

October 27, 2006

T.R.A. DOCKET ROOM

Mrs. Darlene Standley, Chief  
Utilities Division  
Tennessee Regulatory Authority  
460 James Robertson Parkway  
Nashville, TN 37243-0505

RE: Tennessee Wastewater Systems, Inc.'s Petition to Amend Certificate of Public Convenience and Necessity to Provide Wastewater Utility Services  
**Docket # 06-00184 – East Montgomery Service Area - Data Response**

Dear Mrs. Standley:

Tennessee Wastewater Systems, Inc. provides the following information per your request dated October 12, 2006.

1. Provide an estimated timeframe for construction of the system including the estimated date construction will begin and the date it is estimated to end.

Response: We expect to have the system completed approximately 8 months after approval is received. For example, if we receive approval by November 15<sup>th</sup>, 2006, construction of the system would be completed by July 15<sup>th</sup>, 2007.

2. The Petition stated that permit #SOP 02014 for the treatment facility has been approved by TDEC. Please provide copies of the approved design and permit for TDEC Permit Number SOP 02014.

Response: A copy of the permit is attached. An engineering report and a set of plans is being submitted separately to the TRA with this response.

3. You stated that this Petition is a solution to the problem of the average sewer bill for this territory being at over \$70.00 per month. Please provide the tariff with the specific rates for which approval is requested pursuant to TRA Rule 1220-4-1-.03 for the sewer system when converted from the Clarksville treatment system to the new TWS system.

Response: For customers that will be served by the lagoon treatment system, the attached residential service rate tariff sheet, which includes the cost of amortizing the loan, will apply. In other parts of the service area where developers will build fixed film treatment systems, the residential sewer rate tariff for fixed film treatment will apply.

4. Will there need to be any changes in the current collection system now being operated by TWS to accommodate the treatment system TWS is building? If so, please itemize the costs with updating the current collection system.

Response: No changes are needed with the collection system in the subdivision. The existing force main that runs to the city of Clarksville will be disconnected and a new force main will be run to the lagoon, which is to be constructed. The engineering estimate for the cost to design and construct the force main is \$496,000.00.

5. Please provide the engineering and construction plans for the proposed area including estimated potential number of customers to be served.

Response: The only engineering plans that are presently available are for the construction of the lagoon treatment system. A set of plans is being submitted separately to the Tennessee Regulatory Authority with this response.

6. To establish need, please provide a letter(s) of intent from the developers or developers in the area that have expressed an interest in looking into TWS's system.

Response: This area of the county is experiencing a significant need for new housing. As mentioned in earlier correspondence by the former county mayor, the growth rate of the county is 34%. Several developers including Jim Maynard, Derek Comperry and Johnny Baggett have met with us and discussed possible developments in this service area. We do not have any letters of intent at this time.

7. Who will provide funding for construction of the system? If more than one company/individual, please provide a complete listing.

Response: Tennessee Wastewater will secure funding via a bank loan.

8. Please provide a detailed estimate of the cost of construction of the system.

Response: Based on engineering estimates, the expected cost of constructing the lagoon treatment system is \$254,000.00 and the cost of designing and constructing the main collection line is \$496,000.00.

9. Provide the proposed depreciation rates including the estimated useful life of all treatment plant and facilities.


Response: All collection lines and main lines will be depreciated over a 50-year life. The treatment and dispersal facilities will be depreciated over a 26-year life.

14. Please provide evidence that the utility owns the land, has a long-term lease or a written easement where the wastewater facilities will be located.

Response: A copy of the long term lease is being submitted separately with this response.

If you have any further questions, or need any additional information, please feel free to contact me.

Sincerely,



Charles Pickney, Jr.  
President

10. A pro forma statement of the cost of operating the system and estimated revenues for the first five years.

Response: See the attached pro forma statement.

11. Please provide the projected number of customers for the first five years including a breakdown of the class of customers served (residential, commercial, apartments, recreational, institutional, etc.). Provide a detailed analysis justifying the projected customer growth.

Response:

Year	# Customers	Class of Customer
2007	180	Residential
2008	195	Residential
2009	210	Residential
2010	215	Residential
2011	219	Residential

The above growth projection for South Ridge Subdivision reflects the fact that it is in the last phases of being built out and will soon reach development capacity at 219 homes.

12. Provide an estimate of the maximum capacity of the system being installed in the area requested.

Response: We are expecting to build several systems to serve the area as the need arises. The lagoon system that will serve the South Ridge subdivision will have an initial capacity of about 75,000 GPD, which could serve one or two other subdivisions as well and can be expanded if needed. Other systems, most likely fixed film bioreactors will be built to meet the needs in the service area that are not close to the lagoon.

13. For the purposes of this Docket, please provide a description of the technology that is being used for the wastewater system in the newly petitioned East Montgomery Service Area.

Response: We plan to build several systems over time to serve the needs of this area. Most likely the majority of systems will be fixed film bioreactors. The initial system, which will serve South Ridge Subdivision, will be a lagoon.



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
401 CHURCH STREET  
L & C ANNEX 6TH FLOOR  
NASHVILLE TN 37243-1534

August 30, 2002

Mr. Robert J. Pickney P.E.  
Vice President of Pickney Brothers  
Muddy Branch Reclamation Facility  
7638 River Road Pike  
Nashville, TN 37209

**Re: State Permit No. SOP-02014**  
**Muddy Branch Reclamation Facility**  
**Clarksville, Montgomery County, Tennessee**

Dear Mr. Pickney:

In accordance with the provisions of the "Tennessee Water Quality Control Act" (Tennessee Code Annotated Sections 69-3-101 through 69-3-120) the enclosed State Permit is hereby issued by the Division of Water Pollution Control. The continuance and/or reissuance of this Permit is contingent upon your meeting the conditions and requirements as stated therein.

Please be advised that you have the right to appeal any of the provisions established in this State Permit, in accordance with Tennessee Code Annotated, Section 69-3-110, and the General Regulations of the Tennessee Water Quality Control Board. If you elect to appeal, you should file a petition within thirty (30) days of the receipt of this permit.

If you have questions, please contact the Division of Water Pollution Control at your local Environmental Assistance Center at 1-888-891-TDEC; or, at this office, please contact Mr. Hari Akunuri at (615) 532-0650 or by E-mail at [Hari.Akunuri@state.tn.us](mailto:Hari.Akunuri@state.tn.us).

Sincerely,

A handwritten signature in cursive script, reading "Saya Ann Qualls", is written over the typed name.

Saya Ann Qualls, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SOP-02014

P/WAT/SS

Enclosure

cc: Division of Water Pollution Control, Permit Section  
Division of Water Pollution Control, Environmental Assistance Center - Nashville

TENNESSEE DEPARTMENT OF ENVIRONMENT AND  
CONSERVATION  
DIVISION OF WATER POLLUTION CONTROL  
6th Floor, L & C Annex  
401 Church Street  
Nashville, TN 37243-1534

Permit No. SOP - 02014

**PERMIT**  
**For the operation of Wastewater Treatment Facilities**

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In accordance with the provision of Tennessee Code Annotated section 69-3-108 and Regulations promulgated pursuant thereto:

**PERMISSION IS HEREBY GRANTED TO**

On-Site Systems, Inc  
Muddy Branch Reclamation Facility  
Clarksville, Montgomery County, Tennessee

**FOR THE OPERATION OF**

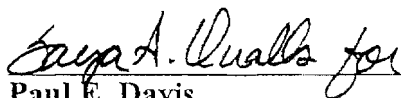
septic tanks, effluent collection system, deep cell lagoon and drip irrigation for the disposal of domestic wastewater from a facility located at latitude 36° 25' 33" and longitude 87° 59' 17" in Montgomery County, Tennessee. The design flow of the system is 75,000 gallons per day.

This permit is issued as a result of the application filed on March 13, 2002, in the office of the Tennessee Division of Water Pollution Control and in conformity with approved plans, specifications and other data submitted to the Department in support of the above application, all of which are filed with and considered as a part of this permit, together with the following named conditions and requirements.

**This permit shall become effective on: October 1, 2002**

**This permit shall expire on: May 31, 2007**

**Issuance date: August 31, 2002**



**Paul E. Davis**  
**Director**  
**Division of Water Pollution Control**

CN-0759

RDAs 2352 & 2366

## PART I

## A. GENERAL REQUIREMENTS

The treatment system shall be monitored by the permittee as specified below:

<u>Parameter</u>	<u>Sample Type</u>	<u>Daily Maximum</u>	<u>Sampling Point</u>	<u>Measurement Frequency</u>
Flow	instantaneous		*	1/month
BOD <sub>5</sub>	grab	45 mg/l	*	1/quarter
Ammonia as N	grab	Report	*	1/quarter

\* Effluent to the drip irrigation plots.

The drip fields must be fenced. A minimum chain link or 4' woven wire fence must be used.

Sludge or any other material removed by any treatment works must be disposed of in a manner which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

This permit allows the operation of a wastewater drip irrigation system. The operation should be such that there is no contamination of and no wastewater discharge to any surface or subsurface stream because of collected pools of water called "ponding" or because of improper irrigation. Any runoff due to improper operation must be reported in writing to the Division of Water Pollution Control, Environmental Assistance Center - Nashville within 5 days of the incident. In addition, the drip irrigation system must be operated in a manner preventing the creation of a public health hazard or a public/private nuisance.

## B. MONITORING PROCEDURES

## 1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

Effluent to drip irrigation plots.

## **C. DEFINITIONS**

The "daily maximum concentration" is a limitation on the average concentration, in milligrams per liter, of the discharge during any calendar day.

A "grab sample" is a single influent or effluent sample collected at a particular time.

A "quarter" is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

## **D. REPORTING**

### **1. Monitoring Results**

Monitoring results shall be recorded quarterly and submitted quarterly using Operation Report Forms supplied by the Division of Water Pollution Control. Submittals shall be postmarked no later than 15 days after the completion of the reporting period. A copy should be retained for the permittee's files. Operation Reports and any communication regarding compliance with the conditions of this permit must be sent to:

Division of Water Pollution Control  
Environmental Assistance Center - Nashville  
711 R. S. Gass Blvd.  
Nashville, TN 37243-1550

The First Operation Report is due August 15, 2002

### **2. 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, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Operation Report Form (MOR). Such increased frequency shall also be indicated.

### **3. Falsifying Reports**

Knowingly making any false statement on any report required by this permit may result in the imposition of criminal penalties as provided for in Section 69-3-115 of the Tennessee Water Quality Control Act.

## **E. SCHEDULE OF COMPLIANCE**

Full operational level shall be attained from the effective date of this permit.



**Tennessee Wastewater Systems, Inc.  
Sewer Service Billing Structure for  
East Montgomery Service Area  
Montgomery County  
06-00184**

**Residential Sewer Rate  
Lagoon**

	<b>Monthly Charge</b>	<b>Amount to be Escrowed</b>
Collection System Maintenance and operation – Tariff Items 1-4	\$8.95	\$6.35
Treatment System Costs – Lagoon – Tariff Items 8-10	\$2.60	\$1.20
Utility costs – Lagoon and Pump Station - Tariff Items 12 & 13	\$0.80	\$0.00
Disposal system costs - using drip irrigation – Tariff Items 15-17	\$1.53	\$0.88
Sampling and Testing costs – Required by State of Tennessee – Tariff Item 18	\$7.00	\$0.00
Billing and collection costs – Tariff Item 20	\$1.50	\$0.00
Miscellaneous Costs – Tariff Item 21	\$0.40	\$0.00
State of Tennessee Department of Environment Annual Fee – Tariff Item 22	\$0.52	\$0.00
Bonding costs	\$0.38	\$0.00
Franchise – Excise Taxes – Utility Company - Tariff Items 25 & 26	\$0.82	\$0.00
Public Utility Ad Valorem Tax – Tariff Item 27	\$0.95	\$0.00
Federal Tax – Tariff Item 28	\$1.11	\$0.00
Local Management Fee – Tariff Item 29	\$2.00	\$0.00
Corporate Management Fee – Tariff Item 30	\$2.80	\$0.00
Loan Amortization Fee – Tariff Item 31	<u>\$24.00</u>	<u>\$0.00</u>
<b>Total</b>	<b>\$55.36</b>	<b>\$8.43</b>

Fees: Non-Payment - 5%, Disconnection - \$10, Reconnection - \$15, Returned Check - \$20,  
Access - \$84/yr (See Rules and Regulations for Explanation)

**Tennessee Wastewater Systems, Inc****Loan Amortization Fee****Residential Service****Tariff Item #31**

When Tennessee Wastewater Systems, Inc. first offered service to the Southridge Subdivision, it provided only the collection system infrastructure, sending the collected effluent on to the city of Clarksville for treatment. In all other instances, Tennessee Wastewater Systems, Inc. has provided the collection, treatment and disposal system infrastructure needed to process the sewage from the customers served. As pass-through rates from the city of Clarksville became unbearably high for the customers in Southridge, Tennessee Wastewater Systems, Inc. acquired approval for financing to construct the treatment and disposal system infrastructure that allowed for the ability to unhook from the city of Clarksville. The loan required to finance the new infrastructure is being amortized by the customers in the Montgomery County Service Area served by the new treatment system over a period of years. The developer, Derek Comperly, has agreed to contribute \$2,000 per home sold in phase IV and V to help pay for the system. The amortization schedule is included below.

<b>YEAR ENDING</b>	<b>DEVELOPER PAYMENT</b>	<b>CUSTOMER PAYMENT</b>	<b>INTEREST COST</b>	<b>LAND LEASE COST</b>	<b>REMAINING BALANCE</b>
2007	\$88,000	\$51,840	\$38,888	\$7,005	\$617,165
2008	\$30,000	\$56,160	\$46,287	\$7,005	\$584,297
2009	\$30,000	\$60,480	\$43,822	\$7,005	\$544,644
2010	\$10,000	\$61,920	\$40,848	\$7,005	\$520,577
2011	\$8,000	\$63,072	\$39,072	\$7,005	\$495,553
2012	\$0	\$63,072	\$37,166	\$7,005	\$476,652
2013	\$0	\$63,072	\$35,749	\$7,005	\$456,334
2014	\$0	\$63,072	\$34,225	\$7,005	\$434,492
2015	\$0	\$63,072	\$32,587	\$7,005	\$411,012
2016	\$0	\$63,072	\$30,826	\$7,005	\$385,771
2017	\$0	\$63,072	\$28,933	\$7,005	\$358,637
2018	\$0	\$63,072	\$26,898	\$7,005	\$329,559
2019	\$0	\$63,072	\$24,717	\$7,005	\$298,209
2020	\$0	\$63,072	\$22,366	\$7,005	\$264,508
2021	\$0	\$63,072	\$19,838	\$7,005	\$228,279
2022	\$0	\$63,072	\$17,121	\$7,005	\$189,333
2023	\$0	\$63,072	\$14,200	\$7,005	\$147,466
2024	\$0	\$63,072	\$11,060	\$7,005	\$102,459
2025	\$0	\$63,072	\$7,684	\$7,005	\$57,452
2026	\$0	\$63,072	\$4,309	\$7,005	\$5,694
2027	\$0	\$63,072	\$427	\$7,005	\$0

**Loan Amortization Fee – \$24/month Escrow - \$0.00**

When the loan is paid off and only the annual lease cost remains, the monthly fee for customers served by this facility, based on currently approved rates, will be **\$34.03**

**Tennessee Wastewater Systems, Inc.  
 Sewer Service Billing Structure for  
 East Montgomery Service Area  
 Montgomery County  
 06-00184**

**Residential Sewer Rate  
 Fixed Film Treatment**

	<b>Monthly Charge</b>	<b>Amount to be Escrowed</b>
Collection System Maintenance and operation – Tariff Items 1-4	\$8.95	\$6.35
Treatment System Costs - for Sand-Gravel Filter System – Tariff Items 5-7	\$6.23	\$2.90
Utility costs – Sand gravel treatment and Pump Station – Tariff Items 11 & 13	\$1.30	\$0.00
Disposal system costs - using drip irrigation – Tariff Items 15-17	\$1.53	\$0.88
Sampling and Testing costs – Required by State of Tennessee – Tariff Item 18	\$7.00	\$0.00
Billing and collection costs – Tariff Item 20	\$1.50	\$0.00
Miscellaneous Costs – Tariff Item 21	\$0.40	\$0.00
State of Tennessee Department of Environment Annual Fee – Tariff Item 22	\$0.52	\$0.00
Bonding costs	\$0.44	\$0.00
Franchise – Excise Taxes – Utility Company – Tariff Items 25 & 26	\$0.82	\$0.00
Public Utility Ad Valorem Tax – Tariff Item 27	\$0.95	\$0.00
Federal Tax – Tariff Item 28	\$1.11	\$0.00
Local Management Fee – Tariff Item 29	\$2.00	\$0.00
Corporate Management Fee – Tariff Item 30	<u>\$2.80</u>	<u>\$0.00</u>
<b>Total</b>	<b>\$35.55</b>	<b>\$10.13</b>

Fees: Non-Payment - 5%, Disconnection - \$10, Reconnection - \$15, Returned Check - \$20,  
 Access - \$84/yr (See Rules and Regulations for Explanation)

**Estimated System Operating Costs and Revenues for 5 years - based on the lagoon system serving only Southridge customers**

	<u><b>2007</b></u>	<u><b>2008</b></u>	<u><b>2009</b></u>	<u><b>2010</b></u>	<u><b>2011</b></u>
<b>Costs</b>	62,100	67,300	72,500	74,200	75,600
<b>Revenues</b>	67,500	73,150	78,800	80,650	82,150