



# RUTHERFORD COUNTY TENNESSEE PLANNING & ENGINEERING

## STATE OPERATING PERMIT MODIFICATION APPLICATION

SOP 16018

CLEARVIEW ACRES TF  
WALNUT CHASE SD ADDITION

RUTHERFORD COUNTY, TN

### SEC, Inc.

SITE ENGINEERING CONSULTANTS

ENGINEERING • SURVEYING • LAND PLANNING

850 MIDDLE TENNESSEE BLVD • MURFREESBORO, TENNESSEE 37129

PHONE (615) 890-7901

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## 1.0 SOP Permit Application

Permit Number: SOP-\_\_\_\_\_

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 **Consolidated Utility District**Permittee Address: **P.O. Box 249, Murfreesboro, TN 37060**Official Contact:  
**William Dunnill**Title or Position:  
**General Manager**Mailing Address:  
**P.O. Box 249**City:  
**Murfreesboro**State:  
**TN**Zip:  
**37133-0249**Phone number(s): **Office 615-893-7302**E-mail: [wdunnill@ cudrc.com](mailto:wdunnill@ cudrc.com)Optional Contact:  
**Joe R. Fisher**Title or Position:  
**Operator**Address:  
**P.O. Box 249**City:  
**Murfreesboro**State:  
**TN**Zip:  
**37133-0249**Phone number(s): **Office (615) 225-3329**E-mail:  
[jfisher@ cudrc.com](mailto:jfisher@ cudrc.com)**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

*William T. Dunnill, G.M.**1-19-21***OFFICIAL STATE USE ONLY**

Received Date	Permit Number <b>SOP</b>	Field Office	Reviewer
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Permit Number: SOP-\_\_\_\_\_

<b>Facility Identification:</b>		<b>Existing Permit No.</b>	<b>16018</b>
Facility Name: <b>Clearview Acres Sd</b>		County:	<b>Rutherford</b>
Facility Address or Location: <b>Along Walnut Grove Road (Hwy west of Hwy 231 in Rutherford County)</b>		Latitude:	<b>N 35° 43'24"</b>
		Longitude:	<b>W 86° 26'03"</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.</b>	<b>615-890-7901</b>
Name and distance to nearest receiving waters: <b>West 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>Consolidated Utility District</b>			
Operator address: <b>709 New Salem Highway P.O. Box 249 Murfreesboro, TN 37133-0249</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>305</b>	Avg. No. bedrooms per home: <b>3</b>	<b>91,500</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>			

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<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 checked="" type="checkbox"/> Attached, or <input type="checkbox"/> Previously submitted and entitled:		
Approved? <input type="checkbox"/> Yes. Date:		<input checked="" 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 (~305 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>Joe R. Fisher (615) 225-3329</b>	
For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)? <b>Consolidated Utility District Joe R. Fisher (615) 225-3329</b>	
Approximate length of sewer (excluding private service lateral): <b>~1,400 LF of 2" and 3" 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>~305~1,500 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 ultraviolet 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>Clearview Acres Sd</b> Name of Developer for the project: <b>Bud George – Walnut Chase Partnership</b> Developer address and phone number: <b>615-531-1173</b> <b>2127 Tabasco Way</b> <b>Murfreesboro, TN 37128-8255</b>	
For land application, list: <input checked="" type="checkbox"/> Proposed acreage involved: <b>approx. 21.4 acres</b> <input checked="" type="checkbox"/> Inches/week <b>gpd/sq.ft loading rate</b> to be applied: <b>approximately 0.15 gpd/sf loading rate = approximately 1.5"/week</b>	
Is wastewater disinfection proposed? <b>Yes, ultraviolet 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	

Permit Number: SOP-\_\_\_\_\_

<b>Attach required additional Engineering Report Information (see <a href="#">website</a> for more information)</b>	
<input checked="" 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 checked="" 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 checked="" 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 checked="" type="checkbox"/> Topographic map of the area where the wastewater is to be land applied with no greater than <b>ten</b> foot contours presented at a minimum size of <b>24</b> inches by <b>24</b> inches.	
<input checked="" 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) <a href="#">see 2.0</a>	
<input checked="" type="checkbox"/> A general description of all past and present groundwater uses as well as the general groundwater flow direction and general water quality. <a href="#">see 3.0</a>	
<input checked="" 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. <a href="#">see 4.0</a>	
<input checked="" type="checkbox"/> Nature of injected fluid to include physical, chemical, biological or radiological characteristics. <a href="#">see 5.0</a>	
<input checked="" 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) <a href="#">see 6.0</a>	
<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 checked="" type="checkbox"/> Description of system, Volume of injected fluid in gallons per day based upon design flow, including any monitoring wells <a href="#">see 7.0</a>	
<input checked="" type="checkbox"/> Nature and type of system, including installed dimensions of wells and construction materials <a href="#">see 8.0</a>	

<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):	

Permit Number: SOP-\_\_\_\_\_

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	



Permit Number: SOP-\_\_\_\_\_

<b>Mobile Wash Operations:</b>		<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Individual Operator <span style="float: right;"><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	<input type="checkbox"/> Parking Lot(s):                      sq. ft.	
<input type="checkbox"/> Trucks	<input type="checkbox"/> Windows:                      sq. ft.	
<input type="checkbox"/> Trailers (Interior washing of dump-trailers, or tanks, is prohibited.)	<input type="checkbox"/> Structures (describe):	
<input type="checkbox"/> Other (describe):		
<b>Wash operations take place at (check all that apply):</b>		
<input type="checkbox"/> Car sales lot(s)	<input type="checkbox"/> Public parking lot(s)	
<input type="checkbox"/> Private industry lot(s)	<input type="checkbox"/> Private property(ies)	
<input type="checkbox"/> County(ies), list:	<input type="checkbox"/> Statewide	
<b>Wash equipment description:</b>		
<input type="checkbox"/> Truck mounted	<input type="checkbox"/> Trailer mounted	
<input type="checkbox"/> Rinse tank size(s) (gal.):	<input type="checkbox"/> Mixed tanks size(s) (gal.):	
<input type="checkbox"/> Collection tank size(s) (gal.):	Number of tanks per vehicle:	
Pressure washer:                      psi (rated)                      gpm (rated)	Pressure washer: <input type="checkbox"/> gas powered <input type="checkbox"/> 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? <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**.

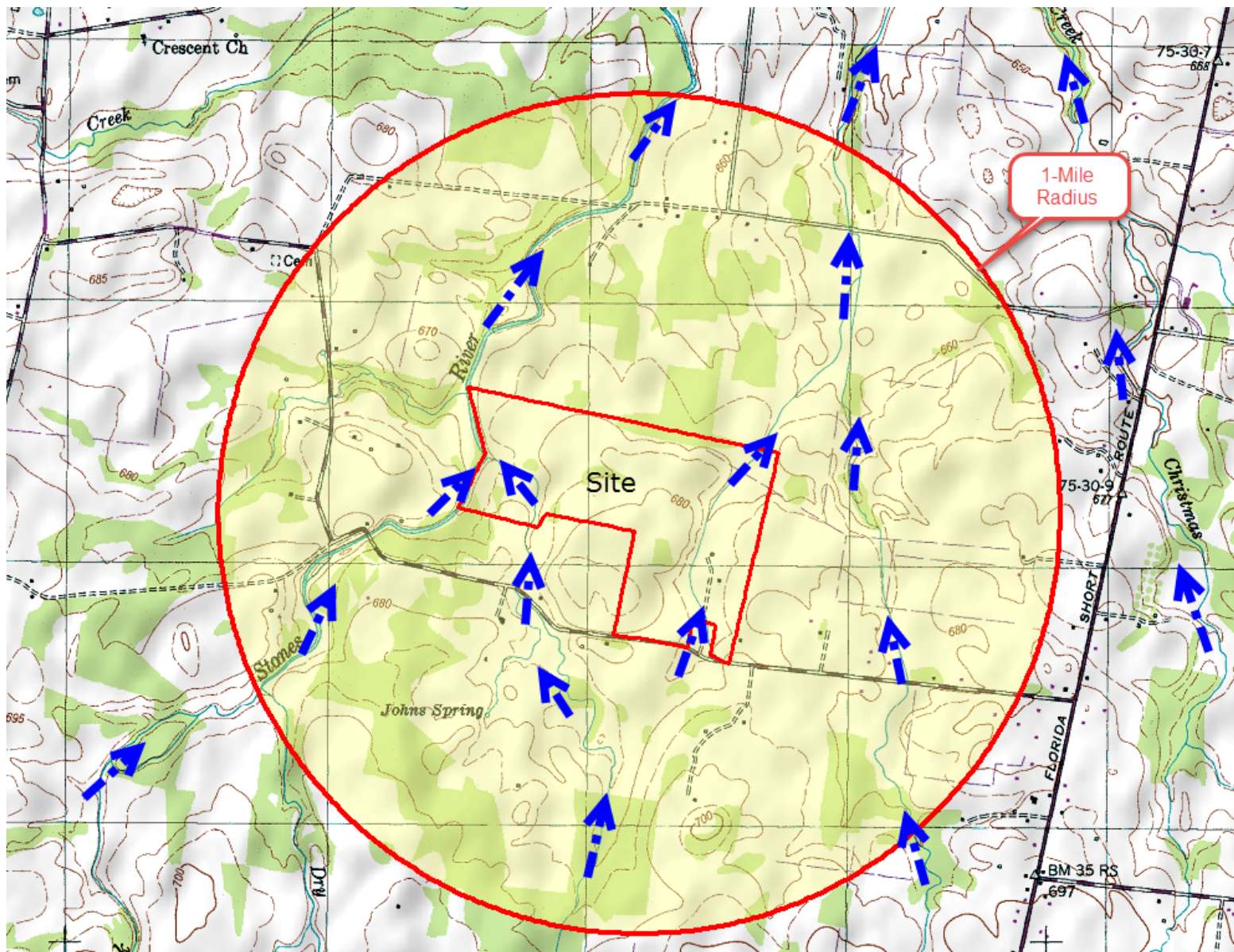
EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	2510 Mt. Moriah Road STE E-645	38115-1520	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Dr	38305-4316	Chattanooga	540 McCallie Avenue STE 550	37402-2013
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	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.

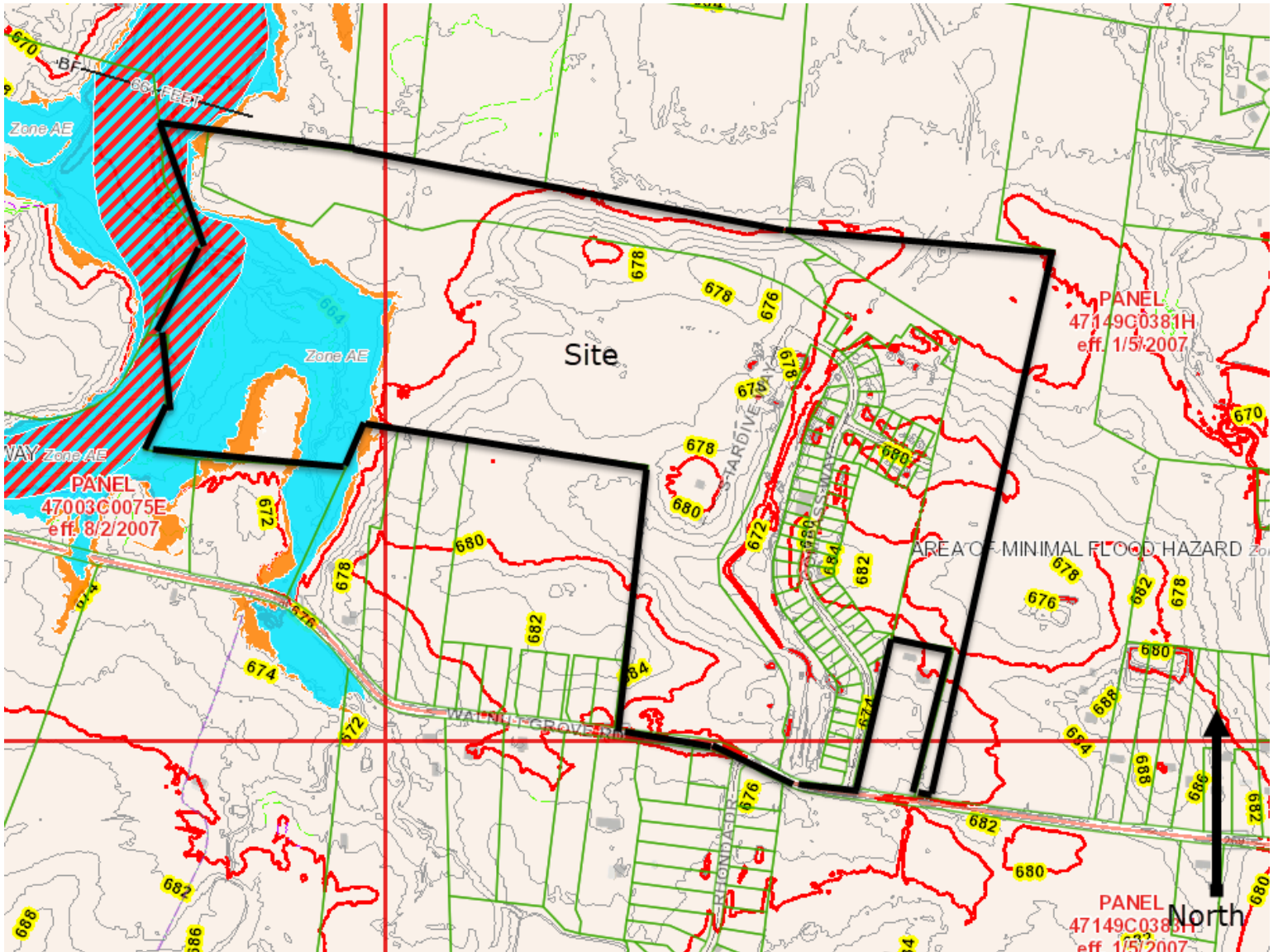
The division is responsible for regulating any activity, which involves a potential discharge in order to protect waters of the State from pollution and to maintain the highest possible standards in water quality.

## 2.0 Area of Review

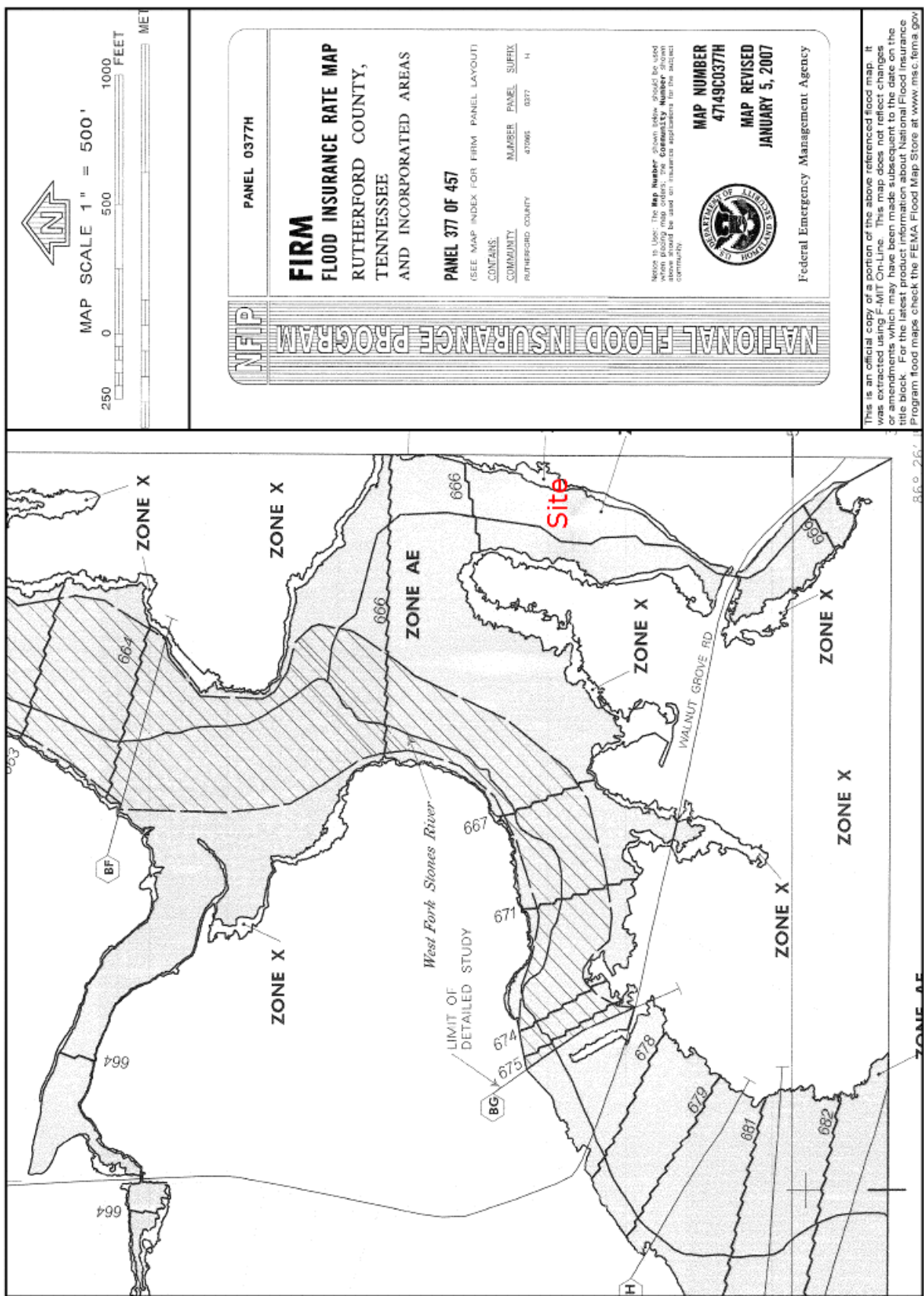


Area of Review





Rutherford County Topo Map



## FEMA MAP 100-Year Floodplain and Elevations

SEC Project No. 17038





**Aerial Map**

### 3.0 Groundwater General Description

The attached USGS maps indicate the Clearview Acres and Walnut Chase Subdivision wastewater treatment area drainage flow path is to the north and west and ultimately discharging into West Fork Stones River. See attached maps.

### 4.0 Population General Description

The majority of the Area of Review is agriculture land used primarily for row crop and pasture. See attached aerial map of property.

### 5.0 Nature of Fluid

Clearview Acres Subdivision and proposed Walnut Chase Sd (~305 residential lots) along with potential future commercial lot will have a peak design discharge of approximately 91,500 gpd of domestic wastewater.



## 6.0 General Location of Publicly Supplied Water



July 8, 2019

Mr. Ardavan Afrankhteh  
Land Development.com  
798 Old Hickory Boulevard  
Brentwood, TN 37027

Re: Walnut Chase  
At the east end of Blue Ash Way (in the Clearview Acres Subdivision) and adjacent to 906  
Walnut Grove Road on the east and north, Murfreesboro, TN  
Tax Map 159, Parcel 7.00 (portion of)  
Will Serve Letter – Water Only

Dear Mr. Ardavan Afrankhteh,

This "Will Serve Letter" is for the property identified above (hereafter "Developer/Development") which lies within the water service area of Consolidated Utility District of Rutherford County (hereafter "the District"). Based on the Water Service Availability Request provided to the District, your proposed project will create 37 single-family, residential lots. The District is advised that the project will be completed in one phase. The fire hydrant requirement submitted is 500 gpm and no fire sprinkler or irrigation requirements.

The District's water system currently has an eight (8) inch water main along Blue Ash Way which will be the main point of connection for the Development. **The current infrastructure should meet the domestic water and fire demands of the Development.** Fire demands are based on the fire hydrant and fire sprinkler requirements submitted. The Developer should verify current requirements with the appropriate local regulating body. If additional fire demands are required, an additional analysis must be completed to determine feasibility and availability of the additional demand before moving forward with the project. Exact details of the connections and water main size required throughout the Development will be determined in the design phase after construction plans are submitted and reviewed.

The District understands sewer service for this development will be provided by the existing decentralized wastewater system in Clearview Acres. The Developer should verify availability and requirements with the District's Senior Project Engineer, Jason Laxson at phone 615-867-7327 or at email [jlaxson@cudrc.com](mailto:jlaxson@ cudrc.com).

No public water improvements and/or extensions shall be approved or installed until all conditions are fulfilled as outlined in the District's Developer's Packet and are subject to payment by Developer of engineering and inspection fees. All water lines/facilities improvements needed to serve the property in question are to be installed by the Developer in accordance with the District's policies and procedures as outlined in the Technical Specifications of the District which can be found on our website or at our office.

This letter is specifically subject to the above conditions and such other terms and conditions as the District may require from time to time or at the time the water line improvements/upgrades are to be implemented and installed according to the District's requirements. This letter is intended only as a matter of "general information" and is not a contract between the parties. The letter shall not be considered an agreement or obligation of the District to provide water service to the Developer. In addition, there are or may be additional terms, requirements and conditions of the District to provide water service to the Developer which are not set forth or otherwise referred to in this letter.

In addition to the foregoing, if the Developer has not commenced development of the plans submitted to the District within one (1) year of the date of this letter, any approval(s) previously granted the Developer by the District shall automatically expire.

Please feel welcome to call or email if you have questions.

Sincerely,



*Alan Stuenkel, P.E.*  
*Director of Engineering*  
*Consolidated Utility District*  
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Fax: 615-225-3314  
Email: astuenkel@cudrc.com

Pc: Jamie Reed, P.E., SEC, Inc.  
William Dunnill, P.E., CUD General Manager  
Jimmy Hailey, P.E., James C. Hailey & Company

## 7.0 Description of System

Treated wastewater approximately 91,500 gpd is pumped through ultraviolet disinfection units and then distributed to HDPE drip lines with pressure compensating emitters. The drip lines are to be installed on 4-foot centers along the contours with the emitters spaced at 2-foot centers along the drip lines. Drip lines are plowed into the soils that have been approved by a certified soil scientist and placed at an approximate depth of 7-8 inches below the ground surface. Distribution of the treated wastewater is managed through solenoid valves and controlled by a programmable PLC.

### Daily Flow

Number of 3-BR Buildable Residential Lots	305 lots
Daily Flow for 3-BR	300 gpd/lot
Daily Flow	91500 gpd

### Land Application Area

Loading Rate (0.15 gal/sf)	91500 gpd
Total Area Required	610000 S.F.
	or 14.00 acres

### Number of Required Zones

Length per zone (@ 4' o.c.)	4620 L.F.
Number of Zones	33.0 Zones

### Land Reserve Area

50% of Application Area	7.00 acres
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Total Application and Reserve Area	21.01 acres
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### Sand Filter Size

5 gal/S.F./day	
91500 gpd	
Area Req'd	18300 S.F.
Use Filter No.	202.5' & 135' x55' filters

## 8.0 Nature and Type of System

Treated wastewater from the Clearview Acres and Walnut Downs Subdivision will first be pumped from numerous watertight septic tanks. Grey water is pumped from the septic tank via a small diameter pressure collection line to a recirculating sand filter (RSF). The wastewater will then cycle through the RSF 5 times before discharging into the final dose tank. From the final dose tank, the treated wastewater is pumped through an ultraviolet disinfection unit and then distributed through the drip dispersal lines within the approved soil site.

## 9.0 Schematic Flow Diagram

