

# Upper York River Basin TMDL Implementation Plan

## AGRICULTURAL WORKING GROUP MEETING SUMMARY

January 25, 2011 at 8:00 PM (Louisa County Administration Building; Louisa, VA)

### Meeting Attendees

<b>Jenny Biche</b> (RRRC)	<b>William Biscoe</b> (Citizen)	<b>Jennifer Carlson</b> (VADEQ)	<b>Raleigh Coleman</b> (TJSWCD)	<b>Sonny Coleman</b> (Citizen)
<b>Willie Coleman</b> (Citizen)	<b>Willie Gentry</b> (Chair, Louisa Co. BOS)	<b>J.R. Goodwin</b> (Citizen)	<b>Vernon Jones</b> (Citizen)	<b>James Kean</b> (Citizen)
<b>Patty Madison</b> (Citizen)	<b>Byron Petrauskas</b> (BRES)	<b>Helene Purcell</b> (Citizen)	<b>Doug Smith</b> (Citizen)	<b>Clorese Vaughan</b> (Citizen)
<b>Joey Vaughn</b> (Citizen)	<b>Bob Weiner</b> (Citizen)			

### Meeting Summary

Byron Petrauskas with Blue Ridge Environmental Solutions, Inc. (BRES) led the facilitation at the Agricultural Working Group meeting. This group is to focus on identifying constraints to implementation, recommend control measures to obtain the livestock bacteria load reductions listed in the TMDL study, determine appropriate outreach methods, discuss identity to provide technical assistance, and identify funding sources / partnerships. The group received a handout with information and questions regarding best management practice (BMP) identification and implementation.

### Agricultural Status in Watershed

Current operational status of producers and landuse changes since the TMDL study were discussed. Primarily beef operations exist in these watersheds. Confined animal feeding operations (CAFOs) consist of four dairies and two poultry facilities. It was noted the milking herd in the Plentiful Creek dairy was currently at about 100. Attendees were unsure if sufficient waste storage facilities existed at all the dairy operations. Litter storage sheds were believed to exist at the poultry operations. It was noted that sufficient exporting of manure was not prevalent in these watersheds. Members noted the horse population in Goldmine Creek was probably lower than the 89 horses listed in TMDL study. Attendees also suggested that a few more horses have been added in Pamunkey Creek since 2005. Changes noted in landuse since 2005 include: increase in residential development in Terrys Run and Pamunkey Creek; more houses are being built in Gold Mine Creek; and an increase in cropland is being seen. Carolina farmers are moving up and taking pasture and hayland and converting it to cropland. Gold Mine Creek has had an increase in logging, after which, land is used for residential growth. An inquiry was made as to whether the TMDL IP should look at logging in the watershed. Since the TMDL IP is focused on bacteria, effects of logging are incorporated by estimating potential bacteria load from the landuse forest is converted to, such as pasture.

### BMP Identification

An inquiry was made as to whether implementation was voluntary. Currently, Virginia relies on a voluntary and incentive based program to encourage installation of conservation practices. The group reviewed a list of best management practices (BMPs) that could address livestock with stream access and bacteria loads on pasture and cropland. Average component costs based on Culpeper Soil and Water Conservation District historical data for various livestock exclusion systems were analyzed. Fencing costs listed for 5-strand barbed

wire fencing (\$3 - \$4 per foot) would apply to 5-strand high tensile fencing. Cost for 5-strand barbed wire fencing would be about \$5 to \$6 per foot. Attendees suggested average cost to drill a groundwater well would range from \$6,000 to \$10,000 depending on depth. Providing electricity to a groundwater well can be a big issue in these watersheds. It can cost from \$2,000 to \$15,000 to install the base depending on how far you have to go. Grant money is needed for farmers who don't have electricity where they have their cattle.

Consequences of the livestock exclusion fencing buffer, such as non-native vegetation species growth, were discussed. It was noted that buffer maintenance (e.g., mowing) is allowed in some livestock exclusion practices. Livestock exclusion fencing is not practical in flood-prone areas and would be wiped out quite frequently in some areas of watershed. Current cost-share contracts require farmers to repair/replace damaged fence after each flood occurrence. In TMDL areas, farmers are eligible for cost-share funds to assist with the repair/replacement if the practice is still in life span, and funding is available. Also there is a 25% tax credit for their out of pocket costs, WP-2D. A suggested recommendation to include supplemental cost-share for fence repair/replacement when fencing is destroyed by flood was made. The WP-2T practice also provides \$.50 per linear foot of stream fencing as an incentive payment to assist with stream fencing maintenance. The answer whether cost-share assistance is available for water troughs is yes. Pumping from the stream itself is a possible solution instead; however, cows prefer to drink clean, cold water. If your upstream neighbor is dumping pollutants into the water, it will affect the water quality your cattle drinks. VADCR provided a brochure to attendees on the benefits of clean water and improved pasture management.

## **BMP Implementation**

An inquiry was made as to why the farmer must brunt the cost of BMPs if the public will benefit from the improved water quality, recommended the cost be shared by everyone, not just the individual farmer. Taxpayers fund the agricultural incentive programs, so cost is partially distributed if a producer participates in a program.

It was noted that a 100% cost-share incentive may be needed for some producers to agree to a 10-year BMP commitment. This would have to be from sources outside of state or TMDL cost-share funds since the funding sources cannot exceed 90% cost-share including funding from local sources and grants. Piedmont Environmental Council has assisted in covering costs in other counties. A comment was made that 5-10 year contracts is a fair term because of farm turnover. Often land is sold before the contract has been reached and the farmer has difficulty selling the property. In the last eight years there have been two instances where this has occurred in the Thomas Jefferson SWCD area. Recommendation that farmer labor is valued same as contractor labor, farmer should get same credit as if a contractor did the work. Currently, cost-share estimates farmer labor costs at lower rate than contractor. It was noted Soil and Water Conservation District Boards determine the cost-share level credited to farmers doing the labor, it is not up to the State to decide.

Applicable educational /outreach methods that work well in the area include: personal communication through phone and site visits; farmer-to-farmer interaction; SWCD, Virginia Cooperative Extension, and Farm Service Agency newsletters; field tours conducted by SWCD; educational events conducted by Virginia Cooperative Extension; Cattleman's and Dairymen's Association events; information booth at CVCA Field Day and County Fair; and *Central Virginian* articles. It was noted that newsletters would reach old clients not new ones and the county fair would reach more residents than farmers.

## **Other Discussion**

An inquiry was made as to whether or not the TMDL-IP would address hydro-fracturing. Groundwater is a component of the TMDL model. Bacteria monitoring performed by VADEQ addresses surface water.

A comment was made that there is an imbalance between what Developers make versus what Farmers make a year. Developers are required to pay minimal fees. It was recommended that developers incur some of the costs. BMPs are voluntary for farmers.

An inquiry was made as to whether there are any numbers indicating how much of the pollution in a river is due to farmers specifically. Is there a percentage that farmers contribute versus larger cities such as Richmond? The TMDL study does have data providing that information; however, the TMDL does not compare the numbers with larger cities. The TMDL information is locally based only.

An inquiry was made as to whether there was a computer model that utilizes DNA information and breaks down the wildlife, human and livestock bacteria contributions. The TMDL utilized a computer model coupled with information on bacteria sources. Monitoring was conducted during TMDL development and utilized antibiotic resistance analysis to differentiate human, livestock, pet and wildlife bacteria sources in a water sample.

An inquiry was made as to how much geese and muskrat bacteria contributed to the Goldmine Creek water quality exceedance levels. A citizen remembered the TMDL study estimating a geese population of 450 for the Goldmine Creek watershed. He stated there were nearly 450 geese on his land alone. He feels a more accurate, conservative estimate would be 10,000 geese for the entire Lake Anna area that stay year round. There was mention of a wildlife study being conducted on the lake. The game warden may be able to provide data on the geese population from this tagging and tracking program. The geese population has dramatically increased, not just on the lake but in the pasture. The TMDL IP's progress is tracked, and if successful BMPs are not showing a decrease in bacteria exceedance levels over a given period of time, the project will be reanalyzed. If wildlife is ultimately the problem, there are management options available to address over population or nuisance animals. In a stream on the Eastern Shore, raccoons were identified as the problem and were subsequently relocated elsewhere.

There have been cases of salmonella in cattle. VADCR has information on how much bacteria one beef cattle creates versus one beaver versus one dog, etc.

An inquiry was made as to whether or not the Louisa Sewage Plant goes into Goldmine Creek. It extends into South Anna River and the permit is about to expire.

An inquiry was made as to whether VADCR or USEPA has information on TMDL IP success stories. VADCR has information on their website of successful TMDL IP projects such as Middle Fork Holston River Blackwater River, Muddy Creek, and Willis River, which has partially been de-listed.