

Groundwater Withdrawal Permitting Program

In 1992 the Virginia General Assembly determined that “the continued, unrestricted usage of ground water is contributing and will contribute to pollution and shortage of groundwater, thereby jeopardizing the public welfare, safety and health.” Accordingly, it passed into law the Groundwater Management Act of 1992, whose purpose is to “recognize and declare that the right to reasonable control of all groundwater resources within this Commonwealth belongs to the public and that in order to conserve, protect and beneficially utilize the groundwater of this Commonwealth and to ensure the public welfare, safety and health, provision for management and control of groundwater resources is essential.” The groundwater withdrawal permitting program is the primary mechanism for implementing this legislation.

Up until now, groundwater withdrawal permits were only required in areas located west of the I-95 corridor. However, the Virginia Department of Environmental Quality (DEQ) has now determined that the permit program will be expanded to encompass all areas to the east of I-95, which of course includes King George County. As an existing groundwater consumer, the KGCSA submitted the required groundwater withdrawal permit applications in 2014. DEQ intends to finalize and issue these permits as soon as possible, perhaps as early as January 2017. All groundwater withdrawal permits issued by DEQ will have a fixed term not to exceed ten years.



Figure 1. Well Intakes at the Hopyard Farm Water Treatment Plant

Currently the KGCSA operates and maintains 31 wells (see Figure 1) that supply eight community water systems (CWS) (see Figure 2). Those systems are Canterbury, Courthouse (to include Heritage Hall), Dahlgren, Fairview Beach, Hopyard Farm, Oakland Park and St. Paul’s Church. DEQ will issue a withdrawal permit for each CWS. The permits will limit the amount of water that can be withdrawn from our wells by setting daily, monthly, and annual withdrawal ceilings. We will be required to meter, track, and report our actual withdrawals on a quarterly basis. Exceeding the withdrawal limits would constitute a violation of the law,

and would be grounds for enforcement action, permit termination, revocation, modification, or denial of a permit application.

In addition to adhering to withdrawal restrictions, we will be required to abandon up to eight existing wells (cost TBD); drill replacements for those wells (at approximately \$100,000 each); complete geophysical log testing at eight wells (at approximately \$25,000 each); conduct an aquifer test (cost TBD); and develop and implement a comprehensive Water Conservation and Management Plan (cost TBD).

One of my primary concerns with the permitting program is that the initial withdrawal limits set for our systems are based on documented historical annual amounts, plus 10 percent. While the

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final limits should meet current demand, they may not be enough to meet increased demand due to future development, especially in the Oakland Park, Dahlgren, Courthouse, and Hopyard Farm systems. Although we requested higher withdrawal limits based on expected development, DEQ denied our requests. DEQ did note that we could apply for permit modifications when the need arises, but I am concerned about how long it will take to re-negotiate permit withdrawal limits, and the potential impact that could have on development timelines, developer costs, and the return on investments the county has made and will be making to promote smart growth development. Re-negotiating a permit is expected to take at least nine months; probably longer.



Figure 2. This Water Treatment Plant Supplies the Hopyard Farm Community Water System (CWS)

My other concern is the cost of complying with all of the permit conditions that I outlined above. We don't have an exact figure yet, but it could easily exceed \$1 million. Although the permit program is designed to preserve and protect the groundwater resource that every county resident relies on, under current policy the entire cost burden will likely fall on the relatively small number of Service Authority customers. I believe the cost should at least be shared between the County and the KGCSA.

The General Manager and I will meet with DEQ officials on December 7, 2016 to discuss our concerns with the permitting program, and to offer alternative solutions that will hopefully increase our withdrawal ceilings while minimizing implementation costs and the need for frequent permit modifications.