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www.ogeecheeriverkeeper.org
Working Together to Protect the Ogeechee, Canoochee and Coastal Rivers

August 7, 2024

Via E-Mail

Skye Lewis, Regional Planner
Coastal Regional Commission of Georgia
slewis@crc.ga.gov

Re: Comments on DRI #4239 - Hacks Pasture Subdivision - Hinesville

Dear Ms. Lewis:

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 Hacks Pasture Subdivision and Planned Unit Development (PUD) fall into four overarching categories. First, all construction should be wholly avoided within floodplains and flood risk areas, and wetlands should be properly considered and preserved. Second, stormwater management should take a long-term view of projected demand over the whole life of the development. Third, water supply and wastewater treatment demand should be fully confirmed prior to any approval or construction. Fourth and finally, natural areas, wetlands and green spaces should be protected in order to preserve Hinesville's coastal characteristics, ecosystem functions, and natural flood control. ORK urges careful consideration of these topics prior to any rezoning, permitting, or construction permission decisions from the City of Hinesville. Ultimately, ORK urges the City to pause or deny this rezoning and development request until and unless all concerns are fully and sufficiently addressed.

1. **Preserve Floodplains and Wetlands to Reduce Long-Term Flooding Risk**

Whenever this tract is developed, the floodplains and wetlands present on the Hacks Pasture site should be central in refining the final, approved design and construction of this development. The majority of the property is located in the Federal Emergency Management Agency's (FEMA) designated 1% Annual Chance Flood Hazard area, also known as the 100-year floodplain or Zone A or AE. Of particular concern are the proposed developments in the western

and southeastern portions of the property, as noted in the Conceptual Site Plan. The southeastern portions of the planned developments are also located in the 0.2% Annual Chance Flood Zone areas, also known as the 500-year floodplain or Zone X. Beyond the planned developments, much of the “future development” areas in the southwestern part of the property are also planned in the 100-year floodplain. Likewise, riverine water features cross the property. Finally, the large amount of wetlands located on the proposed site are not properly delineated, enumerated, otherwise represented, or considered in the available application materials. ORK asks that the floodplains and wetlands present on the property are properly considered, guide layout and siting decisions, and are preserved wherever possible.

Flooding will be a concern for structures built on this property’s floodplains. 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%¹ - 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, sees a lower likelihood of flooding, the risk still exists. This creates risk and financial pressure for all future property owners who may face significant flood damage and subsequent increases in insurance rates. 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 likewise increase, increasing the likelihood and damage from flooding events. As such, ORK urges the City of Hinesville’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. Specifically, ORK asks that no structures are built in the 100-year floods. Similarly, construction along and near the riverine features the cross the property from west to east should be wholly avoided in order to reduce flooding. The stronger and intense storms will see these riverine areas channel the runoff and could see significant inundation.

The developer’s failure to show or overlay these floodplain locations and the riverine areas on the Conceptual Site Plan obscures the potential impact of the proposed property layout. The floodplains and riverine areas should be a central metric in deciding where construction should be located. Building within known special flood risk areas and along water courses unnecessarily creates risk and financial burdens for future homeowners, who will have to deal with frequent threats of flooding, flood damage, and increased insurance rates. By failing to show where those areas of increased risk are on the Conceptual Site Plan, the City of Hinesville’s decision makers cannot as easily see those risks and what alternative layout options might be available. ORK asks the City of Hinesville to require the developers to update its Conceptual Land Use Master Plan to delineate, reconsider the impact of those floodplains and riverine areas, and adjust site layout accordingly. None of these lots, areas, and features should be built in the 100-year floodplain. Hinesville should give specific attention to the ingress/egress access points, which all appear to be located in flood hazard areas.

The Conceptual Site Plan also poorly represents and fails to sufficiently protect the wetlands present on the property. While no exact number is given, it appears that well over half of the 1931-acre property contains wetlands - likely totally over 1000 acres of wetlands. Without delineation, enumeration, and communication from the applicants, the exact number of total wetlands acres impacted is unclear.

The City of Hinesville should seek clarification from the developers on the question of wetlands by requiring a separate wetlands plan to be developed. Failing to delineate and enumerate the wetlands present obscures the actual

¹ See <https://savannahga.gov/FAQ.aspx?QID=332> and <https://www.floodsmart.gov/flood-zones-and-maps>

impact that this development will have on the property's existing aquatic features and appears to show the developers lack of sufficient consideration of these wetlands in their planning. To address this apparent oversight, ORK asks the City of Hinesville to require the developers to create a wetlands plan that, at minimum, (1) clearly delineates all of the wetlands present on the property and enumerates the acreage proposed to be filled and preserved, (2) prioritizes and details how the development preserves the wetlands present on the site, (3) adjusts the Conceptual Site Plan and site layout to avoid wetland fill wherever possible, and (4) mitigates any lost wetlands with on-site mitigation or restoration efforts as close to the site as possible to reduce localized impacts.

In summary, ORK asks that:

- The City of Hinesville does not allow construction within the 100-year floodplain or near riverine areas,
- Specifically, the ingress and egress access points not be built in the 100-year flood plain,
- Careful consideration goes into building within the 500-year floodplain, and
- The City of Hinesville requires the developers to create a wetlands plan that clearly delineates their location, prioritizes wetlands preservation, adjusts the site layout to avoid wetland fill, and mitigates wetland loss.

2. Require Forward-Looking Stormwater Management for Growing Management Demand

On-site stormwater management should be as resilient as possible. As noted above, storms are becoming stronger and more frequent. This, combined with addition of impervious surface cover on 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, constructing retention features well above minimum requirements, and preserving wetlands wherever possible will help to reduce this pressure.

ORK urges the City of Hinesville to require the developers to go beyond the minimum required standards in constructing stormwater management facilities. 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 to successfully prevent flooding, ORK urges developers and decision makers to go beyond minimum standards in constructing these stormwater features.

Further, The City of Hinesville should take into account historic and future storm frequency and intensity when calculating stormwater demand and retention pond construction. ORK suggests basing management and construction on the 100-year and/or 500-year storms. Like with floods, these estimates are based on the likelihood of these storms occurring. Currently, the Savannah area's 100-year storm would add 10 inches of rain in a 24-hour period, with the 500-year storm raining 20 inches in 24 hours.² In Hinesville at Davis Swamp, those numbers are 10.2 in and 14 in over a 24-hour period for the 100 and 500 year storms.³ It is important to note that these storms are understood to be smaller

² See Question 16 at <https://www.savannahga.gov/FAQ.aspx?QID=307>.

³ NOAA Atlas 14 Point Precipitation Frequency Estimates. Available at: https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=ga.

than recent data show and future estimates predict, as the current NOAA calculations are based on 2016 data.⁴ To extend the functional life of these features in protecting the area from flooding, ORK urges the City of Hinesville to require stormwater features to retain 125% of the 100-year storm⁵ or 100% of the 500-year storm.

Additionally, impervious surface cover should be reduced as much as possible. These hard surfaces speed up stormwater runoff and prevent absorption into the ground, straining stormwater management facilities and increasing the risk of flooding. As such, Hinesville should require further reduction of impervious surface cover at the development.

In summary, ORK asks that:

- The City of Hinesville ensures resilient construction of stormwater management structures able to process increasing storm intensity and frequency,
- Existing wetlands be preserved to ensure their continued role in natural, cost-free stormwater management,
- Artificial stormwater management structure be built to process either 125% of the 100-year storm or 100% of the 500-year storm, and
- Impervious surface cover be reduced as much as possible to reduce increased stormwater pressure coming from the site.

3. Confirm and Secure Water Supply and Wastewater Treatment Capacity

Both the water supply and wastewater treatment needs of any development in coastal Georgia must carefully consider its long-term impacts, implications, and viability. With existing restrictions on new groundwater withdrawals and large amounts of new housing developments being proposed, the City of Hinesville 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 forward-looking approach, interconnect into existing systems, and avoid on-site treatment options.

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 Hinesville and Liberty County fall in the "Yellow Zone" management area.⁶ 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

⁴ See UGA

(<https://site.extension.uga.edu/climate/2020/05/has-the-100-year-storm-changed-over-time-it-may-depend-on-where-you-are/>) and Dudek Consultants (<https://dudek.com/will-your-flood-control-system-work-in-a-100-year-event/>).

⁵ 125% of a 10.2-in storm is 12.75 in.

⁶ 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

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. The City's recent request⁷ to add new withdrawals from a new Long County-located well is a finite increase to available water supply. As such, ORK urges Hinesville to carefully consider how it utilizes this finite resource to meet all of its growing and future needs. Further, ORK urges the City of Hinesville, as well as 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. This should include quickly pursuing alternative, non-groundwater sources of water to offset industrial water demands to preserve groundwater for drinking water and agricultural needs.

Additionally, ORK asks for clarification of the expected water supply demand as compared to wastewater treatment demand. As currently presented, the development is requesting 660,000 gallons per day (gpd) of water supply while also estimating a treatment need of 770,000 gpd. These numbers - with wastewater demand higher than water supply demand - are the opposite of every other PUD development in Coastal Georgia. ORK is confused about where the additional 110,000 gpd of wastewater demand is coming from, if only 660,000 gpd of supply is delivered. As such, ORK asks the City of Hinesville to seek clarification from the applicants prior to approving any rezoning, permitting any construction, or committing to providing these water supply and wastewater treatment services.

In summary, ORK asks that:

- The City of Hinesville confirms its ability to meet increased water demand for this project as well as future growth,
- The applicant clarify the significant difference in water supply and wastewater treatment demand expected for this project.

4. Thoughtfully Preserve Wetlands, Natural Areas, and Green Space

In developing the Hacks Pasture development, 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 and preserved for the reasons mentioned above. Second, other existing natural features, such as the riverine areas crossing the property, should be maintained, highlighted, and be the starting point for further development. Third, trees should be preserved

⁷ See Environmental Protection Division "Notice of Groundwater Withdrawal Permit - City of Hinesville - Long County Operations" Date December 21, 2023 for Permit No. 091-0005.

and any cutting or clearing should be avoided. 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