

**Eastern Virginia Ground Water Management Area Regulation Amendments and
Ground Water Withdrawal Regulation Amendments
Regulatory Advisory Panel Meeting
DEQ Piedmont Regional Office
September 18, 2009**

RAP members present

David Bailey, The Environmental Law Group
Ron Harris, Newport News Waterworks, representing the Va. Section of the American Waterworks Association
Sheryl Raulston, International Paper- Franklin Mill, representing VMA
Gayl Fowler representing SAIF Water Wells, Inc.
Christian Volk, Ph.D., Water Quality Manager, representing VA/MD-American Water
Thomas J. Roberts, Smurfit-Stone Container, representing Mission H₂O
Britt McMillan, Malcolm Pirnie, representing Eastern Shore of Virginia Groundwater Committee
Larry Foster representing Hampton Roads Planning District Commission
Susan Douglas, Va. Dept of Health
Curtis Consolvo, GeoResources
Frank W Fletcher, PhD, PG, Retired professor
Bill Pennell, Lancaster County Administrator
Dan Kavanagh (alternate for Lewis Lawrence), Middle Peninsula Planning District Commission
George Harlow, U.S. Geological Survey
Jesse Royall, Sydnor Hydro
John D. O'Dell, Water Well Solutions, LC
Mike Neuhard, Deputy County Administrator, Stafford County
Lynn Gayle, Taylor and Fulton, Inc. and member of the Va. Potato and Vegetable Grower's Association

RAP Members not present

Lewis Lawrence
Butch Nottingham

Public Attendees

Jeff Fletcher
Harry Critzer
Andrea Wortzel
Kristen Lentz
Whitney Katchmark
Mike Lang
Al Moor

DEQ Staff

Previn Smith
Jeff Reynolds

Ellen Gilinsky
Scott Kudlas
Robin Patton
Robyne Bridgeman
Hank Ghittino
Melissa Porterfield

Introductions

Scott Kudlas welcomed RAP members and introductions were conducted. A draft agenda was distributed to the RAP and members of the public. Mr. Kudlas indicated that there may be revisions to the agenda as the meeting progressed.

Ellen Gilinsky, Water Division Director, thanked the RAP members for their willingness to assist the agency by serving on the RAP.

Administrative Issues

Melissa Porterfield discussed administrative issues with the group. The RAP is a public body and meeting minutes will be prepared and circulated for review by members prior to being posted to the Virginia Regulatory Town Hall website. Members will be asked to provide any necessary corrections to meeting minutes in a short period of time since meeting minutes must be posted to the Virginia Regulatory Town Hall Website within 10 days of the meeting. The meeting minutes will capture meeting attendees, general issues discussed and list items consensus is reached on. The group reached consensus that the meeting minutes would not be voted on.

Future meeting dates and locations were discussed. Melissa Porterfield will poll RAP members concerning available meeting dates for the third and fourth weeks of October. Possible future meeting locations include West Point, Williamsburg, and Lancaster County. Melissa Porterfield will inform the group concerning the meeting date for October once responses are received from the RAP and will poll the RAP on future meeting dates for November, December and January.

Alternates for RAP members must be approved by the director. If RAP members would like to have an alternate approved they should send the alternate's name and contact information to Melissa Porterfield.

An interested parties email distribution list has been created. All RAP member and alternates do not need to sign up for this list since they already receive information from the agency concerning these regulatory revisions. Anyone interested in being included in the interested parties list should contact Melissa Porterfield (Melissa.Porterfield@deq.virginia.gov) and request to be added to the list.

Today's meeting agenda includes a public forum. The public forum portion of the meeting provides an opportunity for the public to provide comments to the RAP. Individuals that are interested in speaking during the public forum were asked to contact

Melissa Porterfield prior to noon. In the event that there are no individuals that sign up for the public forum, the public forum will not be held.

Any information that needs to be distributed to the RAP should be sent to Melissa Porterfield for distribution.

Review of NOIRA

Scott Kudlas reviewed the Notices of Intended Regulatory Action that were issued for the Eastern Virginia Ground Water Management Area and the Ground Water Withdrawal Regulations. The Eastern Virginia Ground Water Management Area Regulations are being revised for multiple reasons. The agency is aware of declines of ground water levels system wide and including in the Northern Neck and Middle Peninsula areas. Modeling has indicated impacts to ground water in areas outside of the current management area and those withdrawals are currently unprotected since they are outside of the management area. Also impacts from ground water withdrawals are propagating along the fall line into the undesignated portion of Virginia's coastal plain and have the potential to interfere with wells in these areas without assigned mitigation responsibilities. Additionally, the agency received a petition to expand the Eastern Virginia Ground Water Management Area Regulations from the Lancaster County Board of Supervisors. A list of the localities that may be added to the Eastern Virginia Ground Water Management Area are identified in the NOIRA document. The NOIRA documents outline areas where the regulations will be reviewed and possibly revised.

Mr. Kudlas stated that he purposely used strong language in the NOIRA for the Ground Water Withdrawal Regulations to describe the issues that will be addressed in this regulatory process. The issues that will be reviewed during the revisions of the Ground Water Withdrawal Regulations include the following:

- 1) improve organization and structure;
- 2) evaluate current administrative procedures, clarify application and permitting requirements, and allow for a more efficient application review process;
- 3) evaluate the appropriateness of the current application of 80% drawdown criterion;
- 4) refine the appropriate priority of application review;
- 5) evaluate the appropriateness of prohibiting the use of ground water for nonagricultural irrigation, including whether the use of reclaimed water should be required for any nonagricultural irrigation associated with a facility that has a ground water withdrawal permit;
- 6) evaluate the appropriateness of limiting ground water withdrawal permits to essential (as compared to beneficial) uses, including whether to define essential use;
- 7) evaluate the appropriateness of limiting ground water withdrawal permits for agricultural irrigation to withdrawals from the water table aquifer, including whether all water table withdrawals should be exempt from permit requirements; and
- 8) reconcile the new hydrogeologic framework of the Virginia Coastal Plain with current requirements to place all pumps above aquifer tops.

As the agency's regulatory process takes on average 18 months, any changes to be made to the regulations will take time to implement. The plan is to work to revise both regulations simultaneously since they are so closely related.

During these meetings the agency will be looking to hear from RAP members concerning ideas they have concerning revisions in these areas of the regulations. The agency does not have draft language concerning how these issues should be addressed.

Ground Water 101 Presentation

Robin Patton, DEQ, presented information to the RAP concerning Groundwater concepts. Concepts covered included Darcy's Law, cone of depression, modeling of potentiometric surfaces, depositional environments, and confined and unconfined aquifers. This presentation was provided to attempt to provide all RAP members with knowledge about groundwater concepts that will be discussed as part of this regulatory process.

A lunch break was taken from 11:20-12:15 and the presentation continued after lunch.

Priority issues identified by RAP for addressing in the regulations

Individual RAP members were asked to provide feedback to the group concerning the most important issues that they believe should be reviewed in the regulations. The list below includes all issues brainstormed by RAP members.

- 80% drawdown issue
 - Need technically based starting point
 - Historical pre-pumping surface
 - Keep or change
 - Evaluate critical cells
 - Reform procedure- currently based only on one well, not on a group of wells- (need to consider regional data)
 - Need evaluation for change
 - 1 ft drawdown issue
 - Validity of use or explore another methodology (consider 20 yr. reality)
- Create mechanism to stretch source for the critical uses (human consumption)
 - Implement aquifer storage and recovery - recharge/withdrawal area to increase renewable resource
 - Currently regulations contain a penalty for aquifer storage
- Availability of water from Water Table system- (encourage use of)
 - Almost a penalty for pulling from water table in regulations
 - Encourage use of water from the water table to make it more attractive
- Avoid Water Wars
 - How are we going to deal with issues?
 - Regulations do not prevent water wars since state does not own all water rights

Grandfathered rights, current users, permitted amounts vs. pumping amounts

- Water Resource/food safety/ water use (Agricultural uses)
Seasonal use for agricultural uses- permitted amount vs. amount pumped
Examine agricultural uses and time of year when water is being used,
consider “banking” of unused water during seasons of adequate rainfall
- 10 yr. permit term for public utility is a concern
population is not diminishing
Planning horizon for local government needs to be addressed
- Emergency access to groundwater
emergency wells during drought conditions
need to discuss if emergency wells need to be regulated
- Limit Pump setting/ Pump Location/ pump elevation/
make more enforceable as a safety net, potentially link to well contractor
Within Potomac- on a case by cases basis based on hydraulics to demonstrate
hydraulic conductivity
- Water table aquifer use and conservation
Priority of use and encouragement of conservation (for example golf courses that
are large water users)
- Potomac Aquifer- distinguish between - 3 aquifers- not 1 aquifer
- 20 (or 30 or 40 yr) reality needs to be considered
Withdrawals are increasing and water levels will fall
Withdrawals are likely to continue and not be abandoned
- Consider those on the fringe of requiring a withdrawal permit (homeowner and
agricultural use)
DEQ/VDH coordination to regulate
Consider changing the 10,000 gal./day and/or 300,000 gal./ month amounts for
irrigation and home wells – should they be included and accounted for?
Examine the piecemeal use of GW -avoids GW withdrawal permit (multiple wells
for different uses)
- Definition of essential use- emergency use needed
- Incorporate what we know and the expertise available when developing the regulations
- Get in the game- with Maryland and other states concerning ground water issues and the
impact withdrawals in those states have on Virginia’s aquifers

- Economic Competitiveness- permit requirements- concern from those being added to the GW management area and how this will impact their ability to compete for development and industry

- Conservation- save potable water for drinking

Require conservation

Use lowest quality water that will meet the need when you can

- Concern with loss of water permit amount-

Reuse conservation for non-potable uses

Moving pump level- causes loss of well capacity

- Salt water intrusion

evaluation of data- statistical or straight line

- No reservoir- more pressure/demand for groundwater resources

Public Forum

Mike Lang, New Kent Department of Public Works spoke during the public forum. New Kent County is 100% dependent on ground water for water. Water is the driving factor/limiting factor for growth in the locality. He expressed concern that the permit length should be longer than 10 years- should be planning for 30-40 years. New Kent has development needs but has not received their permit to withdraw water. He does not support the idea of changing pump setting since it would require water systems to be re-engineered.

Wrap up

Findings needed by the board to expand the ground water management area were listed (§ 62.1-257) and the RAP will discuss this issue at the next meeting.

RAP members should review the list of localities for inclusion in ground water management area. At the next meeting the group will discuss if the cities of Richmond, Fredericksburg and Alexandria be included in the GW management area. The RAP will also discuss which additional localities should be included in the Eastern Virginia Ground Water Management Area.

Information on the regulatory process will be provided to the RAP to assist the group with understanding the process for revising the regulations. The goal of the group is to create a consensus amendment to the regulations.

Homework Assignment

Homework assignment from September 18th GW RAP meeting-

1. Review and familiarize yourself with information in the binders provided by the agency.

2. Send any suggestions on any issues the RAP should consider or prepare for regarding expansion of the Eastern Virginia Ground Water Protection Area to Melissa Porterfield by Friday, September 25, 2009.
3. Send comments or suggestions concerning administrative procedures related to the Ground Water Withdrawal Regulations (2nd item listed in the NOIRA) to Melissa Porterfield by Friday, September 25, 2009.

The meeting adjourned at 2:35.