

**First Agricultural Working Group Meeting  
Meeting Minutes**

**James River and Its Tributaries  
Water Quality Improvement Plan for Bacteria Impairments**

**6:00 PM, November 16, 2010  
DEQ-PRO**

**Attendees**

Keith Burgess, Monacan SWCD  
Lin Liang, Greely and Hansen  
Michelle Virts, City of Richmond  
Kelley West, DEQ-PRO  
Ram Gupta – DCR-Richmond Regional Office

Ram Gupta with DCR-RRO led the facilitation at the Agricultural Working Group Meeting. He briefly stated the purpose of the working group meeting – to suggest control measures to obtain bacteria load reductions from agricultural lands, constraints of implementations, potential funding sources and the outreach methods as suitable to the James River watershed.

The attendees at the meeting received lists of few best management practices (BMPs) with their bacteria reduction efficiencies, and the cost of their implementation. Group reviewed the information. Keith indicated that in Bernards watershed, there weren't many dairy animals, and the only livestock needed to be fenced out is below the monitoring station. Buffers are good, but cost is the main issue. Ram indicated that there are two type of grazing land protection practices available – LE-1T (35-ft buffer width) and LE-2T (10-ft buffer width), and the cost to farmers depends on type selected. The LE-1T practice has 85% cost-share funding, while LE-2T is 50% cost-share funding (with cap and other limitations). Keith also indicated that there are few horses above the monitoring station and only one cattle and sheep farm in Bernards watershed. Keith indicated that by the time fence and wells are installed it can cost up to \$50,000. Again, cost is the main issue.

The horse farms would need only stream fencing, not the wells, as farmers already have wells on those farms.

Ram asked the suitability of other control measures like woodland buffer filter area (FR-3), reforestation on erodible crop and pasture lands (FR-1), stream protection (WP-2T) or conservation tillage for the impaired watersheds. The group thinks it is worthwhile to explore and include few such BMPs on suitable lands. Bernards Creek watershed does not have any poultry operation.

Michelle inquired on the productivity of the stream fencing. Ram indicated that fencing is one of the most effective control measures in reducing bacteria loading from pastureland. The practice is found to have a bacteria reduction efficiency of 100%. Also, water troughs are installed under the agricultural projects and cattle prefers drinking water from these troughs, not from the streams. Drinking water from troughs has also been found to have a positive effect on cattle health.

The group reviewed the costs of agricultural control measures. Keith mentioned that for grazing land operation, funding needs are estimated at minimum of \$25,000. Operations currently being installed are costing \$150,000 to \$200,000 for the projects including 30 wells. Streamside fence

maintenance cost and other costs were found to be reasonable. Ram mentioned the need to check on costs of loafing lot management.

Keith pointed out that Powhatan watershed has large lots under non-forested zoning, but land use data shows it as forested land. There are few large land parcels that are not forested. Michelle asked if MapTech is using updated landuse data. Keith indicated that due to differences in land use codes, data being used may not have correct land use coding, and will need to be checked. Keith will explore availability of mapping data for Michelle.

Ram indicated that various federal and state funding is available for agricultural BMPs. Also, if IP is approved, projects can be submitted for grant funding as well. Keith stated that NRCS has limited funding for water quality and no BMPs projects are currently done under this funding in Bernards Creek watershed.

Concern was raised that voluntary BMPs are not being credited to water quality benefits. Keith indicated that the Monocan SWCD sent a few farmers for a course on no-till farming practices. Many farmers started using the practice voluntarily, but database still show those lands under tilling operation. Ram indicated that a process is currently being considered to include these BMPs in the database. He further stated that BMPs to be included need to meet quality control and quality assurance requirements for inclusion in the database.

Retention ponds would be considered for implementation only if other BMPs are not enough to meet water quality standards. The ponds are for agricultural runoff only, not for residential or urban land runoff. Keith indicated that ponds are used drinking water sources for horses and cattles.

The group emphasizes the need of educating the farmers on various control measures and their water quality benefits. Most of the full-time farmers are in contact with the Soil and Water Conservation District. But, the District has not had much contact with small farmers. Contacting those farmers and land owners through flyers, door-to-door, and local newspapers are considered best way of promoting BMPs within the watersheds.

Ram suggested DEQ to include Henricopolis SWCD for next working group meeting (invited but did not attend). DEQ will schedule the next working group meeting and seek consensus on date/time/location. DCR will reach out to local SWCDs to encourage their involvement in IP process.