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Working Together to Protect the Ogeechee, Canoochee and Coastal Rivers

March 8, 2024

Via E-Mail

Georgia Environmental Protection Division
Watershed Protection Branch
2 Martin Luther King, Dr., Atlanta, GA 30334
Suite 1407A, Tower 2

Re: Special Conditions for the Groundwater Applications for Bryan County Mega-Site

Dear Mr. Frechette, Mr. Ariail, Ms. Voudy, and Dr. Zeng:

Ogeechee Riverkeeper's ("ORK") mission is to protect, preserve, and improve the water quality of the Ogeechee River basin, including the Canoochee River and the coastal and tidal rivers of Liberty, Bryan, and Chatham Counties. ORK works with local communities to share and collect information on the ecological and cultural importance of rivers and streams throughout the Basin, and use that information to amplify the voices of those who speak for the watershed. One of ORK's primary roles is as watchdog on new land development projects throughout the watershed that could pose a significant threat to water quality.

ORK offers these comments on the draft special conditions proposed by the Georgia Environmental Protection Division (EPD) for the four wells applied for by Bryan and Bulloch counties. ORK urges the EPD to use its discretionary and planning powers to ensure these significant withdrawals from the Floridan Aquifer are permitted to reduce both short and long term impacts to the most practicable extent possible. In general, stronger language around the conditions requirements, clarification of the geographic scope and reporting mechanisms and expectations, and clearly defined ramifications for noncompliance will help to ensure these permit conditions reduce negative impacts from the proposed withdrawals as much as possible.

1. Background

The Floridan Aquifer is a vital but vulnerable resource for Coastal Georgia. It is the main source of water that supports Coastal Georgia's economy and population. From agriculture to business and industry to its residents, the region's ongoing health and prosperity are directly linked to the Floridan Aquifer. A healthy aquifer is essential to Coastal Georgia's long-term population and economic growth.

Salt water intrusion into the Floridan Aquifer and a falling water table directly threaten the region's growth. Increasing water demand has grown with Coastal Georgia's population and economic growth over the last half-century, straining the aquifer. As a result, salt water intrusion has negatively impacted coastal communities while inland wells dry up and require deeper drilling. Increased salinity levels negatively impact the water's usability for human consumption, agriculture, and industrial use. Likewise, the need for new and deeper wells is a difficult expense that many rural and agricultural water users cannot bear. These impacts from increased withdrawals should not be limited in geographic scope but should be considered for all of the areas that rely on the Floridan Aquifer.

Reduced pumping, water conservation, and other measures are necessary to maintain the Floridan Aquifer for future generations. In response, the Georgia DNR created and has utilized the Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion since 2006 (the "2006 Plan" or the "Plan").¹ Through a combination of pumping restrictions and reductions, conservation measures, and water source diversification, the Plan seeks to support the aquifer by reducing growing demand. Further, the Plan calls for ongoing monitoring to continually assess the effectiveness of the Plan's measures.

The expected population and economic growth in Coastal Georgia, combined with the growth over the last two decades, highlights the ongoing need to protect the Floridan Aquifer and prioritize usage of these pristine waters for human consumption. Pressure on the finite water resources will continue to grow, necessitating alternate sources of water. In order to ensure the pristine Floridan Aquifer waters are available for future generations to use for drinking water and agriculture, industrial and commercial water needs must be met through surface water and other non-groundwater sources.

2. Georgia EPD's Permit Review and Conditioning Powers

Georgia law broadly empowers the EPD to safely and effectively protect and manage the state's groundwater for development and use. ORK urges the EPD to utilize these powers in its role as trustee of these vital waters to ensure that the Floridan Aquifer can continue to sustain all of the Coastal Georgians who rely on its pristine waters for decades and generations to come.

The EPD has broad power to place any variety of conditions on a withdrawal permit for consumptive uses of water. GAC 391-3-2-.06 guides EPD's permit granting procedures. Subsection (2), addressing consumptive use permits, allows EPD to condition the permit in a variety of ways. Subsection (4) provides a list of potential conditions. This subsection, however, states that the permit "may contain, but not be limited to, one or more of the following conditions" (emphasis added). So, while EPD may use one or more of the listed conditions of subsection (4), it is not necessarily limited to those conditions. As such, the rules appear to grant the EPD broad power to condition withdrawal permits for consumptive uses in any way it "deems necessary to the development and use of the water resources." While the Bulloch County and Bryan County applications (dated 8.21.2023 and 8.16.2023, respectively) claim these wells will be for nonconsumptive use, this conclusion is questionable and not supported by sufficient evidence in the supporting preliminary engineering report, as required by GAC 391-3-2-.06(1). The proposed withdrawals' "substantial diminution

¹ Georgia Department of Natural Resources. "Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion" (2006 Plan). June 2006. Available at: https://www1.gadnr.org/cws/Documents/saltwater_management_plan_june2006.pdf

in quantity” of water in the Floridan Aquifer near its point of withdrawal, up to 19ft of impact according to EPD modeling, combined with existing “substantial impairment of quality” from salt water intrusion in the Floridan Aquifer system and the withdrawn water not being returned to the groundwater system, mean that these wells must be considered consumptive uses.²

Further, both present and potential groundwater uses are to be considered by the EPD in permitting groundwater withdrawals. GAC 391-3-2-.05 provides EPD guidance for making its withdrawal permitting decision. In addition to subsection (1)’s list of specific considerations, subsection (3) also directs the EPD to ensure that “the granting of such permit shall not have unreasonably adverse effects upon other water uses in the area, including public use, and including potential as well as present use” (emphasis added). These clear directions place emphasis not only on the immediate impacts of the proposed withdrawal, but also on other potential water uses. With significant development expected to continue for the area for the foreseeable future, EPD must consider how these proposed withdrawals will impact both the ability of other potential water users in the area to access and utilize the aquifer, but how those foreseeable future withdrawals will compound with this exceptionally large withdrawal to harm current users. ORK asks that these compounding future impacts be considered both here in the special conditions’ and in the future withdrawal permitting decision. These considerations should include, but not be limited to, documentation of effective water conservation at the Bryan County Mega-Site and other industrial and commercial locations expected to receive this water, the importance and necessity of using these waters for industrial and commercial uses as it compares to the needs for future human consumption, public use, and agricultural or farm use, the physical and chemical nature of impairment of the aquifer that adversely affects future availability and fitness, and the long-term probable severity and duration of impairment under foreseeable conditions.

3. **“Addressing Short-Term Impacts”**

ORK is concerned about certain portions of Conditions A) and B). In particular, these conditions should include clearer definitions of important terms, a more precise geographic scopes for eligible water users to be indemnified, and clarified procedures determining “unreasonability” of impacts and for disbursing funds for indemnification.

Condition A)

First, a definition needs to be provided for “unreasonable impacts” that will be compensated by the fund. Without this clear definition, EPD, the fund managers, and “EPD approved parties” will be required to assess impacts on a case-by-case basis, with the potential for inconsistent application. Condition B) seems to contemplate this, as it makes reference to “such delineated water problems.” However, no list of compensable problems exists in the draft conditions. ORK calls for a clear list of “unreasonable impacts” that can be compensated through the fund, with an explanation as to why these impacts are “unreasonable.” Additionally, ORK asks that a process be established in the conditions where water users can petition the fund for potential unreasonable impacts that were not explicitly included in this list. At minimum, clear expectations for what an “unreasonable impact” is must be included in this permit’s conditions.

² A “consumptive use” means any use of water withdrawn from the ground other than “nonconsumptive use,” which is then defined as the use of water withdrawn from the ground water system or aquifer in such a manner that it is returned to the ground water system or aquifer from which it was withdrawn without substantial diminution in quantity or substantial impairment in quality at or near the point from which it was withdrawn. See GAC 391-3-2-.02(b) & (c).

Second, the geographic scope of the area eligible for compensation can be made more clear. The draft conditions describe this area as the “5-mile radius of the I-16 and Highway 119 interchange.” During the February 26, 2024 information hearing, EPD explained that this was to encompass the areas that are likely to see 10ft of water level impact under the maximum allowable withdrawal under EPD’s models. Is this the entire justification for the 5-mile radius? Are there other explanations for how this area was chosen? If no other explanations exist, ORK suggests that the EPD rely on its own models and set the boundary, at minimum, at the 10ft impact line.

For further clarification, ORK asks how the 10ft impact was chosen as the dividing line for compensation. What was the scientific and legal basis for this decision? Is 10ft impact what the EPD is considering an “unreasonable impact”? And is the EPD sure that no “unreasonable impacts” related to these proposed wells will occur outside of the boundary. One example discussed during the February 26th meeting was a concern (and EPD uncertainty) around potential sinkholes that could result. Without an ability to confirm, deny, or predict issues like this, ORK asks that the fund also include an exception for unreasonable impacts resulting from these four wells that occur outside of the set boundary.

Finally, Condition A) should extend the lifetime of this fund. The fund should exist as long as there are “unreasonable impacts” occurring as a result of these four proposed wells. At minimum, the fund should exist for at least 25 years, the length of time that draft Condition C) gives the counties to construct the infrastructure to access alternative sources of water. The continued existence of this fund should not be explicitly tied to the permit term, as “unreasonable impacts” could occur beyond the 10-year period.

Condition B)

First, as noted above, a clear definition of “unreasonable impacts,” an inclusion of “such delineated water problems,” and an exception for unexpected “unreasonable” impacts should be included in the conditions.

Second, additional definitions and explanations are needed for what an “EPD approved party” will include and entail. ORK asks the EPD to clearly explain the Division’s expectations and requirements for an entity to become an “approved party.” What are the standards that will be used to verify competence in determining an impact’s ‘reasonability’ and connection to the proposed wells’ withdrawals? Is there an ongoing certification process? And is there an ongoing process or certification to ensure that these approved parties can make these assessments?

Third, Condition B) should more clearly explain what “options” and “methods proposed” for addressing the “unreasonable impacts” from the proposed wells. The draft language only hints at what these fixes will be by making reference to the “best management practices of a Georgia licensed well driller” and provide only one example - “resetting the water pump deeper.” ORK asks for more clarification of what kind of remedies the fund will pay for and further asks for a more detailed list of expected solutions. Additionally, any additional costs incurred by water users in pursuit of remedying the “unreasonable impacts,” such as investigations by an EPD approved party, should also be indemnified, to avoid any unjust costs created as a result of these wells. Finally, ORK asks that a mechanism be included to allow for unanticipated withdrawal-related issues not explicitly included in an expanded list to be considered for indemnification.

Fourth, Condition B) should clearly include that the fund will fully indemnify water users for the costs of remedying unreasonable impacts from the proposed wells. The intensity of withdrawal in a fairly concentrated area is an unexpected change that the area's current residents and water users could not have anticipated. The costs related to adapting to a new groundwater reality can and likely will be significant. As such, the applicants who benefit from these huge withdrawals should fully compensate current users who will not see direct benefit.

Fifth, the fund should also indemnify water users for the costs of obtaining alternate sources of water while the "unreasonable impact" is being remedied. Losing access to water itself is an "unreasonable impact," and is an issue that demands a response. Households cannot go without water for drinking, cleaning, and other domestic uses. Likewise, agricultural businesses need water to continue to function. As such, ORK asks that the costs of acquiring water for alternate sources be indemnified until the "unreasonable impact" is resolved and water supply is restored.

Finally, EPD should place the burden on applicants to disprove a claimed "unreasonable impact" when it is occurring in the expected zone of impact. For example, if an anticipated impact to a water user occurs within either the modeled 10ft impact area or the 5-mile radius noted in draft Condition A), it is fair to assume that the impact was related to these wells. As such, the counties and/or the fund should be responsible for disproving that an anticipated, listed, water-related impact was not the result of its withdrawals. Likewise, a streamlined process for addressing expected unreasonable impacts should be created. Setting up a system where disbursement approvals are more streamlined, such as submitting specific documents to prove impact, will help impacted water users resolve these issues sooner and reduce the impacts and potential time without water.

4. Addressing Long-Term Impacts

ORK has concerns with the requirements and timeline expectations of the applicants in pursuing alternate sources of water, how EPD is attempting to limit transfers and movement of groundwater, the contents and frequency of the applicants' reporting to EPD, and the overall goals set out for long-term planning in Conditions C) through G).

Conditions C) & D)

First, ORK asks that aspirational requests here be converted into requirements for the applicants. Rather than "strongly encourag[ing]" the counties to plan for alternate sources of water, EPD should "require[]" this planning and eventually construction and conversion. Similarly, rather than state the planning "should be premised" on making alternate sources of water available, the planning "must achieve making sufficient surface waters (or other alternatives) available."

Second, Condition C)'s stated goal of this alternate water sourcing plan should have the specifically stated goal of "fully offsetting" these permitted withdrawals as they relate to the Bryan County Mega-Site and other industrial and commercial growth. The Floridan Aquifer's pristine but finite water resources should be prioritized for human and agricultural consumption rather than industrial and commercial applications. Condition D) should likewise clarify the reduction goals. Clearly stating that the wells "must be reduced equal to the newly-available water supply capacity upon completion and operation of any infrastructure to deliver surface (or alternative source) to the area" will ensure

that these non-groundwater sources are fully prioritized and that pressure on the Floridan Aquifer is reduced when possible.

Finally, Condition C)'s 25-year time period to acquire and put into service alternative sources of water should be significantly reduced. While this is a significant process, Bryan County, the City of Savannah, and others are quite far along with plans to supply surface water to the Bryan County Mega-Site, with an estimation of interconnection and delivery in the next three to five years. This interconnection draws into question whether a 10-year permit-term for these four wells is necessary at all. Further, the 25-year timeline does not convey the needed urgency in switching to surface water or alternative sources and will not do anything to force that switch to occur.³ Considering that there is no assurance that the Floridan Aquifer will be able to support the expected growth in the intervening years, simply put, 25 years is too long a timeframe. ORK urges EPD to expedite the timeline.

Condition E)

First, EPD needs to more clearly explain the activities and situations it is addressing in Condition E). The language targets “transfer[ring] or mov[ing] any already permitted groundwater limits.” Does EPD intend to limit physically transferring or moving groundwater into the “Savannah Cone of Depression”? Or is EPD intending to address a different activity? Additionally, it would be beneficial for EPD to include references to the “EPD policy and permitting requirements” that exist at the time of issuing the withdrawal permit.

Second, more precise language for the geographic focus of Condition E) would be helpful. The “Savannah Cone of Depression” itself is an unclear term. Does it include any areas where past groundwater withdrawals have reduced the groundwater level? Are there areas where groundwater is influenced by the Cone of Depression? It may be helpful to use the Green/Yellow/Red Zone language that is referenced in Condition D) above. This would also eliminate the need to explain the “such as farther west or north” parentheses as well. ORK urges a clearly defined geographic area to be specified in any final permit conditions.

Condition F)

First, ORK calls on the EPD to require the applicants to submit the Initial Joint Annual Report before any groundwater withdrawal permit is issued. The information that this report will contain will be instructional for the short- and long-term planning needs around these water withdrawals. If alternative sources of water will be available to supply the intended recipients sooner than later, a 10-year permit term will not be necessary. Likewise, additional conditions could be crafted to limit the amounts and timing of withdrawals if alternative sources are made available. Further, this information will be helpful to the EPD in determining the adverse impacts these withdrawals have on other potential water users. ORK urges EPD to collect, review, and use this information prior to and for the purposes of making this permitting decision.

³ Developers were able to expedite the construction timeframe for the North Bryan Water Reclamation Facility due to “the immediate demand for service at the rapidly developing Hyundai site.” Water supply has a similarly immediate demand and should likewise necessitate an expedited timeline.

Thomas & Hutton. “Project Update: North Bryan Water Reclamation Facility.” June 30, 2023. Available at: <https://www.thomasandhutton.com/2023/06/30/project-update-north-bryan-county-water-reclamation-facility/> (last visited: March 7, 2024).

Second, ORK asks that Condition F) requires the applicants to make the Initial Joint Annual Report publicly available upon its submission to the EPD. Making this information public will benefit residents of each county and will better inform the general public and other stakeholders and interested parties of the counties' plans for providing new sources of water. Broader dissemination of the information will allow for these important decisions to be better understood by the public, who will be able to provide feedback to county decision makers and lead to a stronger, more collaborative long-term plan.

Third, the ramifications of non-submission (or inadequate submission) of the Initial Joint Annual Report be clearly and explicitly included in Condition F). This report, and the following annual updates are the main mechanism to ensure that alternative sources of water are actively and effectively being pursued by the applicants. As such, these reports are crucial in the efforts to protect the Floridan Aquifer. Inadequate or missing reporting slows this process down and delays efforts. As such, ramifications, up to and include permit revocation, are needed to ensure that the applicants are complying with their permit conditions obligations.

Fourth, ORK voices its concern over the vagueness of Condition F) Item 4's "solid, firm and feasible front-loaded timetable." In particular, ORK urges additional attention to how "front-loaded" the eventual timetable is reported as. Is there a date when a project (or a type of project) is no longer "front-loaded?" Or is there another objective way to measure this? As noted in our comments for Condition C), 25 years is too long for a project of this urgency. ORK urges EPD to emphasize the importance of this portion of the Initial Report.

Finally, ORK suggests that the following topics be included as additional items that must be included in the Initial Joint Annual Report:

- Candidate and potential surface waters,
- Candidate and potential alternative sources of water,
- A ranking or prioritization of these water resources in terms of readiness of deliverability,
- A ranking or prioritization of what areas/users will be served by non-groundwater sources, and
- The "Goals and Milestones" discussion referenced in Condition G)

Condition G)

First, as noted above, ORK asks that the reporting required in Condition G) be made publicly available by the applicants upon their submission to the EPD and that EPD makes the ramifications of their non-submission clearly and explicitly included in this Condition.

Second, EPD should clearly define the reporting frequency expected for the documents discussed in Condition G). It appears that EPD expects two types of reporting documents - annual updates to the initial report (Annual Updates) and 3-year updated reports (3-year Reports). What is unclear is whether these reports overlap. The Annual Updates, as the name suggests, look to be required every year and contain the 5 items of Condition F) and appear to be required every year that the withdrawal permit is required. The 3-year Reports look to begin on the fourth year of the permit ("3 years after the initial report") and then every 3 years after (i.e. years 7 and 10). And these reports include "summarizing all progress taking place and setting goals and milestones to be achieved in the next three-year period,"

rather than the Condition F's 5 items. On years 4, 7, and 10, will the applicants be required to submit both an Annual Update and a 3-year Report? ORK urges EPD to require applicants to provide both reports on years when they overlap.

Finally, ORK encourages EPD to be stronger in setting the expectations for the level of detail of the Annual Updates and 3-year Reports. Rather than requiring the information "be sufficient to appropriately inform EPD," ORK urges EPD to ask the applicants to provide a level of detail that "provides the EPD with all information needed to fully assess and understand the project status." As the main mechanism for reducing pressure on the Floridan Aquifer related to these proposed wells, EPD can make the most informed regulatory decisions when it has all the information available to it.

Thank you in advance for your time and consideration. If you have any questions regarding this letter, please contact ben@ogeecheeriverkeeper.org.

Ben Kirsch, Legal Director
Ogeechee Riverkeeper