

# Application to Amend the Service Authority Jurisdictional Area



Amend the Service Authority Jurisdictional Area = \$135.20 (\$130.00 + \$5.20 Technology Surcharge)

Project Name: 3756 Richmond Road, Keswick VA

Tax map and parcel: 079A1-00-0B-02700, 2500, 25A0 Magisterial District: Scottsville Zoning: Rural Areas

Physical Street Address (if assigned): 3756 Richmond Road

Location of property (landmarks, intersections, or other): \_\_\_\_\_

Corner of Moose Lane and Richmond Road, Keswick, VA

Contact Person (Who should we call/write concerning this project?): Garrett M. Smith, Agent for Owner and Applicant

Address 610 West Rio Road City Charlottesville State VA Zip 22901

Daytime Phone ( ) (434) 220-7735 Fax # ( ) \_\_\_\_\_ E-mail gsmith@resortcompanies.com

Owner of Record Southern Property Management & Maintenance, LLC

Address 610 West Rio Road City Charlottesville State VA Zip 22901

Daytime Phone ( ) (434) 220-7712 Fax # ( ) \_\_\_\_\_ E-mail dicedoom666@gmail.com

Applicant (Who is the Contact person representing?): Southern Property Management & Maintenance, LLC

Address 614 West Rio Road City Charlottesville State VA Zip 22902

Daytime Phone ( ) (434) 220-7727 Fax # ( ) \_\_\_\_\_ E-mail tbuono@embarqmail.com;

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TMP # \_\_\_\_\_

Fee Amount \$ \_\_\_\_\_ Date Paid \_\_\_\_\_ By who? \_\_\_\_\_ Receipt # \_\_\_\_\_ Ck# \_\_\_\_\_ By: \_\_\_\_\_

**County of Albemarle Department of Community Development**  
**401 McIntire Road Charlottesville, VA 22902 Voice: (434) 296-5832 Fax: (434) 972-4126**

Jurisdiction area designation requested

- Water and Sewer
- Water Only to existing structure(s)
- Water Only
- Limited Service (Describe in justification below)

Current Service Area Designation

- No designation
- Water and Sewer
- Water Only to existing structure(s)
- Water Only
- Limited Service (Please describe \_\_\_\_\_)

Justification for request:

See September 4, 2015 letter from Virginia Department of Health Office of Drinking water to a representative of the former owner concerning the status of the existing water supply.

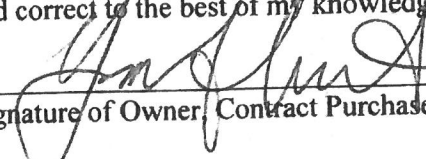
See March 3, 2022 Cardno/Stantec report of Vincent Day and Bryan Mountjoy reporting that "the property has been sufficiently investigated, obtaining an adequate groundwater well is unlikely, and an alternate source of water would be more feasible, such as obtaining a connection to public water".

See May 25, 2022 report of drilling by Matheny Well Drilling and Service, Inc. indicating that after drilling 405 ft. no flow was reported or water found.

This is a large facility and we requires a public water supply for any use to occur. Past contaminations and poor performing wells, and proximity to an ACSA connection point make this property suitable for an expansion of the jurisdictional area of the Albemarle County Service Authority. The property is directly across Rt. 250 from the current jurisdictional area.

**Owner/Applicant Must Read and Sign**

I hereby certify that the information provided on this application and accompanying information is accurate, true and correct to the best of my knowledge and belief.

  
 \_\_\_\_\_  
 Signature of Owner, Contract Purchaser, Agent

Garrett M. Smith, PLLC, Agent  
 \_\_\_\_\_  
 Print Name

6/13/2022  
 \_\_\_\_\_  
 Date

(434) 220-7735  
 \_\_\_\_\_  
 Daytime phone number of Signatory



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF HEALTH  
OFFICE OF DRINKING WATER  
Lexington Field Office

131 Walker Street  
Lexington, VA 24450  
Phone: 540-463-7136  
Fax: 540-463-3892

Marissa J. Levine, MD, MPH, FAAFP  
State Health Commissioner

John J. Aulbach II, PE  
Director, Office of Drinking Water

September 4, 2015

SUBJECT: Albemarle County  
Waterworks – Charlottesville Moose Lodge

Mr. Steve Shifflett  
2412 Troy Road  
Troy, VA 22974

Mr. Shifflett:

Thank you for your participation in the meeting held on August 27, 2015, at the Charlottesville/Albemarle Health Department concerning the Charlottesville Moose Lodge water system.

As you are aware the Charlottesville Moose Lodge Waterworks Operation Permit was recently revoked due to ongoing unaddressed compliance issues; this action also resulted in the revocation of Local Health Department permits for food service. The Waterworks Operation Permit revocation was the end result of a long history of enforcement actions resulting from continued non-compliance with the Commonwealth of Virginia *Waterworks Regulations*. Following is a summary of violations and enforcement actions:

- VDH issued 121 separate water quality and monitoring violations since the facility was originally issued a Waterworks Operation Permit in May 2003
- The USEPA issued a "Notice of Violation and Request for Information" dated January 2015
- State Health Commissioner Special Order No. 11-2014-10 issued January 5, 2015
- State Health Commissioner Special Order (and permit revocation) No. 06-2015-05 disused July 28, 2015

The non-compliance history of the Charlottesville Moose lodge water system indicates serious issues related to the available quantity of water, the quality of water delivered to consumers, and the technical, managerial and financial capability necessary to protect public health. As such, the following initial steps must be taken if the Charlottesville Moose Lodge wishes to have their facility permitted again by this office.

1. A licensed Virginia professional engineer must be contracted to evaluate the existing water system and submit a report with recommendations for improvements or additions to the water system to meet requirements of the Commonwealth of Virginia *Waterworks Regulations*. The engineer's report must address the fact that:
  - i. Continued use of the existing side-stream in-ground concrete storage tank cannot be allowed. This tank has shown that it is susceptible to entry by tree roots and the existing access hatch could easily allow for contamination by rodents, insects and other debris.



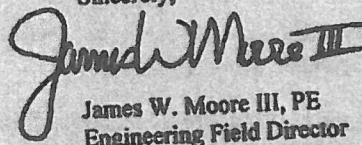
Mr. Steve Shifflett  
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SUBJECT: Albemarle County  
Waterworks - Charlottesville Moose Lodge

- ii. Continued use of the existing wells cannot be allowed. Of the four drilled wells on site, construction records are only available for the two newest wells. These two wells do not meet the *Waterworks Regulations* minimum construction requirements due to a combination of shallow well casings and unknown grouting. These existing wells have a history of raw water quality high in Total Coliform bacteria and periodic contamination of *E. coli*. In addition, the reliability and capacity of the existing wells is poor as evidenced by frequent mechanical failures, low yields and water hauling to supplement their output.
2. We will review and evaluate recommendations contained in the required engineer's report. Before VDH can consider issuing a Waterworks Operation Permit the Charlottesville Moose Lodge will be required to:
- i. Satisfactorily address any items contained in the approved engineer's report including any required improvements or additions to the water infrastructure.
  - ii. Secure an acceptable water source that is capable of providing adequate quantity and quality of water and meeting all applicable requirements of the *Waterworks Regulations*.
  - iii. Provide a contract operator holding a minimum Virginia Class 6 Waterworks Operator license to oversee and operate the system, and;
  - iv. Establish an escrow account with sufficient funds deposited to cover the costs of all required water quality monitoring and the costs of the contract operator for a period of two years.

If you have any questions about these requirements please do not hesitate to contact Steve Kvech, PE, District Engineer, at (540) 463-0424.

Sincerely,

  
James W. Moore III, PE  
Engineering Field Director

JWM/SJK/kl/150904\_1

cc: Charlottesville Moose Lodge - Attn: Mr. Dale Mullins  
Albemarle County Building Official - Mr. Jay Schlothauer  
Albemarle County Executive - Mr. Thomas C. Foley  
VDH - OEHS - Attn: Ms. Julie Henderson  
Mr. John McClelland, Environmental Health Manager  
Albemarle County Health Department - Attn: Dr. Denise Bonds, MD, MPH  
VDH - ODW Richmond Central - Attn: Mr. Robert Payne, JD



now



Cardno now Stantec

10988 Richardson Road  
Ashland, VA 23005  
USA

Phone: 804 798 6525

www.cardno.com

March 3, 2022

Mr. Trevor Hammer  
Southern Property Management & Maintenance  
510 Nottingham Road  
Charlottesville, VA 22906

**Subject: Summary of Groundwater Resources – Former Charlottesville Moose Lodge  
Parcels 79A1-B-24, 79A1-B-25, 79A1-B-27, Albemarle County, Virginia**

Dear Mr. Hammer:

The former Charlottesville Moose Lodge property (the property) has had a history of poor water quality and well yields which have affected the ability of property owners to provide water to users of the property. In late 2021, Cardno now Stantec was engaged to identify potential drilling targets and obtain Virginia Department of Health (VDH) well site approvals. In February 2022, a well was drilled at one of the selected locations and yielded no water. The purpose of this memorandum is to present our professional opinion on the feasibility of operating an on-site groundwater supply system based on existing documentation and knowledge of the property's water system and the hydrogeologic setting.

#### Water System History

The property's water system has historically sourced water from four (4) groundwater wells (**Figure 1**). Well construction information presented below was obtained from the Charlottesville Moose Lodge Virginia Department of Health (VDH) Engineering Description Sheet for VDH Waterworks Operation Permit (WOP) #2003203 (2006; **Attachment 1**).

Well 1 was constructed in 1972, is 300 feet deep, and reportedly yielded 1.5 gallons per minute (gpm) at the time of construction. Steel casing extends to 20 feet below land surface (bls).

Well 2 was constructed in 1988, is 300 feet deep, and reportedly yielded less than 1 gpm at the time of construction. PVC casing extends to 20 feet below land surface (bls).

Well 3 and Well 4 were installed at an unknown time prior to 1972. Well construction information below land surface is unknown, but both wells are reported to have a "very low yield".

On July 28, 2015, VDH revoked the property's WOP, citing continually poor water quality and low well yields, among other concerns (**Attachment 2**). One of the requirements for issuing a new WOP was to "secure an acceptable water source that is capable of providing adequate quantity and quality of water...".

In February 2022, Well 5 (**Figure 1**) was constructed. The well is 400 feet deep and reportedly yielded no measurable water.

#### Hydrogeology

Beneath the property, a relatively thin layer of soil and saprolite (in-situ weathered bedrock) overlies Candler Formation phyllite and schist bedrock of Cambrian age (1993 Geologic Map of Virginia, Virginia Division of Mineral Resources). Candler Formation groundwater flow is almost entirely limited to areas of hydraulically connected secondary porosity, created by faulting and fracturing of bedrock. Wells constructed in fractured-bedrock aquifers only yield sustainable quantities of water if they intersect fractures which 1: contain water, and 2: are hydraulically

Australia • Belgium • Canada • Colombia • Ecuador • Germany • Indonesia •  
Kenya • New Zealand • Nigeria • Papua New Guinea • Peru • Philippines • Singapore •  
United Arab Emirates • United Kingdom • United States • Operations in over 100 countries

March 3, 2022  
 Mr. Trevor Hammer  
 Summary of Groundwater Resources – Former Charlottesville Moose Lodge  
 Parcels 79A1-B-24, 79A1-B-25, 79A1-B-27, Albemarle County, Virginia



connected to a source of recharge, such as the land surface or the bedrock contact with soil or saprolite (through the infiltration of precipitation).

In 2003, ENSAT Corporation and Albemarle County prepared a Groundwater Availability and Sensitivity Assessment with Proposed Groundwater Assessment Standards as part of the Albemarle County Hydrogeologic Assessment Report. Of note in this report is that the Candler Formation is "generally more ductile than other rocks in the County, meaning that fractures can close up due to the weight of overlying material". A result of this is a decreased likelihood of wells intersecting water-bearing fractures. This fact, in conjunction with other analyses, resulted in the Candler Formation being categorized as having the "Lowest Relative Availability" of groundwater.

#### Conclusion

Five (5) wells have been constructed on the 6-acre property, none of which yield water of sufficient quantity and quality for the property's former use ("clubs and lodges" by Special Use Permit), the proposed by-right use ("religious assembly of not more than 200 persons"), and other non-residential by-right uses. Excluding the development footprint and drainfield areas, the area available for wells is less than 5 acres. The wells are each 100 feet or more from each other, spatially covering a large portion of the property, and are located on differing slope aspects, topographic features, and elevations. Obtaining groundwater from the Candler Formation is well-known to be a challenging and uncertain process.

Given the evidence of poor water quality and yield from the property's existing wells and the geology, it is our opinion that the property has been sufficiently investigated, obtaining an adequate groundwater well is unlikely, and an alternate source of water would be more feasible, such as obtaining a connection to public water.

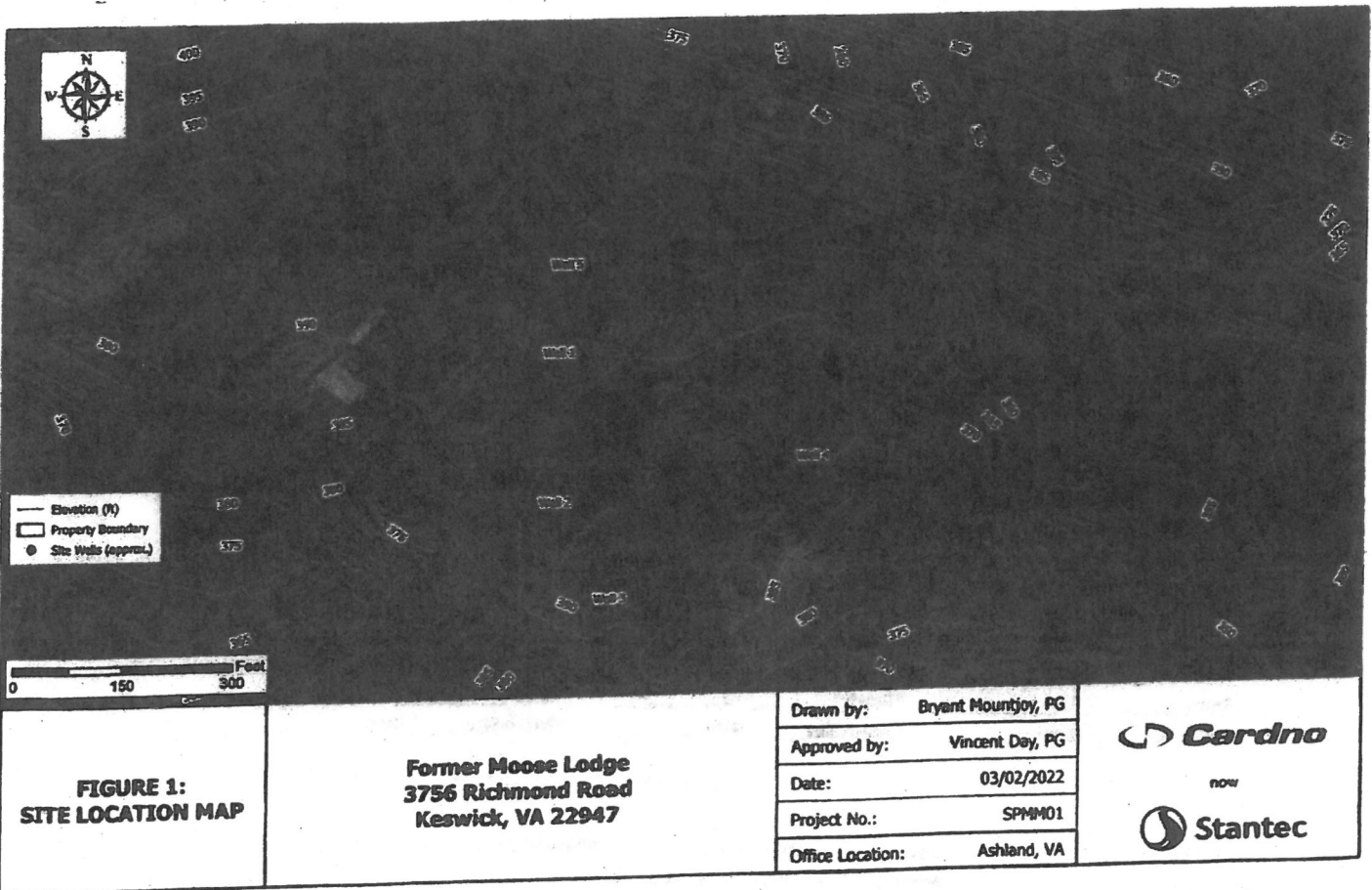
Please feel free to contact us if you have any questions.

Sincerely,

Vincent Day, PG  
 Senior Hydrogeologist  
 for Cardno now Stantec  
 Direct Line: +1 804-368-1003  
 Email: Vincent.day@cardno.com

Bryant Mountjoy, PG  
 Project Hydrogeologist  
 for Cardno now Stantec  
 Direct Line: +1 804-412-6546  
 Email: bryant.mountjoy@cardno.com

cc: Garrett Smith (gsmith@resortcompanies.com)  
 Minor Smith (minor.smith@longandfoster.com)





**Commonwealth of Virginia  
Uniform Water Well Completion Report**

Owner: Southern Property Mgmt. & Maint., LLC  
 Address: P.O. Box 7505  
Charlottesville, VA 22906  
 Phone: \_\_\_\_\_  
 Location: formerly the Charlottesville Moose Lodge

Tax Map ID \_\_\_\_\_  
 PWSID No. 2003203  
 VWCB Permit \_\_\_\_\_  
 VWCB ID \_\_\_\_\_  
 County Albemarle

\* Well Data \*

General Information

Drilling Method Rotary  
 Depth to Bedrock 26ft  
 Static Water Level 8ft  
 Well Disinfected (Y or N) \_\_\_\_\_

Date Completed 2/24/2022  
 Yield 1/10 (GPM)  
 Stabilized Water Level \_\_\_\_\_  
 Disinfectant Used \_\_\_\_\_

Total Depth of well 405ft  
 Length of Test 1 hour  
 Natural Flow (Rate) \_\_\_\_\_  
 Amount Used \_\_\_\_\_

Casing

From +2ft to 54ft  
 Size 6 N" Material PVC  
 Weight/schedule \_\_\_\_\_

From \_\_\_\_\_ to \_\_\_\_\_  
 Size \_\_\_\_\_ Material \_\_\_\_\_  
 Weight/Schedule \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_  
 Size \_\_\_\_\_ Material \_\_\_\_\_  
 Weight/Schedule \_\_\_\_\_

Gravel Pack

From \_\_\_\_\_ to \_\_\_\_\_

From \_\_\_\_\_ to \_\_\_\_\_

From \_\_\_\_\_ to \_\_\_\_\_

Grout

From 0 to 50ft  
 Bore Hole Size 10 inch.  
 Type cement  
 Method Pumped

From \_\_\_\_\_ To \_\_\_\_\_  
 Bore Hole Size \_\_\_\_\_  
 Type \_\_\_\_\_  
 Method \_\_\_\_\_

From \_\_\_\_\_ to \_\_\_\_\_  
 Bore Hole Size \_\_\_\_\_  
 Type \_\_\_\_\_  
 Method \_\_\_\_\_

Water Zones or Screened Intervals

From \_\_\_\_\_ to \_\_\_\_\_  
 Mesh Size \_\_\_\_\_ Diam \_\_\_\_\_  
 From \_\_\_\_\_ To \_\_\_\_\_  
 Mesh Size \_\_\_\_\_ Diam \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_  
 Mesh Size \_\_\_\_\_ Diam \_\_\_\_\_  
 From \_\_\_\_\_ To \_\_\_\_\_  
 Mesh Size \_\_\_\_\_ Diam \_\_\_\_\_

From \_\_\_\_\_ To \_\_\_\_\_  
 Mesh Size \_\_\_\_\_ Diam \_\_\_\_\_  
 From \_\_\_\_\_ To \_\_\_\_\_  
 Mesh Size \_\_\_\_\_ Diam \_\_\_\_\_

\*Use Date\*

Private well: Domestic  Agricultural \_\_\_\_\_ Industrial \_\_\_\_\_ Monitoring \_\_\_\_\_  
 Public well: Community \_\_\_\_\_ Non-community \_\_\_\_\_

\*Abandonment Information\*

Bored or Dug Wells

Casing Removed, Y or N? \_\_\_\_\_  
 If Y, Depth to which casing was removed \_\_\_\_\_  
 Depth and Type of Fill: \_\_\_\_\_  
 Source of Fill \_\_\_\_\_  
 Bentonite Plugs: From \_\_\_\_\_ to \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

Wells other than Bored Wells

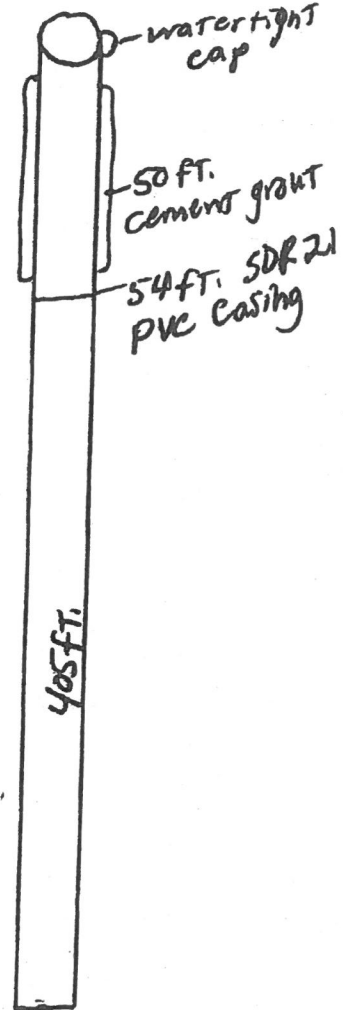
Casing removed, Y or N? \_\_\_\_\_  
 Depth to which casing was removed \_\_\_\_\_  
 Applicable, depth(s), and type of gravel/sand fill: \_\_\_\_\_  
 Source of gravel or sand: \_\_\_\_\_  
 Cement: From \_\_\_\_\_ To \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

Method of permanently marking location: \_\_\_\_\_



\*Drillers Log\*

Depth	Description of Formation or Sediment	Remarks
0 - 26	dirt, soft rock	
26 - 405	gray rock	



(Use Additional Sheets if necessary)

I certify that the information contained here is true and that this well was installed and constructed in accordance with the permit and further that the well complies with all applicable state and local regulations, ordinances and laws.

Name Matheny Well Drilling and Pump Service, Inc.  
Address 2797 Kacey Lane  
Afton, VA 22920  
Phone 434-760-4090

Drillers Signature *Kenneth Matheny*  
Date 5/25/2022 Representing \_\_\_\_\_

Virginia Contractors License Number 017282 & 2719000083

