning OSSFs in Texas

Attachment JES – 9 Page 1 of 2

COMPARATIVE STUDY

of Costs of OSSF Systems

Old Rules versus New Rules

Prepared for the Texas On-Site Wastewater Treatment Research Council

> Prepared by Guadalupe Wastewater Company 217A West Water Street Kerrville, Texas 78028

> > Contract No. 9870098900

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ON-SITE SEWERAGE	RULES OF HADDIS COUNTY TEXAS	FOR ON-SITE SEWERAGE FACILITIES	INFORMATION GUIDE	A STATE OF S		HARRIS COUNTY	PERMIT OFFICE (713) 956-3000	ww.eng.hctx.net/permits	HARRIS COUNTY DURUIC INFRASTRUCTURE DEPT	10000 NORTHWEST FRWY. STE. 102 HOUSTON, TX 77092-8620		Attachme	Page
								11	Public Infrastructure Department	10000 Northwest Frwy. Ste. 102 Hauston, TX 77092-8620			
payable to the Harris County Clerk. The County Permit Office collects the fee and files the affidavit for you.	Once you have obtained your permit you must decide whether you intend to install the system or have a registered installer do the work. All installers doing work in Harris	County must be registered by the TCEQ. To insure an installer is registered call (713) 956-3000 or ask to see thier current registration card or check online at www.reen.etar.tx.us.	As the property owner, you must insure that your on-site sewage facility is inspected by the County Permit Office	and passes all inspections prior to placing it into use. The inspector will issue an <u>Authorization to Operate</u> when the	system passes the required inspections. You should keep this Authorization to Operate with your property records, at all times.	WHEN CAN I GET ELECTRICITY (PERMANENT POWER)?	Review your permits to see what inspections are required. Once you have passed ALL inspections for your project, including	development and on-site sewerage facility, vou may call (713) 956-3000 to request	release for permanent power.				
office.) The evaluation must be signed and sealed by either a registered professional engineer or a registered professional sanitarian.	[] 4. An affidavit signed by the property owner and notarized indicating the permittee is aware of his reconscibility for proper	and operation e facility. (A lable from th otarized here.	[] J. If the designed OSSF requires maintenance reports you must also submit a signed "Acknowledgment	of Testing Results" form (Forms are available from this office.)	[] 6. The fees for the permit, two inspections and the State of Texas Research Fee total \$260.00 for a residential structure, \$410.00 for a	commercial structure, and a minimum of \$210.00 for a holding tank and/or port-a-can. If more	inspections are required, an additional \$50.00 for each trip to the iob site is charged. Payment	can be made by personal check,	cash, and made payable to the Harris County Treasurer.	 7. A separate additional filing fee of \$16.00 required for the affidavit must also be submitted and made 	p. forms/wastewater section/ossf info guide_may 2006.doc		

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Attachment JES – 10 Page 1 of 2

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WHAT IS AN ON-SITE SEWAGE PACILITY? An on-site sewage facility or septic system, disposes of wastewater on-site. All of the wastewater must seep into the soil on the property and not rise to the surface of the ground or discharge into a roadside ditch or stream or gully. Since all systems do not use septic tanks to treat wastewater, these systems are called on-site sewage facilities (OSSF).

DO I NEED ONE?

If your property is not within reach of a "public" sewer line and if your project will generate wastewater, then the answer is "yes". A building equipped with bathrooms, sinks, kitchens, washing machines, etc., will generate wastewater. Older properties with inadequate or malfunctioning facility installed or the existing facility upgraded.

WHAT MUST I DO TO HAVE ONE INSTALLED?

To install an on-site sewage facility, or to upgrade an existing facility, an on-site sewage facility permit must be obtained. The County Permit Office will issue the license if your property is located in Harris County and not within the city limits of any city.

HOW DO I OBTAIN A PERMIT TO INSTALL AND OPERATE ONE?

evaluation report. The drawings and site sets of construction drawings and a site evaluation must be done by either a professional engineer or a Engineers and sanitarians advertise in the yellow pages under "Engineers" and "Septic" or you may obtain a list of engineers, sanitarians and septic installers from the Permit should be allowed for review of plans and facility is issued, you should start well in According to reports by these services generally cost between \$300 and \$700. Three to five days to install and operate the on-site sewage To obtain a permit you must fill out an homeowners, engineers and sanitarians, Since Harris County cannot issue a development (building) permit until after the permit advance so that the issuance of your upplication and submit it with three (3) development permit will not be delayed. supporting documents. sanitarian. registered registered Office.

HOW MUCH DO THEY COST & WHO PUTS THEM IN?

According to reports from on-site sewage facility installers, a facility for a single family dwelling generally costs between \$5,000 and \$10,000. It must be installed by an installer registered by the Texas Commission on Environmental Quality (TCEQ), or installed by the homeowner. Care must be exercised

when installing these systems so that they will function as designed.

HOW DO I KEEP IT WORKING?

Garbage To keep your system working and to should be followed. First, never dispose of household solid wastes and toxic disposals should be avoided or the system should be designed to One leaking toilet can overburden your system and cause a Your system must also be properly maintained. If you have septic tanks, they should be pumped every two avoid costly repairs, some basic rules Secondly, conserve water whenever Remember, pumping your tank is like accommodate the extra waste load. to three years to insure proper operation. You won't see mmediate results but your system will keep working longer with fewer repairs. chemicals in your system. changing your oil. problem. possible.

HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT 10000 Northwest Freeway, Ste 102 Houston, TX 77092-8620 (713) 956-3000

OFFICE HOURS MONDAY THROUGH FRIDAY 7:30 AM - 4:00 PM

A GUIDE TO OBTAINING AN ON-SITE SEWAGE FACILITY (SEPTIC SYSTEM) PERMIT. This checklist has been prepared to help you through the permitting process. If you have any questions, please do not hesitate to call us at (713) 956-3000.

The County Permit Office will not issue a development (building) permit until your on-site sewage facility permit has been obtained. You may submit your OSSF permit application first or at the same time you submit your development permit application and both permits may be issued simultaneously. The review and approval of the OSSF permit application and the required supporting documents will generally take three to five days. To obtain a permit the following items must be submitted:

- [] 1. A completed application signed by the property owner.
- [] 2. Three sets of drawings prepared by either a registered professional engineer or a registered sanitarian. Drawings must be to scale and must clearly detail the on-site sewage facility to be installed.
- [] 3. One copy of a site evaluation report which includes a soils investigation of the proposed installation site. (Forms for this purpose may be obtained from this



L-5342 1-00

On-site wastewater treatment systems

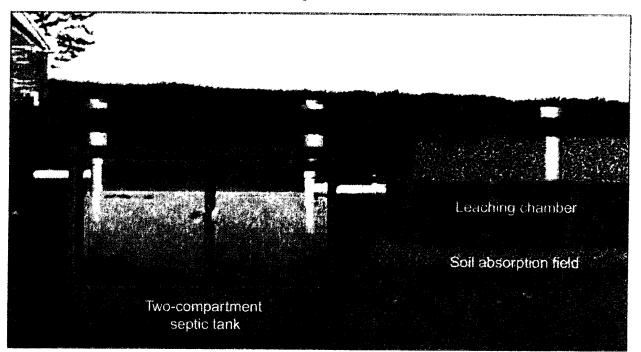


Figure 1: Leaching chamber systems can have smaller drain fields than those for conventional systems.

Leaching chambers

Bruce Lesikar and Russell Persyn

Extension Agricultural Engineering Specialist, Extension Assistant-Water Conservation The Texas A&M University System

eaching chamber systems handle wastewater in a similar manner as conventional gravel-filled trench systems. The main difference is in how the trench is constructed.

A leaching chamber system includes:

- A treatment device, generally a septic tank, but it can be an advanced treatment system.
- ✓ A leaching chamber, which is a commercially available plastic chamber molded into a dome shape. The chamber top is solid so that it can support the soil above it, the sides are louvered; and the

bottom is open to allow the water to exit. Chamber widths vary from 15 to 36 inches.

 Leaching chamber trenches, which can be no longer than 150 feet.

In a leaching chamber system, a solid 4-inch-diameter pipe carries wastewater from the septic tank to the leaching chamber trenches. The leaching chambers store the wastewater until it enters the soil. Each leaching chamber system should have at least one observation port to allow water levels in the trench to be inspected.

Advantages

A leaching chamber is made of lightweight material that can easily be carried to the excavated trench. There is no need for additional perforated pipe or geotextile fabric as used in conventional trench systems.

The drain fields for chamber systems are permitted to be smaller than those for conventional systems. For a house without water-saving devices, the drain field absorptive area can be 40 percent smaller than in conventional systems; for houses with water-saving devices, it can be 20 percent smaller. (The reason that houses with water-saving devices can have only a 20-percent smaller drain field is that such systems are already designed to be 20 percent smaller than houses without water-saving devices. The reduction in drain field size cannot be compounded.)

Disadvantages

The drain field size can be reduced only in class Ib, II and III soils. The drain field size may not be reduced for low-pressure dosing systems using leaching chambers in class IV soils.

The bottom of the chamber must be separated from a restrictive horizon or groundwater by at least 2 feet.

How to keep it working

Leaching chambers are a proprietary product, so please follow the manufacturer's recommendations for maintaining the system. Other guidelines include:

Pump out the treatment tanks every 2 to 3 years to keep solids out of the drain field. Leaching chamber Splash plate

Figure 2: Loaching chamber trenches can be no longer than 150 feet.

- Maintain a grass cover over the tronches to help remove water from the soil.
- Do not place any solid materials over the ground surface that could prevent air from moving into the soil in the drain field.
- Conserve water to prevent the drain field from flooding.
- Do not drive heavy equipment across the drain field. The

equipment can damage the drain field.

Estimated costs

The installation cost ranges from \$3,000 to \$6,000 depending on the soil type, house size and other factors.

Septic tank maintenance costs are about \$75 per year, if you have it pumped out every 3 years. More frequent maintenance increases cost.

The On-Site Wastewater Troatment Systems series of publications is a result of collaborative efforts of various agencies, organizations and funding sources. We would like to acknowledge the following collaborators.

Texas State Soil and Water Conservation Board	USEPA 319(h) Program
Texas On-Site Wastewater Treatment Research Council	Texas Agricultural Patension Service
Texas Natural Resource Conservation Commission	Texas Agricultural Experiment Station
USDA Water Quality Demonstration Projects	Texas On-Site Wastewater Association
Consortium of Institutes for Decentralized Wastewater Treatment	USDA Natural Resources Conservation Service

Produced by Agricultural Communications, The Texas A&M University System

All publications in the On-site Wastewater Treatment Systems series can be downloaded free from the World Wide Web at

http://agpublications.tamu.edu/pubs/ewaste

- durational programs of the Texas Agricultural Extension Service are open to all people without regard to race, color, sex, disability, religion, age or national origin

issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture, Chester P. Fehls, Deputy Director, The Texas Agricultural Exension Service. The Texas A&M University System 30.000 cooles, New

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Aerated Tanks (Aerobic Units)



I. Description

Aerobic units, or small extended aeration package plants, utilize a suspended growth wastewater treatment process, and may be used to remove substantial amounts of BOD and suspended solids which are not removed by simple sedimentation (as occurs in septic tanks). Under appropriate conditions, aerobic units may also provide for nitrification of ammonia, as well as significant pathogen reduction.

Some type of primary treatment usually precedes the aerated tank. The aerated tanks contain an aeration chamber, with either mechanical aerators or blowers, or air diffusers, and an area for final clarification (settling) . Aerobic units may be designed as either continuous flow or batch flow systems, with most commercially available units being the continuous flow type. Effluent from the aerated tank is conveyed either by gravity flow or pumping to either further treatment/pretreatment processes, or final treatment and disposal in a subsurface soil disposal system.

II. Common Modifications

Various types of pretreatment may be employed ahead of the aerobic units, including septic tanks, trash traps, and comminutors. Septic tanks or trash traps are most commonly used for pretreatment for smaller onsite systems.

Aerobic units may be of either the continuous flow, or batch type. The batch (fill and draw) flow system collects and treats wastewater over a period of time (usually one day), then discharges the settled effluent at the end of the cycle.

Some proprietary package treatment units are equipped with filters for providing further treatment following the extended aeration activated sludge process. This system modification may provide for additional TSS and BOD.

A modified type of proprietary aerobic treatment unit has been undergoing research and demonstration during the past few years. The "biofilter" unit consists of a covered tank (usually concrete) containing foamed plastic media packing. The foamed plastic is very porous, so flow paths through and around the

mbtml+file-//C+/Users/cdekrut/Documents/Projects/Lindsav/Austin OSSF Service Sheets/A 5/20/2008 media is possible. Septic tank, or "trash trap", effluent uniformly distributed over the surface of the media. A fan (or blower) is used to simultaneously circulate air through the media via vent pipes in the tank. The system appears to provide very effective removal of BOD, TSS, as well as nitrification.

III. Technology Status

Aerobic units have been commercially available for approximately 25 years.

IV. Applications

Aerobic units may be used by individual or clustered residences and establishments for treating wastewater prior to (1) further treatment/pretreatment, or (2) final onsite subsurface treatment and disposal. They are particularly applicable where enhanced pretreatment is important, and where there is limited availability of land which is suitable for final onsite disposal of wastewater effluent.

Due to the need for routine maintenance of these systems in order to ensure proper operation and performance, aerobic units may be well-suited for multiple-home or commercial applications, where economies of scale tend to reduce maintenance and/or repair costs per user. The lower organic and suspended solids content of the effluent may allow a reduction of land area requirements for subsurface disposal systems.

V. Limitations

The rate of sludge production for aerobic units is much greater than for septic tanks, necessitating more frequent sludge removal by a licensed transporter. To ensure proper performance of the units, it may be necessary in at least some cases to require a maintenance contract. Electrical power is required for aerobic units. Current Austin-Travis County Health and Human Services rules require that this type of system be designed by a licensed professional engineer.

VI. Typical Equipment/Number of Manufacturers

Aerated tank units are commercially available from several suppliers in Texas. The TNRCC provides a list of State-approved units.

VII. Performance

Numerous studies have been conducted during the past 20 to 25 years to evaluate the performance of aerobic treatment units. The results of a 4-year study conducted in Wisconsin appear to be representative of, and consistent with other studies conducted during that same general time period (late 1970's and early 1980's). Mean effluent values for various wastewater parameters measured

during that study are presented in a table included as the last page of this fact sheet. Although the nitrification (ammonia removal) reported in the table is very high, levels of nitrification in aerobic units will be very dependent on a variety of factors including loading rates for key wastewater constituents, detention times, oxygen transfer, and temperature. More recent testing of certain aerobic unit models has been performed by NSF International. Those results indicate that there may have been some design and performance improvements for those models as compared with the systems tested in the earlier studies. Operation and maintenance practices could however be responsible for the different performance reported from those studies. NSF studies on several units showed the following effluent quality for TSS and BOD:

Parameter	Average Concentration (mg/L)
BOD5	5-20
TSS	7-22

VIII. Residuals Generation

U.S. EPA literature generally recommends that aerobic units are pumped out at least about once every year.

IX. Overall Reliability

Several studies conducted to evaluate the performance of aerobic units have shown that, if properly designed, installed, and maintained for a particular site's application, these units can perform reliably. Those same studies have also found that home owner neglect, or in general, failures to maintain or replace system components as needed can result in the failure of systems using these units. The acceptable operation of aerobic units has been found to be a function of (1) home owners' understanding of the limitations of the unit, (2) a dependable power supply, and (3) sufficient maintenance.

X. Operation and Maintenance Requirements

<u>Pretreatment Units</u>: If septic tanks or "trash traps" are used as a pretreatment unit prior to an aerobic unit, as discussed under "Residuals Generation" in the Septic Tanks fact sheet, septic tanks should be pumped at an average frequency of 2 to 5 years, depending on their size relative to the system's capacity and use. Communitors or other pretreatment units with mechanical or electrical components must occasionally be serviced or replaced.

Aerobic Units: Sludge must be removed from these units, on the average, about once every eight to

twelve months, based upon studies conducted to evaluate their performance. EPA recommendations include performing certain maintenance activities on a monthly basis. These include: (1) Checking for foaming and uneven air distribution in the aeration tank; (2) Checking the air distribution system components, including filters, seals, oil level, pressure (for diffused air systems), vibration or overheating (for mechanical air systems), and any other manufacturer's required or recommended maintenance procedures; (3) Check the clarifier for floating scum, appearance of effluent, location of sludge blanket, and any mechanical equipment in accordance with manufacturer's recommendations; and (4) Check controls, alarms, and controls box.

Results of several studies on aerobic units have consistently indicated that home owners usually have neither the expertise nor the incentive to properly maintain their own treatment units. In order to provide assurance to regulatory authorities that these systems will be properly maintained and operated, and ensure adequate environmental and public health protection, it may be essential to require that home owners enter into maintenance agreements with either a local utility district or private service provider.

XI. Potential Environmental Impacts

Properly designed, installed, and maintained aerobic units can, on the average, produce effluent of the quality indicated on the attached table. In addition, the effluent from aerobic treatment processes tends to have much less odor than does effluent from septic tanks. If environmental conditions for a given site for onsite disposal are such that enhanced total nitrogen and pathogen reduction are needed prior to final land disposal, then adverse environmental impacts might result from the use of these units alone, without an additional pretreatment process(es)

XII. Energy Consumption

Studies show that the energy consumption for aerobic units averages between 2.5 to 10 KWH/day, depending upon the motor design and time of operation.

XIII. Costs

Estimated initial aerobic unit costs, installed, and including septic tank pretreatment unit,	\$6,000
Equipment repair/replacement costs, estimated at \$50/year	\$4.17/month
O&M, with a maintenance contract of \$360/year (est. 12 hrs. @ \$15/hour * 2.0, including taxes, overhead, and profit),	\$30/month
Septage and sludge pumping once annually (it is assumed that the septic tank is pumped simultaneously, as needed, so as to	\$14.58/month

elíminate separate costs for that),	
Energy costs (using 6 KWH/day energy use),	\$14.60/month
20-year NPW (not incl. design & permitting costs),	\$13,573.76

XIV. Aesthetic Considerations

Both septic tanks and aerobic units are typically buried below grade, and usually do not have significant visual impacts on the site. Some minor background sound may be associated with the operation of the aerobic unit. A properly functioning aerobic unit should produce an effluent with far less odor than would be characteristic of septic tank effluent, should that be of concern for the particular site.

XV. State and Local Acceptance

Aerobic units have been used extensively in the State of Texas and elsewhere in the U.S. A list of stateapproved aerobic units is attached.

XVI. References

1. U.S. EPA, "Onsite Wastewater Treatment and Disposal Systems Design Manual", EPA/625/I-80-0l2, October 1980.

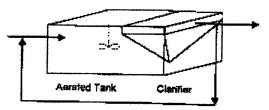
2. "Performance of Aerobic Treatment Units", N.J. Hutzler, L.E. Waldorf, and J. Fancy. Distributed by the University of Wisconsin, Madison, SSWMP.

3. Manufacturers' information.

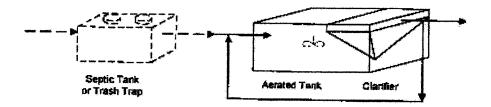
Conceptual Drawing

Aerated Tanks (Aerobic Units)

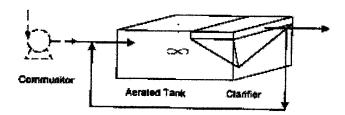
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Aerated Unit



Aerated Unit with Septic Tank or Trash Trap Pretreatment



Aerated Unit with Comminutor

Effluent Quality Parameter	Mean	No. of Samples	95% Confidence Interval	Range of Data	
BOD₅, (mg/L)	37	112	32-42	0-208	

Effluent Quality of University of Wisconsin Aerobic Units (SSWMP, 1978)

City of Austin - Onsite Treatment (Pretreatment) System Fact Sheets

Soluble BOD₅, (mg/L)	15	94	12-18	0-120
COD, (mg/L)	108	116	100-116	20-349
TSS, (mg/L)	39	117	33-46	3-252
VSS, (mg/L)	27	118	23-32	1-144
Total N, (mg/L)	36	87	34-38	15-78
NH₃ - N, (mg/L)	0.9	92	0.1-1.7	0-60
NO2 + NO3, (mg/L)	30	95	27-33	0.3-72
Total P, (mg/L)	26	80	22-30	6-140
PO4 - P, (mg/L)	21	78	18-24	6-51
Fecal Coliform, (Log no./L)	5	115	4.7-5.3	2,8-7.3
Fecal Streptococci, (Log no./L)	4.3	113	3.9-4.7	2.0-6.3

From: "Performance of Aerobic Treatment Units", N.J. Hutzler, L.E. Waldorf and J. Fancy. Distributed by the University of Wisconsin - Madison, College of Agricultural and Life Sciences and College of Engineering, Small Scale Waste Management

Information provided by

Community Environmental Services Inc.

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In the State of Texas § S County of Cooke §

I, <u>Betsy Fleitman</u>, City Secretary for the City of Lindsay, Texas, hereby certify that the attached document is a true and correct copy of a document taken from the official City files of the City of Lindsay, Texas, and is maintained in the regular course of business of the City of Lindsay, Texas. Given under my hand and the seal of office on June 3, 2008.

Betsey Glut man

City Secretary City of Lindsay, Texas

CITY OF LINDSAY, TEXAS

ORDINANCE NO. <u>0805-3</u>

AN ORDINANCE OF THE CITY OF LINDSAY, TEXAS, ESTABLISHING REGULATIONS FOR PROVIDING UTILITY SERVICE OUTSIDE THE CORPORATE LIMITS; PROVIDING FOR A PENALTY NOT TO EXCEED TWO THOUSAND DOLLARS FOR EACH INSTANCE OF VIOLATION OF THE ORDINANCE; AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the City of Lindsay is providing for the supply and distribution of water and the treatment of wastewater, to promote the health, safety, and convenience of its citizens and for the safeguarding of water resources common to all residents of the community and adjacent areas; and,

WHEREAS, for the protection of its citizens, there is a need for establishing regulations for providing utility service outside the corporate limits of the City of Lindsay; now therefore

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LINDSAY THAT:

SECTION 1: UTILITY SERVICE OUTSIDE CITY

- (A) Any person desiring utility services furnished by the city to property which is outside the limits of the city shall, prior to the furnishing of utility service by the city, including water and sewer, file a petition for annexation which shall be in the form prescribed by Texas Local Government Code, Section 43.028 and execute a written agreement providing minimum requirements as follows:
 - (1) The furnishing of utility services shall not be construed to compel the city to furnish consumers beyond the corporate limits or to continue such supply once begun.
 - (2) The city reserves the right to furnish such customers it deems advisable, and to, at any time, wholly or partially discontinue the utility service.
 - (3) Any utility main constructed outside of the corporate limits shall be entirely at the owner's expense and it, as and when incorporated within the city, shall become the property of the city without reimbursement to the owner; and, the city assumes no responsibility or liability for satisfactory service maintenance, pressure or wastage until it acquires sole ownership as a part of its utility system.
 - (4) In the event of a relocation or the construction of a permanent line or main, the property owner shall pay the pro rata cost on his or her property at the then applicable rates, and connect his or her service to said permanent line or main.
 - (5) Exception: In no event shall sewer service be furnished beyond the corporate limits unless the persons desiring sewer utility service are currently receiving Page 1 of 4 Pages

water from the water utility of the City of Lindsay, Cooke County, Texas, or an agreement consistent with the provisions of this Ordinance to provide city water utility service to the petitioners property has been reached.

- (B) The City Council may, if in their judgment it is deemed advisable, render water or sewer services to premises situated outside of the corporate limits of the city upon complying with this section, and in addition, subject to the following conditions and rules.
 - (1) WATER-application; construction and materials requirements: Any person desiring to use the water shall, when an extension of a main is necessary to render such service, make application to the Public Works Department requesting service, and shall state in such application the exact location of the premises to be served and the purpose for which the water is to be used. Such application shall also contain an agreement signed by the owner of the property to be served which will render the owner liable for all water rates or charges accruing under such service. In the event such application is granted, such person so applying shall, at his or her own cost and expense, lay the kind and character of water pipe prescribed by the city, the minimum size of which shall be six inches (6"), before connection with the city water main; furthermore, any such person shall, at his or her own cost and expense, purchase a meter together with a meter box and necessary fittings; all of which shall be of the kind and character prescribed by the Public Works Department, for the purpose of measuring water so petitioned for by the person, and such water pipe and meter shall be kept at all times in a good condition of repair at the cost of such person using the water and such water connections so made, and all pipes laid by such person shall be in accordance with the regulations governing connections and the laying of water pipes within the city.
 - (2) <u>SEWER</u>--application; construction and materials requirements: Subject to Section 1, (A), (5) above, any person desiring sewer service shall, when an extension of a main is necessary to render such service, make application to the Public Works Department, requesting service, and shall state in such application the exact location of the premises to be served and the purpose for which wastewater treatment is required. Such application shall also contain an agreement signed by the owner of the property to be served which will render the owner liable for all sewer rates or charges accruing under such service. In the event such application is granted, such person so applying shall, at his or her own cost and expense, engineer the proposed sewers and provide detailed plans and specifications for review by the city's engineer. Furthermore, any such person shall, at his or her own cost and expense, construct the sewer pipe, manholes, or lift station, and related appurtenances, all of which shall be of the kind and character prescribed by the Public Works Department, for the purpose of wastewater treatment so petitioned for by the person, and such sewer collection system shall be kept at all times in a good condition of repair at the cost of such person using the collection system so made, and all materials laid by such person shall be in accordance with the regulations governing the construction of sewer mains within the city.

State Law reference-Authority to operate utilities and prescribe rates, V.T.C.A., Local Government Code, § 402.017; City has exclusive jurisdiction over all water and sewer utility rates, operations, and services provided by a water and sewer utility, V.T.C.A., Water Code, § 13.042; Authority to control and regulate waste discharges and require pretreatment, V.T.C.A., Water Code, § 26,176 and § 26.177.

- (2) Written Permission to Connect: When such extension of water or sewer mains or service pipes have been installed outside of the corporate limits and application for additional service is made to connect with such extension or service pipe, such applicant shall present with his or her application written permission to connect with such extension of the main or service, signed by the original applicant who paid the original cost thereof or by his or her assigns.
- (3) City Not Liable For Maintenance of Pipe; Discontinuance: The city shall not be liable for the maintenance of any water or sewer main or service pipe lying outside of the corporate limits of the city and the right is reserved to discontinue water or sewer service through any such main or service line which causes a waste or leakage of water or sewer.
- (4) City Not Liable For Defective Condition of Pipe or Ditches: The city shall in no case be liable on account of any defective condition in any water or sewer pipe, or in any trench or ditch dug for the purpose of laying water or sewer pipe by any person desiring to make connection with any of the city's mains, and it shall always be expressly understood that the person using said water or sewer shall, at all times, keep the pipes, related appurtenances, and other connections in good condition of repair, and shall be liable for all damages occasioned to any person or property by reason of any defective condition arising through the want of repair, or otherwise, to the water or sewer pipe or the ditches in which the same are laid.
- (5) City May Revoke Permission; It is further understood that in no event will the city, under the terms of this section, be obligated to continue to furnish water or sewer service to any person outside of the corporate limits, but may revoke the permission at any time without notice.
- (6) Regulations: All such service outside the corporate limits shall, in all respects not otherwise provided herein, be subject to the same regulations for service and the manner of paying the compensation, as provided for service inside of the corporate limits.
- (7) Placing of Meters: All meters serving premises outside of the corporate limits shall be set inside (or as near as practicable) the corporate limits, and the city shall not be responsible for the condition of any mains, pipes or services outside of the corporate limits or beyond the meter serving such premises.
- (8) If approval is granted to locate the meter beyond the corporate limits, an inline valve shall be installed at the corporate limits in its place.

P.3/4

SECTION 2: PENALTY PROVISION

Any person, firm or corporation violating any provision of this Ordinance shall be deemed guilty of a misdemeanor and upon final conviction thereof fined in an amount not exceeding two thousand dollars (\$2,000.00) for violations of all provisions that govern fire safety, public health, and sanitation, and not exceeding five hundred dollars (\$500.00) for all other violations, provided, however, that no penalty shall be greater or less than the penalty provided for the same or similar offense under the laws of the State of Texas. Each and every day any such violation continues shall constitute a separate offense punishable hereunder.

SECTION 3: <u>REPEAL CLAUSE</u>

All parts of any ordinance in conflict with the provisions of this ordinance are to the extent of such conflict hereby repealed.

SECTION 4: <u>SAVINGS CLAUSE</u>

If any provision of this ordinance shall be held to be invalid or unconstitutional, the remainder of such ordinance shall continue in full force and effect the same as if such invalid or unconstitutional provision had never been a part hereof.

SECTION 5: EFFECTIVE DATE

This ordinance is declared to be an emergency measure necessary for the immediate preservation of the peace, health, safety and general welfare of the people of this municipality and shall be effective upon the posting and/or publication of its caption as required by law and the City Secretary is hereby directed to implement such posting and/or publication.

Ayes <u>4</u> Nays <u>0</u> Abstentions <u>0</u>

APPROVED:

Schedule JES-A Page 1 of 4

	City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR						
	Water and Sewer Utility, Debt - Equity Ratio						
Line No.	Col (A)	Col (B)	Col (C)				
	FY 2004						
	Description	Amount	Notes				
1	Debt						
2	Current Lease Payable	\$ 39,935					
3	Less: Discount on Lease Payable	(19,935)					
4	Lease Payable	392,297					
5	Less: Discount on Lease Payable	(110,123)					
6	Subtotal	\$ 302,174					
7	Equity						
8	Invested in Capital Assets, net of related debt	\$ 223,621					
9	Unrestricted	366,133					
10	Subtotal	\$ 589,754					
11	Debt/Equity Ratio	0.51	Line 6 / Line 10				
12	Capital Structure						
13	Debt	33.9%	Line 6 / (Line 6 + Line 10)				
14	Equity	66.1%	Line 10 / (Line 6 + Line 10)				

Schedule JES-A Page 2 of 4

City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Water and Sewer Utility, Debt - Equity Ratio					
Line No.	Col (A)	Col (B)	Col (C)		
	FY 2005				
	Description	Amount	<u>Notes</u>		
1	Debt				
2	Current Lease Payable	\$ 38,697			
3	Less: Discount on Lease Payable	(18,697)			
4	Lease Payable	353,600			
5	Less: Discount on Lease Payable	(91,426)			
6	Subtotal	\$ 282,174			
7	Equity				
8	Invested in Capital Assets, net of related debt	\$ 276,640			
9	Unrestricted	393,360			
10	Subtotal	\$ 670,000			
11	Debt/Equity Ratio	0.42	Line 6 / Line 10		
12	Capital Structure				
13	Debt	29.6%	Line 6 / (Line 6 + Line 10)		
14	Equity	70.4%	Line 10 / (Line 6 + Line 10)		

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Schedule JES-A Page 3 of 4

	City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Water and Sewer Utility, Debt - Equity Ratio					
Line No.	Col (A)	Col (B)	Col (C)			
	FY 2006					
	Description	<u>Amount</u>	Notes			
1	Debt	• • • • • • • • •				
2 3	Current Lease Payable	\$ 39,211				
3 4	Less: Discount on Lease Payable Lease Payable	(17,544)				
4 5	Less: Discount on Lease Payable	317,553 (75,379)				
6	Subtotal	\$ 263,841				
7	Equity					
8	Invested in Capital Assets, net of related debt	\$ 271,644				
9	Unrestricted	499,014				
10	Subtotal	\$ 770,658				
11 12	Debt/Equity Ratio Capital Structure	0.34	Line 6 / Line 10			
13	Debt	25.5%	Line 6 / (Line 6 + Line 10)			
14	Equity	74.5%	Line 10 / (Line 6 + Line 10)			

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Schedule JES-A Page 4 of 4

	City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Water and Sewer Utility, Debt - Equity Ratio					
Line No.	Col (A)	Col (B)	Col (C)			
	FY 2007					
	Description	<u>Amount</u>	Notes			
1 2 3 4 5 6	Debt Current Lease Payable Less: Discount on Lease Payable Lease Payable Less: Discount on Lease Payable Subtotal	 \$ 41,160 (16,160) 276,394 (57,553) \$ 243,841 				
7 8 9 10	Equity Invested in Capital Assets, net of related debt Unrestricted Subtotal	\$ 270,064 609,328 \$ 879,392				
11 12 13 14	Debt/Equity Ratio Capital Structure Debt Equity	0.28 21.7% 78.3%	Line 6 / Line 10 Line 6 / (Line 6 + Line 10) Line 10 / (Line 6 + Line 10)			

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Schedule JES-B Page 1 of 4

City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Governmental Funds, Working Capital Ratio					
Line No.	Col (A)	Col (B)	Col (C)		
······································	FY 2	2004			
	Description	Amount	Notes		
1	Current Assets:				
2	Cash and Cash Equivalents	\$ 14,793			
3	Certificates of Deposit	648,000			
4	Receivables:	0.0,000			
5	Property Taxes (Net)	67,428			
6	Sales Tax	5,881			
7	Due from State	6,243			
8	Accrued Interest	840			
9	Subtotal	\$ 743,185			
10	Current Liabilities:				
11	Accounts Payable	\$ 1,818			
12	Accrued Payroll Taxes	1,014			
13	Deferred Revenue	58,297			
14	Subtotal	\$ 61,129			
15	Working Capital Ratio	12.16	Line 9 / Line 14		

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Schedule JES-B Page 2 of 4

City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Governmental Funds, Working Capital Ratio					
Line No.	Col (A)	Col (B)	Col (C)		
	FY 2	2005	·····		
	Description	Amount	Notes		
1	Current Assets:				
2	Cash and Cash Equivalents	\$ 43,362			
3	Certificates of Deposit	619,000			
4	Receivables:				
5	Property Taxes (Net)	80,648			
6	Sales Tax	8,885			
7	Accrued Interest	1,046	_		
8	Subtotal	\$ 752,941	-		
9	Current Liabilities:				
10	Accounts Payable	\$ 1,628			
11	Accrued Payroll Taxes	1,119			
12	Deferred Revenue	46,925			
13	Subtotal	\$ 49,672	•		
14	Working Capital Ratio	15.16	Line 8 / Line 13		

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City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Governmental Funds, Working Capital Ratio						
Line No.	e No. Coi (A) Coi (B) Coi (C					
	FY 2	2006				
	Description	Amount	Notes			
1	Current Assets:					
2	Cash and Cash Equivalents	\$ 110,106				
3	Certificates of Deposit	619,000				
4	Receivables:					
5	Property Taxes (Net)	91,748				
6	Liquor and motel taxes	5,552				
7	Sales Tax	5,797				
8	Accrued Interest	1,047				
9	Subtotal	\$ 833,250				
10	Current Liabilities:					
11	Accounts Payable	\$ 51,222				
12	Accrued Payroll Taxes	2,594				
13	Deferred Revenue	84,617				
14	Subtotal	\$ 138,433				
15	Working Capital Ratio	6.02	Line 9 / Line 14			

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Schedule JES-B Page 4 of 4

City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Governmental Funds, Working Capital Ratio						
Line No.	ine No. Col (A) Col (B) Col (C)					
	FY 2	2007				
	Description	Amount	Notes			
1	Current Assets:					
2	Cash and Cash Equivalents	\$ 86,839				
3	Certificates of Deposit	666,754				
4	Receivables:					
5	Property Taxes (Net)	102,460				
6	Liquor and motel taxes	2,827				
7	Sales Tax	8,174				
8	Accrued Interest	1,047				
9	Subtotal	\$ 868,101	-			
10	Current Liabilities:					
11	Accounts Payable	\$ 2,971				
12	Accrued Payroll Taxes	1,440				
13	Deferred Revenue	92,640				
14	Subtotal	\$ 97,051	-			
15	Working Capital Ratio	8.94	Line 9 / Line 14			

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Schedule JES-C Page 1 of 4

City of Lindsay, Texas CCN Application							
	SOAH Docket No. 582-06-2023						
	TCEQ Docket No. 2006-0272-UCR						
	Water and Sewer Utility,	Working Capital Ratio					
Line No.	Col (A)	Col (B)	Col (C)				
	FY 20	04					
	Description	<u>Amount</u>	Notes				
1	Current Assets						
2	Cash and Cash Equivalents	\$ 70,162					
3	Certificates of Deposit	297,000					
4	Accounts Receivable	8,048					
5	Accrued Interest	426					
6	Subtotal	\$ 375,636					
7	Current Liabilities						
8	Accounts Payable	\$ 9,503					
9	Customer Deposits	11,200					
10	Current Lease Payable	39,935					
11	Less: Discount on Lease Payable	(19,935)					
12	Subtotal	\$ 40,703					
13	Working Capital Ratio	9.23 L	ine 6 / Line 12				

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Schedule JES-C Page 2 of 4

	City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023				
	TCEQ Docket No.				
	Water and Sewer Utility,				
		Working Capital Ratio			
Line No.	Col (A)	Col (B)	Col (C)		
	FY 20	005			
	Description	Amount	Notes		
1	Current Assets				
2	Cash and Cash Equivalents	\$ 32,088			
3	Certificates of Deposit	357,000			
4	Accounts Receivable	11,369			
5	Accrued Interest	760			
6	Subtotal	\$ 401,217			
7	Current Liabilities				
8	Accounts Payable	\$ 7,857			
9	Customer Deposits	12,430			
10	Current Lease Payable	38,697			
11	Less: Discount on Lease Payable	(18,697)			
12	Subtotal	\$ 40,287			
13	Working Capital Ratio	9.96	Line 6 / Line 12		

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Schedule JES-C Page 3 of 4

	City of Lindsay, Texas CCN Application SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR Water and Sewer Utility, Working Capital Ratio					
Line No.	Col (A)	Col (B)	Col (C)			
	FY 20	006				
	Description	Amount	<u>Notes</u>			
1	Current Assets					
2	Cash and Cash Equivalents	\$ 77,387				
3	Certificates of Deposit	414,496				
4	Accounts Receivable	13,162				
5	Subtotal	\$ 505,045				
6	Current Liabilities					
7	Accounts Payable	\$ 6,031				
8	Customer Deposits	14,885				
9	Current Lease Payable	39,211				
10	Less: Discount on Lease Payable	(17,544)				
11	Subtotal	\$ 42,583				
12	Working Capital Ratio	11.86	Line 5 / Line 11			

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Schedule JES-C Page 4 of 4

	City of Lindsay, Texa	• •					
	SOAH Docket No. 582-06-2023 TCEQ Docket No. 2006-0272-UCR						
	Water and Sewer Utility,	working Capital Ratio					
Line No.	Col (A)	Col (B)	Col (C)				
	FY 20	07					
	Description	Amount	Notes				
1	Current Assets						
2	Cash and Cash Equivalents	\$ 123,756					
3	Certificates of Deposit	487,286					
4	Accounts Receivable	12,657					
5	Subtotal	\$ 623,699					
6	Current Liabilities						
7	Accounts Payable	\$ 14,296					
8	Customer Deposits	16,280					
9	Current Lease Payable	41,160					
10	Less: Discount on Lease Payable	(16,160)					
11	Subtotal	\$ 55,576					
12	Working Capital Ratio	11.22	Line 5 / Line 11				

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<u>Rank</u>	City	5,000 Gallons	<u>City</u>	<u>10,000 gallons</u>
1	Lakewood Village	3.75	Dickens	-
2	Leakey	6.45	Lakewood Village	3.00
3	Surfside Beach	7.50	Leakey	9.70
4	Shenandoah	9.00	Shenandoah	11.00
5	Rocksprings	10.00	Wallis	11.25
6	White Deer	10.75	Quintana	12.50
7	Rankin	11.13	Surfside Beach	16.25
8	Wheeler	11.20	Centerville	16.76
. 9	Wallis	11.25	Wickett	17.50
10	Claude	11.50	Texhoma	17.60
11	McLean	11.50	McLean	17.75
12	Texhoma	11.60	Meadow	19.50
13	Meadow	12.00	La Vernia	19.86
14	McCamey	12.50	Camp Wood	20.00
15	Wickett	12.50	Opdyke West	20.00
16	Morgan's Point	12.50	Wheeler	20.45
17	Quintana	12.50	White Deer	20.75
18	Oyster Creek	13.20	Miami	20.80
19	Anton	13.20	Whiteface	21.00
20	Whiteface	13.50	Anton	21.20
21	Miami	13.65	Bovina	21.20
22	Camp Wood	13.75	Follett	22.00
23	Higgins	14.75	Oyster Creek	22.20
24	Richland Springs	14.75	Morgan's Point	22.50
25	Eldorado	15.00	Earth	23.00
26	Centerville	15.01	Rankin	23.13
27	Bovina	15.20	Higgins	23.50
28	Plains	15.25	Richland Springs	23.50
29	Groom	15.40	Sundown	23.80
30	Earth	15.50	Claude	24.00
31	Sundown	15.80	Plains	24.00
32	Meadowlakes	15.90	McCamey	24.25
33	New Waverly	16.00	Darrouzett	24.34
34	Lefors	16.00	Groom	24.40
35	Goldsmith	16.00	Meadowlakes	24.40
36	Palm Valley	16.35	Sabinal	24.70
37	Sudan	16.35	Carmine	25.50
38	Sabinal	16.45	New Waverly	26.00
39	Vega	16.75	Lexington	26.10
40	Iraan	16.90	Muenster	26.50
41	Petersburg	17.00	Sudan	27.00
42	Hillcrest Village	17.00	Petersburg	27.00
43	Point Venture	17.00	Beasley	27.00
44	Beasley	17.00	Timpson	27.10
45	Follett	17.00	Turkey	27.10

	C : b	5,000 Gallons	City	10,000 gallons
Rank	<u>City</u>	<u>0,000 Oanono</u> 17.07	Rocksprings	27.50
46	Goldthwaite	17.50	Eldorado	27.50
47	Saint Jo	17.60	Gustine	27.50
48	Lexington	17.60	Clarendon	27.90
49	Timpson	17.00	Vega	28.00
50	Darrouzett	18.00	Tenaha	28.00
51	Emory		Paim Valley	28.10
52	Lindsay ⁽²⁾	18.00	-	28.40
53	Carmine	18.00	Iraan	28.50
54	Ore City	18.19	Hedley	29.00
55	Pineland	18.60	Lefors (2)	29.00
56	Menard	18.75	Lindsay ⁽²⁾	29.00
57	Charlotte	18.90	Normangee	29.00
58	Muenster	19.00	Mertzon	29.04
59	Normangee	19.00	Lake Tanglewood	29.10
60	Turkey	19.00	Skellytown	29.35
61	Skellytown	19.10	Pineland	29.50
62	La Vernia	19.86	Hillcrest Village	30.00
63	Woodbranch Village	20.00	Menard	30.00
64	Stockdale	20.00	Stockdale	
65	Sterling City	20.00	Bronte	30.00
66	Jewett	20.00	Charlotte	30.15
67	Нарру	20.00	Three Rivers	30.20
68	Gustine	20.00	Lakeside	30.45
69	Opdyke West	20.00	Goldsmith	31.00
70	Lake Tanglewood	20.20	Lorenzo	31.00
71	Tenaha	20.50	Omaha	31.85
72	Fulshear	20.50	Liverpool	32.00
73	DeKalb	20.66	Ore City	32.03
74	Three Rivers	20.70	Orange Grove	32.25
75	Omaha	20.75	Sterling City	32.50
76	Bremond	20.75	Jewett	32.50
77	Clarendon	20.90	Нарру	32.50
78	Celeste	20.90	Runge	32.60
70	Woodsboro	21.00	Roaring Springs	32.75
80	Lorenzo	21.00	Point Venture	33.00
81	La Grulla	21.00	Woodbranch Village	33.00
82	Mertzon	21.00		33.00
83	Hedley	21.00		33.00
84	Maud	21.18		33.00
85	Honey Grove	21.55	_	33.05
86	Runge	21.60	•	33.20
	Stratford	21.75		33.50
87	Collinsville	22.00		33.75
88		22.20		34.10
89	Robert Lee	<u> </u>	I -	

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<u>Rank</u>	<u>City</u>	5,000 Gallons	<u>City</u>	<u>10,000 gallons</u>
90	Corrigan	22.25	Sunray	34.25
91	Moulton	22.25	Big Sandy	34.50
92	Bronte	22.50	Moulton	34.75
93	Winona	22.50	Hemphill	34.99
94	East Mountain	22.55	Woodsboro	35.00
95	Roaring Springs	22.75	Winona	35.00
96	Lyford	23.00	Amherst	35.50
97	Shoreacres	23.00	Melvin	35.50
98	Bogata	23.00	Texline	35.60
99	Blum	23.00	Corrigan	36.00
100	Lakeside	23.10	Zavalla	36.00
101	Texline	23.10	Silverton	36.00
102	Farwell	23.15	Ector	36.00
103	Sunray	23.25	Matador	36.50
104	Naples	23.25	DeKalb	36.66
105	Big Sandy	23.25	Annona	36.80
106	New Summerfield	23.25	Bremond	37.00
107	Knox City	23.35	Collinsville	37.00
108	Marietta	23.60	New Summerfield	37.00
109	Roscoe	23.64	Stinnett	37.00
110	Oglesby	23.75	Gunter	37.13
111	Log Cabin	23.90	Saint Jo	37.50
112	Rule	24.00	Tioga	37.50
113	Zavalla	24.00	Eustace	37.50
114	Matador	24.00	Celeste	37.65
115	Dodd City	24.00	Lyford	38.00
116	Frankston	24.25	Naples	38.25
117	Gunter	24.28	Redwater	38.50
118	Stinnett	24.50	Gordon	38.72
119	Bandera	24.75	Robert Lee	38.95
120	Rochester	24.75	East Mountain	39.05
121	Orange Grove	24.80	Farwell	39.15
122	Burton	24.80	Splendora	39.25
123	Rosebud	24.85	Marietta	39.40
124	Tioga	25.00	Sour Lake	39.45
125	Johnson City	25.13	Kress	39.50
126	Arp	25.35	Flatonia	39.50
127	Splendora	25.50	San Leanna	39.50
128	Hemphill	25.59	Knox City	39.60
129	Ganado	25.90	Josephine	39.65
130	Redwater	26.00	Ganado	39.90
131	Kress	26.00	Emory	40.00
132	Silverton	26.00	Roscoe	40.09
133	Tatum	26.15	Colmesneil	40.50
134	Annona	26.30	Browndell	40.75

<u>Rank</u>	City	<u>5,000 Gallons</u>	City	<u>10,000 gallons</u>
135	Aspermont	26.50	Somerville	41.00
136	Chillicothe	26.50	Ladonia	41.00
137	Avinger	26.50	Cresson	41.00
138	Gorman	26.63	La Ward	41.00
139	Josephine	26.80	Goree	41.30
140	Pleasant Valley	26.80	Rosebud	41.35
141	Buffalo	27.00	Dodd City	41.50
142	Grapeland	27.00	Frankston	41.75
143	Flatonia	27.00	Driscoll	42.10
144	Savoy	27.00	Log Cabin	42.25
145	Eustace	27.00	Maud	42.36
146	Ector	27.00	Ransom Canyon	42.63
147	Liverpool	27.00	Rochester	42.75
148	Cumby	27.05	Strawn	42.75
149	Sour Lake	27.10	Bogata	43.00
150	Somerville	27.25	Brownsboro	43.00
151	Blanket	27.50	Troy	43.00
152	Queen City	27.90	Iredell	43.00
153	Brownsboro	28.00	Tatum	43.65
154	Amherst	28.00	Rule	44.00
155	San Leanna	28.00	Chillicothe	44.00
156	Reklaw	28.00	Cut and Shoot	44.00
157	Melvin	28.00	Crowell	44.00
158	Troy	28.50	Scotland	44.20
159	Ladonia	28.50	Grapeland	44.50
160	Balmorhea	28.50	Johnson City	44.63
161	Austwell	28.50	Bandera	44.75
162	Cut and Shoot	29.00	Crosbyton	45.00
163	Rising Star	29.00	Gorman	45.38
164	Strawn	29.00	Walnut Springs	45.50
165	Jamaica Beach	29.50	Cumby	45.52
166	Browndell	29.50	Rogers	45.70
167	Gordon	29.58	Trenton	45.72
168	Coahoma	29.90	Cross Plains	46.50
169	Crosbyton	30.00	Smyer	46.50
170	Cross Plains	30.00	Buffalo	47.00
171	Colmesneil	30.00	Queen City	47.00
172	Tehuacana	30.00	Spur	47.40
173	Ransom Canyon	30.38	Elmendorf	47.46
174	Walnut Springs	30.50	Avinger	47.75
175	Ponder	30.65	Marion	47.75
176	Trenton	30.82	Ponder	48.40
177	Cresson	31.00	Aspermont	49.00
178	Barstow	31.00	Bruceville-Eddy	49.00
179	La Ward	31.00	Alba	49.50

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<u>Rank</u>	City	<u>5,000 Gallons</u>	<u>City</u>	10,000 gallons
180	Scotland	31.20	Tom Bean	49.50
181	New Deal	31.40	Thorndale	49.60
182	Lakeside City	31.50	Austwell	49.75
183	Driscoll	31.50	Savoy	49.85
184	Edgewood	31.76	Lakeside City	50.25
185	Goree	31.80	New Deal	50.40
186	Holliday	32.00	Shoreacres	51.00
187	Alba	32.00	Barstow	51.00
188	Sadler	32.00	Lott	51.00
189	Dickens	32.00	Bells	51.35
190	Thrall	32.15	Jamaica Beach	52.00
191	Spur	32.40	Goodrich	52.00
192	Hico	32.50	Thrall	52.40
193	Buffalo Gap	32.50	Riesel	52.50
194	Callisburg	32.50	Trinidad	52.75
195	Gary	32.91	Godley	52.90
196	Marion	33.00	Reklaw	53.00
197	Rio Vista	33.00	Rio Vista	53.00
198	Iredell	33.00	Buckholts	53.00
199	Caddo Mills	33.25	Balmorhea	53.50
200	Rogers	33.30	Pleasant Valley	53.60
201	Wells	33.50	Rising Star	54.00
202	Bayside	33.50	Gary	54.27
203	Streetman	33.50	Runaway Bay	54.34
204	Briarcliff	33.75	Holliday	54.50
205	Bruceville-Eddy	34.00	Streetman	54.50
206	Trinidad	34.00	Crawford	54.50
207	Crowell	34.00	Tehuacana	55.00
208	Tom Bean	34.50	Callisburg	55.00
209	Thorndale	34.85	Bayside	55.50
210	Quinlan	35.00	Wells	56.00
211	Seadrift	35.00	Star Harbor	56.00
212	Clarksville City	35.00	Clarksville City	56.25
213	Tolar	35.00	Caddo Mills	56.45
214	Buckholts	35.00	Ingleside on the Bay	56.68
215	Wolfe City	35.20	West Tawakoni	57.20
216	Alvord	35.32	Edgewood	57.31
217	Huxley	35.50	Dawson	57.40
218	Bells	35.60	Hico	57.50
219	Groveton	36.00	Westlake	57.50
220	Lott	36.00	Huxley	58.00
221	Elmendorf	36.24	Marshall Creek	58.50
222	Riesel	36.25	Sadler	59.00
223	Godley	36.40	Blanket	59.35
224	Smyer	36.50	Quinlan	60.00

<u>Rank</u>	City	5,000 Gallons	<u>City</u>	10,000 gallons
225	Goodrich	37.00	Seadrift	60.00
226	Elkhart	37.20	Tolar	60.00
227	Archer City	37.50	Groveton	60.25
228	Carbon	37.60	Rhome	61.00
229	Boyd	37.80	Elkhart	61.20
230	Rhome	37.82	Coahoma	61.40
231	Bangs	38.00	Bangs	62.00
232	Dawson	38.70	Berryville	62.00
233	West Tawakoni	38.95	Wolfe City	62.20
234	Pelican Bay	39.00	Oglesby	62.50
235	Newcastle	39.35	Туе	62.50
236	Runaway Bay	39.93	Meridian	62.50
237	Indian Lake	40.00	Hudson Oaks	62.50
238	Туе	40.25	Alvord	63.42
239	Crawford	40.75	Moody	63.50
240	Marshall Creek	41.50	Hubbard	64.80
241	Hubbard	41.80	Buffalo Gap	65.00
242	Meridian	42.50	Milford	65.00
243	Moody	43.00	Newcastle	65.48
244	Milford	43.00	East Tawakoni	66.45
245	Star Harbor	43.00	Lone Oak	67.19
246	Maypearl	43.50	Carbon	68.60
247	Berryville	44.50	Maypearl	71.00
248	Frost	44.56	Archer City	72.50
249	Graford	45.00	Boyd	72.80
250	Westlake	45.00	Mount Calm	73.00
251	Lone Oak	45.29	Lueders	74.30
252	Lueders	45.30	Briarcliff	76.25
253	Kerens	46.50	Wortham	77.47
254	Hudson Oaks	46.75	Pelican Bay	78.00
255	Blanco	47.05	Lipan	78.00
256	Lipan	48.00	Blanco	78.55
257	East Tawakoni	48.20	Kerens	79.00
258	Ingleside on the Bay	52.43	Graford	80.00
259	Richland	52.43	Coolidge	80.75
260	Roby	53.20	Richland	82.58
261	Wortham	53.22	Roby	86.40
262	Mount Calm	55.50	Bryson	88.00
263	Bryson	58.00	Frost	88.15
264	Coolidge	58.25	Indian Lake	94.00
265	Dell City	80.65	Dell City	97.45

Notes:

(1) Source: TML 2007 Water and Sewer Rate Survey

(2) Rates Calculated assuming a 3/4" meter, based upon rate schedule effective 10/1/2007

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<u>Rank</u>	<u>City</u>	5,000 Gallons	City	<u>10,000 gallons</u>
1	Somerset	0.00	Tuscola	0.00
2	Lakewood Village	3.75	Marshall Creek	0.00
3	Wheeler	4.00	Texhoma	0.00
4	Silverton	4.50	Iredell	0.00
5	Rule	4.80	Burton	0.00
6	Moran	5.50	Dickens	0.00
7	White Deer	5.60	Lakewood Village	3.00
8	Roby	6.00	Wheeler	4.00
9	Turkey	6.00	Silverton	4.50
10	Camp Wood	6.50	Rule	4.80
11	Goree	6.70	Moran	5.50
12	Iraan	7.00	Roby	6.00
13	Kress	7.00	Turkey	6.00
14	Wickett	7.00	White Deer	6.60
15	Bronte	7.50	Kress	7.00
16	Morgan's Point	7.80	Wickett	7.00
17	Claude	8.00	Goree	7.20
18	Coahoma	8.00	Bronte	7.50
19	Dickens	8.00	Iraan	7.75
20	Groom	8.00	Camp Wood	7.78
21	Hedley	8.00	McCamey	8.00
22	Matador	8.00	Claude	8.00
23	McCamey	8.00	Coahoma	8.00
24	Meadow	8.00	Vega	8.00
25	Newcastle	8.00	Matador	8.00
26	Vega	8.00	Meadow	8.00
27	Higgins	8.50	Groom	8.00
28	Rochester	8.50	Newcastle	8.00
29	Wallis	8.65	Hedley	8.00
30	Sunray	8.75	Higgins	8.50
31	Follett	9.00	Rochester	8.50
32	Shenandoah	9.00	Wallis	8.65
33	Whiteface	9.00	Sunray	8.75
34	Anton	9.50	Shenandoah	9.00
35	Annona	10.00	Whiteface	9.00
36	Aspermont	10.00	Follett	9.00
37	Bryson	10.00	Anton	9.50
38	Colmesneil	10.00	Petersburg	10.00
39	Crowell	10.00	Crowell	10.00
40	Goldsmith	10.00	Sudan	10.00
41	McLean	10.00	Aspermont	10.00
42	Opdyke West	10.00	McLean	10.00
43	Petersburg	10.00	Colmesneil	10.00
44	Sudan	10.00	Bryson	10.00
45	Bogata	10.25	Annona	10.00
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<u>Rank</u>	City	5,000 Gallons	<u>City</u>	<u>10,000 gallons</u>
46	Goldthwaite	10.50	Goldsmith	10.00
47	Palm Valley	10.50	Opdyke West	10.00
48	Skellytown	10.50	Skellytown	10.50
49	Oyster Creek	10.56	Spur	10.75
50	Spur	10.75	Morgan's Point	10.80
51	Bremond	11.00	Farwell	11.00
52	Darrouzett	11.00	Knox City	11.00
53	Farwell	11.00	Bremond	11.00
54	Knox City	11.00	Richland Springs	11.00
55	Richland Springs	11.00	Darrouzett	11.00
56	Туе	11.00	Stinnett	12.00
57	Roscoe	11.03	Sterling City	12.00
58	Centerville	11.60	Balmorhea	12.00
59	Tatum	11.60	Gustine	12.00
60	Chillicothe	11.75	La Grulla	12.50
61	Edgewood	11.75	Graford	12.50
62	Balmorhea	12.00	Roaring Springs	12.50
63	Gustine	12.00	Naples	12.75
64	Omaha	12.00	Clarendon	13.00
65	Sterling City	12.00	Sabinal	13.00
66	Stinnett	12.00	Coolidge	13.00
67	Stockdale	12.00	Chillicothe	13.00
68	Driscoll	12.25	Lefors	13.00
69	Burton	12.27	Edgewood	13.25
70	Dawson	12.50	Sundown	13.33
71	Graford	12.50	Alba	13.50
72	La Grulla	12.50	Holliday	14.00
73	Lott	12.50	Bogata	14.00
74	Roaring Springs	12.50	Centerville	14.19
75	Rhome	12.61	Stockdale	14.50
76	Naples	12.75	Нарру	14.50
77	Lindsay ⁽²⁾	13.00	Robert Lee	14.64
78	Avinger	13.00	Oglesby	14.75
79	Clarendon	13.00	Rankin	14.80
80	Coolidge	13.00	Crosbyton	15.00
81	Lefors	13.00	Omaha	15.00
82	Point Venture	13.00	Amherst	15.00
83	Sabinal	13.00	Frost	15.00
84	Three Rivers	13.05	Miami	15.00
85	Sundown	13.33	Texline	15.00
86 97	Alba	13.50	Callisburg	15.00
87	Beasley	13.50	Lindsay	15.25
88	Celeste	13.50	Tatum	15.35
89 00	Gorman	13.75	Plains	15.50
90	Winona	13.75	Earth	15.50

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<u>Rank</u>	<u>City</u>	5,000 Gallons	City	<u>10,000 gallons</u>
91	Holliday	14.00	Dawson	15.50
92	New Waverly	14.00	Туе	16.00
93	Plains	14.25	Cross Plains	16.00
94	Нарру	14.50	Rising Star	16.00
95	Sadler	14.50	Orange Grove	16.18
96	Robert Lee	14.64	Menard	16.50
97	Oglesby	14.75	Roscoe	16.54
98	Strawn	14.75	Archer City	17.00
99	Rankin	14.80	Meadowlakes	17.00
100	Ladonia	14.95	Three Rivers	17.30
101	Amherst	15.00	Eldorado	17.50
102	Callisburg	15.00	Shoreacres	17.50
103	Crawford	15.00	Lott	17.50
104	Crosbyton	15.00	Oyster Creek	17.76
105	Dodd City	15.00	Collinsville	18.00
106	Frost	15.00	Tenaha	18.00
107	Iredell	15.00	Mertzon	18.00
108	Menard	15.00	Avinger	18.00
109	Miami	15.00	Lindsay ⁽²⁾	18.00
110	Splendora	15.00	Dell City	18.25
111	Texline	15.00	Somerset	18.50
112	Bangs	15.10	Bangs	18.60
113	Cumby	15.50	Lorenzo	18.75
114	Earth	15.50	Wells	19.00
115	Riverside	15.50	Streetman	19.00
116	Tenaha	15.50	Point Venture	19.25
117	Charlotte	15.57	Woodbranch Village	20.00
118	Cross Plains	16.00	Lakeport	20.00
119	Emory	16.00	Crawford	20.00
120	Muenster	16.00	Winona	20.00
121	Redwater	16.00	Tolar	20.00
122	Rising Star	16.00	Lipan	20.00
123	Surfside Beach	16.00	New Waverly	20.25
124	DeKalb	16.25	Runaway Bay	20.50
125	Archer City	17.00	Caddo Mills	20.50
126	Bandera	17.00	Goldthwaite	20.90
127	Big Sandy	17.00	Palm Valley	21.00
128	Meadowlakes	17.00	Driscoll	21.00
129	Eldorado	17.50	Celeste	21.00
130	Shoreacres	17.50	Eustace	21.00
131	Thorndale	17.50	Strawn	21.00
132	Timpson	17.60	Rosebud	21.25
133	Josephine	17.76	Gorman	21.25
134	Brownsboro	18.00	Rhome	21.26
135	Collinsville	18.00	Fulshear	21.50

<u>Rank</u>	City	5,000 Gallons	City	10,000 gallons
136	Jewett	18.00	Savoy	21.65
137	Mertzon	18.00	Maud	21.80
138	Walnut Springs	18.00	Muenster	22.00
139	Wells	18.00	Zavalla	22.00
140	Honey Grove	18.13	Thorndale	22.50
141	Wolfe City	18.15	New Deal	22.75
142	Orange Grove	18.18	Valley View	23.00
143	Corrigan	18.25	Brownsboro	23.00
144	Dell City	18.25	Ransom Canyon	23.10
145	Meridian	18.60	Ladonia	23.20
146	Lorenzo	18.75	Quinlan	23.40
147	Rosebud	18.75	Beasley	23.50
148	Lakeside City	19.00	Rocksprings	24.00
149	Lexington	19.00	La Vernia	24.00
150	Normangee	19.00	Charlotte	24.02
151	Rocksprings	19.00	Jewett	24.25
152	Streetman	19.00	Riverside	24.25
153	Ganado	19.05	Wolfe City	24.40
154	Blanco	19.35	Josephine	24.96
155	Eustace	19.50	Lyford	25.00
156	Woodsboro	19.65	Honey Grove	25.00
157	Seadrift	19.75	Maypearl	25.00
158	Lakeport	20.00	Rio Vista	25.00
159	Lipan	20.00	Dodd City	25.00
160	Lyford	20.00	Star Harbor	25.00
161	Star Harbor	20.00	Cumby	25.50
162	Tolar	20.00	Rogers	26.00
163	Woodbranch Village	20.00	Redwater	26.00
164	Frankston	20.25	Trenton	26.25
165	Caddo Mills	20.50	Buckholts	26.30
166	Carmine	20.50	Elmendorf	26.48
167	Runaway Bay	20.50	Big Sandy	26.50
168	Buffalo	21.20	Lakeside City	26.50
169	Hemphill	21.23	Carmine	26.50
170	Tioga	21.25	Blanco	26.60
171	Flatonia	21.50	Walnut Springs	26.75
172	Fulshear	21.50	Lexington	27.00
173	Hico	21.50	Campbell	27.00
174	Runge	21.60	Timpson	27.10
175	Savoy	21.65	Emory	27.25
176	Maud	21.80	Splendora	27.50
177	Ore City	21.88	Flatonia	27.75
178	Kerens	22.00	New Summerfield	28.00
179	Zavalla	22.00	Ector	28.00
180	Quinlan	22.20	Sadler	28.00

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<u>Rank</u>	City	5,000 Gallons	<u>City</u>	10,000 galions
181	Texhoma	22.25	Bandera	28.25
182	Queen City	22.28	Ganado	28.30
183	Moulton	22.35	Normangee	29.00
184	Maypearl	22.50	Ore City	29.36
185	New Deal	22.75	Hemphill	29.48
186	Anderson	23.00	Bells	29.50
187	Blum	23.00	Godley	29.70
188	New Summerfield	23.00	Seadrift	29.75
189	Valley [°] View	23.00	Stratford	30.00
190	Ransom Canyon	23.10	Frankston	30.00
191	Sour Lake	23.10	Hillcrest Village	30.00
192	Godley	23.20	Woodsboro	30.50
193	Buckholts	23.30	Surfside Beach	30.50
194	Alvord	23.50	Anderson	30.50
195	Moody	23.50	Moody	31.00
196	Rogers	23.50	DeKalb	31.25
197	Boyd	23.62	Sour Lake	31.45
198	La Vernia	24.00	Hico	31.50
199	Tom Bean	24.00	Tom Bean	31.50
200	Somerville	24.25	Arp	31.80
201	Troy	24.25	Bovina	32.00
202	Johnson City	24.69	Corrigan	32.00
203	Ponder	24.90	Runge	32.60
204	Pineland	24.95	Hubbard	33.00
205	Hardin	25.00	Blum	33.00
206	Milford	25.00	Buffalo	33.20
207	Rio Vista	25.00	Industry	33.50
208	Arp	25.30	Meridian	33.60
209	Goodrich	25.50	Tioga	33.75
210	Industry	26.00	Lakeside	34.16
211	Trenton	26.25	Alvord	34.40
212	Gunter	26.32	Pineland	34.70
213	Elmendorf	26.48	Hardin	35.00
214	Bells	26.50	Milford	35.00
215	Thrall	26.50	Smyer	35.00
216	Campbell	27.00	La Ward	35.00
217	Lakeside	27.08	Queen City	35.48
218	Wortham	27.75	Mount Calm	35.50
219	Ector	28.00	Boyd	36.12
220	Grapeland	28.00	Troy	36.50
221	Saint Jo	28.00	Somerville	38.00
222	Trinidad	28.00	Gunter	38.37
223	Groveton	29.25	Saint Jo	39.25
224	Riesel	29.25	Moulton	39.60
225	Marion	29.75	Johnson City	39.84
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<u>Rank</u>	City	5,000 Gallons	City	10,000 gallons
226	Clarksville City	30.00	Clarksville City	40.00
227	Hillcrest Village	30.00	Ingleside on the Bay	41.00
228	Stratford	30.00	Trinidad	41.75
229	Ingleside on the Bay	31.00	Lone Oak	41.90
230	East Tawakoni	31.50	Kerens	42.00
231	Lone Oak	31.90	East Tawakoni	42.50
232	Bovina	32.00	Ponder	42.65
233	Elkhart	32.20	Thrall	44.00
234	Jamaica Beach	32.35	Bayside	44.00
235	Hubbard	33.00	Briarcliff	45.00
236	Bayside	34.00	Grapeland	45.50
237	West Tawakoni	34.45	Riesel	45.50
238	La Ward	35.00	Wortham	47.75
239	Smyer	35.00	Jamaica Beach	48.60
240	Mount Calm	35.50	Marion	49.50
241	Austwell	39.00	Goodrich	51.00
242	Westlake	39.63	Elkhart	51.20
243	Marshall Creek	41.50	West Tawakoni	52.70
244	Briarcliff	45.00	Groveton	53.50
245	Tuscola	48.98	Westlake	55.68
246	Hudson Oaks	75.00	Austwell	60.25
247			Hudson Oaks	132.00

Notes:

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(1) Source: TML 2007 Water and Sewer Rate Survey

(2) Rates Calculated assuming a 3/4" meter, based upon rate schedule effective 10/1/2007