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Working Together to Protect the Ogeechee, Canoochee and Coastal Rivers

June 4, 2024

Via E-Mail

Caity McKee, Senior Regional Planner
Coastal Regional Commission of Georgia
cmckee@crc.ga.gov

Re: Comments on DRI # 4204 - Warnell-GSL Cattle PUD - Pembroke

Dear Ms. McKee:

Ogeechee Riverkeeper 501(c)(3) (ORK) works to protect, preserve, and improve the water quality of the Ogeechee River basin, which includes the Canoochee River, tributary streams, and all of the streams flowing out to Ossabaw Sound and St. Catherine's Sound. The Ogeechee River system drains more than 5,500 square miles across 21 counties in Georgia. ORK works with local communities to retain the ecological and cultural integrity of rivers, streams, wetlands, and related habitats throughout the Basin. One of ORK's primary roles is as watchdog on new land development projects throughout the watershed that could pose a significant threat to its water quality and aquatic environments.

ORK's comments on the Warnell-GSL Cattle Planned Unit Development (PUD) fall into three overarching categories. First, the impacts that this development will have on wetlands and floodplains, especially in the context of stormwater and flooding, should receive additional clarification, attention, and forward-thinking management planning. Second, water supply to and wastewater management from this proposed PUD raises concerns that should be considered and addressed as early as possible. And third, ORK offers some suggestions to the decision makers and developers for maximizing the benefits of the planned but undefined open space, green space, and recreational areas. ORK urges careful consideration of these topics prior to any rezoning, permitting, or construction permission decisions from the City of Pembroke and, ultimately, urges the City to deny this rezoning, annexation, and development request.

1. Wetlands, Floodplains, and Stormwater Management

Specific considerations and attention should be given to wetlands and floodplains specifically as well as managing stormwater more generally. As Pembroke and the wider region continues to develop, covering the landscape with more impervious surfaces, stormwater management will become a greater concern. Combined with the increasing frequency and intensity of storms, protecting the environmental services that wetlands are already providing and thoughtfully building with floodplains in mind is essential for the resiliency of this development, the City of Pembroke,

and North Bryan County. ORK urges the developers, permittees, and decision makers to take a long-term and comprehensive approach to its stormwater management.

Wetlands fill and impacts should be avoided at every opportunity. Wetlands provide a wide range of environmental services that benefit the residents of Bryan County and beyond, including flood control, pollution filtration, aquifer recharge, and recreation by providing habitat and forage to a variety of species. While Warnell-GSL Cattle's DRI documents state that there are 115.7 acres of wetlands between the properties, these are not clearly delineated. Their locations are important in showing the extent of aquatic features and habitats on the land. Obscuring this prevents City of Pembroke decision-makers from fully understanding the extent of wetlands impact could result. ORK asks for clarification from the developers about the wetlands present, clear delineation on the development plan maps, and urge decision makers to require clear wetland protection and preservation plans as a prerequisite of any rezoning action.

Likewise, ORK urges the City of Pembroke to carefully consider waterways on the North and South ends of the property. While they are deemed "drainage" on the developer's concept plan map, these are USGS-identified streams and part of the Mill Creek system¹ The developers and the City of Pembroke should consider the implications of building around these streams, potentially including the need for a Clean Water Act Section 404 dredge and fill permit, NPDES discharge permit, and potential nonpoint sources pollution into Mill Creek and Black Creek, where these streams eventually flow.

Flooding and floodplains are issues that Warnell-GSL Cattle's developers and City of Pembroke decision makers should also be conscious and very cautious of with this site. A significant portion of the properties are located in the Federal Emergency Management Agency's (FEMA) designated 1% Annual Chance Flood Hazard area, also known as the 100-year floodplain. Parcels 011-024 and 011-024-1 in particular are concerning, with the majority of the land within the "High Risk" or "Special Flood Hazard" area. Large portions are also in the 0.2% Annual Chance Flood Zone areas.

Flooding will almost certainly be an issue for any structures built on this property. While the "100-year" flood zone name implies that floods will only occur once every 100 years, this obscures the actual risk. Over 30 years, the actual flood risk is 26%² - a more than 1 in 4 chance for properties in the 100-year floodplain. And while the 500-year floodplain, or 0.2% Annual Chance Flood Zones, see a lower likelihood of flooding, the risk still exists. It is also important to remember that the FEMA flood zones are based on historic rainfall and flooding data. As storm frequency and intensity is expected to increase in the coming decades, the actual risk of flooding will likely increase. ORK urges the City of Pembroke's decision makers to keep these flooding concerns in mind when making these planning decisions and to avoid allowing new structures to be built within the floodplain whenever possible.

Finally, on-site stormwater management should be as resilient as possible. As noted above, storms are becoming strong and more frequent. This, combined with impervious surface covering more than half of the properties, will increase stormwater management demand in the area. To reduce negative flooding and inundation impacts, the applicants should work to reduce pressure where possible. Reducing impervious surface coverage and preserving wetlands wherever possible will help to reduce this pressure.

¹ HUC 3060202 and

² <https://savannahga.gov/FAQ.aspx?QID=332> and <https://www.floodsmart.gov/flood-zones-and-maps>

While the DRI materials contain no indication that stormwater retention ponds will be utilized, it is likely the developers will do so. If stormwater retention ponds or other similar features are planned for the site, ORK urges the City of Pembroke to require the developers to go beyond the minimum required standards. In such a low-lying area, increased stormwater pressure can quickly lead to flooding issues on the proposed PUD property and onto neighboring properties. And with storms becoming more frequent, previous stormwater processing calculations are less intense than the retention ponds will likely be required to retain and process. To extend the functional lifetime of these retention ponds and prevent flooding, ORK urges developers and decision makers to go beyond minimum standards in constructing these stormwater features.

In summary, ORK asks that:

- Wetlands be clearly delineated and a preservation plan is developed prior to a rezoning decision,
- The two streams on property are considered and protected,
- No building construction occur within the 1% Annual Risk Special Flood Hazard Area,
- Impervious surface be reduced to limit increasing stormwater pressure, and
- If stormwater retention features are utilized, they are constructed beyond minimum standards to be able to handle and retain more intense and more frequent storm and rain events.

2. Water Supply and Wastewater Treatment

Both the water supply and wastewater treatment needs of any development in coastal Georgia must carefully consider its long-term impacts, implications, and viability. Since at least 2006, the Floridan Aquifer has received special protections from withdrawals and wastewater discharge due to decades of overutilization. With Bryan County and the City of Pembroke falling in one of the management zones, permittees and decision makers should make a fully informed decision of the near- and long-term impacts and viability of this housing development in light of the additional strains it will place on groundwater resources. Likewise, wastewater treatment should take a long-term view and embrace a regional approach to respond to the areas anticipated and projected growth.

Any new water withdrawal demand should be carefully considered. Under the Georgia Department of Natural Resources' Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion (2006 Plan), the City of Pembroke and Bryan County fall in the "Yellow Zone" management area.³ The 2006 Plan establishes withdrawal restrictions for this zone that include conservation and reuse considerations as well as a justification of need. Importantly, the 2006 Plan also limits all total permitted withdrawals in the Yellow Zone to approximately 20.3 million gallons per day (MGD). At a recent meeting, the Georgia Environmental Protection Division (GA EPD) noted that in 2022, the average annual permitted withdrawals for the Yellow Zone were 30.114 MGD, with a 2025 scheduled limit of 29.092 MGD. Continued overutilization of the Floridan Aquifer threatens to increase the rate of saltwater intrusion, endangering the region's main drinking water supply. In light of the region's anticipated growth, demand and strain on the aquifer will only increase if piecemeal permitting is used rather than a methodically considered approach. ORK

³ 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

urges local, regional, and state decision makers to take a regional, long-term, and holistic view of the water supply demand issue and develop comprehensive and sustainable solutions that will allow future generations to thrive throughout Georgia's northern coastal region.

Wastewater treatment must also be considered in the context of the quickly growing area where the Warnell-GSL Cattle development is proposed. Ultimately, the City of Pembroke should strongly consider and begin pursuing a regional solution to its growing wastewater treatment needs. In its application, the Warnell-GSL Cattle PUD will require treatment capacity for 0.5 MGD of wastewater. The applicant plans to rely on the City of Pembroke to treat 500,000 gallons per day (GPD). This single project will use 166% of the recently approved 300,000 GPD expansion at the Pembroke Water Pollution Control Plant (WPCP). With more growth expected in the region, the Pembroke WPCP will not be able to meet any of this anticipated demand, let alone for the Warnell-GSL Cattle PUD itself.

As development continues and available land becomes more scarce, it will be more difficult to site and rely on a scattering of on-site treatment systems to address wastewater treatment capacity needs. The construction and operation of the nearby North Bryan Water Reclamation Facility presents an opportunity to address long-term wastewater treatment capacity needs in Pembroke and North Bryan County as a whole. ORK urges city, county, and state decision makers to take a regional view and approach to addressing growing treatment demands ahead of anticipated growth. Further, ORK urges the City of Pembroke to avoid any reliance on septic systems to meet treatment demand in order to avoid future remediation for failing or aged-out systems.

In summary, ORK asks that:

- The City of Pembroke confirms its ability to meet increased water demand for this project as well as future growth,
- The City of Pembroke confirms its ability to meet increased wastewater treatment demand, especially considering the limited capacity available after expansion, and
- Septic and other on-site or land application systems be avoided wherever possible and that regionalization of wastewater treatment be pursued to increase capacity.

3. Open Space, Green Space, and Recreational Areas

In developing the Warnell-GSL Cattle PUD, specific attention should be given to protecting and preserving the area's critical natural resources. The development should thoughtfully preserve the large amount of spaces designated as Areas of Significant natural resources in order to maximize these areas' positive benefits on the region and its residents through preserving its rural character, recreational activities, flood control, and ecological integrity. ORK asks the developers to proactively plan its open space, green space, and recreational areas.

While thoughtful open space, green space, and recreational areas can take many forms, ORK offers these suggestions for planning purposes. First, the existing wetlands and floodplains should be maintained for the reasons mentioned above. Second, other existing natural features should be maintained and be the starting point for further development. Finally, ORK suggests wherever possible that these open and green spaces are as contiguous as possible, avoiding a patchwork of smaller, less beneficial space.

Thank you in advance for your time and consideration; please let me know if you have any questions:
ben@ogeecheeriverkeeper.org.

Ben Kirsch, Legal Director
Ogeechee Riverkeeper