

Technical Advisory Committee: GP for Non-Agricultural Surficial Aquifer Withdrawals

Electronic Communication Meeting via GoToWebinar

May 27, 2021

Meeting Minutes

Committee Members Present:

Scott Vogel, Virginia Department of Health
Joe Nicholas, Legacy Park HOA (Hanover)
Jason Early, Cardno
Martha Moore, Virginia Farm Bureau
Samuel Doak, Virginia Tech
Peggy Sanner, Chesapeake Bay Foundation

DEQ Staff:

Scott Kudlas, Director, Office of Water Supply
Joseph Grist, Water Withdrawal Permitting and Compliance Program Manager

Visitors:

Kenneth Bannister
Joseph Giacinto
Kyle Shreve
Jessica Steelman

Proceedings:

- 1) Welcome and Introduction:
 - a) A quorum was present. The meeting broadcast was started at 8:00am, and the meeting was called to order at 8:05am by Mr. Kudlas.
- 2) May 13, 2021 Meeting Minutes
 - a) The committee approved the draft meeting minutes for the May 13, 2021 TAC meeting as final.
- 3) Staff Updates:
 - a) Surficial aquifer definition
Mr. Kudlas reviewed statutory definition for surficial aquifer proposed for Chapter 920.
 - b) Ability to appeal
Mr. Kudlas and Mr. Grist reviewed existing regulatory language in Chapter 610 and the related statutory language and process that would allow an applicant to appeal a decision to deny a general permit application.
 - c) Draft application and forms

Mr. Grist reported the draft application, audit, and reporting forms were sent to the committee for review on Wednesday, May 26. Mr. Kudlas discussed the forms and how they were developed as a means to address program requirements while easing the administrative burden on permittees. The forms were originally derived for the Eastern Shore GP process, Chapter 910.

4) Discussion: general permit criteria for establishing surficial wells and when surficial aquifer will not meet user needs

a) Depth below land surface or other alternative

Mr. Early presented an overview of the surficial aquifer and how it differs from the confined aquifers; differences in thickness in the surficial aquifers in the two groundwater management areas (Eastern Virginia vs. Eastern Shore); and differences in surficial aquifer thickness within a management area (Eastern Virginia). Mr. Early also provided information on geophysical logs for wells and the pros and cons of that requiring them. Mr. Early concluded his presentation with three possible options for Chapter 920: do not create an exemption for a geophysical log; create regional or countywide depths to exempt the need for a geophysical log; or have the applicant determine the depth where a geophysical log is not required using an online hydrogeologic framework. The Committee members discussed the data provided by Mr. Early, and the pros and cons of each alternative in regards to applicants, DEQ, and GIS surficial aquifer data availability in the context of the intent of the general permit regulation. The Committee members also discussed well development practices and possible field protocols for establishing the depth of a surficial well. Staff will move forward to developing draft language as a placeholder while Committee members consider this specific topic during a future meeting.

b) Water quality constituents of concern for users/reasonable level of effort

Mr. Doak reported most of the literature identifies salt as the primary constituent of concern for golf courses. This may take the form of sodium, chlorides, and other concerns can be carbonates or bicarbonates. Mr. Doak is still waiting on responses to his inquiries to be able to provide a more specific recommendation for the Committee to consider. The Committee discussed saltwater sources in the surficial aquifer, the need to identify the specific chemicals to measure for determination or adequate water quality, and if the levels of iron may cause concern because of staining issues. The Committee concluded this topic by considering sampling frequencies that may be sufficient for the purposes of determining if the surficial aquifer will meet the beneficial use needs. Staff will move forward to developing draft language as a placeholder while Committee members consider this specific topic during a future meeting.

c) Water quantity: reasonable level of effort/number of wells

Mr. Kudlas led off the topic discussion in that one well may not be enough to meet the applicant's water withdrawal need, so more than one well may be needed. The Committee considered what may be a reasonable level of effort (number of wells or test wells) expected to meet yield requirements of an applicant. Mr. Early suggested a scaled number of wells based on the acreage of the proposed irrigation area as one possible approach to consider. He provided a hypothetical example for a one hundred acre site, up to ten test wells might be expected to determine if total yield can be provided by the surficial aquifer. Staff will move

forward to developing draft language as a placeholder while Committee members consider this specific topic during a future meeting.

5) Public Comment

- a) There were no public comments provided.

6) Next Steps

The Committee identified the following items for further discussion:

- a) Strawman language for the surficial aquifer in regards to depth below land surface, based on Mr. Early's Alternative 3 option. A draft section for discussion concerning development of surficial aquifer test holes and depth requirements based on observed field conditions and a potential GIS tool.
- b) Strawman language identifying specific water quality constituents of concern for users in order to determine water quality standards for determining general permit eligibility and lab standards for providing water sample results.
- c) Strawman language to identify the maximum level of effort (number of wells) and number of water quality samples an applicant would be expected to meet to beneficial use and yield requirements.

7) Next Meetings: June 10, 2021 (9am to 12pm) and June 22, 2021 (9am to 12pm) on GoToWebinar

The meeting adjourned at 11:50am.