

**Second Agricultural Working Group Meeting
Meeting Minutes**

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

**2:00 PM, December 13, 2010
Richmond Waste Water Treatment Plant
1400 Brander St., Richmond, 23224**

Facilitator: Ram Gupta
Recorders: Kelley West

Attendees

Dan Lee, James River SWCD
Kelly West, DEQ-PRO
Seth Mullins, DEQ
Roger Harris, DEQ
Keith Burgess, Monacan SWCD
Ram Gupta – DCR-Richmond Regional Office
Margaret Smigo, DEQ
John Newton, Henrico, DPW
Grace LeRose, Richmond, DPU
Ed Cronin, Greely and Hansen

Agenda

- Review the pollutant reductions that the implementation plan must meet (Table 1).
- Discuss preliminary estimates of implementation measures that will result in reductions in Agricultural bacterial loads (Tables 4 and 5).
- Document existing efforts underway to address bacteria in Agricultural and Residential areas of the impaired watersheds (Table 3).
- Identify additional/alternative measures to reduce the bacteria load that the implementation plan can address.

Ram Gupta with DCR-RRO led the facilitation at the Agricultural Working Group Meeting. He briefly updated the group with the discussions of first Agricultural Working Group meeting held on November 16, 2010. He then stated the purpose of the working group meeting - to review bacteria reduction goals and preliminary estimates of control measures; to review existing water quality efforts currently underway; and to identify additional control measures needed to reduce bacteria loadings in James River watershed.

Attendees was asked to indicate their choice if they would like to be on IP Steering Committee, which would meet in January 2011.

The attendees reviewed bacteria load reductions as provided in TMDL development document. Bacteria reductions are required in Almond, Bernards, Powhite and James River (riverine) sub-watersheds. Keith Burgess indicated that - riverine section of James River not included in 1st meeting; Are Genito and Dover and portion of Goochland included in current IP; and Bernards has only one beef cattle and no dairy plant; and number provided in Table 2 seem different than actual data and need to be revised and/or updated. Margaret Smigo responded – James upper portion was delisted in 2008; Goochland portion is not currently included in IP, and Genito and Dover Creeks are of low priorities as these do not discharge directly into impaired segments; model runs will be made to include these; and MapTech gets watershed data from SWCDs, online database, and through various public sources.

A need of map indicating sub-watershed boundaries, water quality stations, and acreage was felt to review data and various control measure estimates. Without this, reviewing estimated numbers of beef cattle and various other bacteria contributing livestock/animals seems difficult or unrealistic. Daniel indicated that there are no beef cattle in Chesterfield; and livestock number shown in handout seem too high; also there are no dairy in Chesterfield portion of James (tidal). Ram suggested contractor to review these Table 2 data again and to verify with SWCDs and local sources. Margaret suggested attendees to provide any revised estimates they might have. Daniel indicated to provide horse data for Chesterfield by next week.

Ram indicated that stream fencing estimates in Table 3-5 include single- and double-sided fencing needs, considering pasture and forest land uses. He suggested using correct naming of LE-1T and LE-2T control measures. Generally, 7% of total fencing requirement is considered to estimate maintenance costs. Also, out-of-total, 90% or more are considered for SL-6/LE-1T, and 10% or less for WP-2T and LE-2T systems depending on local needs. Keith suggested that instead of code names, IP should use full names of control measures.

Roger questioned the fencing need of Powhite Creek within the segment falling in Chesterfield. Keith suggested that since Almond Creek has low livestock number, SWCD staff may field verify these. John wanted to clarify the fencing estimates of James River (riverine) listed in Table 5 – does it include delisted portion or not?

Keith suggested the Retention Ponds in pasturelands are not practically feasible. Ram stated that various control measures are implemented in stages. Under Stage I (1 through 6 years of implementation), control measures having high bacteria reduction and comparatively less expensive are implemented, while retention ponds and other expensive control measures are recommended for Stage II (7 through 10 years) only. EPA requires implementation plan to include all control measures needed to remove all bacteria loadings to zero level. Expensive BMPs, therefore are suggested for later years of the implementation, only when other control measures are not able to bring bacteria loading to zero level.

Keith expressed concerns on Table 5 – if Manure Incorporation and Loafing Lot Management are not practically feasible in Bernards Creek watershed, what other BMPs would be needed in their places. Ram indicated that in such case, contractor needs to run another model runs to either increase the quantities of recommended BMPs or suggest other BMPs suitable to obtain bacteria reductions needed to achieve water quality goals.

Table 6 – cost of \$70-\$80 per acre was suggested for Manure Incorporation on cropland. It includes costs for manure broadcast and for manure injection.

Group reviewed IP cost estimates of Stages I and II, and asked to have watershed boundaries map prior to confirming watershed and livestock data. Ram asked attendees to provide any updated land use and livestock data to Margaret. Keith emphasized the importance that implementation plan should have most updated data.

Next working group meeting would be in night and at a place close to public transportation. Tentative dates were January 24, 25, and 27, 2011. Urban Working Group will meet 10:00 am on January 26, 2011. DEQ will finalize meeting schedule and venue and will inform to all attendees.

Meeting adjourned at 3:30 PM.