



Tennessee Nutrient Reduction Strategy Policy Development 2015

Issue:

The Tennessee Department of Environment and Conservation released a strategy for reducing nutrients such as nitrogen and phosphorus into streams. The Environmental Protection Agency (EPA) is pushing states to develop strategies as an alternative to a federal regulatory approach imposed on all states. This strategy has a goal of reducing nutrient run-off by 40%. The strategy divided sources of nutrients for regulatory purposes into two categories: 1.) regulated point sources from waste water treatment plants, industry, and MS4s and 2.) non-point sources from agriculture. Agriculture would be encouraged to use voluntary means for reducing nutrient loads. This would be highly dependent on production methods that limit the amount of nutrient run-off. Some concerns for agriculture are the methodology used to determine agriculture's contribution and methods to measure success for agriculture.

Questions:

1. Do you believe farmers are aware of the nationwide focus on reducing nutrients?
2. Do farmers in your area use best management practices to reduce nutrient runoff?
3. What steps should the agricultural community take to collect field level data on nutrient runoff?

Background:

EPA is placing more emphasis on nutrient reduction throughout all watersheds in the US. The Chesapeake Bay watershed has been targeted by the agency and as a result several restrictions have been federally imposed on farmers, industry, and waste water treatment plants throughout the watershed. The same concepts used in the Chesapeake Bay watershed are being considered in the Mississippi River watershed to address hypoxia in the Gulf of Mexico.

Tennessee's 2012 303(d) list identifies approximately 3,375 river miles of stream and 15,692 acres of lake in Tennessee impaired due to nutrients. Based on models, the US Geological Survey (USGS) estimates that 5.5% of the total nitrogen flux and 5.3% of the total phosphorus flux that flows into the Gulf of Mexico comes from sources in Tennessee. Many of the states in the Mississippi River watershed are developing nutrient reduction frameworks to reach federal goals of nutrient reduction throughout the entire watershed. Tennessee's draft strategy addresses nutrient reduction by focusing on point sources and agricultural non-point sources separately.

The strategy for agriculture relies on voluntary, economic, and science based incentives that will enable farmers to reduce nutrient run-off as they make production decisions. The departments of agriculture and environment and conservation along with the University of Tennessee began developing a draft nutrient reduction strategy for agriculture in 2011 and has begun the process of organizing stakeholder involvement.

A nutrient reduction strategy for the state is inevitable given the nationwide focus on the Gulf of Mexico hypoxia. However, agriculture as a whole has very little data and research to more accurately determine just how much agriculture contributes to nutrient run-off. The USGS model used to determine nutrient runoff is called *SPAtially Referenced Regression on Watershed* or also known as SPARROW. The SPARROW model works best on a large watershed scale and uses data that is most recently from 2001. Many changes have taken place in agriculture since 2001 both through precision application and agronomic

uptake. Agriculture needs data to prove more accurately how much is leaving fields and more importantly how much over time is agriculture helping to meet the 40% reduction goals. If agriculture cannot measure a success in voluntarily reducing nutrient goals then a regulatory approach may be used in the future to mandate nutrient reductions.

TFBF Policy

Water (partial)

Plant nutrient run-off has historically been considered nonpoint source pollution. Regulatory agencies and environmental groups are now placing emphasis on nutrient loadings in water from nitrogen and phosphorus run-off. Every commodity produced in Tennessee would suffer financially under restrictions on the use and management of plant nutrients. Tennessee producers are vulnerable because very little scientific data exists regarding what levels cause stream impairment, agriculture's contribution to nutrient loadings, and what methods are available to reduce nutrient run-off. We oppose numeric nutrient standards in Tennessee's water quality criteria. We oppose agricultural nutrients being considered point sources of pollution. We believe the University of Tennessee, Tennessee Department of Agriculture, USDA NRCS and other stakeholders should work to establish recent and reliable data concerning nutrient run-off and realistic effects on water quality.

Public policies concerning the protection and management of water can and should be based on the best data obtainable. New technologies such as microbial source tracking are proving wildlife, human activity and domestic pets are the major contributors to water pollution in watersheds once thought impaired by agriculture. We support the funding of more studies such as the Beaver Creek Project conducted in Fayette, Haywood, Tipton and Shelby counties.

Farm Bureau encourages the Tennessee Division of Water Resources to undertake a timely and thorough water quality inventory on all navigable waters and reservoirs in the State. This study should be carried out by a nonbiased, scientifically qualified organization of highest reputation such as the USGS or National Academy of Sciences. Money provided by Section 319 of the Clean Water Act should be used on a highest priority basis for this purpose, if available.