

Type of application:  New Permit  Permit Reissuance  Permit Modification

**Permittee Identification:** (Name of city, town, utility, 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)/Facility Name: **Murfreesboro Water Resources Department**

Permittee Address: **220 NW Broad St  
Murfreesboro, TN 37130**

Official Contact: <b>Darren Gore</b>	Title or Position: <b>Director</b>		
Mailing Address: <b>300 NW Broad St</b>	City: <b>Murfreesboro</b>	State: <b>TN</b>	Zip: <b>37130</b>
Phone number(s): <b>Office 615-890-0862</b>	E-mail: <b>dgore@murfreesborotn.gov</b>		

Optional Contact: <b>Valerie Smith</b>	Title or Position: <b>Assistant Director - Engineering</b>		
Address: <b>220 NW Broad St</b>	City: <b>Murfreesboro</b>	State: <b>TN</b>	Zip: <b>37130</b>
Phone number(s): <b>Office 615-848-3200</b>	E-mail: <b>vsmith@murfreesborotn.gov</b>		

**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 <i>Darren W. Gore, Director</i>	Signature <i>Darren W. Gore</i>	Date <i>12/21/23</i>
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**OFFICIAL STATE USE ONLY**

Received Date	Permit Number <b>SOP 18031</b>	Field Office	Reviewer
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<b>Facility Identification:</b>		<b>Existing Permit No.</b>	
Facility Name: <b>Carters Retreat Sd</b>	County: <b>Rutherford</b>		
Facility Address or Location: <b>3795 Bradyville Pike Murfreesboro, TN.</b>	Latitude: <b>N 35° 48'29"</b>		
	Longitude: <b>W 86° 20'00"</b>		
Name of Engineer for the project: <b>James F. Reed III P.E., R.L.S.</b>			
Engineer address and phone number: <b>850 Middle Tennessee Blvd. 615-890-7901</b>			
Name and distance to nearest receiving waters: <b>west discharging into miscellaneous tributary (Fox Camp Springs) of the East Fork Stones River</b>			
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list their permit numbers: <b>None</b>			
Name of company, utility, or governmental entity that will operate the permitted system: <b>Murfreesboro Water Resources Department</b>			
Operator address: <b>220 NW Broad St Murfreesboro, TN 37130</b>			
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)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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.			
Name of Public Water Provider: <b>Consolidated Utility District Bill Dunnill 615-893-7302 wdunnill@ cudrc.com</b>			
List Standard Industrial Codes (SIC)/ North American Industrial Code (s) (NAIC) for proposed activity (these are located at <a href="http://www.census.gov/epcd/www/naicstab.htm">http://www.census.gov/epcd/www/naicstab.htm</a> ) <b>4941 - water system, 4959 – Sewage treatment, 4971 - Irrigation</b>			
<b>Complete the following information explaining the entity type, number of design units, and daily design wastewater flow:</b>			
<u>Entity Type</u>	<u>Number of Design Units</u>		<u>Flow (gpd)</u>
<input type="checkbox"/> City, town or county	No. of connections:		
<input checked="" type="checkbox"/> Subdivision	No. of homes: <b>211</b>	Avg. No. bedrooms per home: <b>3</b>	<b>63,300</b>
<input type="checkbox"/> School	No. of students:	Size of cafeteria(s):	
		No. of showers: <b>0</b>	
<input type="checkbox"/> Apartment	No. of units:	No. units with Washer/Dryer hookups:	
		No. units without W/D hookups:	
<input type="checkbox"/> Commercial Business	No. of employees:	Type of business: see permit report	
<input type="checkbox"/> Industry	No. of employees:	Product(s) manufactured:	
<input type="checkbox"/> Resort	No. of units:		
<input type="checkbox"/> Camp	No. of hookups:		
<input type="checkbox"/> RV Park	No. of hookups:	No. of dump stations:	
<input type="checkbox"/> Car Wash	No. of bays:		
<input type="checkbox"/> Other			
Describe the type and frequency of activities that result in wastewater generation. <b>The treatment and land application of typical domestic waste.</b>			

<b>Engineering Report (required for collection systems and/or land application treatment systems):</b>		<input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Prepared in accordance with Rule 1200-4-2-.03 and Section 1.2 of the Tennessee Design Criteria (see <a href="#">website</a> for more information) <input type="checkbox"/> Attached, or <input checked="" type="checkbox"/> Previously submitted and entitled: Engr. Report Carters Retreat SD Treatment Facility Approved? <input checked="" type="checkbox"/> Yes. Date: 11-17-2020 <input type="checkbox"/> No		
<b>Wastewater Collection System:</b>		<input type="checkbox"/> N/A
System type (i.e., gravity, low pressure, vacuum, combination, etc.): <b>Low Pressure</b>		
System Description: <b>Septic tank effluent pump system discharging to a low pressure collection line (~211 residential lots)</b>		
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): <b>The proposed STEP tank is sized for peak daily flow storage for the purpose of power failures and equipment failures.</b>		
In the event of a system failure describe means of operator notification: <b>RSF with PLC and modem to notify operator of malfunction</b>		
List the <b>emergency</b> contact(s) (name/phone): <b>John Strickland 615-848-3225</b>		
For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)? <b>Murfreesboro Water Resources Department John Strickland 615-848-3225</b>		
Approximate length of sewer (excluding private service lateral): <b>~6,000 LF of 2", 3" &amp; 4 forcemains</b>		
Number/hp of lift stations: / Number/hp of lift pumps /		
Number/volume of low pressure and or grinder pump tanks <b>Proposed 14,000 gal Recirc Tanks, 3,000 gal Final Dose Tank</b> Number/volume septic tanks <b>~211~1,500 STEP tanks</b>		
Attach a schematic of the collection system. <input checked="" type="checkbox"/> Attached		
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>
<b>None</b>		
<b>Land Application Treatment System:</b>		<input type="checkbox"/> N/A
Type of Land Application Treatment System: <input checked="" type="checkbox"/> Drip <input type="checkbox"/> Spray <input type="checkbox"/> Other, explain:		
Type of treatment facility preceding land application (recirculating media filters, lagoons, other, etc.): <b>Recirculating sand filter (RSF) with ultra violet disinfection</b>		
Attach a treatment schematic. <input checked="" type="checkbox"/> Attached		
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): <b>The existing septic tank and proposed STEP tanks are sized for peak daily flow storage for the purpose of power failures and equipment failures.</b>		
For New or Modified Projects: <b>Carters Retreat</b>		
Name of Developer for the project: <b>Ole South Properties – Dan Bobo</b>		
Developer address and phone number: <b>615-210-2827</b>		
<b>262 Robert Rose Drive</b>		
<b>Murfreesboro, TN 37129</b>		
For land application, list: <input checked="" type="checkbox"/> Proposed acreage involved: <b>approx. 10.9 acres</b> (7.27 ac application, 3.63 reserve area) <input checked="" type="checkbox"/>		
Inches/week <b>gpd/sq.ft loading rate</b> to be applied: <b>approximately 0.20 gpd/sf loading rate = approximately 1.5"/week</b>		
Is wastewater disinfection proposed? <b>Yes ultra violet disinfection</b>		
<input checked="" type="checkbox"/> Yes Describe land application area access: <b>fence with access gates</b>		
<input type="checkbox"/> No Describe how access to the land application area will be restricted		

<b>Attach required additional Engineering Report Information (see <a href="#">website</a> for more information)</b>	
<input type="checkbox"/> Topographic map (1:25,000 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.	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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.	
<input type="checkbox"/> 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.	
<b>For Drip Dispersal Systems Only:</b> 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:	
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)	
<input type="checkbox"/> A general description of all past and present groundwater uses as well as the general groundwater flow direction and general water quality.	
<input type="checkbox"/> A general description of the population and cultural development within the AOR,i.e. <input checked="" type="checkbox"/> agricultural, <input type="checkbox"/> commercial, <input type="checkbox"/> residential or <input type="checkbox"/> mixed.	
<input type="checkbox"/> Nature of injected fluid to include physical, chemical, biological or radiological characteristics.	
<input type="checkbox"/> 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)	
<input type="checkbox"/> 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.	
<input type="checkbox"/> Description of system, Volume of injected fluid in gallons per day based upon design flow, including any monitoring wells	
<input type="checkbox"/> Nature and type of system, including installed dimensions of wells and construction materials	

<b>Pump and Haul:</b>	<input checked="" type="checkbox"/> 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.):	

<b>Holding Ponds (for non-domestic wastewater only):</b>	<input checked="" type="checkbox"/> N/A
Pond use: <input type="checkbox"/> Recirculation <input type="checkbox"/> Sedimentation <input type="checkbox"/> Cooling <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No
If so, describe disposal plan:
Is the pond ever dewatered? <input type="checkbox"/> Yes <input type="checkbox"/> No
If so, describe the purpose for dewatering and procedures for disposal of wastewater and/or sludge:
Is(are) the pond(s) aerated? <input type="checkbox"/> Yes <input type="checkbox"/> 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.)? <input type="checkbox"/> Yes <input type="checkbox"/> No
Describe the liner material (if soil liner is used give the compaction specifications):
Is there an emergency overflow structure? <input type="checkbox"/> Yes <input type="checkbox"/> No
<i>If so, provide a design drawing of structure.</i>
Are monitoring wells or lysimeters installed near or around the pond(s)? <input type="checkbox"/> Yes <input type="checkbox"/> No
<i>If so, provide location information and describe monitoring protocols (attach additional sheets as necessary):</i>
<b>Attach required additional Information</b>
<input type="checkbox"/> Topographic map (1:24,000 scale presented at a six inch by six inch minimum size) showing the location of the project including GPS coordinates, latitude and longitude in decimal degrees quadrangle name should also be included.
<input type="checkbox"/> Scaled layout of facility showing the following: lots, buildings, etc. being served, the wastewater collection system routes, the pretreatment system location, roads, property boundaries, and sensitive areas such as streams, lakes, springs, wells, wellhead protection areas, sinkholes and wetlands.
The area of review (AOR) for each holding pond shall, unless otherwise specified by the Department, consist of the area lying within and below a one mile radius of the holding pond site or facility, and shall include, but not be limited to surface geographic features, subsurface geology, and demographic and cultural features within the area. Attach to this part of the application a complete characterization of the AOR, including the following: (This can be in narrative form)
<input type="checkbox"/> Description of all past and present uses of groundwater within the AOR, as documented by public record.
<input type="checkbox"/> Description of the groundwater hydrology within the AOR, including characteristics of all subsurface aquifers, presence or absence of solution development features, general direction of groundwater movement, and chemical characteristics of the ground waters in the AOR..
<input type="checkbox"/> Description of the population and cultural development within the AOR, including the number of persons living within one mile of the well or facility, land uses within the AOR, and the existence of any community, state, regional or national parks, wildlife refuges, natural or wilderness areas, recreational or other public-use areas, or any other environmentally sensitive features within the area of review.
<input type="checkbox"/> 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..
<input type="checkbox"/> Identify any surface water intake, which supplies a public water distribution system and is located within the AOR or within three miles topographically down gradient from the well or facility. If any such intake(s) wells or springs exist, then locate on map

<b>Mobile Wash Operations:</b>	<input checked="checked" type="checkbox"/> N/A
<input type="checkbox"/> Individual Operator <span style="margin-left: 200px;"><input type="checkbox"/> Fleet Operation Operator</span>	
<b>Indicate the type of equipment, vehicle, or structure to be washed during normal operations (check all that apply):</b>	
<input type="checkbox"/> Cars <span style="margin-left: 150px;"><input type="checkbox"/> Parking Lot(s):          sq. ft.</span> <input type="checkbox"/> Trucks <span style="margin-left: 150px;"><input type="checkbox"/> Windows:          sq. ft.</span> <input type="checkbox"/> Trailers (Interior washing of dump-trailers, or tanks, is prohibited.) <span style="margin-left: 50px;"><input type="checkbox"/> Structures (describe):</span> <input type="checkbox"/> Other (describe):	
<b>Wash operations take place at (check all that apply):</b>	
<input type="checkbox"/> Car sales lot(s) <span style="margin-left: 150px;"><input type="checkbox"/> Public parking lot(s)</span> <input type="checkbox"/> Private industry lot(s) <span style="margin-left: 100px;"><input type="checkbox"/> Private property(ies)</span> <input type="checkbox"/> County(ies), list: <span style="margin-left: 150px;"><input type="checkbox"/> Statewide</span>	
<b>Wash equipment description:</b>	
<input type="checkbox"/> Truck mounted <span style="margin-left: 150px;"><input type="checkbox"/> Trailer mounted</span> <input type="checkbox"/> Rinse tank size(s) (gal.): <span style="margin-left: 100px;"><input type="checkbox"/> Mixed tanks size(s) (gal.):</span> <input type="checkbox"/> Collection tank size(s) (gal.): <span style="margin-left: 50px;">Number of tanks per vehicle:</span> Pressure washer:          psi (rated)          gpm (rated) <span style="margin-left: 50px;">Pressure washer: <input type="checkbox"/> gas powered          <input type="checkbox"/> electric</span> Vacuum system manufacturer/model: <span style="margin-left: 100px;">Vacuum system capacity:          inches Hg</span>	
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? <input type="checkbox"/> Yes <input type="checkbox"/> No	
<b>Describe all soaps, detergents, or other chemicals used in the wash operation (attach additional sheets as necessary):</b>	
Chemical name:	Manufacturer:          Primary CAS No. or Product No.

## APPLICATION FOR A STATE OPERATION PERMIT (SOP) INSTRUCTIONS

**Purpose of this form** A completed SOP application must be submitted to obtain SOP coverage. This permit is required to operate a domestic sewage, industrial waste or other waste collection and/or treatment system that does not have a point source discharge to any surface or subsurface waters. This form must be submitted at least 180 days before starting any new activity, or 180 days prior to the expiration date, or when renewing a permit.

**Complete the form** Type or print clearly, using black or blue ink; not markers or pencil. Answer each item or enter "N/A," for not applicable. If you need additional space, attach a separate piece of paper to the SOP application. Applicants may be required to submit engineering reports, plans and specifications. Contact the division for the applicable items, or visit the Division of Water Pollution Control World Wide Web site at: <http://www.state.tn.us/environment/wpc> for more information. **The application will be considered incomplete absent any of the required information, Engineering Reports, and an original signature.**

**Permittee Identification/Facility Identification** Describe and locate the project, use the legal or official name of the facility or site. Provide the latitude and longitude (expressed in decimal degrees) of the center of the site, which can be located on USGS quadrangle maps. The quadrangle maps can be obtained at 1-800-USA-MAPS, or at the Census Bureau World Wide Web site: <http://www.census.gov/cgi-bin/gazetteer> . Attach a copy of a portion of a 7.5 minute quad map, showing location of site, with boundaries at least one mile outside the site boundaries. If business is mobile give the owner of operations' home, or business office address of the owner, and list all current areas of operation by city and county.

**Wastewater Collection System** These types of systems require engineering reports, refer to the website ( <http://www.tdec.net/wpc/> ) for more information.

**Land Application Treatment System** These types of systems require engineering reports, refer to the website (<http://www.tdec.net/wpc/>) for more information. Public access to the land application and treatment area must be restricted, if disinfection is not part of the treatment. Applicants completing this section of the application must also complete the Wastewater Collection System section.

**Pump and Haul** These types of systems may require engineering reports, refer to the website (<http://www.tdec.net/wpc/>) for more information.

**Holding Ponds** Given that annual rainfall onto open ponds exceeds annual evaporation (in Tennessee), the permittee must develop a written plan (to be retained on site and be available to the division upon request) that addresses how excess rainfall will be disposed of in compliance with the no discharge requirement of this permit. Wastewater treatment ponds are not to be used for stormwater treatment or storage. All new and existing point source industrial stormwater discharges associated with industrial activity require coverage under the Tennessee industrial stormwater multi-sector general permit TMSP, refer to the website (<http://www.tdec.net/permits/strmh2o.shtml>) for more information. Describe the system for re-routing surface runoff away from ponds in the rainfall disposal plan.

**Mobile Wash Operations** Indicate whether the operation is run by an individual or a corporation with a fleet of vehicles equipped to wash and collect waste waters. If a corporation, indicate the home office as the "Official Contact". Indicate if operations take place at specific sites and list those counties in which such sites are located. Note that this permit covers operations within the State of Tennessee. Operations indicated as "statewide" generally apply as a fleet type operation and each office location shall be individually permitted. Equipment may be truck or trailer-mounted, or both, indicate all that apply. Soaps, detergents, and other chemicals used should be non-toxic and biodegradable. All "chemically enhanced" (soaps, detergents, and other chemicals) waste-wash waters must be collected for proper disposal. If no chemically enhanced washwaters are used, clear-wash waters may travel by sheet flow to a gravel or grassy area where there is no opportunity to enter waters of the state. There should be no discharge to a storm water inlet, ditch, conveyance, stream, etc. If you are unsure of your wash area drainage, contact the area Environmental Field Office (EFO) prior to setting up your wash operation.

**Fees** There is a \$250 authorization fee for residential SFDS and \$500 fee for commercial SFDS and commercial holding lagoons. An annual maintenance fee is required and you will be invoiced at a later date.

**Submitting the form and obtaining more information** Note that a responsible corporate officer, owner, general partner or proprietor, principal governmental executive officer, or highest ranking elected official must sign this form. (See Regulation 1200-4-5-.05(a) for exact authorized signatures.). For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit three complete applications (keep a copy for your records) to the appropriate EFO for the county(ies) where the facility is located, addressed to **Attention: WPC, Permit Section Manager**.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	2510 Mt. Moriah Road STE E-645	38115-1520	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Dr	38305-4316	Chattanooga	540 McCallie Avenue STE 550	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	2484 Park Plus Drive	38401	Johnson City	2305 Silverdale Road	37601

Upon receipt of the required items, the division conducts a review of the material, and the applicant is notified of any deficiencies. When all the deficiencies have been corrected, the division will publish a draft permit or provide the applicant with a Notice of Intent to Deny the permit application. When a draft permit is generated, a public notice is issued and published in a local newspaper. The draft permit is then reviewed by the applicant, and division field staff. The general public also has an opportunity to review the permit. Based on public response, a public hearing may be held. After considering public comments and a final review, the permit may be issued or denied for cause. Permits are normally valid for five (5) years, except those for pump and haul systems, which are generally valid for one (1) year.

The division has the right to inspect a facility when deemed necessary. In addition, the division has the right to revoke or suspend any permit for violation of permit conditions or any other provisions of the Tennessee Water Quality Control Act and other water pollution control rules.

The division is responsible for regulating any activity, which involves a potential discharge in order to protect waters of the State from pollution and to maintain the highest possible standards in water quality.

# 9.0 Flow Schematic

