



Tennessee Department of Environment and Conservation
Division of Water Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243
(615) 532-0625

*Swan
Harbor
97-01003*

APPLICATION FOR A STATE OPERATION PERMIT (SOP)

Type of application: ☐ New Permit ☒ Permit Reissuance ☐ Permit Modification

Permittee Identification: (Name of city, town, industry, corporation, individual, etc., applying, according to the provisions of Tennessee Code Annotated Section 69-3-108 and Regulations of the Tennessee Water Quality Control Board.)

Permittee Name (applicant):	Tennessee Wastewater Systems, Inc.
Permittee Address:	849 Aviation Parkway Smyrna, TN 37167

Official Contact: Charles Hyatt	Title or Position: President		
Mailing Address: 849 Aviation Parkway	City: Smyrna	State: TN	Zip: 37167
Phone number(s): 615-220-7200	E-mail:		

Optional Contact: Brian Carter	Title or Position: Operator		
Address: 849 Aviation Parkway	City: Smyrna	State: TN	Zip: 37167
Phone number(s): 615-220-7200	E-mail:		

Application Certification (must be signed in accordance with the requirements of Rule 1200-4-5-.05)		
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		
Name and title; print or type	Signature	Date
Charles Hyatt, President	<i>Charles R. Hyatt</i>	4-27-17

Facility Identification:		Existing Permit No. 98033	
Facility Name: Swan Harbour Subdivision		County: Roane	
Facility Address or Location: Harriman, TN 37748		Latitude: 35.862500N	
		Longitude: 84.484722W	
Name and distance to nearest receiving waters: Unnamed tributary to Watts Bar Reservoir – 100'			
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list their permit numbers: N/A			
Name of company or governmental entity that will operate the permitted system: Tennessee Wastewater Systems, Inc.			
Operator address: 849 Aviation Parkway, Smyrna, TN 37167			
Has the owner/operator filed for a Certificate of Convenience & Necessity (CCN), or an amended CCN, with the Tennessee Regulatory Authority (TRA) (may be required for collection systems and land application treatment systems)? ☐ Yes ☐ No ☒ N/A			
If the applicant listed above does not yet own the facility/site or if the applicant will not be the operator, explain how and when the ownership will be transferred or describe the contractual arrangement and renewal terms of the contract for operations. Applicant owns the site.			
Complete the following information explaining the entity type, number of design units, and daily design wastewater flow:			
<u>Entity Type</u>	<u>Number of Design Units</u>		<u>Flow (gpd)</u>
☐ City, town or county	No. of connections:		
☒ Subdivision	No. of homes: 79	Avg. No. bedrooms per home: 3	15,810
☐ School	No. of students:	Size of cafeteria(s): No. of showers: 0	
☐ Apartment	No. of units:	No. units with Washer/Dryer hookups: No. units without W/D hookups:	
☐ Commercial Business	No. of employees:	Type of business:	
☐ Industry	No. of employees:	Product(s) manufactured:	
☐ Resort	No. of units:		
☐ Camp	No. of hookups:		
☐ RV Park	No. of hookups:	No. of dump stations:	
☐ Car Wash	No. of bays:		
☐ Other			
Describe the type and frequency of activities that result in wastewater generation. Residential Subdivision			

Engineering Report (required for collection systems and/or land application treatment systems):	☐ N/A
☐ Prepared in accordance with Rule 1200-4-2-.03 and Section 1.2 of the Tennessee Design Criteria (see website for more information)	
☐ Attached, or	
☒ Previously submitted and entitled: Preliminary Eng. Rpt. Approved? ☒ Yes. Date: 05-31-01 ☐ No	

Wastewater Collection System:	☐ N/A
System type (i.e., gravity, low pressure, vacuum, combination, etc.): STEP/STEG small diameter sewer system	
System Description: STEP/STEG small diameter sewer system	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): Tanks and sewers are watertight. There are no bypass points in the system. TWSI also has emergency generators to run the pumps.	
In the event of a system failure describe means of operator notification: Cellular telemetry notification	
List the emergency contact(s) (name/phone): Brian Carter – 615-220-7200	
For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)? There are no grinder pumps. All notifications come to TWSI at 615-220-7200	
Approximate length of sewer (excluding private service lateral): ~3,000ft	
Number/hp of lift stations: 0 /0	Number/hp of lift pumps 0/0
Number/volume of low pressure and or grinder pump tanks 0/0	
Number/volume septic tanks 79 / 1,500 gal	
Attach a schematic of the collection system. ☐ Attached Previously submitted and approved	
If this is a satellite sewer and you are tying in to another sewer system complete the following section, listing tie-in points to the sewer system and their location (attach additional sheets as necessary):	
<u>Tie-in Point</u>	<u>Latitude (xx.xxxx°)</u>
<u>Longitude (xx.xxxx°)</u>	
N/A	

Land Application Treatment System:	☐ N/A
Type of Land Application Treatment System: ☒ Drip ☐ Spray ☐ Other, explain:	
Type of treatment facility preceding land application (recirculating media filters, lagoons, other, etc.): Recirculating Sand Filter	
Attach a treatment schematic. ☐ Attached Previously submitted and approved	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): Same as above	
For New or Modified Projects:	
Name of Developer for the project: Existing permit	
Developer address and phone number: Existing permit	
For land application, list:	Proposed acreage involved: ~1.8 +/- acres Inches/week gpd/sq.ft loading rate to be applied: 2.2 inches/week
Is wastewater disinfection proposed?	
☐ Yes Describe land application area access:	
☒ No Describe how access to the land application area will be restricted: Fence	
Attach required additional Engineering Report Information (see website for more information)	
☐ Topographic map (1:24,000 scale presented at a six inch by six inch minimum size) showing the location of the project including quadrangle(s) name(s) GPS coordinates, and latitude and longitude in decimal degrees should also be included.	
☐ Scaled layout of facility showing the following: lots, buildings, etc. being served, the wastewater collection system routes, the pretreatment system location, the proposed land application area(s), roads, property boundaries, and sensitive areas such as streams, lakes, springs, wells, wellhead protection areas, sinkholes and wetlands.	
☐ Soils information for the proposed land disposal area in the form of a Water Pollution Control (WPC) Soils Map per Chapter 16 and 17 State of Tennessee Design Criteria for Sewage Work. The soils information should include soil depth (borings to a minimum of 4 feet or refusal) and soil profile description for each soil mapped.	
☐ Topographic map of the area where the wastewater is to be land applied with no greater than ten foot contours presented at a minimum size of 24 inches by 24 inches.	
☐ Describe alternative application methods based on the following priority rating: (1) connection to a municipal/public sewer system, (2) connection to a conventional subsurface disposal system as regulated by the Division of Groundwater Protection, and/or (3) land application.	

For Drip Dispersal Systems Only: Unless otherwise determined by the Department, sewage treatment effluent wells, i.e, large capacity treatment/drip dispersal systems after approval of the SOP Application, will be issued an UIC tracking number and will be authorized as Permit by Rule per UIC Rule 1200-4-6-.14(2) and upon issue of a State Operating Permit and Sewage System Construction Approval by the Department. Describe the following:	☒ N/A
The area of review (AOR) for each Drip Dispersal System shall, unless otherwise specified by the Department, consist of the area lying within a one mile radius or an area defined by using calculations under 1200-4-6-.09 of the Drip Dispersal System site or facility, and shall include, but not be limited to general surface geographic features, general subsurface geology, and general demographic and cultural features within the area. Attach to this part of the application a general characterization of the AOR, including the following: (This can be in narrative form)	
☐ A general description of all past and present groundwater uses as well as the general groundwater flow direction and general water quality.	
☐ A general description of the population and cultural development within the AOR (i.e. agricultural, commercial, residential or mixed)	
☐ Nature of injected fluid to include physical, chemical, biological or radiological characteristics.	
☐ If groundwater is used for drinking water within the area of review, then identify and locate on a topographic map all groundwater withdrawal points within the AOR, which supply public or private drinking water systems. Or supply map showing general location of publicly supplied water for the area (this can be obtained from the water provider)	
☐ If the proposed system is located within a wellhead protection area or source water protection area designated by Rule 1200-5-1-.34, show the boundary of the protection area on the facility site plan.	
☐ Description of system, Volume of injected fluid in gallons per day based upon design flow, including any monitoring wells	
☐ Nature and type of system, including installed dimensions of wells and construction materials	

Pump and Haul:	☒ N/A
Reason system cannot be served by public sewer:	
Distance to the nearest manhole where public sewer service is available:	
When sewer service will be available:	
Volume of holding tank: gal.	
Tennessee licensed septage hauler (attach copy of agreement):	
Facility accepting the septage (attach copy of acceptance letter):	
Latitude and Longitude (in decimal degrees) of approved manhole for discharge of septage:	
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.):	

Holding Ponds (for non-domestic wastewater only):	☒ N/A
Pond use: ☐ Recirculation ☐ Sedimentation ☐ Cooling ☐ Other (describe):	
Describe pond use and operation:	
If the pond(s) are existing pond(s), what was the previous use?	
Have you prepared a plan to dispose of rainfall in excess of evaporation? ☐ Yes ☐ No	
If so, describe disposal plan:	
Is the pond ever dewatered? ☐ Yes ☐ No	
If so, describe the purpose for dewatering and procedures for disposal of wastewater and/or sludge:	
Is(are) the pond(s) aerated? ☐ Yes ☐ No	
Volume of pond(s):	gal. Dimensions:
Is the pond lined (Note if this is a new pond system it must be lined for SOP coverage. Otherwise, you must apply for an Underground Injection Control permit.)? ☐ Yes ☐ No	
Describe the liner material (if soil liner is used give the compaction specifications):	
Is there an emergency overflow structure? ☐ Yes ☐ No	
<i>If so, provide a design drawing of structure.</i>	
Are monitoring wells or lysimeters installed near or around the pond(s)? ☐ Yes ☐ No	
<i>If so, provide location information and describe monitoring protocols (attach additional sheets as necessary):</i>	

Mobile Wash Operations:		☒ N/A
☐ Individual Operator ☐ Fleet Operation Operator		
Indicate the type of equipment, vehicle, or structure to be washed during normal operations (check all that apply):		
☐ Cars ☐ Trucks ☐ Trailers (Interior washing of dump-trailers, or tanks, is prohibited.) ☐ Other (describe):	☐ Parking Lot(s): sq. ft. ☐ Windows: sq. ft. ☐ Structures (describe):	
Wash operations take place at (check all that apply):		
☐ Car sales lot(s) ☐ Private industry lot(s) ☐ County(ies), list:	☐ Public parking lot(s) ☐ Private property(ies) ☐ Statewide	
Wash equipment description:		
☐ Truck mounted ☐ Rinse tank size(s) (gal.): ☐ Collection tank size(s) (gal.):	☐ Trailer mounted ☐ Mixed tanks size(s) (gal.): Number of tanks per vehicle:	
Pressure washer: psi (rated) gpm (rated) ☐ gas powered ☐ electric		
Vacuum system manufacturer/model:		Vacuum system capacity: inches Hg
Describe any other method or system used to contain and collect wastewater:		
List the public sewer system where you are permitted or have written permission to discharge waste wash water (include a copy of the permit or permission letter):		
Are chemicals pre-mixed, prior to arriving at wash location? ☐ Yes ☐ No		
Describe all soaps, detergents, or other chemicals used in the wash operation (attach additional sheets as necessary):		
Chemical name:	Manufacturer:	Primary CAS No. or Product No.