ORDINANCE NO. 03-19-2003

This ordinance amends and restates Ordinance No. 06-21-2000.

An Ordinance regulating the connection to and use of public and private sewers and drains, the installation and connection of building sewers, and the discharge of waters and wastes into the sewage system of the Lake Santee Regional Waste and Water District, and providing penalties for violations thereof.

BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE LAKE SANTEE REGIONAL WASTE AND WATER DISTRICT (HEREIN REFERRED TO AS THE "DISTRICT").

ARTICLE I
General

1.1 Definitions. Unless otherwise defined herein, terms shall be as adopted in the latest edition of the Standards Methods for the Examination of Water and Wastewater, published by the American Public Health Association, and American Water Works Association in 40 CFR 136. Waste constituents and characteristics shall be measured by the Standard Methods unless a mutually agreed upon acceptable alternative method is adopted, or in such other method established by state or federal regulatory agencies. Monitoring and metering will be carried out by customarily accepted methods.

1.1.1 "District". The Lake Santee Regional Waste and Water District and its service area.

1.1.2 "Board". The Board of Trustees of the Lake Santee Regional Waste and Water District is the governing body of the sewage system of the District, which system is a public service.

1.1.3 "Superintendent". The Superintendent, subject to the direction and control of the Board in all matters, of the Waste and Water District.

1.1.4 "Inspector". A person authorized by the Board or Superintendent to perform inspection duties assigned to him by the Board or Superintendent.

1.1.5 "Person". Any natural person, or public or private corporation, or any other entity whatever.

1.1.6 "User". A person who introduces into or discharges into, including both the Owner and Occupant of real estate from which is introduced or discharged into the sewage system, any substance whatever.

1.1.7 "Industrial Wastes". Any solid, liquid or gaseous substance or form of energy discharged, permitted to flow into or enter the sewage system or ground from an industrial, manufacturing, commercial or business process or from the development, recovery or processing of any natural resources carried on by any person shall further mean any waste from an industrial user, but not including sanitary sewage or storm water.

1.1.8 "Receiving Stream". Right hand fork to Salt Creek.

1.1.9 "Sewage System". The network of publicly owned sewers and appurtenances used for collection, transporting, and pumping wastewater to the wastewater treatment plant that serves the District.

1.1.10 "Building Drain". Shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste and other drainage pipes inside the walls of a building and conveys it to the building sewer beginning three (3) feet outside the building wall.

(i) Building Drain - Sanitary. A building drain which conveys sanitary or industrial sewage only.

(ii) Building Drain - Storm. A building drain which conveys storm water or other clear water drainage, but not wastewater.

1.1.11 "Building Sewer". Shall mean the extension from the building drain to the public sewer or other place of disposal. (Also called house connection).

(i) Building Sewer - Sanitary. A building sewer which conveys sanitary or industrial sewage only.

(ii) Building Sewer - Storm. A building sewer which conveys storm water or other clear water drainage, but no sanitary or industrial sewage.

1.1.12 "Lateral Sewer". The extension from the grinder pump station to the sewage system or other place of disposal.

1.1.13 "Public Sewer". A sewer owned by the District.

(i) Collector Sewer shall mean a sewer whose primary purpose is to collect wastewaters from individual point source discharges.

(ii) Interceptor Sewer shall mean a sewer whose primary purpose is to transport wastewater from collector sewers to a treatment facility.

(iii) Forcemain shall mean a pipe in which wastewater is carried under pressure.

(iv) Pumping Station shall mean a pipe in which wastewater is carried under pressure.

(v) Grinder Pump Station shall mean a pumping station for a building sewer.

1.1.14 "Sewer". A pipe or conduit laid for carrying sewage or other liquids, and solids suspended or entrained therein.

1.1.15 "Effluent". The water, together with any wastes that may be present flowing out of a drain, sewer, receptacle or outlet.

1.1.16 "Sanitary Sewer". A sewer intended to carry only sanitary or sanitary and industrial wastewaters from residences, commercial buildings, industrial plants and institutions.

1.1.17 "Storm Sewer". A sewer intended to carry only storm waters, surface runoff, street wash waters and drainage.

1.1.18 "Wastewater Treatment Plant". Any arrangement of devices and structures used by the District for treatment and disposing of sewage, sludge, and other sewage constituents and products.

1.1.19 "Beneficial Uses". These include, but are not limited to, domestic, municipal, agricultural and industrial use, power generation, recreation, aesthetic enjoyment, *navigation,* and the preservation and enhancement of fish, wildlife and other aquatic resources or services, and other uses, both tangible or intangible, as specified by state or federal law.

1.1.20 "Waste". Sanitary sewage and any and all other waste substances, liquid, solid, gaseous or radio-active, associated with human habitation or of human or animal origin, or from any producing, processing, manufacturing, or industrial operation of whatever nature, including such waste placed within containers of whatever nature prior to, and for purposes of disposal.

1.1.21 "Wastewater". The water-carried waste from residences, business buildings, institutions and industrial establishments, singular or in any combination, together with such ground, surface and storm waters as may be present.

1.1.22 "Sanitary Sewage". Sewage such as, and having the characteristics of domestic sewage from dwellings (including apartment houses and hotels), office buildings, factories or institutions, free from storm and surface water and industrial wastes.

1.1.23 "Normal Domestic Sewage". Sewage discharged by residential users. (Not to exceed 250 mg/l of B.O.D. or S.S.).

1.1.24 "Infiltration". The water entering the sewage system directly or via private sewers, building drains and building sewers connected therewith, from the ground through such means as, but not limited to, defective pipe joints, connections or manhole walls.

1.1.25 "Inflow". Water other than wastewater entering the sewage system from sources such as leader's cellar, yard area and foundation drains, drains from springs and swampy areas, manhole areas, cross connections between storm and sanitary sewers, catch basins, cooling towers, storm water, surface runoff and street wastewater or drainage.

1.1.26 "Pollution". An alteration of the quality of water by waste, contaminants or pollutants to a degree which renders such water unfit for beneficial uses.

1.1.27 "Compatible Pollutants". Wastewater having or containing (a) measurable biochemical oxygen demand, (b) suspended solids, (c) pH, (d) fecal coliform bacteria or (e) additional pollutants identified or defined in the National

Pollutant Discharge Elimination System (NPDES) Permit for the treatment plant that serves the District or by the State.

1.1.28 "Incompatible Pollutants". Any pollutants which are not compatible pollutants.

1.1.29 "NPDES Permit". National Pollutant Discharge Elimination System Permit now or hereafter held by the treatment plant that serves the District and setting forth conditions for the discharge of any pollutants or combination of pollutants.

1.1.30 "Nuisance". Any substance which is injurious to health or offensive to the senses or an obstruction to the free use of property so as to interfere with the comfort or enjoyment of life or property.

1.1.31 "Constituents and Characteristics" (of wastewater). The chemical, physical, bacteriological and radiological properties, including volume, flow rate and such other properties which serve to define, classify or measure the contents, quality, quantity and strength of wastewater.

1.1.32 "Garbage". Any solid wastes from the preparation, cooking or dispensing of food or from the handling, storage or sale of produce.

1.1.33 "Shredded Garbage". Garbage that is shredded to such a degree that all particles will be carried freely in suspension under the conditions normally prevailing in the sewage system, with no particle being greater than one-half (1/2) inch in dimension.

1.1.34 "pH". The conventional scientific measure of the degree of acidity or alkalinity.

1.1.35 "Biochemical Oxygen Demand" (BOD). BOD of sewage, sewage effluent, polluted waters or industrial wastes shall mean the quantity of dissolved oxygen in milligrams per liter required during stabilization of the decomposable organic matter by aerobic biochemical action under standard laboratory procedures for five (5) days at 20° Celsius. The laboratory determinations of BOD shall be made in accordance with procedures set forth in Standard Methods, therein and conventionally referred to as BOD_5.

1.1.36 "Chemical Oxygen Demand" (COD). COD of sewage, sewage effluent, polluted waters or industrial wastes is a measure of the oxygen equivalent of that portion of the organic matter in a sample that is susceptible to oxidation by a strong chemical oxidant. The laboratory determination shall be made in accordance with procedures set forth in Standard Methods.

1.1.37 "Suspended Solids". Solids which either float on the surface of or are in suspension in water, sewage or other liquids which are removable by laboratory filtration. Their concentration shall be expressed in milligrams per liter. Quantitative determinations shall be made in accordance with procedures set forth in Standard Methods.

1.1.38 "May". May means that the act referred to is both permissible and approved.

1.1.39 "Shall". Shall means the act referred to is mandatory.

1.2 Bylaws and Regulations of the Board of Trustees. The Board of Trustees may adopt and enforce such reasonable regulations not in conflict herewith as it may deem necessary for the safe, economical and efficient management of the District's sewage system and for the construction and use of building or house lateral sewers and connections to the sewage system, which regulations may include limitations of or prohibition of introduction of or infiltration by storm water, surface water, and groundwater into the sewage system.

1.3 Damaging, Defacing, etc., Sewage Works Property. A person shall not maliciously, willfully or recklessly break, damage, destroy, block from view, cover, uncover, deface or tamper with any structure, appurtenance or equipment which is a part of the District sewage system.

1.4 Right of Entry of Superintendent and Inspector to any Premises. The Superintendent, Inspector or other duly authorized employees of the District, upon reasonable notice to any person who is owner, tenant, or occupant of any real estate, is empowered to enter, upon presentation of proper credentials, all premises for the purposes of inspection, observation, measuring, sampling and testing water, sewage and industrial waste.

1.5 Failure to Comply with the Terms of this Ordinance.

1.5.1 Accidental Discharges. A user shall notify the Superintendent immediately upon accidentally discharging chemicals, corrosive substances, or anything deleterious to the sewage system or treatment process, or wastewaters in violation of this Ordinance, to enable countermeasures to be taken by the District to minimize damage to the sewage system, treatment processes and the receiving stream.

This notification shall be followed within seven (7) days of the date of occurrence by a detailed written report, signed by the user, describing the causes of the accidental discharge and the measures being taken to prevent future similar occurrence.

1.5.2 Administrative Appeals. Any user affected by any decision, action or determination including cease and desist orders, action of the Superintendent, interpreting or implementing the provisions of this Ordinance, any permit issued herein, or any action, decision or regulation of the Board adopted pursuant hereto, may file with the Board a written request for review and reconsideration within ten (10) days of such a decision, action or determination, setting forth in detail the facts supporting the user's request for reconsideration.

The appeal shall, if reasonably possible, be heard by the Board within thirty (30) days from the date of filing. The Superintendent's decision, action, or determination shall remain in effect during such period of reconsideration, unless the Board otherwise determines on request of the user.

1.5.3 General Penalties; Continuing Violations. The commission of any act prohibited by this Ordinance or by lawful order of the Superintendent or lawful order or regulation of the Board, or the failure to perform without lawful justification any lawful order of the Superintendent or lawful order or regulation of this Board shall be a punishable violation of this Ordnance for which, unless there is another specific penalty provided, the penalty shall be a fine of not less than one hundred dollars ($100.00) nor more than one thousand dollars ($1,000.00). In the case of discharges into the sewage

system in violation of this Ordinance or any valid order or regulation of the Board each day of violation constitutes a separate offense.

1.6 Falsifying of Information. A person shall not knowingly make or submit to the District a false statement, representation, record, report, plan or other document required to be filed hereunder or under a duly adopted regulation of the Board, or voluntarily filed with the intent that the District rely thereon, or falsify, tamper with, or knowingly render inaccurate any monitoring, testing, measuring or timing device required or installed under these regulations. A person shall not, during any monitoring or surveillance period, alter industrial processes or other activities for the purpose of rendering samples drawn or measurements taken during said monitoring or surveillance unrepresentative or uncharacteristic of normal operations, flows or concentrations or pollutants.

ARTICLE II
Connection to Sewage System

2.1 Privies, Septic Tanks, Cesspools, Etc. Except as otherwise provided by the Board, the District, or the State of Indiana, or any of its agencies, a person shall not construct or maintain a privy, septic tank, cesspool or other facility intended or used for the disposal of wastewater.

2.2 When Connection to the Sewage System is Required. The owner of all houses, buildings or properties used for human occupancy, employment, recreation or other purposes situated within the District and abutting on any street, alley or right-of-way in which there is now located a public sanitary or combined sewer of the District is hereby required at his expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of this Ordinance, within ninety (90) days after date of official notice to do so, provided that said public sewer is within three hundred (300) feet of the property line.

Any person constructing a new house or other building for occupancy, employment, recreation, industrial or commercial activity within the District and abutting on any street, alley or easement in which there is now located a public sanitary sewer, or along or across which there is access to such a sewer, must connect to such sewer in accord with applicable ordinances and regulations, and shall not discharge sewage elsewhere than into the sewage system.

2.3 Separate Sewer Requirements. A separate and independent building or house sewer shall be provided for every building or house; except where one building or house stands at the rear of another or an interior lot and no private sewer is available or can be constructed to the rear building or house through an adjoining alley, court, yard or driveway and the property owner adds a covenant to his deed pledging not to sell either building separately. In such cases, the building or house sewer from the front building or house may be extended to the rear building or house and the whole considered as one building or house lateral sewer.

2.4 Use of Old Building or House Sewer for a New Building or House. For initial connection to the sewer system, a new building sewer in conformance with Article II, Section 2.12 shall be constructed from the building drain as it exits the building to the grinder

pump station. All septic tanks and piping outside the building must be abandoned in accordance with state law.

In cases where building additions, patios, porches, and paved driveways have been constructed atop the existing pipe leaving the building and replacement with a new line is not cost effective, then with approval of the Superintendent the existing pipe may be inspected and air tested to determine its acceptability and if in suitable conditions approved for usage. The Property Owner shall bear the cost of all testing and shall pay the District for necessary inspections at the established rate in Article II, Section 2.10.3.

2.5 Connection of Downspouts, Drains, Etc. No person shall hereafter connect or reconnect roof downspouts, footing drains, areaway drains, driveways, parking lots, garage floor drains or other sources of surface, runoff or groundwater, to a building or house sewer or building or house drain which is in turn connected directly or indirectly to the sewage system.

Whenever a property owner has plumbing facilities in his basement serving showers, toilets, washing machine, etc., there shall not be any floor drains or footing drains connected to said plumbing that may convey ground water seepage into the sewer system.

Where sump pumps are being used to convey footing drains, floor drains as well as sewage, the property owner shall provide separate plumbing and pumping systems for each and the plumbing not interconnected. The footing drains and floor drains shall not be connected to the sewer system.

2.6 Inspection: Supervision of Connection. The applicant for the building or house sewer permit shall notify the Board or its designated representative when a building or house sewer is ready for connection to the sewage system. The connection to the grinder station shall be made under the supervision of the inspector or his representative using materials and techniques conforming to the requirements of the Board. The applicant shall give twenty-four (24) hours notice for weekday inspection before the burial or covering of the building sewer connection to the grinder station and shall not cover or bury the connection until the inspection is completed and the connection approved or the twenty-four (24) hours notice has expired. The District reserves the right to test, or to have tested for leakage the building sewer from the house to the grinder pump connection.

2.7 Extensions Outside of the District. A person shall not directly or indirectly make any connections with or openings into the sewage system for the purpose of serving any areas outside the boundaries of the District without first securing a specific resolution of the Board describing the real estate and property to be served and authorizing such connection.

2.8 Prohibition of Discharge to Natural Outlets. It shall be unlawful to discharge into any natural outlet within any area under the jurisdiction of the District, any sewage or other polluted water.

2.9 Right to Prohibit New Connections. The District shall have the right to prohibit new connections when excess capacity of the sewage system is deemed insufficient by the Board to accommodate the expected flow, BOD and/or Suspended Solids loading from the prospective sewer user.

2.10 Requirements for New Facilities.

2.10.1 Approval of Plans and Specifications. Plans and Specifications for any sewer, lift station or forcemain to be connected to the District's Sewer System must be submitted to the Board sixty (60) days in advance of scheduled construction.

Said Plans and Specifications shall be approved by the Board prior to start of construction of the Facility.

Construction of said Facility must be performed under general supervision of the Design Engineer. Resident inspection shall be performed by a qualified individual approved by the Board.

Construction shall not commence until a final approval has been issued and the inspection fees required by Article II, Section 2.10.3 have been paid.

2.10.2 Testing and Certification. All sewers shall be properly tested in accordance with the procedures outlined in 2.17, 2.18 and 2.19.

When construction is completed the Design Engineer shall certify to the Board that the Facilities have been constructed in accordance with the Plans and Specifications and have passed the Infiltration/Exfiltration/Deflection/Pressure Tests.

2.10.3 Inspection and Inspection Fees. All new Facilities shall be inspected by the District's Inspector during construction of the Facilities to insure conformance to the Plans and Specifications and an acceptable system. This Inspection must include presence of the Inspector when the Infiltration Test or pressure test is performed so he can attest to proper performance of the test. At least seven (7) days notice of commencement of Air Testing and Mandrel Testing is required.

A fee shall be assessed to cover the cost of review of Plans and Specifications and inspection of the new Facilities. Such charge is due and payable at the time the Plans and Specifications are submitted for review. The following charges shall be applicable:

$25.00 for each residential inspection

$0.50 per lineal foot of gravity sewer, pressure sewer, or forcemain

$0.02 per gallon of Lift Station pumping capacity

2.11 Requirements for Existing Sewers.

2.11.1 Approval of Plans and Specifications and Testing. Any entity wanting to connect existing sewers to the District's sewer system must submit the following information for review by the District.

a. Plans and Specifications for the Facility.

b. Results of infiltration tests performed at the end of construction.

c. Flow tests showing non-existence of infiltration/inflow.

d. Certification by a Professional Engineer that the system conforms to infiltration limitations of 200 gal/inch diameter/mile.

2.11.2 Additional Testing. If the information is not sufficient to determine the acceptability of the sewer system the Board or its Superintendent may require the

performance of additional testing including television viewing of the system, pressure testing of sewer joints, smoke testing, flow testing or any other test deemed necessary. The entity requesting approval/acceptance of the sewer shall bear the entire cost of said additional testing.

2.12 Acceptable Material for Building Sewers, Service Laterals, Sewer Pipes and Grinder Pumps. Service laterals shall have a minimum size of four (4) inches. Sewers and laterals shall conform to the following standards:

2.12.1 Pipe Material

PVC Sewer Pipe	(1" to 16")
Pipe	ASTM D-2665 (SCH 40)
Pipe	ASTM D-3034 (SDR 35)
Pipe Material	ASTM D-1784
Gasketed Joints	ASTM D-3212
Gaskets	ASTM F-477

PVC Pressure Pipe required where sewer is within 20 feet of well.

Pipe	ASTM D-2241

Forcemain and Lateral

HDPE	(1 1/4 "to 8") ASTM D-1248 Type III, Class C Category Grade P34
Pipe	ASTM D-2241 200 psi Class SDR 21, PVC Pressure Pipe
	Class D900 200 psi Class Ductile Iron Pipe

2.12.2 Grinder Pumps. Grinder pump station shall be provided by and maintained by the District, upon payment of applicable connection charges.

2.13 Bedding. Granular Bedding shall be used for all sewer pipe and forcemain for 6 inches below pipe to 12 inches above the pipe, except HDPE pipe. Minimum trench width shall be 18 inches or 3 times the pipe diameter whichever is greater.

AWWA C-900 ductile iron pressure pipe need only have No. 8 stone bedding to the spring line.

Four and six inch Residential building sewers may be bedded in fill sand, No. 8, 9 or 11 stone for 6 inches below to 6 inches above the pipe in a minimum trench of 18 inches.

2.14 Fittings. All connections from PVC ASTM D-3034 or D-2665 pipe to other classes of pipe shall be by approved compatible fittings or rubber gasket with stainless steel bands equivalent to and/or manufactured by Fernco or Indiana Seal.

2.15 Installation.

a. All building sewer pipe shall be bedded as required in 2.13 and shall have a minimum slope of 0.62 percent or 1/8 inch per foot for 6 inch. Four inch shall have a minimum slope of 1.24% or 1/4 inch per foot.

b. All building sewer pipe beneath driveways and sidewalks shall have granular backfill to the full depth of the trench above the bedding extending 5 feet beyond the driveway or sidewalk.

c. No pipe shall be laid in a trench containing water. All water shall be removed from the trench before pipe bedding and pipe installation commences.

d. Where the sewer pipe trench crosses other pipe; such as, gas and water, the lower pipe shall be encased in Class B concrete unless the separation distance is greater than 18 inches.

e. Waterlines are to be separated from the sewer line by a 10 foot horizontal or 18 inch vertical separation unless water grade ASTM D-2241 pipe is used for the sewer.

f. Wells are to be separated from the sewer pipe by 20 feet unless water grade ASTM D-2241 pipe is used for the sewer.

g. All building sewers must be connected to the building drain as it leaves the structure, outside of the foundation. Existing pipes, septic tanks and absorption tiles must be abandoned and disconnected from sewers connecting to the sewerage system.

h. Grinder pumps shall not be connected to the District's sewer or lateral sewer connected to the District's sewer unless inspected and approved by the Superintendent or Inspector.

2.16 Grinder Pumps.

2.16.1 Installation. Grinder pump stations shall be located within proper easements or rights-of-way with clear, unobstructed view from the nearest roadway. Connection of pumping unit shall include check valves and plug valves in the discharge line.

2.16.2 Easements. If a property owner within the District plans to build across the property line adjoining two lots, within the Association easement and a grinder pump is located in that easement, prior to construction the property owner shall convey to the District a new easement satisfactory to the District to protect the sewerage system and allow access which new easement shall be executed and recorded prior to issuance of a building permit. The new easement and legal description will be at the expense of the property owner on forms acceptable to the District. No structure will be permitted to be built over a sewer lateral.

2.16.3 Electrical.

a. Power from main panel feeding exterior breaker box must be furnished by a separate circuit for grinder pump only, 4 wire, 10 gauge, fused at 30 amps.

b. Property owner will have to provide a weather tight breaker box such as Cutler Hammer Box Number 2460 RNM, 30 Amp, 220V, with 2 Pole breaker or equivalent. Box must be installed in accessible location on the exterior of the house.

c. The property owner will supply power to grinder pump station from the 30 amp box mounted on the exterior of the house by means of an approved minimum 10 gauge, or to meet NEC code, 4 wire supply. If power is to be buried in the same trench as the building sewer, power supply must be in 3/4" Schedule 40 conduit or equivalent. If power supply is to be buried outside the building sewer trench an approved UF wire may be direct buried as long as the wire is enclosed in Schedule 40PVC or equivalent above grade to a depth of 18".

d. Property owner shall provide a minimum of 3 feet of wire above grade at the off road side of the grinder pump for connecting the control panel. Property owner or agent shall not make connections to control panel.

2.16.4 Grinder Station Accessibility. Property owners shall not plant trees, flowers, shrubs or other plantings within five (5) feet of the grinder pump station. There shall be no plantings on one side of the pump facing the nearest road. The purpose of this requirement is to provide accessibility for servicing and to promote visibility of the visual alarm from the roadway. Any plantings that as they mature encroach within five (5) feet of the grinder station are subject to trimming by the District.

2.17 Cleaning and Testing of Sewers.

1) The Contractor shall clean and test sanitary sewers in a workmanlike manner utilizing the following construction practices:

   a) Test only one section of pipe at a time, one section being the length between any two manholes. Request permission to test more than one section from the Engineer.

   b) Sewers shall be tested for both infiltration and exfiltration.

2) Method of Infiltration Test:

   a) Isolate the section of pipe under test at its outer limits by temporarily plugging the outlet of the upstream manhole.

   b) Construct a temporary dyke on the inlet pipe of the downstream manhole. The measurement of the infiltration may be determined by timing the flow of water into a calibrated container, or over a weir, or by any other method acceptable to the Engineer.

   c) The infiltration test will have passed when the leakage is less than 200 gallons per inch diameter per mile.

3) Method of Exfiltration Test:

a) The section of gravity sewer line to be tested should be flushed and cleaned prior to conducting the low pressure air test.

b) Isolate the section of sewer line to be tested by means of inflatable stoppers or other suitable test plugs. The ends of all branches, laterals, tees, wyes and stubs to be included in the test should be plugged to prevent air leakage. All plugs should be securely braced to prevent possible blowout due to the internal air pressure. One of the plugs should have an inlet tap, or other provision for connecting a hose to a portable air control source.

c) If the test section is below the ground water level, determine the height of the ground water above the springline of the pipe at each end of the test section and compute the average. For every foot of ground water above the pipe springline, increase the gauge test pressures by 0.43 pounds per square inch.

d) Connect the air hose to the inlet tap and a portable air control source. The air equipment should consist of necessary valves and pressure gauges to control the rate at which air flows into the test section and to enable monitoring of the air pressure within the test section. Also, the testing apparatus should be equipped with a pressure relief device to prevent the possibility of loading the test section with the full capacity of the compressor.

e) Add air slowly to the test section until the pressure inside the pipe is raised to 4.0 psig.

f) After a pressure of 4.0 psig is obtained, regulate the air supply so that the pressure is maintained between 3.5 and 4.0 psig for a period of two minutes. During this period, all plugs should be checked with a soap solution to detect any plug leakage.

g) Determine the rate of air loss by time pressure drop method. After a two-minute air stabilization period, the air supply is disconnected and the test pressure allowed to decrease to 3.5 psig. The time required for the test pressure to drop from 3.5 psig to 2.5 psig is determined by means of a stopwatch and this time interval is then compared to the required time to determine if the rate of air loss is within the allowable range as indicated on Table I, attached.

h) Upon completion of the test, the bleeder valve is opened and all air is allowed to escape. Plugs should not be removed until all air pressure in the test section has been released. Also, no one should be allowed in the trench or manhole while the test is being conducted.

2.18 <u>Deflection Test.</u>

a. An in-place deflection test will be performed on all gravity sewer PVC pipe. An allowable deflection of 5 percent of internal pipe diameter will be acceptable after all backfilling has been completed. A nine point, "Go,

No Go" mandrel will be used for the deflection test and a proving ring shall be provided for each size mandrel. All pipe exceeding the allowable deflection shall be replaced or re-rounded. The Contractor will bear all costs for testing the testing equipment.

b. The "Go, No Go" mandrel shall be manually pulled without the use of any winching or other mechanical device.

2.19 Pressure Testing of Pressure Sewers. All new service lines shall be tested at 1.5 times working pressure or 50 psig, whichever is greater in accordance with provisions of AWWA C-600, Section 4 and shall not vary more than 5 psi. Leakage shall not be more than the amount per the following formula:

$$L=SD\sqrt{(P/133,200)}$$

Where:
L = allowable leakage in gallons per hour
S = length of pipe tested in feet
D = nominal diameter of pipe in inches
P = average test pressure during test, in pounds per square inch (gauge)

ARTICLE III
Wastewater Admissibility

3.1 Limitations on Point of Discharge. No person shall discharge any substance directly into a manhole or other opening in the sewerage system other than through the approved building or house lateral sewer, except in accordance with the terms of this Ordinance or by express permission of the Board.

3.2 Licensed Commercial or Industrial Waste Hauling. A person who is a licensed commercial or industrial waste hauler may not discharge compatible pollutants and those incompatible pollutants within the limits of admissibility set out herein to the wastewater collection system at any time or place; however, the Board may accept such discharge if it elects in given cases to do so. Wastewater so received must have been generated within the District boundary.

3.3 Special Agreements. Special agreements and arrangements between the District and any person within the District boundary may be established by the Board within the terms and intent of this Ordinance when, in the opinion of the Board, unusual or extraordinary circumstances compel special terms and conditions whereby an unusual wastewater may be accepted for treatment, subject to payment of applicable fees.

3.4 Admissibility–Prohibitions on Discharges. No person shall discharge to the sewage wastes which cause, threaten to cause, or are capable of causing either alone or by interaction with other substances:

a. a fire or explosion;

b. obstruction of flow in the sewerage system or injury to the system or damage to the wastewater collection, treatment or disposal facilities;

c. danger to life or safety of personnel;

d. a nuisance or hindrance of the effective maintenance or operation of the sewer system, such as through having an unusually strong or unpleasant odor;

e. air pollution by the release of toxic or unusually malodorous gases or malodorous gas-producing substances;

f. interference with the pumping equipment or wastewater treatment process;

g. the wastewater treatment plant's effluent or any other product of the treatment process, residues, sludges or scum, to be unsuitable for reclamation, disposal, or to interfere with the reclamation process, or to fail to meet any of the limitations set by any federal or state agency or the terms of the District NPDES Permit; and

h. discoloration or any other condition that interferes with control of the treatment process.

3.5 Unapproved Substances. Unapproved substances would include, but not be limited to the following: glass, metal, diapers, socks, rags, cloth, plastic objects, sanitary napkins, tampons, explosives, flammable material, lubricating oil or grease, strong chemicals, gasoline, sand, gravel, fish scales, cleaning fluids, pesticides, herbicides and toxic chemicals.

3.6 Admissibility–Prohibition of Unpolluted Waters. Unpolluted water, including, but not limited to city water, cooling water, process water or blowdown from cooling towers or evaporative coolers shall not be discharged through direct or indirect connection to the sewerage system for purposes of diluting wastewater in order to reduce sewer rates or charges of the user. Limitations on the amount of unpolluted water that is discharged shall be part of a major contributor's permit.

3.7 Admissibility–Limitations on Radioactive Wastes. No person shall discharge or cause to be discharged any radioactive waste into the sewerage system.

3.8 Admissibility–Limitations on the Use of Garbage Grinders. Only properly shredded garbage, as defined in paragraph 1.1.33, may be discharged into this sewerage system.

3.9 Admissibility–Limitations on Wastewater Strength. All constituents and characteristics which singly or in combination may damage structures, impair the operation of the wastewater treatment plant that serves the District, interfere with treatment process or impair the quality of the Receiving Stream or its tributaries including, but not limited to, the following constituents and characteristics, with maximum concentration as shown below:

3.9.1 A person shall not discharge any wastewater with:

a. A BOD_5 concentration in excess of 275 mg/l; and

b. a suspended solids concentration in excess of 275 mg/l.

3.9.2 A person shall not discharge any wastewater containing concentration in excess of:

a. a temperature higher than 150°F. (65.5°C);

b. a pH lower than 6.0 or higher than 9.0;

c. 0.20 mg/l cadmium;

d. 0.25 mg/l hexavalent chromium (Cr, VI) for one day or 0.09 mg/l hexavalent chromium for any thirty (30) consecutive day average;

e. 2.00 mg/l copper;

f. 0.02 mg/l cyanide amenable to chlorination (CN, A) for one day, or 0.008 mg/l cyanide amenable to chlorination for any thirty consecutive day average;

g. 0.64 mg/l cyanide, total (CN, T) for one day or 0.24 mg/l cyanide, total for any thirty consecutive day average;

h. mg/l lead

i. 0.020 mg/l mercury;

j. 0.80 mg/l nickel;

k. 0.10 mg/1 silver;

l. 0.50 mg/l zinc;

m. 200 mg/l oil and grease (animal or vegetable origin);

n. 100 mg/1 oil and grease (mineral or petroleum origin);

o. 1.0 mg/1 phenolic compounds which cannot be removed by the District's wastewater treatment process;

p. any of the above, a. through o., in other concentration than stated above if applicable state or federal regulations, or regulations of the Board, set different maximum concentration;

q. any other substances or concentration thereof prohibited to all users or classes of users by state or federal law, or regulation now or hereafter adopted by the Board; and

r. any water or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewage treatment process or to constitute a hazard to humans or animals or to create any hazard in the receiving waters of the treatment plan.

3.9.3 The limitations imposed in **3.9.1**, a. through b. found by the Board of Trustees to be those attainable by the best practical technology. Limitations adopted by the Board shall in all cases be based on the best practical technology.

3.10 Grease, Oil and Sand Interceptors. Such interceptors shall be provided at (a) all restaurants, and at (b) all industrial or commercial enterprises when, in the opinion of the District, they are necessary to contain grease, flammable wastes or sand and other harmful inert materials. All interceptors shall be approved by the District and shall be readily and easily accessible for cleaning and inspection.

3.11 Liability for Maintenance of Pretreatment and Other Equipment. Where pretreatment for flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the user at his expense, and all at all reasonable times be open to inspection and testing by the District.

3.12 Right to Reject Waste. The District shall have the right to reject waste and prohibit the introduction of rejected waste into the sewage system or the District may require pretreatment of the waste when the strength or character of the waste is such that it could cause damage to or interfere with the operation of the sewage system. When pretreatment is necessary, the pretreated wastes must meet the restrictions contained in the Environmental Protection Agency Pretreatment Standard (40 CFR 403). The District shall also have the right to assess surcharges for excessive strength wastes.

Article IV
Effective and Severability

4.1 Effective Date. The provisions of this Ordinance shall be in full force and effect forthwith upon its passage and signing by the Board of Trustees and publication according to law.

4.2 Severability. The invalidity of any section, clause, sentence or provision of this Ordinance shall not affect the validity of any other part of this Ordinance which can be given effect without such invalid part or parts.

PASSED AND ADOPTED by the Board of the Lake Santee Regional Waste and Water District on the 19th day of March, 2003.

William G. Keaney

Robert L. Regan

David Kinnett

Peter C. Zillick

Clair D. Frederick

TABLE 1
SPECIFICATION TIME REQUIRED FOR A 1.0 PSIG PRESSURE DROP FOR SIZE AND LENGTH OF PIPE INDICATED FOR Q = 0.0016

Pipe Dia. (in)	Min. Time (min:sec)	Length for Min. Time (ft)	Time for Longer Length (sec)	Specification Time for Length (L) Shown (min:sec)							
				100 ft	150 ft	200 ft	250 ft	300 ft	350 ft	400 ft	450 ft
4	3:46	597	0.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692L	17:00	17:00	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470L	19:50	19:50	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366L	35:37	53:25	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852L	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

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