



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Matthew J. Strickler
Secretary of Natural Resources

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Director

MEMORANDUM

TO: Members of the State Water Control Board

FROM: Jutta Schneider, Director, Water Planning Division *Jutta Schneider*

DATE: June 2, 2020

SUBJECT: Approval of Groundwater Withdrawal Permit for
Chickahominy Power, LLC. (GW0078700)

EXECUTIVE SUMMARY

At the next regular meeting of the State Water Control Board (Board), the Board will consider the issuance of a groundwater withdrawal permit for Chickahominy Power, LLC (GW0078700) in Charles City County, Virginia. This memorandum first provides a brief background summary of the groundwater management program and the consideration of a draft groundwater withdrawal special exception. Next, public comments received during the public notice period and during the public hearing, and a summary of staff responses, are provided. Finally, the draft groundwater withdrawal permit is summarized and provided.

I. BACKGROUND

The groundwater management program was established in 1973 pursuant to the Groundwater Act of 1973. The first groundwater management area was designated in 1975 as the Southeastern Virginia Groundwater Management Area. In 1989 this groundwater management area was expanded to include Charles City County and several other localities, and was renamed the Eastern Virginia Groundwater Management Area. The Ground Water Management Act of 1992 (§§ 62.1-254 et seq. of the Code of Virginia) replaced the Groundwater Act of 1973. The current statute requires permits for the withdrawal of 300,000 gallons or more of groundwater in any month in a groundwater management area and authorizes the issuance of a special exception to allow the withdrawal of groundwater in the case of an unusual situation.

Section 62.1-263 of the Ground Water Management Act of 1992 states that in evaluating applications, the Board shall ensure that the maximum possible safe supply of groundwater will

be preserved and protected for all other beneficial uses. This maximum safe supply is achieved through compliance with the “80% drawdown” criteria pursuant to a technical evaluation required by 9VAC25-610-110 D 3 h. Beneficial uses, as defined in § 62.1-255 of the Ground Water Management of 1992, include domestic (including public water supply), agricultural, commercial, and industrial uses. Chickahominy Power, LLC is identified as an industrial user.

As provided by 9VAC25-610-96, any permittee with any effective permit shall submit a new permit application at least 270 days before the expiration date of an effective permit. If a complete application for a new permit has been filed in a timely manner, and the Board is unable, through no fault of the permittee, to issue a new permit before the expiration date of the previous permit, then the permit may be administratively continued. The provision applies to groundwater withdrawal permits, but not groundwater withdrawal special exceptions.

In accordance with the applicable statutes and regulations, the Department of Environmental Quality (DEQ) evaluates any proposed withdrawal from an aquifer in the Eastern Virginia Groundwater Management Area in the context of aquifer pressure. Up to 80% of the aquifer pressure head within an aquifer may be withdrawn for beneficial use as long as such a withdrawal preserves 20% of the aquifer pressure head above each confined aquifer over the long term. Groundwater levels are used as a surrogate for aquifer pressure. DEQ uses a groundwater flow model to evaluate the drawdown of each withdrawal permit application, in conjunction with all other known withdrawals, to determine that water levels will remain above that “critical surface”. This modeling is a significant part of the Technical Evaluation used for determining whether a particular withdrawal complies with the regulatory standard for protecting the aquifer. A water withdrawal permit with applicable and appropriate permit conditions is granted if the water is available from the aquifer requested without resulting in a violation of the 20% critical surface requirement.

In addition to the critical surface requirement, DEQ evaluates reductions to the aquifer pressure and corresponding water levels by simulating an Area of Impact (AOI) that encompasses the area where the proposed withdrawal may reduce the water level by one foot or more. Even very modest withdrawals may have an AOI that extends beyond the boundaries of the property where the proposed withdrawal is located. Withdrawals with an AOI that extends beyond the property line must include a mitigation plan as a condition of their permit that meets or exceeds the boilerplate plan recommended by DEQ. The plan lays out a process designed to establish an even playing field for all parties. There is a rebuttable presumption that the permittee is the cause of impacts to existing wells using the same aquifer within the permittee’s AOI. If an existing groundwater user with an adverse impact is within the permittee’s AOI, there is a rebuttable presumption that the withdrawal caused the impact. Alternatively, if the claimant is not in the permittee’s AOI, the rebuttable presumption is that the permittee’s withdrawal did not cause the impact. In addition, there are many things that can go wrong with a well that are not the responsibility of the party making the permitted withdrawal such as a silted screen, substandard well construction, well casing problems, and several types of well pump failures. The potentially impacted party has the burden to provide information regarding its well to show that the well problem is not a result of impacts other than the withdrawal by the permittee. Multiple existing permit holders may have mitigation responsibility for any given well that is adversely impacted.

Special permit conditions to collect site-specific data and analyze any resulting changes in the modeled simulation of each withdrawal are common practice. These data allow for continuous improvement of our understanding of the aquifer system and keep our modeling tools current. New data may also support a future action by DEQ, such as a permit modification.

II. DRAFT SPECIAL EXCEPTION

At the time of application, Chickahominy Power, LLC requested a groundwater withdrawal permit for 106 million gallons per year (MGY) that would have resulted in a Potomac aquifer drawdown that would have all but eliminated the potential for new or expanded withdrawals within Charles City County, Henrico County and James City County. DEQ was concerned that a withdrawal for a non-human consumption beneficial use that eliminated the potential for any new or expanded withdrawals might raise concerns under § 62.1-263 (criteria for issuance of permits) which states that: 1) “When proposed uses of ground water are in conflict or when available supplies of ground water are insufficient for all who desire to use them, preference shall be given to uses for human consumption, over all others;” and 2) “In evaluating permit applications, the Board shall ensure that the maximum possible safe supply of ground water will be preserved and protected for all other beneficial uses.” DEQ staff believed that the issuance of a permit for that volume was contrary to the purpose of the Act based on the concerns enumerated above, and began exploring the issuance of a special exception.

After discussing the use of a special exception, Chickahominy Power, LLC identified an alternative source of water from New Kent County that can be utilized within 7 years, pending completion of a water connection, and also substantially reduced the requested withdrawal from 106 MGY to 30 MGY. In order to limit the duration in time for a groundwater withdrawal from the Potomac Aquifer at this location, remove the ability of the withdrawer to reapply for a groundwater withdrawal permit, and to remove eligibility for an administrative continuance of an existing permit, DEQ tentatively issued a draft 7-year special exception (as provided for by § 62.1-267 of the Code of Virginia). Groundwater withdrawal special exceptions are subject to the same provisions and requirements as a groundwater withdrawal permit (9VAC25-610-190 B).

The draft special exception that was tentatively issued consisted of three parts. Part I, Operating Conditions, established withdrawal limits and reporting requirements, identified the specific wells authorized by the permit, provided pump intake limits to protect the aquifer, established requirements related to the Water Conservation and Management Plan (WCMP), and, incorporated a Mitigation Plan into the permit.

Part II, Special Conditions, included facility specific special conditions that are included based on results of the application review and technical evaluation. For Chickahominy Power, LLC this included the following requirements: providing well construction documentation; pump intake settings; well abandonment requirements; and alternative source development reports.

All wells planned for construction must be screened in the Potomac Aquifer. The technical evaluations indicated that the proposed withdrawal meets the criteria laid out in 9VAC25-610-110 D. The AOI extends slightly beyond the Chickahominy Power, LLC property, onto two adjacent properties, but no further. The two properties are the Virginia Natural Gas, Inc. property at 6841 Chambers Road, Charles City County, and the BHBH, LLC property at 6740 Chambers Road,

Charles City County. The AOI extends to a maximum of 540 feet from each proposed production well at the end of the 7-year period of the groundwater withdrawal. The model simulations result in a drawdown of 2.3 feet lower than current water levels at the wellhead. The simulated water levels remain above a point 80% of the distance between the land surface and the top of the aquifer and therefore the aquifer pressure head met the criteria specified in the regulations. The model simulations also do not indicate any changes to the regional flow patterns that would lead to reduced water quality, including saltwater intrusion.

Part III, General Conditions, was standardized and included in all groundwater withdrawal permits. This section included conditions that identify broad duties of the permittee to comply, to cease or confine activity, to mitigate, and to provide information, as well as general requirements for metering and equipment standards, monitoring and record maintenance, and new well construction. Part III also provided the process and requirements for minor and major modifications, as well as for reopening and renewal actions.

III. PUBLIC NOTICE, HEARINGS, AND COMMENTS

DEQ's Office of Water Supply staff participated in multiple public outreach events during the development and review of the draft groundwater withdrawal special exception documents in order to reach more communities during the decision-making processes. This included participating in the October 28, 2019 Town Hall meeting hosted by Charles City County's Board of Supervisors, hosting a public information session on December 5, 2019 at the Charles City County Social Hall in Charles City County, and hosting a public information session on January 23, 2020 at the Varina Library in Henrico County. In addition, DEQ posted online on the DEQ Website, Facebook, and on the Nextdoor app to increase awareness of the proposal and opportunities to obtain further information or to provide comment. All of these actions by DEQ exceed the minimum regulatory requirements. DEQ staff received and responded to numerous inquiries from citizens concerning the Chickahominy Power, LCC groundwater withdrawal application from August through November 2019. Finally, DEQ Director Paylor approved a staff recommendation, pursuant to § 62.1-44.15:02 F of the Code of Virginia, that the Department convene a public hearing and issue a joint notice of public comment and public hearing on the draft groundwater withdrawal special exception for Chickahominy Power, LLC.

A public notice to seek public comment and announce a public hearing on a draft special exception from the State Water Control Board for the temporary withdrawal of groundwater in Charles City County, Virginia was advertised in the Richmond Times-Dispatch on December 26, 2019, and the New Kent-Charles City Chronicle on December 27, 2019. The materials associated with the public comment process were available on the DEQ Website beginning on December 6, 2019. The public comment period provided was for a period of 50 days. Both the availability of the materials and the 50-day comment period significantly exceed the minimum required 30 days. Additionally, in accordance with 9VAC25-610-250 B, DEQ sent a public notice and announcement of a public hearing to each local governing body located within the Eastern Virginia Groundwater Management Area and to representatives of the Chickahominy Indian Tribe, Chickahominy Indians Eastern Division, Upper Mattaponi Tribe, Nansemond Indian Nation, Pamunkey Indian Tribe, and Rappahannock Tribe. The advertised public comment period was December 26, 2019 through February 14, 2020. The public hearing was advertised and held at Charles City County High School at 10039 Courthouse Road, Charles City, VA on January 28, 2020 beginning at 6:30

p.m. The Hearing Officer for the public hearing was Mr. Robert Wayland of the State Water Control Board. The purpose of the public hearing was to obtain input from the public related to the draft special exception for the State Water Control Board to review. The public notice provided the special exception name, applicant name, address and special exception number, the name and location of the water withdrawal, the project description and affected area. The public notice also included instructions on how to comment.

There were 36 oral comments received during the public hearing. There were approximately 100 citizens in attendance, but not all in attendance signed up to speak. In addition to the comments received during the public hearing, there were 1,366 written public comments, for a total of 1,402 total public comments. A total of 1,199 individuals participated in the joint public comment and public hearing process. Only the applicant and two others provided comments in support of this draft groundwater withdrawal special exception.

IV. SUMMARY OF PUBLIC COMMENTS AND DEQ STAFF RESPONSES

Generally, the oral and written comments received fall into the following categories:

- 1) comments about alternative sources of water;
- 2) comments about the technical evaluation;
- 3) comments about mitigation plans;
- 4) comments about the use of a special exception;
- 5) comments about groundwater management;
- 6) comments about environmental justice issues;
- 7) comments about climate change;
- 8) requests for additional public hearings; and
- 9) miscellaneous comments.

Attachment A contains the summary of comments received and the staff response to them. Attachment B includes a list of all of the commenters that provided comment.

Comments submitted concerning use of a groundwater withdrawal special exception were found to be significant and substantial and warranted elimination of the use of a special exception in favor of a groundwater withdrawal permit.

V. DRAFT GROUNDWATER WITHDRAWAL PERMIT

DEQ's rationale for issuing a groundwater withdrawal special exception (§ 62.1-267 of the Code of Virginia) was that eliminating any potential future use of the Potomac aquifer for human consumption in the area of the withdrawal through the issuance of a renewable groundwater withdrawal permit was an unusual situation and contrary to the Act because of the impact on public health and the environment (aquifer). The use of a non-renewable special exception would provide an incentive for the applicant to reduce the overall amount of the withdrawal, benefitting the aquifer, and the authorization to withdraw under the special exception would be a bridge to an alternative source of supply from New Kent, which, if interconnected, would further benefit the aquifer over the long term. In response, the applicant actively reduced its requested withdrawal volume from 106 MGY to 30 MGY by evaluating and committing to innovative water saving

cooling technologies, and entered into a contract with New Kent County to establish a water supply and connection.

DEQ's rationale was based on the fact that DEQ was not aware of any previous program precedent for issuing a groundwater withdrawal permit for less than the statutory maximum term or issuing a groundwater withdrawal permit with a special condition prohibiting renewal upon expiration of the permit. While § 62.1-266 A of the Code of Virginia gives the Board broad discretion in establishing permit conditions, DEQ was concerned that this could be seen as contrary to § 62.1-266 C, which provides that "the permit shall expire at the end of the term unless a complete application for a new permit has been filed in a timely manner as required by the regulations of the Board, and the Board is unable, through no fault of the permittee, to issue a new permit before the expiration date of the previous permit." Also, 9VAC25-610-96 A of the regulation establishes the permit holder's duty to reapply and a request could be made to administratively continue the permit. Upon review of public comments and the arguments presented concerning use of the groundwater withdrawal special exception instead of the usual groundwater withdrawal permit, DEQ agrees that the proposed activity may no longer be sufficiently unusual to warrant use of a special exception. In addition, DEQ has determined that the § Va. Code § 62.1-266 (A) provides the Board with requisite authority to limit the term of a permit to a period less than 15 years and eliminate the possibility of an administrative continuance. With the reduced groundwater withdrawal request, and the Board's ability as confirmed with the Office of the Attorney General to establish a permit for a term less than 15 years and including a non-renewable permit condition pursuant to § 62.1-266 A, the use of a groundwater withdrawal permit is the most appropriate authorization instrument under applicable statute and regulation. Since the groundwater withdrawal special exception for Chickahominy Power, LLC was processed following the same regulatory requirements and procedures for, and includes the same conditions as, a groundwater withdrawal permit a non-renewable, 7-year, groundwater withdrawal permit for Chickahominy Power, LLC may be issued pursuant to § 62.1-266 A of the Code of Virginia.

The groundwater withdrawal permit presented to the Board includes the same conditions that were presented to the public as part of the draft special exception, and includes a special condition in Part II that authorizes the withdrawal of groundwater for a term not to exceed 7 years or completion of an interconnection to the New Kent County Public Water Supply System, whichever comes first. The permit will not be administratively continued.

By regulation the criteria and process are the same for a groundwater special exception and a groundwater withdrawal permit. No new public notice, hearing and comment period is contemplated or required.

VI. PRESENTER CONTACT INFORMATION

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VII. ATTACHMENTS

- A. Summary of Public Comment and Staff Responses
- B. List of Individuals who provided Public Comments
- C. Draft Groundwater Withdrawal Permit GW0078700
- D. Draft Groundwater Withdrawal Fact Sheet and Technical Evaluation GW0078700

