



Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
Dexter R. Matthews, Director

November 14, 2002

Mr. John Byrd  
Director, Solid Waste  
255 Liledoun Road  
Taylorsville, NC 28681

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|---------------|--------|---------|
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Re: Alexander County Landfill Groundwater Assessment and Corrective Measures.  
Permit No. 02-01

Dear Mr. Byrd,

The Solid Waste Section has received a revised Groundwater Assessment and Corrective Measures work plan for the closed municipal solid waste landfill. There are some proposed changes to the corrective work plan. This response addresses those changes and some additional observations.

Monitoring well MW-1B may be installed as proposed.

It is reasonable to use SW-4R for sampling in lieu of the installation of MW-16. It does make selection of the sampling location more critical since it will need to be located in a perennial portion of the stream. Mark this surface water location so it can be consistently sampled at the same point.

The two additional proposed monitoring wells MW-11D and MW-12D are required as part of the assessment for groundwater. These wells should be located within six feet of the shallow companion wells and about 100-feet in depth (depending on water bearing zones). Borings are to be cored so the rock quality designation (RQD) and recovery values may be recorded and used in the subsurface evaluation. Slug tests are to be performed after installation to obtain hydraulic conductivity. Also calculate the vertical separation of the groundwater in the nested pairs.

It is unclear whether proposed MW-17 is located within 250 feet of the landfill footprint and on the same side of the drainage feature of MW-8. To the extent possible, use this as a guide in locating the position for installation of MW-17.

At sites where groundwater contamination is found to migrate to adjacent properties the landfill operator is liable for any corrective action that may be required to comply with groundwater and surface water standards. The nature of a water quality assessment is to investigate numerous unknowns, many of which cannot be anticipated prior to the initiation of an environmental assessment. Acquiring buffer around an older closed landfill site may be an approach to improve public protection and decrease financial liability.

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After careful review of current information available regarding this site it is imperative for Alexander County to understand groundwater quality east of the landfill at least to the unnamed creek on the adjacent property, which appears to be a groundwater discharge. Monitoring wells placed between the landfill and the creek are required to demonstrate the limits of the contamination and provide additional understanding of the groundwater system.

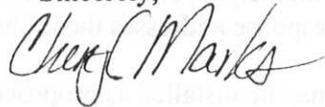
Proposed monitoring wells MW-18 and MW-19 will not need to be installed during this phase of the work plan. Installation of these wells will be considered as another phase of the work plan so the County may have the opportunity to acquire the additional property east of the landfill.

Once the current phase of the work plan is complete a revised Water Quality Monitoring Plan is required. The plan will include all of the changes in the monitoring system.

Complete the monitoring well installation within 90 days of receipt of this letter. Submit the revised Water Quality Monitoring Plan prior to the midyear semi-annual sampling event, as there have been significant changes to the monitoring program.

If you have any questions or concerns please call me at (919) 733-0692 extension 342.

Sincerely,



Cheryl Marks, Hydrogeologist  
Groundwater Compliance Unit  
Solid Waste Section  
Division of Waste Management

cc: Mark Poindexter, Raleigh Central  
Brent Rockett, Winston-Salem  
Wendy Simmons, Winston-Salem  
Wayne Sullivan, Municipal Engineering  
Kohei Yoshida, Municipal Engineering  
Central file