

Town of Lindsay

TPDES Permit No. WQ0010923001

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.066 million gallons per day (MGD).

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Minimum Self-Monitoring Requirements</u>	
	Daily Avg mg/(lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Max. Measurement Frequency	Single Grab Sample Type
Flow, MGD	Report	N/A	Report	N/A	Five/week	Instantaneous
Biochemical Oxygen Demand (5-day)	30 (17)	45	70	100	One/week	Grab
Total Suspended Solids	90 (50)	135	N/A	N/A	One/week	Grab

2. The total residence time in the wastewater treatment system shall be at least 2.1 days, based on a daily average flow of 0.066 MGD. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once week by grab sample.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
6. The effluent shall contain a minimum dissolved oxygen of 4.0 mg/l and shall be monitored once per week by grab sample.

Town of Lindsay

TPDES Permit No. WQ0010923001

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with a 1 million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day.

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

Town of Lindsay

TPDES Permit No. WQ0010923001

- e. Fecal coliform bacteria concentration - the number of colonies of fecal coliform bacteria per 100 milliliters effluent. The daily average fecal coliform bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of fecal coliform bacteria equaling zero, a substituted value of one shall be made for input into either computation method. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
 - f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
 - g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.
3. Sample Type
- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).
 - b. Grab sample - an individual sample collected in less than 15 minutes.
4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids which have not been classified as hazardous waste separated from wastewater by unit processes.
6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

2. Test Procedures

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

Town of Lindsay

TPDES Permit No. WQ0010923001

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

7. Noncompliance Notification

- a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

Town of Lindsay

TPDES Permit No. WQ0010923001

- i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
 - c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
 - d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.
8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.
9. Changes in Discharges of Toxic Substances

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

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. One hundred micrograms per liter (100 µg/L);
 - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
 - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 µg/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
10. Signatories to Reports
- All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).
11. All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Executive Director of the following:
- a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants;
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
 - c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

Town of Lindsay

TPDES Permit No. WQ0010923001

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;
 - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and Texas Water Code Section 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal Clean Water Act, §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

Town of Lindsay

TPDES Permit No. WQ0010923001

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the Texas Water Code Chapters 26, 27, and 28, and Texas Health and Safety Code Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in Texas Water Code Section 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 36 TAC § 305.534 (relating to New Sources and New Dischargers); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the Texas Water Code § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit

Town of Lindsay

TPDES Permit No. WQ0010923001

shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy.

- a. Each permittee shall notify the executive director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee and the permit number(s);
 - ii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iii. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

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

Town of Lindsay

TPDES Permit No. WQ0010923001

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.
3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Land Application Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under Texas Water Code § 7.302(b)(6).
7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC § 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

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

If in the judgement of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 149) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.
 - b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

Town of Lindsay

TPDES Permit No. WQ0010923001

- c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85 percent, unless otherwise authorized by this permit.
11. Facilities which generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
- a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
 - f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;
 - iii. Date(s) of disposal;
 - iv. Identity of hauler or transporter;
 - v. Location of disposal site; and
 - vi. Method of final disposal.
- The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.
12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with Chapter 361 of the Texas Health and Safety Code.

TCEQ Revision 05/2004

Town of Lindsay

TPDES Permit No. WQ0010923001

SLUDGE PROVISIONS

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

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION**A. General Requirements**

1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner which protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present in the sludge.
2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
3. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

B. Testing Requirements

1. Sewage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method, which receives the prior approval of the TCEQ for the contaminants listed in Table 1 of 40 CFR Section 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division and the Regional Director (MC Region 4) within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year.

Town of Lindsay

TPDES Permit No. WQ0010923001

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

TABLE 1

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

* Dry weight basis

3. Pathogen Control

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

- a. Six alternatives are available to demonstrate compliance with Class A sewage sludge. The first 4 options require either the density of fecal coliform in the sewage sludge be less than 1000 Most Probable Number (MPN) per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. Below are the additional requirements necessary to meet the definition of a Class A sludge.

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

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

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

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

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

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

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

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

Town of Lindsay

TPDES Permit No. WQ0010923001

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

Alternative 1 -

- i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

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

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U. S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

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

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U. S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;
- iv. The executive director will accept from the U. S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

Town of Lindsay

TPDES Permit No. WQ0010923001

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

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

- i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.
- v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.
- vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn.
- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.
- viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
- ix. Land application of sludge shall be in accordance with the buffer zone requirements found in 30 TAC Section 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following alternatives 1 through 10 for Vector Attraction Reduction.

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

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

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

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

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

Town of Lindsay

TPDES Permit No. WQ0010923001

- Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.
- Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 percent based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
- Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 percent based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.
- Alternative 9 -
- i. Sewage sludge shall be injected below the surface of the land.
 - ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.
 - iii. When sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
- Alternative 10 -
- i. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
 - ii. When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test

- once during the term of this permit

PCBs

- once during the term of this permit

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

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

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

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

Town of Lindsay

TPDES Permit No. WQ0010923001

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

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

A. Pollutant Limits

Table 2

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

Table 3

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

* Dry weight basis

B. Pathogen Control

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

C. Management Practices

1. Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
2. Bulk sewage sludge not meeting Class A requirements shall be land applied in a manner which complies with the Management Requirements in accordance with 30 TAC Section 312.44.
3. Bulk sewage sludge shall be applied at or below the agronomic rate of the cover crop.

Town of Lindsay

TPDES Permit No. WQ0010923001

4. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:
 - a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.
 - b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instruction on the label or information sheet.
 - c. The annual whole sludge application rate for the sewage sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk sewage sludge is applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:
 - a. The location, by street address, and specific latitude and longitude, of each land application site.
 - b. The approximate time period bulk sewage sludge will be applied to the site.
 - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.
2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

E. Record keeping Requirements

The sludge documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a period of five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC Section 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
2. A description of how the pathogen reduction requirements are met (including site restrictions for Class B sludges, if applicable).
3. A description of how the vector attraction reduction requirements are met.
4. A description of how the management practices listed above in Section II.C are being met.
5. The following certification statement:

"I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC Section 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC Section 312.83(b) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained.

Town of Lindsay

TPDES Permit No. WQ0010923001

The person who applies bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC Section 312.47 for persons who land apply.

1. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC Section 312.47(a)(4)(A)(ii) or 30 TAC Section 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
2. The location, by street address, and specific latitude and longitude, of each site on which sludge is applied.
3. The number of acres in each site on which bulk sludge is applied.
4. The date and time sludge is applied to each site.
5. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
6. The total amount of sludge applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 1 of each year the following information:

1. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
2. The frequency of monitoring listed in Section I.C. which applies to the permittee.
3. Toxicity Characteristic Leaching Procedure (TCLP) results.
4. Identity of hauler(s) and TCEQ transporter number.
5. PCB concentration in sludge in mg/kg.
6. Date(s) of disposal.
7. Owner of disposal site(s).
8. Texas Commission on Environmental Quality registration number, if applicable.
9. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.
10. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.
11. Level of pathogen reduction achieved (Class A or Class B).
12. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B sludge, include information on how site restrictions were met.
13. Vector attraction reduction alternative used as listed in Section I.B.4.
14. Annual sludge production in dry tons/year.

Town of Lindsay

TPDES Permit No. WQ0010923001

15. Amount of sludge land applied in dry tons/year.
16. The certification statement listed in either 30 TAC Section 312.47(a)(4)(A)(ii) or 30 TAC Section 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge treatment activities, shall be attached to the annual reporting form.
17. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.
 - a. The location, by street address, and specific latitude and longitude.
 - b. The number of acres in each site on which bulk sewage sludge is applied.
 - c. The date and time bulk sewage sludge is applied to each site.
 - d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk sewage sludge applied to each site.
 - e. The amount of sewage sludge (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

Town of Lindsay

TPDES Permit No. WQ0010923001

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

- A. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC Chapter 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC Chapter 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- B. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a Municipal Solid Waste Landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.
- D. Sewage sludge shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR Section 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division and the Regional Director (MC Region 4) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Registration, Review, and Reporting Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 4) and the Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year.

- E. Sewage sludge shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- F. Record keeping Requirements

The permittee shall develop the following information and shall retain the information for five years.

1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.
2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

APP0029

Town of Lindsay

TPDES Permit No. WQ0010923001

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 4) and Water Quality Compliance Monitoring Team (MC 224) of the Enforcement Division by September 1 of each year the following information:

1. Toxicity Characteristic Leaching Procedure (TCLP) results.
2. Annual sludge production in dry tons/year.
3. Amount of sludge disposed in a municipal solid waste landfill in dry tons/year.
4. Amount of sludge transported interstate in dry tons/year.
5. A certification that the sewage sludge meets the requirements of 30 TAC Chapter 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
6. Identity of hauler(s) and transporter registration number.
7. Owner of disposal site(s).
8. Location of disposal site(s).
9. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

Town of Lindsay

TPDES Permit No. WQ0010923001

OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category D facility must be operated by a chief operator or an operator holding a Category D license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift which does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

2. The facility is not located in the Coastal Management Program boundary.
3. The permittee is hereby placed on notice that this permit may be reviewed by the TCEQ after the completion of any new intensive water quality survey on Segment No. 0824 of the Trinity River Basin and any subsequent updating of the water quality model for Segment No. 0824, in order to determine if the limitations and conditions contained herein are consistent with any such revised model. The permit may be amended, pursuant to 30 TAC Section 305.62, as a result of such review. The permittee is also hereby placed on notice that effluent limits may be made more stringent at renewal based on, for example, any change to modeling protocol approved in the TCEQ Continuing Planning Process.

Town of Lindsay

TPDES Permit No. WQ0010923001

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The following pollutants may not be introduced into the treatment facility:
 - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius) using the test methods specified in 40 CFR §261.21;
 - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case shall there be discharges with pH lower than 5.0 standard units, unless the works are specifically designed to accommodate such discharges;
 - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;
 - d. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;
 - e. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case shall there be heat in such quantities that the temperature at the POTW treatment plant exceeds 104 degrees Fahrenheit (40 degrees Celsius) unless the Executive Director, upon request of the POTW, approves alternate temperature limits;
 - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;
 - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
 - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.
2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under 40 CFR Part 403.
3. The permittee shall provide adequate notification to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division within 30 days subsequent to the permittee's knowledge of either of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Any notice shall include information on the quality and quantity of effluent to be introduced into the treatment works, and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

**SOAH DOCKET NO. 582-06-2023
TCEQ DOCKET NO. 2006-0272-UCR**

APPLICATION OF THE CITY OF	§	BEFORE THE STATE OFFICE
LINDSAY TO AMEND WATER AND	§	
SEWER CERTIFICATES OF	§	
CONVENIENCE AND NECESSITY	§	OF
(CCN) NOS. 13025 AND 20927 IN	§	
COOKE COUNTY, TEXAS	§	ADMINISTRATIVE HEARINGS
APPLICATION NOS. 35096-C & 35097-C	§	

DIRECT TESTIMONY

OF

JACK E. STOWE

ON BEHALF OF

THE CITY OF LINDSAY

JUNE 9, 2008

LINDSAY EXHIBIT APP EX. 4

1 **Q. MR. STOWE, IN YOUR OPINION, IS LINDSAY AND ITS WATER AND**
2 **SEWER UTILITY FINANCIALLY STABLE?**

3 A. Yes.

4

5 **Q. IN YOUR OPINION, IS LINDSAY FINANCIALLY CAPABLE OF**
6 **PROVIDING CONTINUOUS AND ADEQUATE WATER AND SEWER**
7 **SERVICE TO THE SERVICE AREA IT HAS REQUESTED IN ITS CCN**
8 **APPLICATION?**

9 A. Yes, Lindsay has at its disposal numerous financial instruments to fund the necessary
10 improvements that will be required to provide continuous and adequate water and
11 sewer service to the area requested in its CCN application. In addition, as evidenced
12 by the margin between Lindsay's current property tax rate and its current maximum
13 property tax rate, \$1.2784 (\$1.50 – \$0.2216), Lindsay has sufficient funding
14 flexibility to provide continuous and adequate water and sewer service to the area
15 requested in its CCN application.

16

17 **Q. MR. STOWE, HOW DO LINDSAY'S WATER AND SEWER RATES**
18 **COMPARE TO OTHER CITIES OF APPROXIMATELY THE SAME SIZE?**

19 A. According to the Texas Municipal League ("TML") 2008 Water and Wastewater
20 Survey for Texas cities in the 2,000 or less population category, Lindsay's water rates
21 rank approximately 51 and 69 out of 281 cities for 5,000 and 10,000 gallons of
22 Residential water consumption, respectively. This analysis is detailed in Schedule
23 JES – D. ~~For wastewater, Lindsay ranks approximately 77 and 109 out of 247 cities~~

1 ~~for 5,000 and 10,000 gallons of residential wastewater flow, respectively. This~~
2 ~~analysis is detailed in Schedule JES - E.~~ Please note that for these comparisons, I
3 have updated Lindsay's water and sewer rates to be those effective ~~in FY~~ October
4 2008. ~~as such, it is likely that Lindsay would rank more favorably if the comparisons~~
5 ~~were based on each cities' rates effective in FY 2008; however, TMI has not yet~~
6 ~~published this information on its website.~~

7
8 **Q. IN YOUR OPINION, ARE LINDSAY'S RATES FAIR?**

9 **A. Yes.**

10 **I. ENVIRONMENTAL AND ECONOMIC EFFECTS OF GRANTING LINDSAY'S**
11 **APPLICATION TO AMEND ITS WATER AND SEWER CCN**

12 **Q. MR. STOWE, WHY IS IT IMPORTANT FOR THE COMMISSION TO**
13 **CONSIDER THE ENVIRONMENTAL AND ECONOMIC EFFECTS OF**
14 **GRANTING LINDSAY'S AMENDMENT TO ITS WATER AND SEWER**
15 **CERTIFICATES OF CONVENIENCE AND NECESSITY?**

16 **A. TCEQ rule §291.102(d) lists several factors to consider in granting a new or amended**
17 **CCN. The newer § 291.102(d) provides that a factor to consider is the environmental**
18 **and economic effects of granting a new CCN or amending an existing CCN.**

1 Q. IN YOUR OPINION, WHAT WILL BE THE ENVIRONMENTAL EFFECT
2 OF GRANTING LINDSAY'S APPLICATION TO AMEND ITS WATER
3 CCN?

4 A. At the present time, it is my understanding that both the requested area and the City
5 rely on groundwater wells as their primary water source. As such, there is a neutral
6 environmental impact of granting the City's requested CCN. In the long term
7 however, there could be additional environmental benefits associated with granting
8 the CCN, as the City, per Ordinance 0805-3 (Bates Page APP0465), requires anyone
9 seeking sewer service to also be connected to its water system. Ordinance 0805-3 is
10 contained herein as Attachment JES-13. By enacting this requirement, the City is
11 enabling itself to better coordinate regional water system development.
12

13 Q. IN YOUR OPINION, WHAT WILL BE THE ECONOMIC EFFECT ON THE
14 AREA BEING REQUESTED IF LINDSAY'S APPLICATION TO AMEND ITS
15 WATER CCN IS GRANTED?

16 A. Again, as the requested area and Lindsay both utilize groundwater wells, there is a
17 neutral impact. ~~However, beyond economic considerations, the provision of water~~
18 ~~service by Lindsay will increase the reliability of water service to the requested area.~~
19 For example, if a resident in the requested area suffered a water well malfunction,
20 they would be without water until such time as the well could be fixed. They would
21 also have to bear the potentially significant capital costs associated with this repair.
22 On the other hand, the City maintains three groundwater wells, as well as 140,000
23 gallons of ground storage capacity and 150,000 gallons of elevated storage capacity.

1 Therefore, if one of the City's water wells failed, there is a greater likelihood that
2 customers would not see an interruption of water service. Additionally, the City,
3 which has a wider variety of financial resources at its disposal, would also bear the
4 responsibility and liability of fixing the well.

5
6 ~~Q. IN YOUR OPINION, WHAT WILL BE THE ENVIRONMENTAL EFFECT~~
7 ~~OF GRANTING LINDSAY'S APPLICATION TO AMEND ITS SEWER CCN?~~

8 ~~A. Currently, it is my understanding that customers in the City's requested service area~~
9 ~~are not provided retail sewer utility service. As such, they must rely upon on-site~~
10 ~~sewage facilities ("OSSF") to provide wastewater treatment. However, with the~~
11 ~~granting of the amendment to the City's sewer CCN, customers will be provided the~~
12 ~~opportunity to receive service from the City's wastewater collection and treatment~~
13 ~~facilities.~~

14
15 ~~Q. MR. STOWE, CAN YOU PLEASE EXPLAIN WHAT AN OSSF FACILITY~~
16 ~~IS?~~

17 ~~A. The TCEQ defines an on-site sewage facility as a system of treatment devices and~~
18 ~~disposal facilities that do not treat or dispose of more than 5,000 gallons of sewage~~
19 ~~each day and are used only for disposal of sewage produced on a site where any part~~
20 ~~of the system is located. On-site sewage facilities can consist of conventional septic~~
21 ~~systems, aerobic systems, evapotranspiration systems, etc.~~

1 ~~Q. WHAT IMPACTS DO OSSF SYSTEMS HAVE ON THE ENVIRONMENT?~~

2 ~~A. OSSFs are prone to failure, which results in the discharge of untreated effluent with~~
3 ~~pollutant concentrations exceeding water quality standards. Discharge from a failed~~
4 ~~system contains bacteria and viruses that are potentially harmful to humans, animals,~~
5 ~~and aquatic life. In addition, pollutant levels can be such that ground and surface~~
6 ~~water can be adversely affected.~~

7
8 ~~Q. HAVE YOU REVIEWED ANY DOCUMENTS OR STUDIES THAT~~
9 ~~DEMONSTRATE THE FAILURE RATE OF OSSF SYSTEMS?~~

10 ~~A. Yes. In 2000-2001, Reed, Stowe & Yanke, L.L.C., a former company of mine,~~
11 ~~conducted a study of OSSF systems across the state of Texas for the Texas On-Site~~
12 ~~Wastewater Treatment Research Council, of which I have attached the Executive~~
13 ~~Summary to my testimony as Attachment JES-8. As part of this study, a survey was~~
14 ~~made of Designated Representatives throughout the State. Designated~~
15 ~~Representatives are individuals who work for an authorized agent of the TCEQ and~~
16 ~~perform on-site investigations, complaint investigations, system evaluations, and~~
17 ~~system inspections. This study found that an estimated 13% of OSSF systems in the~~
18 ~~State not just failed, but chronically failed. The region in which the City is located~~
19 ~~had a chronic failure rate of 12%, with soil quality being the highest contributor to~~
20 ~~OSSF malfunction. It should be noted that the chronic failure rates represents those~~
21 ~~identified by the Designated Representatives and does not incorporate the failures the~~
22 ~~Designated Representatives may not have been able to identify. According to the~~
23 ~~Environmental Protection Agency ("EPA"), the recognition of system failures is~~

1 ~~limited by reliance on individual on-site inspections and the lack of techniques for~~
2 ~~detecting system failures; therefore, the chronic failure rates could be understated.~~

3
4 ~~Q. WHAT WILL BE THE ENVIRONMENTAL IMPACT OF THE CITY~~
5 ~~PROVIDING WASTEWATER SERVICE TO THE AREA BEING~~
6 ~~REQUESTED IN THIS APPLICATION?~~

7 ~~A. The wastewater service that will be provided by the City is required by State and~~
8 ~~Federal law to comply with routine and systematic testing and inspections to ensure~~
9 ~~compliance with the State's water quality standards. The wastewater facilities of the~~
10 ~~City are managed by professionals licensed to operate and perform work on~~
11 ~~wastewater facilities. With the City providing wastewater service, the need for~~
12 ~~OSSFs in the area to be added to the City's sewer CCN will eventually be eliminated~~
13 ~~resulting in an improvement to the current, as well as future, environmental integrity~~
14 ~~of the requested CCN service area.~~

15
16 ~~Q. IN YOUR OPINION, WHAT WILL BE THE ECONOMIC EFFECT ON THE~~
17 ~~AREA BEING REQUESTED IF LINDSAY'S APPLICATION TO AMEND ITS~~
18 ~~SEWER CCN IS GRANTED?~~

19 ~~A. By granting the amendment to the City's sewer CCN, new customers to the area and~~
20 ~~existing customers in the area who have to replace their OSSF system due to failure~~
21 ~~would not have to install OSSF systems. In a study conducted by the Guadalupe~~
22 ~~Wastewater Company for the Texas On Site Wastewater Treatment Research~~
23 ~~Council, the estimated installation cost in the Central Texas Region for four types of~~

1 ~~OSSF systems ranged from a low of \$3,169.36 for a conventional septic system to a~~
2 ~~high of \$8,562.41 for an evapotranspiration bed system. The relevant table from this~~
3 ~~study is attached to my testimony as Attachment JES-9. These cost estimates were~~
4 ~~for a three-bedroom house with 1,800 square feet. It should be noted that these cost~~
5 ~~estimates most likely underestimate the installation costs that would be experienced~~
6 ~~by similar customers today in the area in question since the cost figures are from~~
7 ~~1998. As illustrated in Attachment JES-10, as of May 2006, the Harris County Public~~
8 ~~Infrastructure Department estimates that an OSSF for a single family dwelling would~~
9 ~~cost from \$5,000 to \$10,000 to install.~~

10
11 ~~Q. HOW DO THE INSTALLATION COSTS FOR THESE OSSF SYSTEMS~~
12 ~~COMPARE TO THE COSTS FOR CUSTOMERS IN THE CITY'S~~
13 ~~REQUESTED SERVICE AREA TO ACCESS THE CITY'S WASTEWATER~~
14 ~~SERVICES?~~

15 ~~A. As discussed above and shown in Attachments JES-9 and JES-10, the estimated~~
16 ~~installation cost for a residential septic system ranges from a low of \$3,169.36 to a~~
17 ~~high of approximately \$10,000. On the other hand, a customer wishing to connect to~~
18 ~~the City's wastewater system would be responsible for the pro rata cost associated~~
19 ~~with the construction or relocation of the line or main necessary to serve the subject~~
20 ~~property. This pro rata cost will be dependent upon the size, distance, kind, and~~
21 ~~character of the pipe involved. In addition, according to City Staff, customers would~~
22 ~~also be responsible for a \$500.00 tap fee to access the City's wastewater collection~~
23 ~~system.~~

1 ~~Q. ARE THERE ANY OPERATION AND MAINTENANCE COSTS~~
2 ~~ASSOCIATED WITH THESE OSSF SYSTEMS?~~

3 ~~A. Yes. According to the Texas Agricultural Extension Service, as illustrated in~~
4 ~~Attachment JES 11, conventional septic systems cost about \$75 per year.~~
5 ~~Additionally, according to information from the City of Austin, Texas, as illustrated~~
6 ~~in Attachment JES 12, annual operation and maintenance costs for aerobic septic~~
7 ~~systems, which are required for Class IV soil textures and have been required under~~
8 ~~current deed restrictions in Cooke County, can run as high as \$760.20.~~

9
10 ~~Q. HOW DO THESE OPERATION AND MAINTENANCE COSTS COMPARE~~
11 ~~TO THE ANNUAL PAYMENT CUSTOMERS WOULD MAKE FOR~~
12 ~~WASTEWATER SERVICE FROM THE CITY UNDER THE CITY'S~~
13 ~~CURRENT WASTEWATER RATES?~~

14 ~~A. The City bases the wastewater volume charged to its customers on the total monthly~~
15 ~~water consumption. Assuming a range of 4,000 to 6,000 gallons are billed per month,~~
16 ~~which represents the approximate annual water usage of a typical residential~~
17 ~~customer, annual payment to the City for wastewater service under current rates~~
18 ~~would range from \$144.00 to \$168.00~~

19
20 ~~Q. ARE THERE ANY ADDITIONAL COSTS ASSOCIATED WITH AN OSSF~~
21 ~~SYSTEM?~~

22 ~~A. An OSSF system represents a liability for the owner in that the owner is liable for the~~
23 ~~operation of the OSSF. The potential exists for an owner to be subject to penalties~~

1 ~~and fines for failing to comply with State requirements. With the City providing~~
2 ~~wastewater service, the liability is transferred from the owner of the OSSF system to~~
3 ~~the City.~~

4
5 ~~Q. IN YOUR OPINION, WHAT WILL BE THE ECONOMIC EFFECT ON THE~~
6 ~~CITY OF GRANTING LINDSAY'S APPLICATION TO AMEND ITS SEWER~~
7 ~~CCN?~~

8 ~~A. The City would be able to provide centralized wastewater service to the requested~~
9 ~~area, which would help to promote development in and around the City. Without~~
10 ~~centralized wastewater service, developers are limited to land area requirements~~
11 ~~associated with OSSF systems or they may attempt to permit small package treatment~~
12 ~~plants, which could be potentially contested and/or denied, thus limiting or even~~
13 ~~eliminating development. In addition, as development density can increase with the~~
14 ~~provision of centralized wastewater treatment service, land values will also most~~
15 ~~likely rise. This will increase the value to property owners, as well as increase the~~
16 ~~taxable property base. As the taxable property base increases, the City could reduce~~
17 ~~the property tax burden on citizens, while maintaining the same property tax revenue~~
18 ~~stream.~~

1 Q. MR. STOWE, TO CONCLUDE, IN YOUR OPINION, IS THERE A POSITIVE
2 ~~ENVIRONMENTAL AND~~ ECONOMIC EFFECT TO THE REQUESTED
3 AREA AND TO THE CITY SHOULD THE CITY'S APPLICATION TO
4 AMEND ITS WATER AND SEWER CCN BE APPROVED?

5 A. Yes, it is my opinion that there are overwhelming ~~environmental and~~ economic
6 benefits associated with the City's provision of water and sewer service to the
7 requested area.

8
9 V. CONCLUSIONS

10 Q. IN YOUR OPINION, WHAT WILL BE THE EFFECT OF GRANTING THE
11 AMENDED CERTIFICATES AS REQUESTED BY LINDSAY?

12 A. The granting of the requested amended CCNs to Lindsay will allow its leaders to
13 more effectively regulate, manage, and facilitate growth in its proposed service
14 territory. ~~It will also improve environmental stewardship of the area by reducing the~~
15 ~~need for OSSFs.~~

16
17 Q. MR. STOWE, WHAT WILL BE THE EFFECT ON OTHER RETAIL PUBLIC
18 UTILITIES OF THE SAME KIND SERVING IN THE PROXIMATE AREA
19 BY THE GRANTING OF LINDSAY'S PROPOSED TERRITORY AS
20 REQUESTED BY THEM?

21 A. According to the City's application, there are no other utilities providing service to
22 the requested service area. As such, no other retail public utility will be impacted by
23 the granting of the City's request.

1 In addition, from an economic standpoint, the City is not an island unto itself. The
2 economic health of the City affects the surrounding areas, including other retail
3 public utilities serving the proximate area. With the granting of the CCNs, the City
4 will have an improved ability to coordinate development in and around the City,
5 which will help to promote development. The increase in development will not only
6 benefit the City economically, but also will benefit the area surrounding the City,
7 including the other retail public utilities serving the proximate area.
8

9 **Q. BASED UPON YOUR ANALYSIS, IS IT YOUR OPINION THAT LINDSAY**
10 **POSSESSES THE FINANCIAL CAPABILITY TO PROVIDE CONTINUOUS**
11 **AND ADEQUATE WATER AND SEWER SERVICE TO THE REQUESTED**
12 **AREA?**

13 A. Yes. Based upon the criteria as set forth by the Commission, it is my opinion that
14 Lindsay possesses the financial capability to provide continuous and adequate water
15 and sewer service.
16

17 ~~Q. IN YOUR OPINION, IS THERE AN ENVIRONMENTAL NEED FOR~~
18 ~~ADDITIONAL SERVICE IN THE REQUESTED SERVICE AREA? IF SO,~~
19 ~~PLEASE EXPLAIN.~~

20 ~~A. Yes. As I previously discussed in my testimony, OSSF systems, which are currently~~
21 ~~the only wastewater service option in the requested area, are prone to failure which~~
22 ~~results in the discharge of untreated effluent with pollutant concentrations exceeding~~
23 ~~water quality standards. Discharge of untreated effluent can be harmful to humans,~~

1 ~~animals, and aquatic life, as well as ground and surface water. If the City is granted~~
2 ~~the amendments to its CCNs, the need for OSSF systems in the requested area will~~
3 ~~eventually be eliminated resulting in an improvement to the current, as well as future,~~
4 ~~environmental integrity of the requested area.~~

5
6 **Q. IN YOUR OPINION, IS THERE AN ECONOMIC NEED FOR ADDITIONAL**
7 **SERVICE IN THE REQUESTED SERVICE AREA? IF SO, PLEASE**
8 **EXPLAIN.**

9 A. Yes. The City's application would provide potable water and centralized sewer
10 service to an area that has not historically received these services. ~~Currently, the only~~
11 ~~option available for customers in the requested area for wastewater service is an~~
12 ~~OSSF system. As I previously discussed in my testimony, without centralized~~
13 ~~wastewater service developers are limited to land area requirements associated with~~
14 ~~OSSF systems. With centralized wastewater service, developers are able to increase~~
15 ~~density development for both residential and commercial development, thus~~
16 ~~enhancing the attractiveness and potential of development and helping to encourage~~
17 ~~economic growth. In my experience working with municipalities and utilities across~~
18 ~~the State, when new sewer or water service is made available to an area that did not~~
19 ~~receive such service previously, growth tends to follow. In addition to encouraging~~
20 ~~economic growth, customers receiving centralized wastewater service do not have the~~
21 ~~financial and economic burden of having to maintain and replace an OSSF system, as~~
22 ~~well as the exposure to penalties and/or fines for failure to comply with State OSSF~~
23 ~~requirements.~~

City of Lindsay, Texas CCN Application
SOAH Docket No. 582-06-2023
TCEQ Docket No. 2006-0272-UCR
Residential Water Rates⁽¹⁾

<u>Rank</u>	<u>City</u>	<u>5,000 Gallons</u>	<u>City</u>	<u>10,000 gallons</u>
		9.00	Texline	0.00
1	Shenandoah	10.93	Shenandoah	11.00
2	Rankin	11.25	Leakey	16.70
3	Booker	11.50	Booker	17.50
4	Claude	11.50	Texhoma	17.60
5	McLean	11.60	McLean	17.75
6	Texhoma	11.70	Rocksprings	19.00
7	La Coste	12.50	Springlake	19.00
8	Anton	12.50	Wickett	19.50
9	Gruver	12.50	Opdyke West	20.00
10	Morgan's Point	12.50	La Coste	20.20
11	White Deer	12.75	Anton	20.50
12	Rocksprings	12.75	Whiteface	21.00
13	Springlake	13.00	Camp Wood	21.24
14	McCamey	13.20	Follett	22.00
15	Oyster Creek	13.45	Oyster Creek	22.20
16	Leakey	13.50	Rankin	22.43
17	Whiteface	13.75	Morgan's Point	22.50
18	Camp Wood	14.50	Sudan	22.50
19	Wickett	14.75	Earth	23.00
20	Higgins	15.00	Higgins	23.50
21	Eldorado	15.25	Wink	23.50
22	Plains	15.40	Gruver	23.75
23	Groom	15.50	White Deer	23.75
24	Earth	15.65	Bovina	23.80
25	Meadowlakes	16.00	Claude	24.00
26	Goldsmith	16.25	Plains	24.00
27	Daisetta	16.35	Meadowlakes	24.15
28	Palm Valley	16.45	Darrouzett	24.34
29	Sabinal	16.75	Groom	24.40
30	Vega	16.80	Sabinal	24.70
31	Sundown	16.90	Sundown	24.80
32	Iraan	17.00	Daisetta	25.00
33	Beasley	17.00	McCamey	25.75
34	Follett	17.00	Orchard	25.94
35	Lexington	17.00	Hart	26.00
36	New Waverly	17.00	Lexington	26.10
37	Wink	17.30	Carmine	26.50
38	Bovina	17.74	Beasley	27.00
39	Darrouzett	17.75	New Waverly	27.00
40	Wallis	18.40	Wallis	27.00
41	Orchard	18.50	Turkey	27.10
42	Hart	18.75	Eldorado	27.50
43	Menard	18.90	Snook	28.00
44	Charlotte	19.00	Tenaha	28.00
45	Lefors	19.00	Valley Mills	28.00
46	Turkey	19.10	Vega	28.00
47	Skellytown	19.14	Palm Valley	28.10
48	Pineland	19.25	Iraan	28.40
49	Valley Mills			

City of Lindsay, Texas CCN Application
 SOAH Docket No. 582-06-2023
 TCEQ Docket No. 2006-0272-UCR
 Residential Water Rates⁽¹⁾

	<u>City</u>	<u>5,000 Gallons</u>	<u>City</u>	<u>10,000 gallons</u>
50	Sudan	19.75	Falls City	28.50
51	Lindsay⁽²⁾	19.80	Hedley	28.50
52	Jewett	20.00	Nordheim	28.50
53	Muenster	20.00	Danbury	28.70
54	Opdyke West	20.00	Maud	28.79
55	Sterling City	20.00	Mertzon	29.00
56	Stockdale	20.15	Skellytown	29.10
57	Southside Place	20.50	Clarendon	29.40
58	Carmin	20.50	Garrison	29.50
59	Tenaha	20.66	Muenster	30.00
60	DeKalb	20.70	Bronte	30.00
61	Three Rivers	21.00	Menard	30.00
62	Falls City	21.00	Stockdale	30.15
63	Hedley	21.00	Charlotte	30.15
64	Mertzon	21.00	Ore City	30.19
65	Nordheim	21.00	Pineland	30.20
66	Woodsboro	21.15	Three Rivers	31.00
67	Ore City	21.25	Goldsmith	31.02
68	Hughes Springs	21.38	La Vernia	31.90
69	Omaha	21.40	Lindsay⁽²⁾	32.00
70	Clarendon	21.50	Liverpool	32.25
71	Haslet	21.55	Lorenzo	32.50
72	Honey Grove	21.70	Grey Forest	32.50
73	Danbury	21.72	Hughes Springs	32.50
74	La Vernia	21.95	Jewett	32.50
75	Bloomburg	22.00	Sterling City	33.05
76	Garrison	22.16	Honey Grove	33.20
77	Rollingwood	22.19	Burton	33.48
78	Maud	22.20	Omaha	33.75
79	Robert Lee	22.25	Goldthwaite	34.00
80	Corrigan	22.25	Adrian	34.00
81	Goldthwaite	22.25	Haslet	34.25
82	Moulton	22.50	Orange Grove	34.25
83	Beckville	22.50	Sunray	34.75
84	Bronte	22.50	Emory	34.75
85	Gustine	22.50	Moulton	35.00
86	Winona	22.55	Gustine	35.00
87	East Mountain	22.75	Winona	35.00
88	Lorenzo	23.00	Woodbranch Village	35.00
89	Bogata	23.00	Woodsboro	35.50
90	Snook	23.10	Amherst	35.71
91	Texline	23.15	Hemphill	36.00
92	Farwell	23.25	Corrigan	36.50
93	Naples	23.25	Woodloch	36.66
94	Sunray	23.50	DeKalb	36.70
95	Brazos Country	23.64	Bloomburg	36.90
96	Roscoe	23.75	Southside Place	37.00
97	Warren City		Stinnett	

City of Lindsay, Texas CCN Application
SOAH Docket No. 582-06-2023
TCEQ Docket No. 2006-0272-UCR
Residential Water Rates ⁽¹⁾

<u>Rank</u>	<u>City</u>	<u>5,000 Gallons</u>	<u>City</u>	<u>10,000 gallons</u>
98	Adrian	24.00	Florence	37.20
99	Dodd City	24.00	Eustace	37.50
100	Rule	24.00	Montgomery	37.50
101	Frankston	24.25	Stratford	37.50
102	Hawkins	24.25	Tioga	37.50
103	Saint Jo	24.25	Lakeside	37.93
104	Matador	24.50	Silverton	38.00
105	Stinnett	24.50	Matador	38.25
106	Paducah	24.70	Naples	38.25
107	Bandera	24.75	Big Sandy	38.50
108	Big Sandy	24.75	Gordon	38.72
109	Burton	24.80	Hawkins	38.75
110	Grey Forest	25.00	Paducah	38.95
111	Tioga	25.00	Robert Lee	38.95
112	Woodbranch Village	25.00	Ropesville	39.00
113	Woodloch	25.00	East Mountain	39.05
114	Centerville	25.08	Farwell	39.15
115	Baird	25.75	Sour Lake	39.45
116	Johnson City	25.86	Flatonia	39.50
117	Kress	26.00	Kress	39.50
118	Splendora	26.00	San Leanna	39.50
119	Whitewright	26.00	Josephine	39.65
120	Hemphill	26.11	Rollingwood	39.91
121	Tatum	26.15	Beckville	40.00
122	Stratford	26.25	Warren City	40.00
123	Avinger	26.50	Ector	40.50
124	Josephine	26.80	Browndell	41.00
125	Orange Grove	26.96	Cresson	41.00
126	Buffalo	27.00	Somerville	41.00
127	Flatonia	27.00	Splendora	41.00
128	Grapeland	27.00	Goree	41.30
129	Knox City	27.00	Dodd City	41.50
130	Liverpool	27.00	Melvin	41.50
131	Throckmorton	27.00	Frankston	41.75
132	Cumby	27.05	Crowell	42.00
133	Sour Lake	27.10	Yantis	42.00
134	Lakeside	27.24	Driscoll	42.10
135	Somerville	27.25	Whitewright	42.25
136	Eustace	27.50	Colmesneil	42.50
137	Montgomery	27.50	Ransom Canyon	42.63
138	Florence	27.70	Strawn	42.75
139	Queen City	27.90	Bogata	43.00
140	Amherst	28.00	Brownsboro	43.00
141	Brownsboro	28.00	Iredell	43.00
142	Ector	28.00	Centerville	43.62
143	Reklaw	28.00	Tatum	43.65
144	San Leanna	28.00	Cut and Shoot	44.00
145	Silverton	28.00	Murchison	44.00
146	Yantis	28.25	O'Donnell	44.00

City of Lindsay, Texas CCN Application
SOAH Docket No. 582-06-2023
TCEQ Docket No. 2006-0272-UCR
Residential Water Rates ⁽¹⁾

<u>Rank</u>	<u>City</u>	<u>5,000 Gallons</u>	<u>City</u>	<u>10,000 gallons</u>
147	Coolidge	28.38	Rule	44.00
148	Savoy	28.38	Dickens	44.50
149	Blanket	28.50	Grapeland	44.50
150	Chillicothe	28.50	Bandera	44.75
151	Cut and Shoot	29.00	Walnut Springs	45.50
152	Murchison	29.00	Cumby	45.52
153	O'Donnell	29.00	Trenton	45.72
154	Rising Star	29.00	Johnson City	45.91
155	Strawn	29.00	Chillicothe	46.00
156	Balmorhea	29.50	Briarcliff	46.25
157	Benjamin	29.50	Smyer	46.50
158	Jamaica Beach	29.50	Runaway Bay	46.64
159	Gordon	29.58	Baird	47.00
160	Collinsville	29.92	Brazos Country	47.00
161	Browndell	30.00	Buffalo	47.00
162	Colmesneil	30.00	Knox City	47.00
163	Gorman	30.00	Northlake	47.00
164	Tehuacana	30.00	Queen City	47.00
165	Troy	30.25	Saint Jo	47.25
166	Ransom Canyon	30.38	Spur	47.40
167	Walnut Springs	30.50	Elmendorf	47.46
168	Ponder	30.65	Avinger	47.75
169	Coahoma	30.70	Blum	48.00
170	Trenton	30.82	Ponder	48.40
171	Cresson	31.00	Scotland	48.50
172	Cross Plains	31.00	Bruceville-Eddy	49.00
173	Runaway Bay	31.02	Throckmorton	49.00
174	Driscoll	31.50	Marion	49.25
175	Lakeside City	31.50	Alba	49.50
176	Melvin	31.50	Redwater	49.50
177	Edgewood	31.76	Thorndale	49.60
178	Goree	31.80	Cross Plains	49.75
179	Alba	32.00	Roscoe	49.96
180	Dickens	32.00	Gorman	50.00
181	Petrolia	32.00	Lakeside City	50.25
182	Redwater	32.00	Collinsville	50.32
183	Sadler	32.00	Lakewood Village	50.50
184	Thrall	32.15	Barstow	51.00
185	Cottonwood Shores	32.25	Crosbyton	51.00
186	Spur	32.40	Grandfalls	51.28
187	Buffalo Gap	32.50	Blanket	51.35
188	Hico	32.50	Cottonwood Shores	51.40
189	Lakewood Village	32.50	Benjamin	52.00
190	Maypearl	32.50	Jamaica Beach	52.00
191	Ropesville	32.50	Rogers	52.00
192	New Deal	32.80	Bells	52.10
193	Blum	33.00	Coolidge	52.13
194	Iredell	33.00	Jayton	52.28
195	Malone	33.00	Thrall	52.40

City of Lindsay, Texas CCN Application
SOAH Docket No. 582-06-2023
TCEQ Docket No. 2006-0272-UCR
Residential Water Rates⁽¹⁾

<u>Rank</u>	<u>City</u>	<u>5,000 Gallons</u>	<u>City</u>	<u>10,000 gallons</u>
196	Point Comfort	33.00	Savoy	52.48
197	Rio Vista	33.00	Tom Bean	52.80
198	Northlake	33.25	Malone	53.00
199	Bayside	33.50	Reklaw	53.00
200	Crosbyton	33.50	Rio Vista	53.00
201	Meridian	33.50	Godley	53.30
202	Scotland	33.50	Meridian	53.50
203	Wells	33.50	Rising Star	54.00
204	Briarcliff	33.75	Blue Ridge	54.25
205	Alto	34.00	Bertram	54.59
206	Bruceville-Eddy	34.00	Miles	55.00
207	Crowell	34.00	Tehuacana	55.00
208	Marion	34.25	Bayside	55.50
209	Chico	34.50	Grandview	55.50
210	Rogers	34.50	Trinidad	55.75
211	Bertram	34.59	New Deal	55.80
212	Emory	34.75	Wells	56.00
213	Thorndale	34.85	Clarksville City	56.25
214	Barstow	35.00	China	57.00
215	Clarksville City	35.00	Edgewood	57.31
216	Quinlan	35.00	Dawson	57.40
217	Tolar	35.00	Hico	57.50
218	Caddo Mills	35.12	Oak Ridge	57.50
219	Wolfe City	35.20	Huxley	58.00
220	Huxley	35.50	Star Harbor	58.30
221	Log Cabin	36.00	Westover Hills	58.90
222	Elmendorf	36.24	Sadler	59.00
223	Bells	36.25	Caddo Mills	59.13
224	Kosse	36.25	Callisburg	60.00
225	Trinidad	36.25	Maypearl	60.00
226	Smyer	36.50	Quinlan	60.00
227	Godley	36.55	Santa Anna	60.00
228	Roby	36.85	Tolar	60.00
229	Tom Bean	36.85	Troy	60.50
230	China	37.00	Lefors	61.00
231	Elkhart	37.20	Rhome	61.00
232	Callisburg	37.50	Elkhart	61.20
233	Grandview	37.50	Bangs	62.00
234	Riesel	37.50	Berryville	62.00
235	Carbon	37.60	Petrolia	62.00
236	Boyd	37.80	Wolfe City	62.20
237	Grandfalls	37.80	Coahoma	63.00
238	Rhome	37.82	Blooming Grove	63.66
239	Bangs	38.00	Alto	64.00
240	Blue Ridge	38.00	Covington	64.00
241	Megargel	38.00	Crawford	64.50
242	Rose City	38.00	Hubbard	64.80
243	Dawson	38.70	Buffalo Gap	65.00
244	Alvord	38.85	Log Cabin	65.00

City of Lindsay, Texas CCN Application
 SOAH Docket No. 582-06-2023
 TCEQ Docket No. 2006-0272-UCR
 Residential Water Rates ⁽¹⁾

<u>Rank</u>	<u>City</u>	<u>5,000 Gallons</u>	<u>City</u>	<u>10,000 gallons</u>
245	Lorena	39.02	Newcastle	65.48
246	Newcastle	39.35	Moody	65.50
247	Jayton	39.78	Point Comfort	65.50
248	Miles	40.00	Point	65.80
249	Oak Ridge	40.00	Balmorhea	66.25
250	Santa Anna	41.25	Kosse	66.25
251	Covington	41.50	East Tawakoni	67.00
252	Groveton	41.50	Milford	68.00
253	Hubbard	41.80	Carbon	68.60
254	Blooming Grove	42.06	Alvord	69.75
255	Star Harbor	42.35	West Tawakoni	69.80
256	Westover Hills	42.45	Rose City	70.00
257	Mertens	43.50	Lott	71.00
258	East Tawakoni	44.05	Megargel	72.00
259	Pelican Bay	44.10	Boyd	72.80
260	Berryville	44.50	Mount Calm	73.00
261	Ladonia	44.50	Roby	73.70
262	Moody	44.50	Streetman	74.00
263	Frost	44.60	Riesel	75.00
264	Graford	45.00	Cranfills Gap	76.50
265	Streetman	45.00	Wortham	77.47
266	Point	46.10	Lipan	78.00
267	Cranfills Gap	46.50	Blanco	78.55
268	Blanco	47.05	Ladonia	79.50
269	Crawford	48.00	Graford	80.00
270	Lipan	48.00	Lorena	80.54
271	Milford	48.00	Lueders	83.10
272	Moran	50.60	Groveton	84.25
273	Lott	51.00	Mertens	87.00
274	West Tawakoni	51.55	Frost	87.29
275	Lueders	52.60	Bryson	88.00
276	Wortham	53.22	Pelican Bay	88.20
277	Dell City	55.45	Moran	89.70
278	Mount Calm	55.50	Dell City	97.45
279	Bryson	58.00	Chico	102.00
280	Ingleside on the Bay	68.41	Ingleside on the Bay	102.71
281	Trent	76.00	Trent	131.00

Notes:

(1) Source: TML 2008 Water and Sewer Rate Survey

(2) Rates Calculated assuming a 3/4" meter, based upon rate schedule effective 10/1/2008

**SOAH DOCKET NO. 582-06-2023
TCEQ DOCKET NO. 2006-0272-UCR**

APPLICATION OF THE CITY OF LINDSAY TO AMEND WATER AND SEWER CERTIFICATES OF CONVENIENCE AND NECESSITY (CCN) NOS. 13025 AND 20927 IN COOKE COUNTY, TEXAS APPLICATION NOS. 35096-C & 35097-C	§ § § § § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS
---	--	---

TABLE OF CONTENTS

I.	INTRODUCTION AND QUALIFICATIONS	1
II.	PURPOSE AND SCOPE.....	2
III.	FINANCIAL CAPABILITY AND STABILITY OF LINDSAY	5
IV.	ENVIRONMENTAL AND ECONOMIC EFFECTS OF GRANTING LINDSAY’S APPLICATION TO AMEND ITS WATER AND SEWER CCN	15
V.	CONCLUSIONS.....	23

ATTACHMENTS

JACK E. STOWE, JR., EXPERT WITNESS TESTIMONY RESUME	ATTACHMENT JES-1
CITY OF LINDSAY, AUDITED FINANCIAL STATEMENT EXCERPTS, FISCAL YEAR ENDING OCTOBER 31, 2004.....	ATTACHMENT JES-2
CITY OF LINDSAY, AUDITED FINANCIAL STATEMENT EXCERPTS, FISCAL YEAR ENDING OCTOBER 31, 2005	ATTACHMENT JES-3
CITY OF LINDSAY, AUDITED FINANCIAL STATEMENT EXCERPTS, FISCAL YEAR ENDING SEPTEMBER 30, 2006	ATTACHMENT JES-4
CITY OF LINDSAY, AUDITED FINANCIAL STATEMENT EXCERPTS, FISCAL YEAR ENDING SEPTEMBER 20, 2007	ATTACHMENT JES-5
FEDERAL RESERVE STATISTICAL RELEASE, H. 15, SELECTED INTEREST RATES, MAY 12, 2008	ATTACHMENT JES-6
COOKE COUNTY APPRAISAL DISTRICT, CURRENT TAX RATES	ATTACHMENT JES-7
STUDY TO DETERMINE THE MAGNITUDE OF, AND REASONS FOR, CHRONICALLY MALFUNCTIONING ON-SITE SEWAGE FACILITY SYSTEMS IN TEXAS, EXECUTIVE SUMMARY	ATTACHMENT JES-8
COMPARATIVE STUDY OF COSTS OF OSSF SYSTEMS, OLD RULES VERSUS NEW RULES, EXCERPTED TABLE	ATTACHMENT JES-9
ON-SITE SEWERAGE FACILITIES, RULES OF HARRIS COUNTY, TEXAS FOR ON-SITE SEWERAGE FACILITIES, INFORMATION GUIDE.....	ATTACHMENT JES-10
TEXAS AGRICULTURAL EXTENSION SERVICE, ON-SITE WASTEWATER TREATMENT SYSTEMS, LEACHING CHAMBERS	ATTACHMENT JES-11
CITY OF AUSTIN – ONSITE TREATMENT (PRETREATMENT) SYSTEM FACT SHEETS, AERATED TANKS (AEROBIC UNITS).....	ATTACHMENT JES-12
CITY OF LINDSAY ORDINANCE NO. 0805-3	ATTACHMENT JES-13

WATER AND SEWER UTILITY, DEBT-EQUITY RATIO.....	SCHEDULE A
GOVERNMENTAL FUNDS, WORKING CAPITAL RATIO	SCHEDULE B
WATER AND SEWER UTILITY, WORKING CAPITAL RATIO	SCHEDULE C
RESIDENTIAL WATER RATE COMPARISON.....	SCHEDULE D
RESIDENTIAL WASTEWATER RATE COMPARISON.....	SCHEDULE E

SOAH DOCKET NO. 582-06-2023
TCEQ DOCKET NO. 2006-0272-UCR

APPLICATION OF THE CITY OF	§	
LINDSAY TO AMEND WATER AND	§	BEFORE THE STATE OFFICE
SEWER CERTIFICATES OF	§	
CONVENIENCE AND NECESSITY	§	OF
(CCN) NOS. 13025 AND 20927 IN	§	
COOKE COUNTY, TEXAS	§	
APPLICATION NOS. 35096-C & 35097-C	§	ADMINISTRATIVE HEARINGS

DIRECT TESTIMONY OF
JACK E. STOWE

I. INTRODUCTION AND QUALIFICATIONS

2 Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

3 A. My name is Jack E. Stowe. I am the Founder and President of J. Stowe & Co., a sole
4 proprietorship. My business address is 1560 J. Place, Suite 379, Plano, Texas 75074.

6 Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS
7 PROCEEDING?

8 A. I am presenting testimony on behalf of the City of Lindsay ("Lindsay" and/or "City").

10 Q. PLEASE OUTLINE YOUR EDUCATIONAL AND PROFESSIONAL
11 BACKGROUND.

12 A. I am a graduate of North Texas State University (now the University of North Texas)
13 with a degree in Accounting. From 1975 until May 1984, I was a member of the
14 National Regulatory Consulting Group of Touche Ross & Co. (now Deloitte Touche),

1 where I ultimately held the title of Manager. From 1984 through July 1985, I served
2 as the Chief Financial Officer/Treasurer of International Investment Advisors, Inc.
3 (IIA, Inc.) and its subsidiaries and affiliates. IIA, Inc. was primarily engaged in real
4 estate investment and development. In July 1985, I founded the consulting firm of
5 Aries Resource Management (Aries). Aries was contracted by the international
6 consulting firm of Pannel Kerr Forester (PKF) to establish a municipal consulting
7 practice within their Dallas, Texas office. Upon the expiration of the professional
8 service contract with PFK, Aries entered into a Partnership Agreement with Reed
9 Municipal Services, Inc. to form Reed, Stowe & Co., Inc. In December 1997, Reed,
10 Stowe & Co. Inc. was acquired by the publicly traded consulting firm of Metzler &
11 Associates (now Navigant Consulting, Inc. (NCI)) which is publicly traded on the
12 NYSE. While at NCI, I served as a Director of the firm's national Energy and Water
13 Consulting Division. In October 2000, I reacquired my consulting practice from NCI
14 with the formation of Reed, Stowe & Yanke, LLC. In March 2003, Reed, Stowe &
15 Yanke, LLC was acquired by R.W. Beck, Inc. In April 2008, I left R.W. Beck and
16 formed J. Stowe & Co., a sole proprietorship.

17 II. PURPOSE AND SCOPE

18 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

19 A. The purpose of my testimony is to provide my opinion as to Lindsay's financial
20 stability and capabilities to provide continuous and adequate water and sewer service
21 to the requested area. In addition, I will provide my opinion as to the environmental
22 and economic effects of granting the amendments to the City's water and sewer
23 certificates of convenience and necessity ("CCN").

1 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION
2 REGARDING CERTIFICATES OF CONVENIENCE AND NECESSITY?

3 A. Yes. Please see Attachment JES-1 which provides a list of my testifying experience
4 before the Commission, its predecessors, and other jurisdictions.

5
6 Q. MR. STOWE, ON WHAT BASIS HAVE YOU DEVELOPED YOUR
7 OPINIONS AND CONCLUSIONS CONTAINED WITHIN YOUR
8 TESTIMONY?

9 A. Texas Administrative Code, Title 30, § 291.102 lists several factors to consider in
10 granting a new or amended CCN. The list contained in 30 TEX. ADMIN. CODE
11 § 291.102 (d) are factors that determine if an applicant has the financial, managerial,
12 and technical ability to provide continuous and adequate service to its requested
13 service area. Additionally, although not expressed in those terms, subsections
14 § 291.102 (d)(3), (4), and (6) specifically require the Commission to look at the
15 applicant's financial, managerial, and technical ability to provide continuous and
16 adequate service to the requested service area. It is these factors that I used to come
17 to my conclusions in this testimony.

1 **Q. WHEN YOU REFERENCE TCEQ RULE § 291.102 IN YOUR PREVIOUS**
2 **RESPONSE, ARE YOU AWARE THAT THE TCEQ RULES HAVE**
3 **CHANGED SINCE THE CITY'S APPLICATION WAS FILED?**

4 A. Yes, I am. The City received notice that its CCN Application was accepted for filing
5 on November 5, 2005. The new § 291.102 rules became effective on January 5,
6 2006. Thus, I understand that the rules as applicable on November 5, 2005, govern
7 this proceeding.

8
9 **Q. MR. STOWE, EVEN IF THE § 291.102 RULE EFFECTIVE ON JANUARY 5,**
10 **2006, APPLIED TO THIS PROCEEDING, WOULD IT AFFECT THE**
11 **ANALYSIS AND CONCLUSION THAT YOUR DRAW?**

12 A. No.

13
14 **Q. WHY NOT?**

15 A. The newer § 291.102 rules built on the standards that existed before. My analysis
16 contained herein looks at the City's Application utilizing both the older rules and the
17 newer rules. Under both rules, my analysis and conclusions remain the same. My
18 conclusions and analysis are provided below.

1 **III. FINANCIAL CAPABILITY AND STABILITY OF LINDSAY**

2 **Q. MR. STOWE, WHAT FINANCIAL DOCUMENTS HAVE YOU REVIEWED**
3 **IN YOUR ASSESSMENT OF THE FINANCIAL CAPABILITY OF LINDSAY**
4 **TO PROVIDE CONTINUOUS AND ADEQUATE WATER AND**
5 **WASTEWATER SERVICE?**

6 **A. I have reviewed and am relying upon Lindsay's audited financial statements for FY**
7 **2004 through FY 2007, excerpts of which I have attached hereto as follows:**

- 8 - Attachment JES – 2, Lindsay Audited Financial Statements, FY 2004
9 - Attachment JES – 3, Lindsay Audited Financial Statements, FY 2005
10 - Attachment JES – 4, Lindsay Audited Financial Statements, FY 2006
11 - Attachment JES – 5, Lindsay Audited Financial Statements, FY 2007

12
13 **Q. WHAT ANALYSIS HAVE YOU CONDUCTED USING LINDSAY'S**
14 **AUDITED FINANCIALS?**

15 **A. I analyzed the debt-equity ratio and working capital ratio for the City's Governmental**
16 **Funds, as well as the water and sewer utility fund. According to 30 TEX. ADMIN.**
17 **CODE §291.102 (d), one of the issues the Commission must consider in granting or**
18 **amending a CCN is the financial stability of the applicant, which may include the**
19 **adequacy of the applicant's debt-equity ratio.**