Received in TPUC Docket Room on July 13, 2021.

21-00084

AquaGreen Utility Inc.

July 6, 2021

Honorable Kenneth Hill Chairman
Public Utility Commission
502 Deaderick Street, 4th floor
Nashville, TN 37243

RE: Petition to Amend Certificate of Convenience and Necessity

Dear Chairman Hill,

Aqua Green Utility Inc. desires to expand its service area to include a portion of Williamson County in Tennessee known as the Williamson County Recreation Center to be located on Bethesda Road near the intersection of Hwy 431. The attached Petition is in support of our request. A tariff sheet of our current commercial rate and other documentation is included for your consideration.

Aqua Green Utility Inc. has the financial capabilities to provide wastewater service for the Williamson County Recreation Center. Currently the financial surety provided by Aqua Green Utility Inc. is in the form of a letter of credit, rather than a bond. It should be noted that the amount is in excess of the minimum we are currently required to maintain. Also, an important consideration is that the letter of credit is fully backed by a certificate of deposit in which the utility collects interest, helping keep the rates down for our customers.

Aqua Green Utility Inc. has the technical expertise needed to operate the Williamson County Recreation Center. I have obtained a State of Tennessee Grade 1 Wastewater Collection System Operator License and a State of Tennessee Biological/Natural Operator Treatment System Operator License. Through our affiliate company, we have designed and will construct a treatment plant that is the same type of operation as our other plants.

Aqua Green Utility Inc. has the managerial capability to operate the Williamson County Recreation Center. The utility has successfully operated since July 2009 with no complaints from our customers. Our surety amounts have steadily increased. We have a established a billing system in which each payment and envelope is scanned to eliminate mistakes as much as possible and verify payments if needed. Our treatment plants report problems to our technicians and report data to a central computer. If a plant does not report that information, an email is sent to our technicians. This type of management system assures that even if a plant has a total failure, we will know and take appropriate action in a timely fashion.

There is a need for our service since there is no municipal sewage available in this area. The Mayor of Williamson County has requested Aqua Green Utility to provide service to the recreation center. Aqua Green Utility would like to include the capitol contribution amount of $319,485.00 which includes the sewer treatment plant and the lift station. We have included the contracts that show the land will be titled to Aqua Green Utility before work begins.

Thank you for your consideration.

Sincerely,

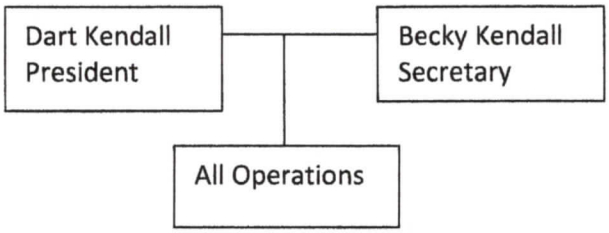
Dart Kendall, President
Aqua Green Utility Inc.

AquaGreen Utility Inc.

General Information:

Aqua Green Utility Inc. A Tennessee "C" Corporation
865-908-0432
3350 Galts Road
Acworth, GA 30102
Website: aquagreenutility.com

Aqua Green Utility Inc. has 2 officers



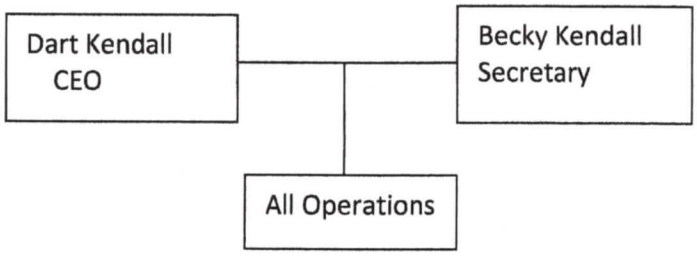
Dart Kendall
President

Dart Kendall owns 50% of Aqua Green Utility Inc.
770-966-7772
3350 Galts Rd
Acworth, GA 30102

Becky Kendall
Secretary

Becky Kendall owns 50% of Aqua Green Utility Inc.
770-966-7772
3350 Galts Rd
Acworth, GA 30102

Dart Kendall and Becky Kendall own 50% each of Advanced Septic Inc. Advanced Septic Inc is a private corporation that contracts with the owner to build the treatment plant. Aqua Green Utility Inc. does not pay any monies to Advanced Septic Inc. for any part of the construction of the plant. After the plant is complete, Aqua Green Utility Inc. subcontracts some of the work for the operation of the plant to Advanced Septic Inc. Advanced Septic Inc. will do quarterly TDEC required water testing or repairs as needed.



Aqua Green Utility Inc. has no assumed names.

The Bethesda Road Williamson County Recreation Center will be located near the corner of Lewisburg Pike and Bethesda Road in Williamson County, Tennessee. A physical address has yet to be assigned. Lat 35-47' 20.19" N - Longitude -86 49' 59.66" W. There are currently no structures built to be serviced by this plant. This plant addition will be built as phase 2. The plant's name is Bethesda Road. The approximate site acreage is 59 acres for the Fairhaven Subdivision and 44.22 acres for the Williamson County Recreation Center addition. The entire plant and drip fields will be on the Fairhaven site. Aqua Green Utility Inc. will be responsible for the system from the lift station located on the property line. The Recreation Center will be responsible for all sewer piping and any needed grease traps on their property. The approximate utility owned acreage will be 5 acres.

The type of wastewater plant to be built is a trickling filter type. This will be a Programmable Logic Controller with custom software. The treated wastewater will be disposed of through drip irrigation. The plant is designed for 14,700 gallons per day or .0147 MGD. This addition will add an additional 18,490 gallons per day, with a total of .0331 MGD. The construction of phase one is expected to start as soon as the title to the land is transferred. Phase 2, the Recreation Center, is expected to start within one week of receiving approvals. It is estimated to take 120 days to build this plant and 45 more days to build phase 2. The developer plans for completion in the 1st qtr. of 2022. We expect the wastewater plant to be put in service in the 2nd qtr. of 2022. Once complete, the plant will be put in service as soon as the first home is completed and sold. When enough sewage has entered the plant, we will start operation, 49 lots are planned.

This plant will be built in 2 phases, 49 Homes are phase 1 and the Recreation Center is Phase 2.

The developer for this project is Bethesda Road LLC (Kenneth R Green, 615-429-1610, kengreen@me.com), best mailing address is Suite # 105, 8119 Isabela Ln, Brentwood Tennessee 37064. The site superintendant has yet to be assigned. The developer is paying for the addition of phase 2, then he will be reimbursed by Williamson County.

Aqua Green Utility Inc has no franchise agreement with Williamson County.

Managerial Ability

Dart Kendall, president, has 38+ years owning his own business. In the state of TN he holds a BNS sewage treatment plant operators license and a sewage collection system operators license. Also he holds a Georgia Sewer treatment plant operators license.

Rebecca Kendall, secretary, has 22+ years in the wastewater business and 16 years prior to that working as a merchandising manager for Milliken and Co. in which she managed several different divisions. She is also a 1980 graduate of Clemson University who graduated with honors.

Aqua Green Utility is certified as a wastewater provider in the state of TN.

Aqua Green Utility does not have any pending mergers or acquisitions.

Advanced Septic Inc., the party contracted to install the proposed system, has a valid and current contractor's license by the applicable licensing board of the State of TN. Dart Kendall holds a Collection Systems 1 license, included.

For any technical questions or concerns, please contact Dart Kendall at 865-908-0432.

Aqua Green Utility reported one permit violation to TDEC on the Loves McNairy plant for the first BOD reading in the first quarter of operation. The plant has since met required standards. A recent TDEC plant inspection is included. It is expected for a fixed film plant (type required by TDEC) to take time to grow the microbial load necessary to treat larger loads. The truck stop hit it's full load in a few weeks. Even then, the BOD reading was 3 times less than a standard septic tank and all water was injected into the drip field soil. Normally subdivisions take many months to reach flows of any size, so we don't expect to see a surge in pollutants like would be expected at a truck stop.

A engineering report is included.

This information is from my CPA
It would be considered nonresidential real estate, which is depreciated over 39 years. The first year the rate depends on what month it goes into service, but after the first year it's 2.564% (ie $10,174). See this table for year 1 and year 40 rate (from pub 946):

Table A-7a Nonresidential Real Property
Mid-Month Convention
Straight Line—39 Years

Year	Month property placed in service											
	1	2	3	4	5	6	7	8	9	10	11	12
1												
2-39												
40												

The cost of the plant will be paid by the developer. The plant and drip fields will already be deeded to the utility, per the Bethesda subdivision contract. These details and how capitol contribution cost for federal taxes and state taxes will be calculated at the time of payment and are included within the confidential contract.

We have included a confidential letter of credit surety and escrow account.

We have 2 commercial customers, 15 monthly and 147 annual access fee customers.

The Developer will pay for all construction of the system and then the Utility will assume operations. Costs are listed in the confidential contract.

SOP application is included.

We do not have any bonding requirements.

The developer and Williamson County is the only funding source for this project.

Sincerely,

Dart Kendall, President
Aqua Green Utility Inc.

Williamson County TENNESSEE Online Internet Mapping

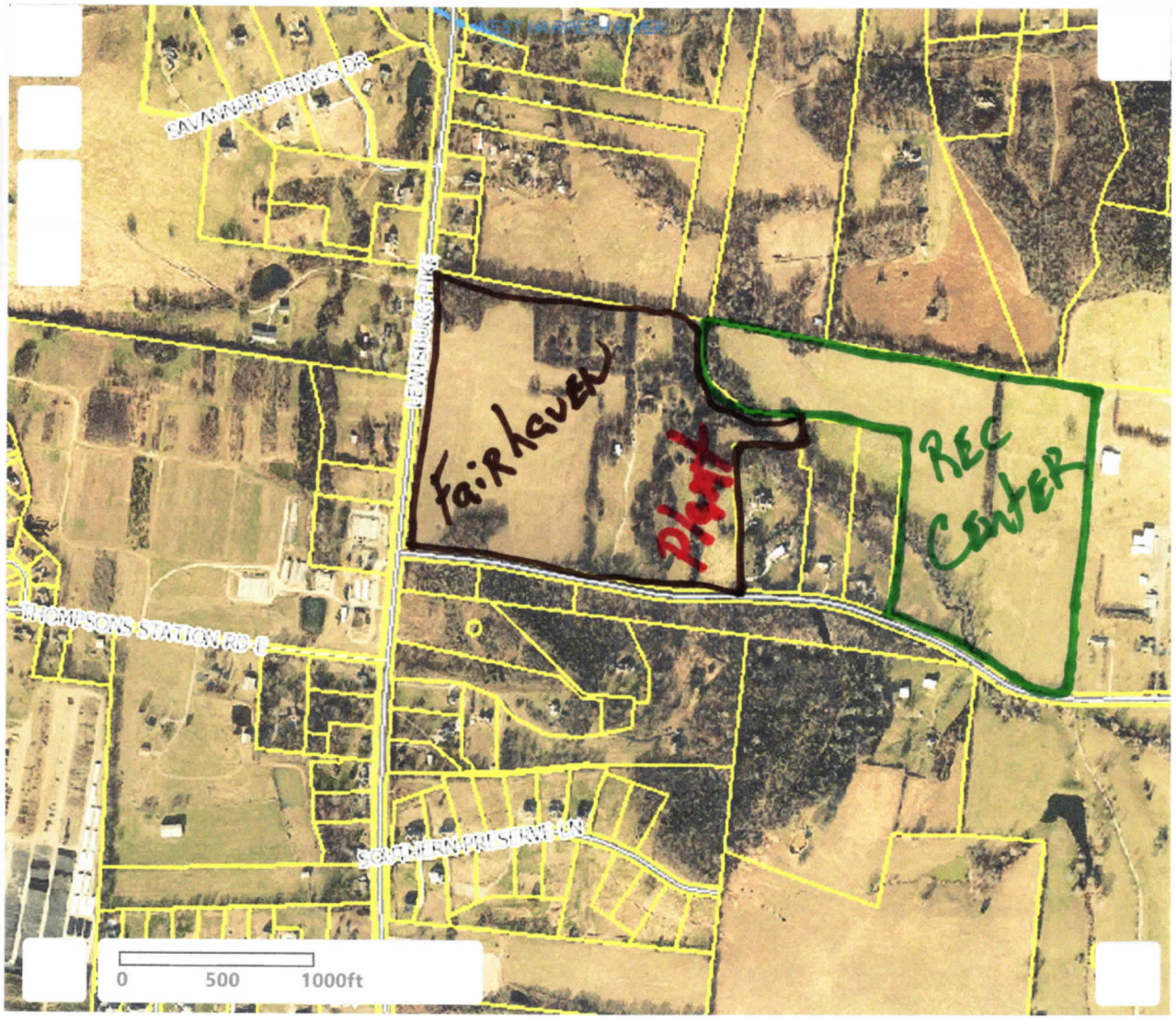
Search... Sign in

Navigation Tasks Analysis

Pan Zoom In Zoom Out Initial View Point

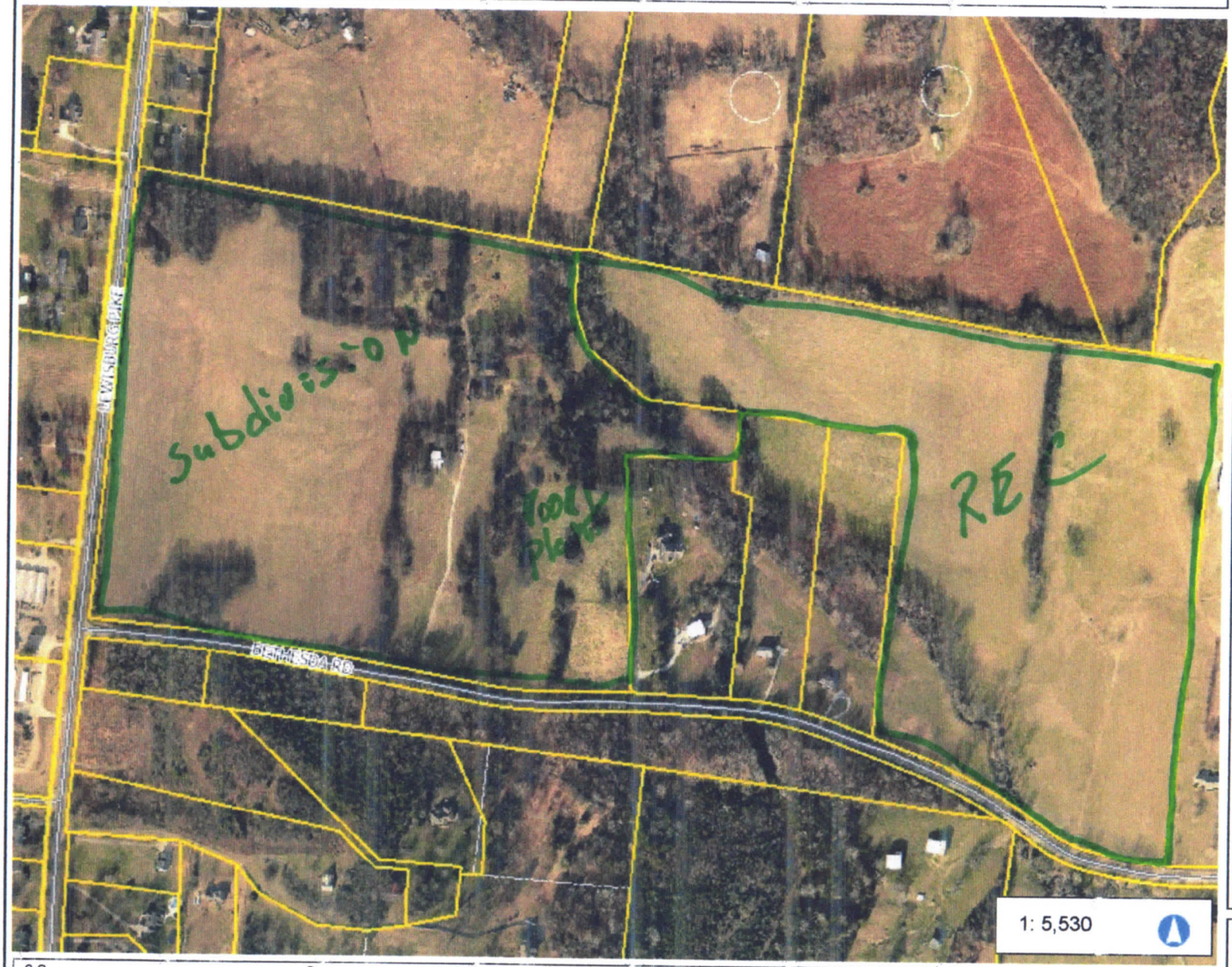
Layers

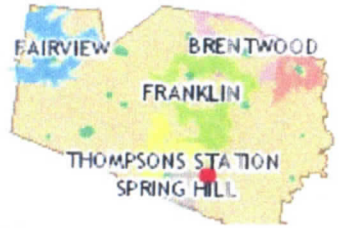
- [x] Williamson County Map
  - [ ] Zones
  - [ ] 2013 Zoning Designations
  - [ ] 1988 Zoning Designations
  - [ ] Vote Centers
  - [x] Parcels
    - [x] Parcel Numbers
    - [x] Parcel Acreage
    - [x] Subdivision Name
    - [x] Parcel Dimensions
    - [x] Lot Numbers
    - [x] Lot Acreage



Geocortex Essentials for ArcGIS Server

Tools & Features Demonstration Site





Legend

- Parcels
- Notes
- Miscellaneous
- Easement
- Exemptions
- Conflicts
- Lines
- Corporate Limits
  - BRENTWOOD
  - FAIRVIEW
  - FRANKLIN
  - NOLENSVILLE
  - SPRING HILL
  - THOMPSONS STATION
- Parks
- Centerlines
  - <all other values>
  - INTERSTATE
  - ACCESS
  - LOCAL STREETS
  - MAJOR ARTERIA
  - MAJOR COLLECTOR
  - MINOR ARTERIAL
  - MINOR COLLECTOR
  - NO NAME
  - UNCLASSIFIED

Notes

0.2 0 0.09 0.2 Miles

NAD_1983_StatePlane_Tennessee_FIPS_4100_Feet

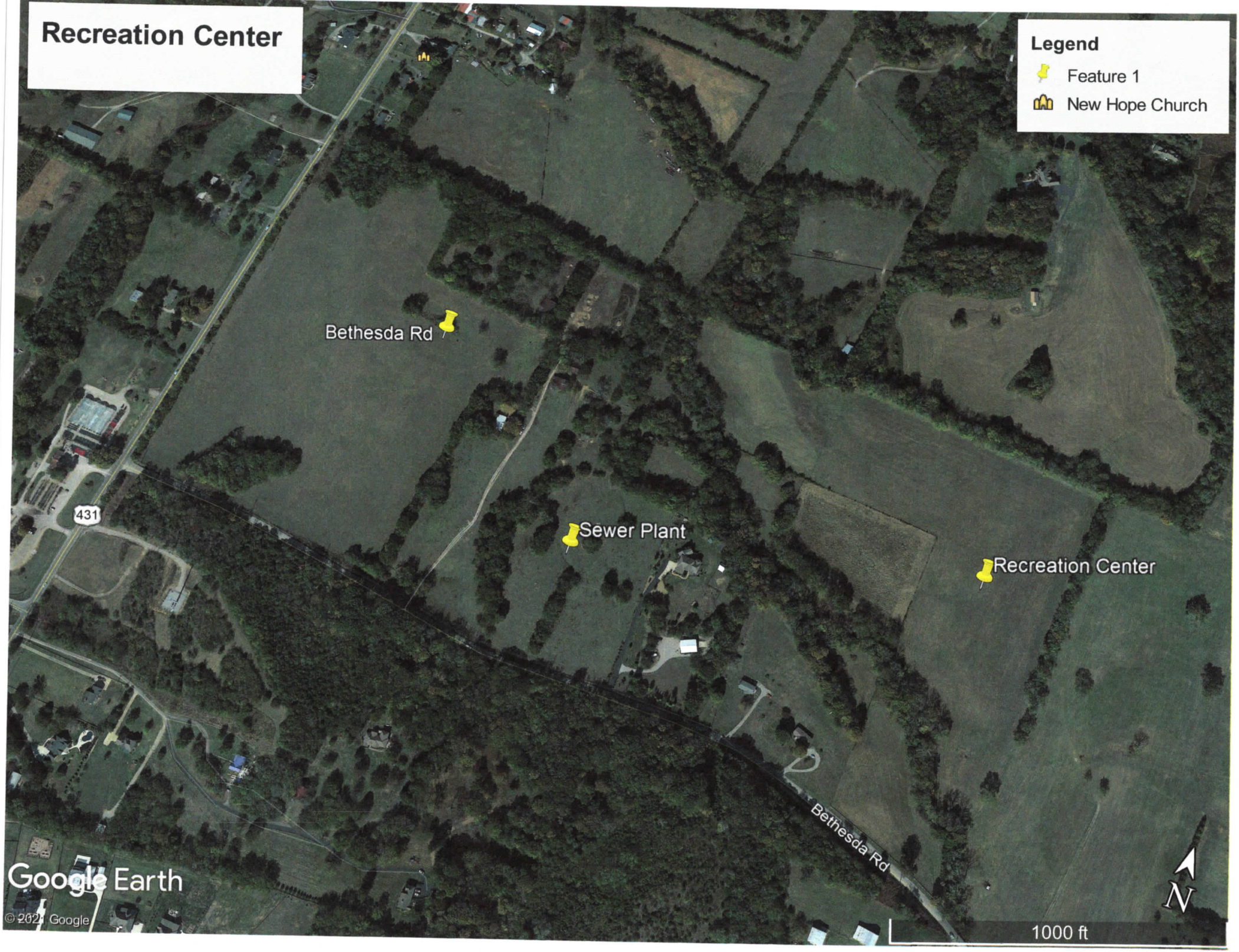
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

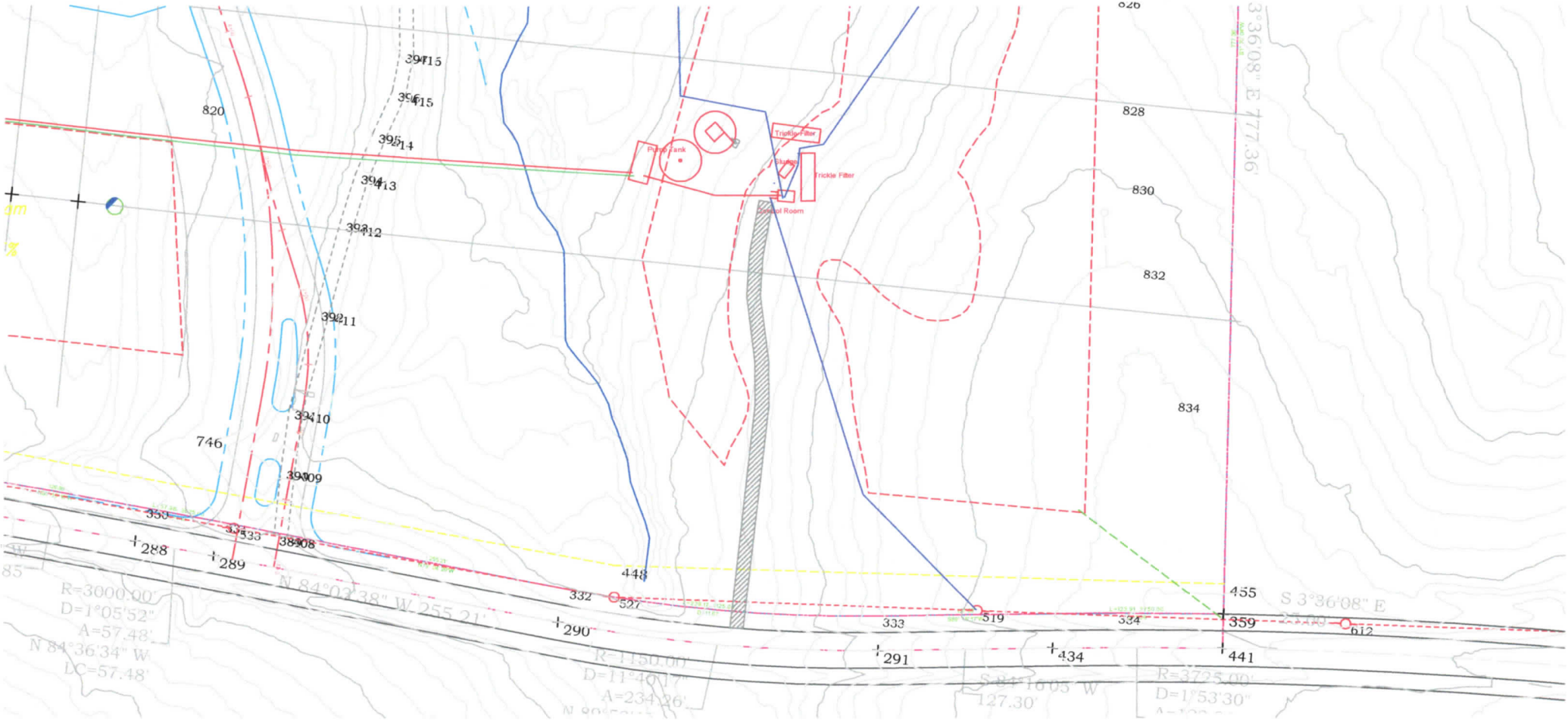
THIS MAP IS NOT TO BE USED FOR NAVIGATION

https://www.google.com/maps/@35.7927393,-86.8364335,15.7

MapQuest

Williams County Rec centert


Recreation Center
Legend
Feature 1
New Hope Church
Bethesda Rd
Sewer Plant
Recreation Center
431
Bethesda Rd
Google Earth
© 2021 Google
N
1000 ft


826
828
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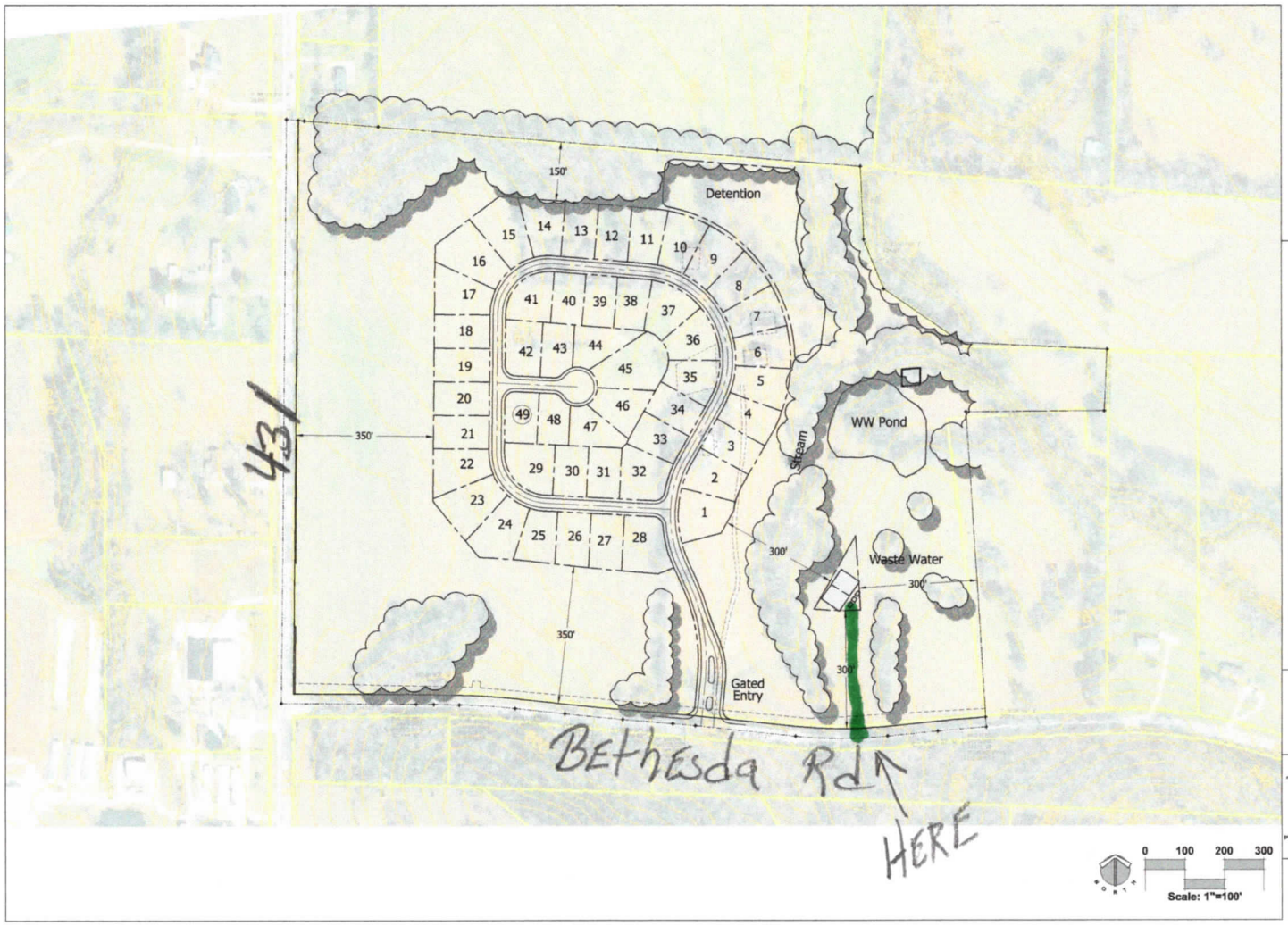
Pump Tank
Trickling Filter
Sludge
Trickle Filter
Control Room
288
289
290
291
333
334
359
434
441
448
455
519
527
612
N 84°02'38" W 255.21'
S 3°36'08" E 777.36'
S 3°36'08" E
R=3000.00'
D=1°05'52"
A=57.48'
N 84°36'34" W
LC=57.48'
R=1150.00'
A=234.26'
S 84°16'05" W
127.30'
R=3725.00'
D=1°53'30"

4620 Bethesda Rd



Gravel Drive to
Service Sewer Facility

State of Tennessee

369407 I2230312

BOARD FOR LICENSING CONTRACTORS

CONTRACTOR

ADVANCED SEPTIC INC.

This is to certify that all requirements of the State of Tennessee have been met.

ID NUMBER: 75143
LIC STATUS: ACTIVE
EXPIRATION DATE: July 31, 2022
$500,0000.00; MU-A

IN-1313
DEPARTMENT OF
COMMERCE AND INSURANCE

Control Number : J512809

STATE OF GEORGIA

Secretary of State

Corporations Division
313 West Tower
2 Martin Luther King, Jr. Dr.
Atlanta, Georgia 30334-1530

CERTIFICATE OF EXISTENCE

I, **Brad Raffensperger**, the Secretary of State of the State of Georgia, do hereby certify under the seal of my office that

ADVANCED SEPTIC, INC.
a **Domestic Profit Corporation**

was formed in the jurisdiction stated below or was authorized to transact business in Georgia on the below date. Said entity is in compliance with the applicable filing and annual registration provisions of Title 14 of the Official Code of Georgia Annotated and has not filed articles of dissolution, certificate of cancellation or any other similar document with the office of the Secretary of State.

This certificate relates only to the legal existence of the above-named entity as of the date issued. It does not certify whether or not a notice of intent to dissolve, an application for withdrawal, a statement of commencement of winding up or any other similar document has been filed or is pending with the Secretary of State.

This certificate is issued pursuant to Title 14 of the Official Code of Georgia Annotated and is prima-facie evidence that said entity is in existence or is authorized to transact business in this state.

Docket Number	: 19216625
Date Inc/Auth/Filed	: 08/12/1985
Jurisdiction	: Georgia
Print Date	: 06/24/2020
Form Number	: 211

Brad Raffensperger

Brad Raffensperger
Secretary of State

Secretary of State
Division of Business Services
312 Eighth Avenue North
6th Floor, William R. Snodgrass Tower
Nashville, Tennessee 37243

DATE: 10/27/08
REQUEST NUMBER: 6392-1554
TELEPHONE CONTACT: (615) 741-2286
FILE DATE/TIME: 10/24/08 1251
EFFECTIVE DATE/TIME: 10/24/08 1251
CONTROL NUMBER: 0589191

TO:
AQUA GREEN UTILITY, INC.
3325 BUCKHORN ROAD

SEVIERVILLE, TN 37864

RE:
AQUA GREEN UTILITY, INC.
CHARTER - FOR PROFIT

CONGRATULATIONS UPON THE INCORPORATION OF THE ABOVE ENTITY IN THE STATE OF TENNESSEE, WHICH IS EFFECTIVE AS INDICATED.

A CORPORATION ANNUAL REPORT MUST BE FILED WITH THE SECRETARY OF STATE ON OR BEFORE THE FIRST DAY OF THE FOURTH MONTH FOLLOWING THE CLOSE OF THE CORPORATION'S FISCAL YEAR. ONCE THE FISCAL YEAR HAS BEEN ESTABLISHED, PLEASE PROVIDE THIS OFFICE WITH THE WRITTEN NOTIFICATION. THIS OFFICE WILL MAIL THE REPORT DURING THE LAST MONTH OF SAID FISCAL YEAR TO THE CORPORATION AT THE ADDRESS OF ITS PRINCIPAL OFFICE OR TO A MAILING ADDRESS PROVIDED TO THIS OFFICE IN WRITING. FAILURE TO FILE THIS REPORT OR TO MAINTAIN A REGISTERED AGENT AND OFFICE WILL SUBJECT THE CORPORATION TO ADMINISTRATIVE DISSOLUTION.

WHEN CORRESPONDING WITH THIS OFFICE OR SUBMITTING DOCUMENTS FOR FILING, PLEASE REFER TO THE CORPORATION CONTROL NUMBER GIVEN ABOVE. PLEASE BE ADVISED THAT THIS DOCUMENT MUST ALSO BE FILED IN THE OFFICE OF THE REGISTER OF DEEDS IN THE COUNTY WHEREIN A CORPORATION HAS ITS PRINCIPAL OFFICE IF SUCH PRINCIPAL OFFICE IS IN TENNESSEE.

FOR: CHARTER - FOR PROFIT ON DATE: 10/24/08

FROM:
ACCOUNTING & TAX SPECIALISTS
315 W. PONCE DE LEON
AVE. STE-810
DECATUR, GA 30030-0000

	FEES	
RECEIVED:	$100.00	$0.00
TOTAL PAYMENT RECEIVED:		$100.00

RECEIPT NUMBER: 00004490439
ACCOUNT NUMBER: 00580583

SS-4458

Riley C. Darnell

RILEY C. DARNELL
SECRETARY OF STATE

State of Tennessee

Department of State
Corporate Filings
312 Eighth Avenue North
6th Floor, William R. Snodgrass Tower
Nashville, TN 37243

CHARTER
(For-Profit Corporation)

FILED
2008 OCT 24 PM 12:51
SECRETARY OF STATE

The undersigned acting as incorporator(s) of a for-profit corporation under the provisions of the Tennessee Business Corporation Act adopts the following Articles of Incorporation.

1. The name of the corporation is:
AQUA GREEN UTILITY, INC.

[NOTE: Pursuant to Tennessee Code Annotated § 48-14-101(a)(1), each corporation name must contain the words *corporation, incorporated,* or *company* or the abbreviation *corp., inc.,* or *co.*]

2. The number of shares of stock the corporation is authorized to issue is: 1000

3. The name and complete address of the corporation's initial registered agent and office located in the State of Tennessee is:
Ronald Barnes
(Name)
3325 Buckhorn Road — Sevierville — TN
(Street Address) — *(City)* — *(State/Zip Code)*
Sevier
(County)

4. List the name and complete address of each incorporator:
Charles Campbell 315 W Ponce de Leon Ave. Ste. 810 Decatur, GA. 30030
(Name) *(Include: Street Address, City, State and Zip Code)*
(Name) *(Street Address, City, State and Zip Code)*
(Name) *(Street Address, City, State and Zip Code)*

5. The complete address of the corporation's principal office is:
3325 Buckhorn Road — Sevierville — TN. 37864
(Street Address) — *(City)* — *(State/County/Zip Code)*

6. The corporation is for profit.

7. If the document is not to be effective upon filing by the Secretary of State, the delayed effective date and time are:
Date _____, _____, Time _____ (Not to exceed 90 days.)

8. Other provisions:
None

October 20, 2008
Signature Date

Charles Campbell
Incorporator's Signature

Charles Campbell
Incorporator's Name *(typed or printed)*

SS-4417 (Rev. 9/04) — Filing Fee: $100 — RDA 1678

528 154

Business Entity Detail

Available Entity Actions

File Annual Report (after 12/01/2021)

Certificate of Existence

More

Entity details cannot be edited. This detail reflects the current state of the filing in the system.

Return to the Business Information Search.

000589191: For-profit Corporation - Domestic

Printer Friendly Version

Name: AQUA GREEN UTILITY, INC.

Status: Active
Formed in: TENNESSEE
Fiscal Year Close: December
Term of Duration: Perpetual
Principal Office: 3350 GALTS RD
ACWORTH, GA 30102-1132 USA
Mailing Address: 3350 GALTS RD
ACWORTH, GA 30102-1132 USA
AR Exempt: No
Shares of Stock: 1,000

Initial Filing Date: 10/24/2008
Delayed Effective Date:
AR Due Date: 04/01/2022
Inactive Date:

Obligated Member Entity: No

Assumed Names | History | Registered Agent

Name	Status	Expires
No Assumed Names Found...		

Engineering Report
Permit Modification
State Operating Permit
20016
WPN 20.0482

Bethesda Road
Phase 2 – Rec. Center

Prepared For:
Aqua Green Utility Inc.

Prepared By:

FES Consulting
Bob Faulhaber - P.E.
June 6, 2021

Project Description

The project is a new, recreational center in Williamson County, TN. The rec. center is being constructed adjacent to a proposed 49 lot subdivision on Bethesda Road. The Bethesda Road subdivision will be serviced by a decentralized wastewater system with drip dispersal of effluent in onsite soils. The subdivision is covered by State Operating Permit (SOP) 20016 (WPN 20.0482). The rec center wastewater will be treated by modification to this plant under this SOP. The alterations and additions to this SOP are described below.

Wastewater System Description

The system servicing the recreational center will include a septic/settling tank, equalization tank and trickle filter. The treated effluent will be pumped via a dosing tank at Phase 1 to the drip fields located in the Bethesda Road subdivision (Phase 1). A description of each component and the conveyance method for the effluent between the components is included below. Further detail is provided on the attached drawings as well.

1. **Pump/Lift Station** – The untreated effluent from the recreational center will drain to a Duplex lift station. The lift station will be constructed of a 48" concrete manhole with duplex Goulds pumps (note 9). The pump station will pump the effluent to a bar screen on top of the settling/septic tank located near the treatment plant.

2. **Settling/septic Tank** – The treatment plant will include a 50,000 gallon water tight concrete settling/septic tank for primary treatment and screening and settling of solids. Wastewater from the rec center will be pumped over a bar grate to remove large solids and trash from the wastewater prior to entering the tank. Screened solids and sludge from the primary tank will be pumped to a sludge tank that is a part of the phase 1 (WPN 20.0482) system. Effluent from the settling/septic tank will flow to an equalization tank via gravity PVC line with filter bags to screen additional (smaller) solids prior to the eq tank.

3. **Equalization Tank** – A 50,000 gallon water tight concrete equalization tank will be used to balance high wastewater flows during peak use periods at the recreational center. Pumps in the equalization tank will pump effluent to the trickle filter for secondary treatment. The volume of the equalization tank will allow consistent flow distribution at the trickle filter.

4. **Secondary treatment** - The proposed secondary treatment system is an attached growth (fixed film), trickling filter. The trickle filter will utilize manufactured media. The media will be placed in a poured in place concrete chamber approximately 9' deep to form the attached growth (fixed film) treatment unit. The system will include a 460 CFM fan. Anticipated BOD loading of 15 lbs/day requires approximately 50 CFM. Following treatment the effluent will gravity flow through a 6" PVC line to the dosing tank.

5. **Dosing Tank** – Treated effluent will flow to the dosing tank that is a part of the phase 1 system permitted under WPN 20.0482.

6. **Drip Field** – The drip field will be enlarged and moved to alternative soils to service both the Bethesda Road subdivision and the Recreational center. The drip irrigation field is divided into zones and each zone has a solenoid valve to allow the effluent to enter the zone. The PLC has a timer set for each zone to control flow. Once in the soil, the

microbes in the soil and plants uptake nutrients to complete the treatment process. Each zone has air vacuum breaker vents at the high points of the zone, so when effluent drains at the end of a pump cycle the soil and debris will not be drawn into the drip tube emitters. Each zone is connected to a return line through a one way check valve that goes back to a valve box located at the dosing tank. In the large valve box there is a normally closed motorized ball valve in the return pipe connected to the lower sewer inlet line. Once the system has stopped pumping the valve opens and the remaining effluent is returned to the pump tank.

The drip field will utilize 0.61 GPH Netafim drip tubing installed in the mapped Stiversville – Armour, Nolin-Armour and Swafford soils. Drip tubing will be installed at a depth of 7". The drip tubing will follow the ground contours to keep each line of drip tubing level and will be installed at 2' – 5' centers. The target spacing for the drip tubing will be 2' on center, but may be adjusted slightly to account for change in contour and slope (keeping the tubing level will take precedent over maintaining strict 2' spacing). Drip tube pacing will not exceed 5' (as required by Chapter 17 of the design guide) nor be less than 2 ft on center. Thirteen zones will be set up for the drip fields, for a total of 144,904 of soil provided (approximately 138,291 sf of soil is required).

Wastewater Flow

The wastewater flow rate is based on the TDEC standard 300 gpd/lot for residential use and anticipated usage at the recreational center. When built out the subdivision will include 49 residential lots for a total of 14,700 GPD. The recreational center will produce approximately 18,490 GPD.

Daily Flow - 33,190 GPD

Secondary Treatment System Design – subdivision (previously permitted)

Secondary treatment will be achieved through the use of a trickling filter. The trickling filter will utilize synthetic cross flow media. The media will be placed to a depth of 7' with a surface area of approximately 332 ft^2 and a volume of approximately 2,324 ft^3. The synthetic media will provide approximately 48 ft^2/ft^3 of filter surface area (compared to 15 ft^2/ft^3 for rock media) for a total effective treatment area of approximately 111,552 ft^2. The minimum hydraulic loading rate will 44 GPD/ft^2. This places the system well within the loading rates for industry standard low rate trickling filters for municipal applications based on hydraulic loading rate and organic loading rate. Data for the trickling filter is provided below.

Influent flow rate (max)	-	**14,700 GPD**
Influent BOD_5	-	**120 mg/L**
Filter Bed Area	-	**332 ft^2**
Specific Area of filter media	-	**48 ft^2/ft^3**
Filter volume	-	**2,324 ft^3**
Hydraulic Loading Rate*	-	**44 GPD/ft2**
Organic Loading Rate**	-	**6.3 lb BOD5 /1000 ft3 day**
Wetting Rate	-	**0.1 GPM/ft2**

*based on no recirculation and filter bed surface area
**based on filter volume and 120 mg/l BOD (0.001 lb/g)

Secondary Treatment System Design – recreation center (permit modification)

Secondary treatment will be achieved through the use of a trickling filter. The trickling filter will utilize synthetic cross flow media. The media will be placed to a depth of 7' with a surface area of approximately 332 ft^2 and a volume of approximately 2,324 ft^3. The synthetic media will provide approximately 48 ft^2/ft^3 of filter surface area (compared to 15 ft^2/ft^3 for rock media) for a total effective treatment area of approximately 111,552 ft^2. The minimum hydraulic loading rate will 56 GPD/ft^2. This places the system well within the loading rates for industry standard low rate trickling filters for municipal applications based on hydraulic loading rate and organic loading rate. Data for the trickling filter is provided below.

Influent flow rate (max)	-	**18,490 GPD**
Influent BOD_5	-	**120 mg/L**
Filter Bed Area	-	**332 ft^2**
Specific Area of filter media	-	**48 ft^2/ft^3**
Filter volume	-	**2,324 ft^3**
Hydraulic Loading Rate*	-	**56 GPD/ft2**
Organic Loading Rate**	-	**7.9 lb BOD5 /1000 ft3 day**
Wetting Rate	-	**0.1 GPM/ft2**

*based on no recirculation and filter bed surface area
**based on filter volume and 120 mg/l BOD (0.001 lb/g)

Soils

The Stiversville – Armour, Nolin-Armour and Swafford soils series will be used for drip dispersion.

Wastewater Soil Loading

Hydraulic Loading Rate

The design hydraulic loading rate for the soil is 0.25 GPD/SF

Nitrate Loading Rate

The Nitrate Loading Rate was calculated using Equation 17-2 from TDEC's *Design Guidelines for Wastewater Dispersal Using Drip Irrigation*. The precipitation, potential evapotranspiration, nitrogen fraction removed by denitrification/volatilization, and the maximum nitrate concentration in the leachate are all taken from chapter 16 of the TDEC regulations. The Annual Uptake Rate for Crops is based on trees, which will be planted in the drip field. A Spreadsheet with Nitrate Loading Calculations is attached to this report.

Lwn = 0.24 GPD/SF (see attached spreadsheet)

Design/Controlling Loading Rate

The design loading rate and required soil area is shown below

Soil Type	Controlling Loading Rate	Design Flow Rate	Required Soil Area
Stiversville – Armour, Nolin-Armour and Swafford soils	0.24 GPD/SF	33,190 GPD	138,291 SF

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
JACKSON ENVIRONMENTAL FIELD OFFICE
1625 HOLLYWOOD DRIVE
JACKSON, TENNESSEE 38305-4316
PHONE (731) 512-1300 STATEWIDE 1-888-891-8332 FAX (431) 661-6283

July 1, 2020

Mr. Dart Kendall
e-copy: dart@aquagreenutility.com
Aqua Green Utility, Inc.
3350 Galts Road
Acworth, GA 30102

RE: Compliance Evaluation Inspection (CEI)
Aqua Green Utility, Inc. (McNairy Loves)
State Operating Permit SOP-16009
Henderson County

Dear Mr. Kendall:

On June 18, 2020 I performed a routine compliance evaluation inspection (CEI) at the above referenced facility in order to evaluate compliance with your State Operating Permit (SOP). Please see the sections below for details regarding the inspection.

I. Permit

The permit covers the treatment and subsurface disposal of wastewater from the Love's Travel Stop in Eastview, McNairy County, Tennessee. Effluent from the treatment system is disposed of using a three-zoned drip irrigation system located on site. The system capacity is rated at 0.006 MGD.

II. Records/Reports

A review of the facility's self-monitoring records was performed. Monitoring records were available upon request, consistently submitted to the local TDEC-DWR Environmental Field Office, accurately transcribed, complete and current. The lone exception being 1 missed BOD5 analysis caused by a receiving error at a contract laboratory.

III. Facility Site Review, Self-Compliance Program, Operations & Maintenance, and Sanitary Sewer Overflows

The plant process is described as a primary solids separator tank, fixed film trickle filter, sludge holding tank and fenced drip irrigation system. The treatment plant and drip irrigation system are both properly operated and maintained. The system is currently operated under the license of Dart Kendall, certification

level BNS. The plant has experienced no hydraulic or organic overloads since the development of a sufficiently thick biofilm on the reactor shortly after system startup.

IV. Flow Measurement

The effluent flow measurements are based on pump run times. Pump flows are periodically calibrated using a "timed run verses volume" method.

V. Laboratory

Self-monitoring samples are subcontracted to Pace Analytical. The subcontract laboratory was not evaluated as part of this inspection.

VI. Sludge Handling/Disposal (or Biosolids Handling/Disposal)

Septage is currently being pumped by Roger's Septic Service (Savannah TN) on an as need basis. Septage is disposed on the Roger's Septic approved land application site located on Hwy 203 in Savannah, TN.

VII. Additional Comments and Recommendations

Site inspections are currently being conducted by the operator at least every 14 days. Results of these inspections are document on the monthly operations report and submitted to the Jackson Environmental Field Office. Additionally, the plant is continuously monitored by a real-time internet-based telemetry system. Please be advised that changes to monitoring frequency may be approved by the division upon submittal of an operating and maintenance inspection schedule in accordance with the general requirements of the permit.

VIII. Conclusion

Compliance with the requirements of the SOP helps ensure there will be no unpermitted discharge of wastewater to any surface stream or other location where it is likely to enter surface waters. Thank you for your efforts to ensure permit compliance and protect state water quality. If I may be of assistance in matters concerning this report, please contact me via telephone at (731) 512.1312 or via email at bradley.e.smith@tn.gov.

Sincerely,

Bradley E. Smith

Bradley Smith
Environmental Consultant I
Division of Water Resources
Jackson Environmental Field Office

cc: Conner Franklin, DWR Program Coordinator, JEFO (via email)
Tammy Miller, DWR Jackson EFO (via email)
Anastasia Sharp, DWR Land-Based Systems Unit, Nashville (via email)

Division of Water Resources
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102
(615) 532-0625

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):	Aqua Green Utility Inc. 3350 Galts Rd Acworth GA 30102
Permittee Address:	3350 Galts Rd Acworth GA 30102

Official Contact: Dart Kendall	Title or Position: President		
Mailing Address: 3350 Galts Rd	City: Acworth	State: GA	Zip: 30102
Phone number(s): 865 908 0432	E-mail: dart@aquagreenutility.com		

Optional Contact:	Title or Position:		
Address:	City:	State:	Zip:
Phone number(s):	E-mail:		

Application certification (must be signed in accordance with the requirements of Rule 0400-40-05-.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. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Name and title; print or type	Signature	Date
Dart Kendall President		5 4 2021

Permit Number: SOP-_____

Engineering Report (required for collection systems and/or land application	☐ N/A

☐ Prepared in accordance with Rule 0400-40-05-.03 and Section 1.2 of the State of Tennessee Design Criteria for Sewage Works
☐ Attached, or
☐ Previously submitted and entitled: Approved? ☐ Yes. Date: ☐ No
Operation and Maintenance Inspection Schedule Submitted:
Approved? ☐ Yes. Date: ☐ No

Wastewater Collection System: ☐ N/A

System type (i.e., gravity, low pressure, vacuum, combination, etc.): Gravity to lift Sys

System Description: Rec Gravity to lift station to treatment plant

Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): 20 KW Diesel Generator

In the event of a system failure describe means of operator notification: PLC email & text

List the **emergency** contact(s) (name/phone): Dart Kendall 404-557-3170

For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)? Aqua Green Utility 865-908-0432

Approximate length of sewer (excluding private service lateral): Force Main 1100'

Number/hp of lift stations: 1 / 3HP Number/hp of lift pumps 2 / 3HP

Number/volume of low pressure and or grinder pump tanks NA /
Number/volume septic tanks 1 / 50,000 Gallons

Attach a schematic of the collection system. ☒ 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):

Tie-in Point	Latitude (xx.xxxx°)	Longitude (xx.xxxx°)

Permit Number: SOP-_____

Facility Identification:	**Existing Permit No.**
Facility Name: Bethesda Rd	County: Williamson
Facility Address or Location:	Latitude: 35° 47' 22.90 N
	Longitude: 86° 50' 20.92 W

Name and distance to nearest receiving waters: 400' West Harpeth River 2000'

If any other State or Federal Water/Wastewater Permits have been obtained for this site, list their permit numbers:

SOP- 20016

Name of company or governmental entity that will operate the permitted system: Aqua Green Utility

Operator address: 3350 Galts Rd Acworth GA 30102

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.

Land will be transferred before construction begins

Complete the following information explaining the entity type, number of design units, and daily design wastewater flow:

Entity Type	Number of Design Units		Flow (gpd)
☐ City, town or county	No. of connections:		
☒ Subdivision	No. of homes: 49	Avg. No. bedrooms per home: 3	300
☐ School	No. of students:	Size of cafeteria(s): No. of showers:	
☐ 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	Recreation Center		18,490

Describe the type and frequency of activities that result in wastewater generation.

Subdivision + Rec Center

Permit Number: SOP-_____

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.): Trickle Filter

Attach a treatment schematic. ☐ Attached

Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): PLC notify operator

For New or Modified Projects:

Name of Developer for the project: Bethesda Rd LLC

Developer address and phone number: Suite 105 8119 Isabela LN, Brentwood TN 37064 615-429-1610

For land application, list: Proposed acreage involved: 3 Acres

Inches/week gpd/sq.ft loading rate to be applied: Loading .25

Is wastewater disinfection proposed?

☒ Yes Describe land application area access: Fenced

☐ No Describe how access to the land application area will be restricted:

information) website

☒ 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 Resources 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.

Permit Number: SOP-_____

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 0400-45-06-.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 0400-45-06-.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 0400-45-01-.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:

Reason system cannot be served by public sewer:	☒ N/A
Distance to the nearest manhole where public sewer service is available:	
When sewer service will be available:	
olume of holding tank: gal.	
ennessee licensed septage hauler (attach copy of agreement):	
cility accepting the septage (attach copy of acceptance letter):	
titude and Longitude (in decimal degrees) of approved manhole for discharge of septage:	
scribe 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	
If so, provide a design drawing of structure.	
Are monitoring wells or lysimeters installed near or around the pond(s)? ☐ Yes ☐ No	
If so, provide location information and describe monitoring protocols (attach additional sheets as necessary):	

Permit Number: SOP-_____

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):

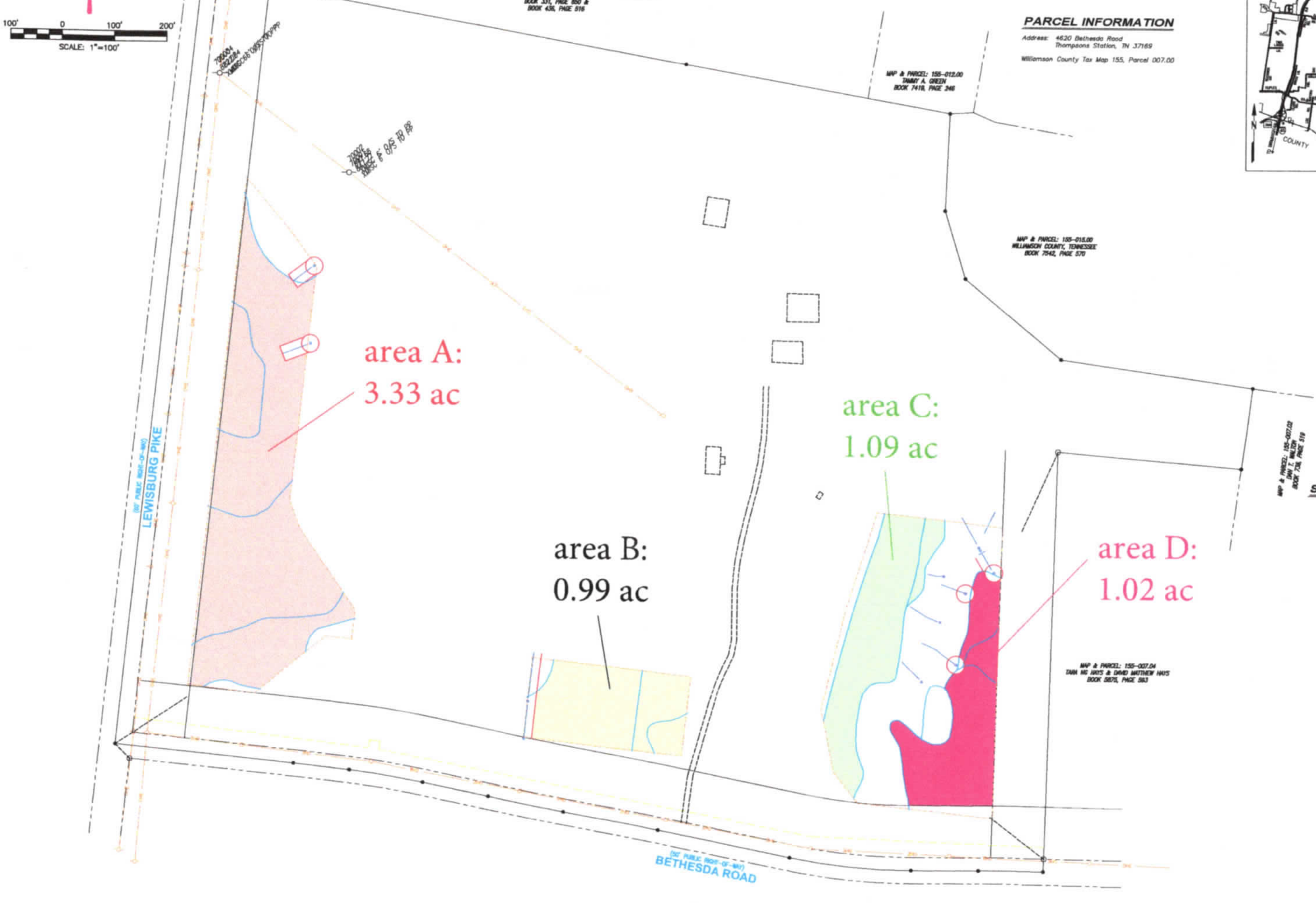
Chemical name:	Manufacturer:	Primary CAS No. or Product No.

SOIL MAPPING GRID

FOR

4620 BETHESDA ROAD

Property Map 155, Parcel 007.00
11th Civil District of Williamson County, Tennessee



SPECIAL UTILITY NOTE

This surveyor has not physically located the underground utilities. Above grade and underground utilities shown were taken from visible appurtenances at the site, public records and/or maps prepared by others. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated. Therefore, reliance upon the type, size and location of utilities shown should be done so with this circumstance considered. Detailed verification of existence, location and depth should also be made prior to any decision relative thereto is made. Availability and cost of service should be confirmed with the appropriate utility company. In Tennessee it is a requirement, per "The Underground Utility Damage Prevention Act", that anyone who engages in excavation must notify all known underground utility owners, no less than (3) three nor more than (10) ten working days prior to the date of their intent to excavate and also to avoid any possible hazard or conflict. Tennessee One Call 1-615-355-1987 or 1-800-351-1111.

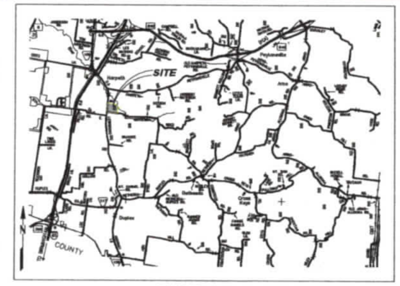
DEED REFERENCE

Being the same property conveyed to Paul G. Williams, Trustee of THE PAUL G. WILLIAMS REVOCABLE LIVING TRUST by Quitclaim Deed of record in Book 4798, page 963, Register's Office for Williamson County, Tennessee.

PARCEL INFORMATION

Address: 4620 Bethesda Road
Thompsons Station, TN 37169

Williamson County Tax Map 155, Parcel 007.00



VICINITY MAP
Not to Scale

GENERAL NOTES

1. Bearings as shown hereon are referenced to the Tennessee Coordinate System of 1983 and are GPS derived.
2. All distances with (M) are based on field run survey using EDM equipment and have been adjusted for temperature. Other boundary information shown hereon is for reference purposes only and was obtained from public records or surveys by others.
3. By scaled map location and graphic plotting only, this property lies within Flood Zone "X", as designated on current Federal Emergency Management Agency Map No. 47187C0365F with an effective date of September 29, 2006, which makes up a part of the National Flood Insurance Administration Report; Community No. 470204, Panel No. 0365 Suffix F, which is the current Flood Insurance Rate Map for the community in which said premises is situated. Said map defines Zone "X" under "Other Areas" as areas determined to be outside the 500-Year Flood Plain.
4. No title report has been furnished therefore this survey is subject to the findings of an accurate title search.
5. All Plat and Deed recordation references shown hereon are as recorded in the Register's Office for Williamson County, Tennessee.
6. This survey IS NOT a General Property Survey as defined under Rule 0820-03-07.

SOILS MAPPING NOTES

LEGEND

- Boundary Point per Survey by Others
- Utility Pole
- OHE — Overhead Utilities Line
- x — Fence Line
- R.O.W.C. Register's Office for Williamson County

Certification of General Approval for the Installation of Subsurface Sewage Disposal Systems with Restrictions.

General approval is hereby granted for lots proposed hereon as being suitable for Subsurface Sewage Disposal with the listed and or attached restrictions.

Before the initiation of construction, the location of the house or other structures and plans for the Subsurface Sewage Disposal System shall be approved by the local health authority.

Date ______ Brian K. Corwin, Director

SURVEYOR'S STATEMENT

I, the undersigned, Tennessee licensed surveyor and mapper do hereby certify that I have completed this survey in compliance with Tennessee minimum technical standards as defined in Tennessee administrative code.

I hereby certify that the grid shown hereon was staked with an accuracy not exceeding one foot in one thousand feet.

Kenneth R. Shreeve, PLS
TN#2298

Date

FOR:
Evergreen LLC & Parks Realty
415 Main Street
Franklin, TN 37064

REV.	DATE	DESCRIPTION
△		
△		
△		
△		
△		

SEAL

Kenneth R. Shreeve, PLS, CFS
This survey has been signed and sealed digitally.

PROJECT NO:	L49-200699
DRAWN BY:	KRS
CHECKED BY:	KRS
APPROVED BY:	KRS
CREW CHIEF:	JM
LAST FIELD WORK:	06-29-2020
DATE OF DRAWING:	07-07-2020

SCALE: 1"=100'

1 OF 1

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd County: Williamson

Stop or Pit #: 1 Center Q2 → P3 SOP # (office use only):

Soil Series: Stiversville Drainage Class: Well

Soil Control Section: Sm-loamy Ground Water or Water Table: none

Parent Material: residium Erosion: none to slight

Climate: Humic Land Cover: mixed grasses & weeds

Slope of Map Unit: ~~0-5%~~ 5-15% Slope of Pit:

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-3				l	1/2	f-m	gr	
Ap2	3-8				l	2	m	sbk	
AB	8-12				l	2	m	sbk	
B/A	12-18				l	1	f-m	sbk	
Bt1	18-24				cl	2	m	sbk	
Bt2	24-34				cl	2	m	sbk	
Bt3	34-29		Common 10yr 6/3		c	1	m	sbk/abk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norrod QA/QC By: Terry Henry

Site Name & Location: Williams Rise / Bethesda Rd County: Williamson

Stop or Pit #: 2 (0-2) SOP # (office use only):

Soil Series: Swafford Drainage Class: mod. well

Soil Control Section: fine-loamy Ground Water or Water Table: none

Parent Material: alluvium / residuum Erosion: none to slight

Climate: thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: 0-5 Slope of Pit:

Geomorphic Description: terrace Latitude/Longitude (Center of soil area):

Physiographic Location: NB

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-4				sil	1/2	fine	gr/sbk	
Ap2	4-8				sil	2	m	sbk	
AB	8-14				sil	2	m	sbk	
Bt1	14-19				sil	2	m	sbk	
Bt2	19-24				scl	1	m	sbk	
Bt/Btx	24-28				cl	2	m	sbk	
Btx3	28-34		common 10YR 6/2 6/3		cl	2	m	sbk	slight brittleness
Btxn	34-40		"		cl	2	c	pr	common iron masses & nodules
					c	2	m	pr	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norrod QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 3 (K2 → K+3) SOP # (office use only):

Soil Series: Ammons / Staffordsville Drainage Class: well

Soil Control Section: fine-loamy / fine-silty Ground Water or Water Table: none

Parent Material: alluvium / residuum Erosion: none to slight

Climate: thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: 5-15 % Slope of Pit:

Geomorphic Description: terrace / upland Latitude/Longitude (Center of soil area):

Physiographic Location: NB

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-5				sil	1/2	f/m	gr/sbk	
Ap2	5-12				sil	2	m	sbk	
AB	12-17				sil	1	m	sbk	
BA	17-21				sil	1	m	sbk	
Bt1	21-25				sil	1	m	sbk	
Bt2	25-33				sicl	2	m	sbk	
BAt3	33-40				sicl	2	m	sbk	
BA4	40-44				cl	2	m	sbk	
					cl	2	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norrod QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 4 (F-2) SOP # (office use only):

Soil Series: Nolin Drainage Class: well

Soil Control Section: fine-silty Ground Water or Water Table: none

Parent Material: alluvium Erosion: none to slight

Climate: thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: 0-5% Slope of Pit:

Geomorphic Description: terrace Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-3				sil	1/2	f/m	gr/sbk	
Ap2	3-8				l	1/2	f/m	sbk	
AB	8-13				l	1	m	sbk	
BA	13-18				l	2	m	sbk	
Ab	18-32				sil	1	m	sbk	
Bwb1	32-36				sil	1	m	sbk	
Bwb2	36-39				sicl	1	m	sbk	
Bwb3	39-44+				sicl	1	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: July 1, 2020 Described By: Lonnie Norrod QA/QC By: Terry Henry

Property Name:

Road Name:

County: Williamson

Stop or Pit #: 5 (Between C3+D3) SOP # (office use only):

Soil Series: Stiversville Drainage Class: Well

Soil Control Section: Fine-loamy Depth to Ground Water or Water Table: None

Parent Material: Residuum Erosion: None to slight

Climate: Thermic Land Cover: Mixed grasses + weeds

Slope of Map Unit: 5-15% Slope of Pit: 7%

Geomorphic Description: Upland Latitude/Longitude:

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Redox Color(s) Depletions/Concentrations	Depth to Redox Features Depletions	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-4				SICL	3	F/m	GR	
Ap2	4-11				SICL	2	m	SBK	
BA	11-17				SICL	2	m	SBK	
Bt1	17-23				SICL	2	m	SBK	
Bt2	23-27				CL	2	m	SBK	
Bt3	27-37				GR-CL	1	m	ABK/SBK	
Bt4	37-42				CL	1	m	SBK	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 6 (E-5) SOP # (office use only):

Soil Series: Stiversville Drainage Class: well

Soil Control Section: fine-loamy Ground Water or Water Table: none

Parent Material: residuum Erosion: none to slight

Climate: thermic Land Cover: Mixed grasses & weeds

Slope of Map Unit: 5-15% Slope of Pit: 20%

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: NB

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap_1	0-4				sil	1/2	f/m	gr/sbk	
Ap_2	4-10				l	2	m	sbk	
BA	10-16				l	2	m	sbk	
Bt_1	16-23				cl	2	m	sbk	
Bt_2	23-29				cl	2	m	sbk	
Bt_3	29-34				cl	2	m	sbk	
Bt_4	34-41				c	2	m	sbk	
Bt_5	41-45+				c	2	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bellesda Rd. County: Williamson

Stop or Pit #: 7 (G-4 → H-4) SOP # (office use only):

Soil Series: Nolin Drainage Class: well

Soil Control Section: fine - silty Ground Water or Water Table: none

Parent Material: alluvium Erosion: none to slight

Climate: Hermiz Land Cover: mixed grasses & weeds

Slope of Map Unit: 0-5% Slope of Pit:

Geomorphic Description: terrace Latitude/Longitude (Center of soil area):

Physiographic Location: NB

Additional Notes: similar to pit #4 Ab - 21"

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	

TDEC - DWR Soil Pedon Description Form

Date: July 1, 2020 Described By: Lonnie Norrod QA/QC By: Terry Henry

Property Name:
Road Name: Williams Prop. / Bethesda Rd. County: Williamson

Stop or Pit #: 8 (Between B-15 & C-15) SOP # (office use only):

Soil Series: Stiversville Drainage Class: Well

Soil Control Section: Fine-loamy Depth to Ground Water or Water Table: None

Parent Material: Residuum Erosion: None to slight

Climate: Thermic Land Cover: Mixed grasses & weeds

Slope of Map Unit: 5 to 15% Slope of Pit: 6%

Geomorphic Description: Upland Latitude/Longitude:

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Redox Color(s) Depletions/Concentrations	Depth to Redox Features Depletions	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-5				SICL	2	F/m	GR/SBK	
Ap2	5-10				SICL	2	m	SBK	
Bt1	10-18				SICL	2	m	SBK	
Bt2	18-27				SICL	2	m	SBK	
Bt3	27-35				CL	1	m	ABK/SBK	
Bt4	35-41				CL	1	m	SBK	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop/Bethesda Rd. County: Williamson

Stop or Pit #: 9 (D-17 → D-18) SOP # (office use only):

Soil Series: Staffville Drainage Class: well

Soil Control Section: fine loamy Ground Water or Water Table: none

Parent Material: residuum Erosion: none to slight

Climate: thermic Land Cover: mixed grasses

Slope of Map Unit: 5-15% Slope of Pit:

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-6				sil	1/2	f/m	gr/sbk	
Ap2	6-11				l	2	m	sbk	
BA	11-15				l	2	m	sbk	
Bt1	15-23				l	2	m	sbk	
Bt2	23-29				l	2	m	sbk	
Bt3	29-36				cl	2	m	sbk	
Bt4	36-44				cl	2	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bellsta Rd. County: Williamson

Stop or Pit #: 10 (D-19) SOP # (office use only):

Soil Series: Hemphave Drainage Class: well

Soil Control Section: fine Ground Water or Water Table: none

Parent Material: residuum Erosion: moderate

Climate: thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: 5-15% Slope of Pit:

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: NB

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-3				sil	1/2	fim	gr/sbk	
Ap2	3-7				sil	2	m	sbk	
BA	7-12				cl	2	m	sbk	
Bt1	12-16				cl	2	m	sbk	
Bt2	16-25				c	2	m	sbk	
Bt3	25-35				c	2	m	sbk	
Bt4	35-40				c	1	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norrod QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 11 (center L-28 → K-29) SOP # (office use only):

Soil Series: Hampshire Drainage Class: well

Soil Control Section: fine Ground Water or Water Table: none

Parent Material: residuum Erosion: moderate

Climate: thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: 5-15 Slope of Pit:

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
A_{p1}	0-3				l	1/2	m/f	gr	
A_{p2}	3-7				l	1/2	f/m	gr/sbk	
BA	7-10				cl	2	m	sbk	
Bt_1	10-16				cl	2	m	sbk	
Bt_2	16-23				c	2	m	sbk	
Bt_3	23-37				c	1	m	sbk	
BC	37-32				c	1	m	abk	
C	32-40+				c	0		m	

TDEC - DWR Soil Pedon Description Form

Date: July 1, 2020 Described By: Lonnie Norrod QA/QC By: Terry Henry

Property Name:

Road Name: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 12 (J-27) SOP # (office use only):

Soil Series: Stiversville Drainage Class: Well

Soil Control Section: Fine-loamy Depth to Ground Water or Water Table: None

Parent Material: Residuum Erosion: None to slight

Climate: Thermic Land Cover: Mixed grasses & weeds

Slope of Map Unit: Slope of Pit: 9%

Geomorphic Description: Upland Footslope Latitude/Longitude:

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Redox Color(s) Depletions/Concentrations	Depth to Redox Features Depletions	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap	0-4				l	1/2	f/m	gr/sbk	
Av2	4-10				l	2	m	sbk	
A	10-16				sil	2	m	sbk	
BA	16-25				sicl	2	m	sbk	
Bt1	25-28				sicl	2	m	sbk	
Bt2	28-38				sicl	2	m	sbk	
Bt3	38-45				cl	2	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: July 1, 2020 Described By: Lonnie Norrod QA/QC By: Terry Henry

Property Name:

Road Name: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 13 (E-26) SOP # (office use only):

Soil Series: Stiversville Drainage Class: Well

Soil Control Section: Fine-loamy Depth to Ground Water or Water Table: None

Parent Material: Residuum Erosion: None to slight

Climate: Thermic Land Cover: Mixed grasses & weeds

Slope of Map Unit: 5-15% Slope of Pit: 9%

Geomorphic Description: Upland Footslope Latitude/Longitude:

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Redox Color(s) Depletions/Concentrations	Depth to Redox Features Depletions	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-3				L	2	m	SBK	
Ap2	3-10				L	2	F/m	GR/SBK	
A	10-15				L	2	m	SBK	
AB	15-19				L	2	m	SBK	
BA	19-24				SICL	2	m	SBK	
Bt1	24-29				CL	2	m	SBK	
Bt2	29-38				CL	1	m	SBK	
Cr	38				—	—	—	—	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Nevad QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 14 (E-29 → D-30 center) SOP # (office use only):

Soil Series: DISTURBED Drainage Class:

Soil Control Section: Ground Water or Water Table:

Parent Material: Erosion:

Climate: Thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: Slope of Pit:

Geomorphic Description: Upland Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes: Ham / OUT / DISTURBED?

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 15 (B-30)

Soil Series: Stiversville

Soil Control Section: fine SOP # (office use only):

Parent Material: residuum Drainage Class: well

Climate: thermic Ground Water or Water Table: none

Slope of Map Unit: 5-15% Erosion: moderate

Geomorphic Description: upland Land Cover: mixed grasses

Physiographic Location: NB Slope of Pit:

Additional Notes: Latitude/Longitude (Center of soil area):

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-5				l	1/2	f/m	gr/sbk	
Ap2	5-9				l	2	m	sbk	
BA	9-14				cl	2	m	sbk	
Bt1	14-19				cl	2	m	sbk	
Bt2	19-26				cl	2	m	sbk	
Bt3	26-31				cl	2	m	sbk	
Bt4	31-34				cl	2	m	sbk	
BC	34-39+				c	2	m	sbk	
					Channery Clay	1	f/m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Connie Norred QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd County: Williamson

Stop or Pit #: 16 (D3+ E3) SOP # (office use only):

Soil Series: ~~[illegible]~~ Hampshire / Mavy Drainage Class: well

Soil Control Section: fine Ground Water or Water Table: none

Parent Material: residuum Erosion: moderate

Climate: thermic Land Cover: mixed grasses

Slope of Map Unit: 5-15 Slope of Pit:

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: NB

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
A_{p1}	0-3				l	1/2	f/m	gr/sbk	
A_{p2}	3-7				l	2	m	sbk	
Bt_1	7-10				cl	2	m	sbk	
Bt_2	10-21				cl	2	m	sbk	
Bt_3	21-27				c	2	m	sbk	
BC	27-32				Clayey clay	1	m	sbk/abk	
C	32-40+				c	0		m	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norrod QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 17 (G-31) SOP # (office use only):

Soil Series: Mavry / Hampshire Drainage Class: well

Soil Control Section: fine Ground Water or Water Table: none

Parent Material: residuum / alluvium Erosion: moderate

Climate: thermic Land Cover: mixed grasses & weeds

Slope of Map Unit: 5-15% Slope of Pit: 7%

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap	0-3				sil	1/2	f/m	gr/sbk	
Ap2	3-8				sicl	2	m	sbk	
Bt1	8-15				sicl	2	m	sbk	
Bt2	15-20				sic	2	m	sbk	
Bt3	20-26				sic	2	m	abk/sbk	
Bt4	26-40				sic	1	m	sbk	

TDEC - DWR Soil Pedon Description Form

Date: 7/1/20 Described By: Lonnie Norrod QA/QC By: Terry Henry

Site Name & Location: Williams Prop / Bethesda Rd. County: Williamson

Stop or Pit #: 18 I-31 SOP # (office use only):

Soil Series: Humphrise / Mavry Drainage Class: well

Soil Control Section: fine Ground Water or Water Table: None

Parent Material: residuum Erosion: moderate

Climate: Hermic Land Cover: mixed grasses

Slope of Map Unit: 5-15% Slope of Pit:

Geomorphic Description: upland Latitude/Longitude (Center of soil area):

Physiographic Location: Nashville Basin

Additional Notes:

Soil Pedon Description

Horizon	Depths (inches)	Matrix Color	Depletions/Concentrations Redox/Mottles, etc.	Depth to Low Chroma Mottles	Soil Texture	Soil Structure			Soil Horizon Notes
						Grade	Size	Type	
Ap1	0-3				l	1/2	f/m	gr/sbk	
Ap2	3-8				l	2	m	sbk	
Bt1	8-14				cl	2	m	sbk	
Bt2	14-22				c	2	m	sbk	
Bt3	22-27				c	1	m	sbk	
BC	27-34				Channery clay	1	m	sbk	
C	34-39				c	0		m	

State of Tennessee
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

June 22, 2021

Mr. Dart Kendall
President
Aqua Green Utility Inc.
e-copy: dart@aquagreenutility.com
3350 Galts Road
Acworth, GA 30102

Subject: **Notice of Complete Application and Public Notice Requirements**
Permit No. SOP-20016
Aqua Green Utility Inc.
Bethesda Road Subdivision
Thompson's Station, Williamson County, Tennessee

Dear Mr. Kendall:

The Division of Water Resources (the division) acknowledges the receipt of a permit application in our office on June 10, 2021. Our review of the SOP permit application showed that you have submitted all the information required to initiate processing of the application. You are advised that this notice of complete application does not imply that the application will be approved or that a permit will be issued. Also, in accordance with rules of the Tennessee Department of Environment and Conservation, Division of Water Resources, Chapter 0400-40-5-.05 (2):

> *"This provision does not preclude the commissioner from later requesting additional material that subsequent to the notice of completeness is determined to be necessary for permit processing."*

Since this is an application for an expanded discharge, please find attached a template of a public notice you must complete and post for a period of 30 days. This is required in accordance with Chapter 0400-40-5-.06 (1), which states:

> *"For an individual application for a new or expanded discharge, the applicant shall notify the public of the application by posting a sign near the point of entrance to such facility and within view of a public road. The sign shall contain provisions as specified by the commissioner. The sign shall be of such size that is legible from the public road. Also the sign shall be maintained for at least thirty days following submittal of the application to the division."*

If you have questions, please contact the Nashville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Ms. Anastasia Sharp at (615) 532-1508 or by E-mail at *Anastasia.Sharp@tn.gov*.

Sincerely,

Anastasia Sharp, E.I.
Land-Based Systems

cc: Permit File
Nashville Environmental Field Office

PROFESSIONAL LICENSING

GEORGIA SECRETARY OF STATE BRAD RAFFENSPERGER

CORPORATIONS • ELECTIONS • LICENSING • CHARITIES

Georgia Online Licensing

- Renew Your Current License
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<<< Please select an option from the menu on the left <<<

NOTE: If you have started, but not completed your license application or renewal process, click the **Continue** link in the **Your Licenses** section below.

Name: Dart A Kendall
Address: 3350 Galts Road
Acworth, GA 30102

Your Licenses

Profession:	Water/Wastewater	**License Number:**	WW4-000178	**License Status:**	Active
Issued:	4/9/2015	**Expires:**	6/30/2023		
Profession:	Water/Wastewater	**License Number:**		**License Status:**	Withdrawn
Issued:		**Expires:**			

WATER AND WASTEWATER OPERATOR CERTIFICATION BOARD

NAME AND MAILING ADDRESS

Dart A Kendall
3350 Galts Road
Acworth, GA 30102

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
WATER AND WASTEWATER OPERATOR CERTIFICATION BOARD

I.D. NO.	EXPIRATION DATE	RENEWAL NO.
3546	12/31/2012	68461

THIS IS TO CERTIFY THAT:
Dart A Kendall

IS IN GOOD STANDING WITH THE BOARD FOR THE CLASSIFICATIONS LISTED:

BNS
CS1

CN-0770 (REV. 2-99)

Serial No. 8320

State of Tennessee

Department of Environment and Conservation

Water and Wastewater Operator Certification Board

Issues This

Certificate of Competency

as Testimony That

Dart A. Kendall

has satisfactorily fulfilled the requirements set forth by the

Water and Wastewater Operator Certification Board

and is therefore, by these presents, entitled to recognition as a

Grade I Wastewater Collection System Operator

In Witness Whereof, we have subscribed our names and affixed our Seal

Certificate No. 3546 *Dated* 5/5/2011

Recommended Darryl Green
Board Chairman

Approved _____ *Commissioner.*

Attest _____
Board Secretary

CN-0756

RDA 2404

Serial No. 7405

State of Tennessee

Department of Environment and Conservation

Water and Wastewater Operator Certification Board

Issues This

Certificate of Competency

as Testimony That

Dart A. Kendall

has satisfactorily fulfilled the requirements set forth by the

Water and Wastewater Operator Certification Board

and is therefore, by these presents, entitled to recognition as a

Biological/Natural Operator

In Witness Whereof, we have subscribed our names and affixed our Seal

Certificate No. ********* *Dated* May 07, 2009

Recommended [signature] Board Chairman

Approved [signature] Commissioner.

Attest [signature]
Board Secretary

CN-0756

RDA 2404