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| I | WHAT IS RESISTIVITY TESTING AND WHY IS IT REQUIRED? |
| <p>This section explains resistivity testing requirements for construction of new onsite sewage disposal systems or modifications to existing systems on properties located in Karst terrain. For more information on Karst, please see Guidance Manual Chapter I (General Information) Section F (What is Karst?).</p> | |
| <p><u>Key Government Contacts:</u></p> <ul style="list-style-type: none">• Zoning Permit and Subdivision Plat Reviews Lorien Lemmon, Conservation Planner/GIS Coordinator <u>Department of Planning</u> Government Center 2nd floor, 101 Chalmers Court, (540) 955-5134 llemmon@clarkecounty.gov • Onsite Sewage Disposal System Permits <u>Virginia Department of Health (VDH)</u> 100 North Buckmarsh Street, (540) 955-1033 | |

The [Clarke County Septic Ordinance \(Chapter 143\) Section 143-9-G](#) requires electrical resistivity testing to be conducted as a prerequisite for final approval of all septic permit and certification letter applications by the Virginia Department of Health (VDH) for properties located in Karst (except for emergency repairs as determined by the VDH). Karst terrain can contain voids or other underground features that can undermine an onsite sewage disposal system and potentially contaminate groundwater. Resistivity testing helps to ensure that systems are not constructed in areas containing voids or similar Karst features.

Resistivity tests are performed by the applicant's Geotechnical Engineer (GE) and are submitted to the Department of Planning for review and approval by the County's geotechnical engineering consultant. A county fee of \$275.00 per drainfield is required prior to any review by the County's geotechnical engineering consultant.

Summary of Review Procedures:

1. Applicant contracts with an approved Onsite Soil Evaluator to complete site/soil work on a property to locate proposed areas for onsite sewage disposal systems.
2. Applicant applies for Onsite Sewage Disposal Permit or Certification Letter with VDH and obtains preliminary approval from VDH Staff.
3. If the property is in a Karst area, applicant contracts with a Geotechnical Engineer (GE) to perform electrical resistivity testing in accordance with County Code Section 143-9-G.

Karst soils are identified on Clarke County GIS Mapping found at www.clarkecounty.gov.

4. Applicant applies for a resistivity testing review with the Clarke County Planning Department using the form below. The application shall include a copy of the resistivity test results/summary report produced by the applicant's GE and a review fee of \$275.00 (check made payable to "Treasurer, Clarke County." Applications may be filed in person during regular business hours or by mail to the address above.
5. The resistivity tests results/summary report is reviewed by the County's geotechnical engineering consultant for compliance with the County's Septic Ordinance. The County's consultant will either issue an approval letter to County Staff or request additional information/corrections from the applicant. If additional information or corrections are required, an additional review fee of \$275.00 per drainfield shall be paid by the applicant for each subsequent review of the resistivity test results/summary report.
6. Once the resistivity test is approved, the County Staff will issue an approval letter to the Health Department for the site indicating that the application may receive final approval at the VDH Staff's discretion.
7. Starting January 1, 2024, approval of resistivity tests shall be considered required information to constitute a complete application, where applicable, for Zoning Permit, Subdivision and Site Development Plan Applications.