NCDENR
North Carolina Department of Environment and Natural Resources
Division of Water Resources
Water Quality Programs

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MEMORANDUM

November 15, 2013

To: Water Quality Permitting Section
Water Quality Regional Operations Section
Public Water Supply Section

From: Thomas A Reeder, Director
Division of Water Resources

Subject: Interpretation of setback requirements for potable water wells

In order to provide clarification on available permitting alternatives for managing greensand (iron and manganese removal water purification systems) and similar small filter backwash (sand or calcite filters) wastewaters at potable water wells this interpretation of setback requirements for potable water wells is being given.

Existing regulations classify the potable well filter backwash as a wastewater and allow for its management though a number of permitting programs. An NPDES permit is an option if surface water is available for discharge. Another option is a pump and haul permit; however, operational costs make this alternative impractical in most cases. A non-discharge (*i.e.*, land application) permit is a third option; however, many well sites do not have adequate space for a disposal system due to regulatory setback requirements to wells (100 ft) and property lines (50 to 150 ft). Additionally, effluent storage requirements increase construction and operational costs, but might not provide necessary protections.

Due to the low risk and small volume of typical backwash water at potable water wells it has been determined that the setback requirement in 15A NCAC 02T between wastewater disposal and a well was not intended to apply to the well from which the backwash water is being generated.

This interpretation only applies to disposal to the land surface of potable water well backwash from greensand or other small type filters, not to include backwash from conventional filters or wastewaters from reverse osmosis and ion exchange units, provided the potable water well does not exceed the Maximum Contaminant Level (MCL) for radionuclides or arsenic. This interpretation does not exempt the land application of the backwash water from meeting all other permitting requirements established in 15A NCAC 02T.

In addition changes to the non-discharge rules (15A NCAC 02T) to better accommodate the permitting needs of this waste will be made. The recommended changes will include rule language that will permit by regulations systems using treatment producing low volume and low risk wastewaters that do not contain greater than threshold levels radioactive material or arsenic.

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