

Sent via email to: [cmckee@crc.ga.gov](mailto:cmckee@crc.ga.gov)

Caity McKee  
Senior Planner  
Coastal Regional Commission

*RE: Comments on DRI #4336 - Raydient Planned Unit Development (PUD)*

Dear Ms. McKee,

Thank you for the opportunity to review the Development of Regional Impact #4336 – Raydient Planned Unit Development (PUD). These comments are submitted to the Coastal Regional Commission (CRC) on behalf of the Ogeechee Riverkeeper (ORK), a non-profit organization that works to protect, preserve, and improve the water quality of the Ogeechee River basin, and One Hundred Miles (OHM), a non-profit organization dedicated to protecting Georgia's 100-mile coast through education, advocacy, and community engagement.

After reviewing the information provided through the public notice, we have serious concerns for a development of this size progressing through the permitting process with so little assurance that the county and city can provide basic needs for health and safety. We also have concerns for the impact the development will have on local wetlands and water quality.

### **Concerns about Net Loss of Wetlands**

As stated in the Wetlands of Coastal Georgia: Results of the National Wetlands Inventory and Landscape-level Functional Assessment:<sup>1</sup>

“Wetlands of Bryan County: Preliminary Functional Assessment: Over half of the wetlands in Bryan County (including ponds) are predicted to perform 6 of 11 functions at high to moderate levels (Table 11). Almost all wetlands (99%) of the county were deemed important for nutrient transformation, carbon sequestration, and as habitat for wildlife other than waterfowl and waterbirds. About 80 percent of the county's wetlands are predicted to be important for retention of sediment and other particulates. Over 70 percent appear important for bank and shoreline stabilization and water retention. Less than half of the wetlands (46%) seem to be important for streamflow maintenance. Between 30 and 39 percent of Bryan County wetlands are predicted to be important for coastal storm surge detention, habitat for fish and aquatic invertebrates, and habitat for waterfowl and waterbirds.”

The Raydient PUD is proposed within wooded area with significant wetlands. As you know, when a parcel is filled with concrete structures and parking lots there will be an increase in stormwater runoff amplifying stormwater runoff problems for the school and public waterways. The available information does not include a plan to store or treat runoff on their own property. The applicant also has not yet demonstrated how they plan to protect aquatic resources of the

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<sup>1</sup> Wetlands of Coastal Georgia: Results of the National Wetlands Inventory and Landscape-level Functional Assessment, October 2012 p.42 - [https://coastalgadnr.org/sites/default/files/crd/CZM/Wetlands-LS/NWI%2BReport\\_A\\_F.pdf](https://coastalgadnr.org/sites/default/files/crd/CZM/Wetlands-LS/NWI%2BReport_A_F.pdf)

abutting wetlands, some of which will be surrounded by impermeable roads and buildings, and the residents that live along these waterways.

### **Concern for the Negative Impacts of Stormwater**

Stormwater and Natural Resources guiding standards are identified in the Regional Plan (2022 CRC Regional Plan p 48 and p 51). The Stormwater standards encourage development practices and sitings that “do not negatively impact wetlands, preserve greenspace, and large contiguous areas of open space for flood waters and carbon sequestration.” Additionally, the Natural Resources standards encourage developing an “inventory of significant natural resources/ viewsheds.”

The application estimates that once the Raydient PUD is build out, 35% of the property will be impervious surface and 55% of the property is wetland habitat. We recommend the CRC encourage the property owner to put his wetlands into a conservation easement as a viable way to protect the nearby residential properties, wetlands, and surrounding waterways. The County, City, and the CRC should encourage developers to pursue State-level funding for regional water quality monitoring activities due to the statewide importance of coastal waters and estuaries. This would protect the residents and the natural landscapes that are interconnected to more than just the industrial property.

### **Concerns for the lack of dependable Water Supply and Wastewater Treatment Capacity**

Both the water supply and wastewater treatment needs of any development in coastal Georgia must carefully consider the long-term impacts, implications, and viability. With both residential and industrial growth coming to Bryan County and the wider region, the City of Richmond Hill should make a fully informed decision of the near- and long-term impacts and viability of this mixed-use development in light of the additional strains it will place on groundwater resources and the potential for expanded withdrawal restrictions.

The Raydient PUD must not be allowed to proceed until the company can provide certainly that water supplies are available. The applicant states that there is not sufficient water supplies available to support a development of this magnitude, requiring .85 MGD. The Georgia Department of Natural Resources’ Coastal Georgia Water & Wastewater Permitting Plan for Managing Salt Water Intrusion (2006 Plan) establishes the regime for groundwater withdrawals in the region,<sup>2</sup> and the proposed new development lies directly in the “Red Zone.” Reliable water supplies are not availability. The public notice only includes a simple statement that the City of Richmond Hill is working to complete water supply strategy and that 5 miles of water line must be built. Such unsubstantiated promises are insufficient assurance that the PUD will be supported and offer safe standards for residents and visitors.

Additionally, the Raydient PUD must not proceed until wastewater capacity is certain. The public notice for the Raydient PUD DRI indicates that it will require sewerage treatment capacity for

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<sup>2</sup> Coastal Georgia Water and Wastewater Permitting Plan for Managing Saltwater Intrusion - <https://epd.georgia.gov/coastal-water-study>

~0.85 MGD. The application also states that the City's Wastewater Treatment Facility does not have sufficient capacity to treat the waste generated by this mixed use development. The PUD must not proceed until the mentioned treatment facility expansion is complete and the wastewater lines are installed.

Wastewater solutions like on-site septic, land application systems, and "package" treatment plants<sup>3</sup> should also be avoided to meet wastewater demands. Such options present expensive maintenance concerns for relatively small amounts of treatment. These options also create potential long-term water quality and pollution concerns. With such a high percentage of the land being within floodplains, septic systems are especially not a good option. Ultimately, Bryan County and the City of Richmond Hill should strongly consider and begin pursuing a regional solution to its growing wastewater treatment needs.

Should the City and County consider approving the annexation and rezoning, we submit the following recommendations for conditions of that approval:

- 1. Require the applicant minimize impact to wetlands and deny permits for new structures proposed in 100-year flood plain.**

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%<sup>1</sup> - a more than 1 in 4 chance for properties in the 100-year floodplain. This creates risks and financial pressure for all future property owners who may face significant flood damage and the following increases in insurance rates. It is also important to remember that the FEMA flood zones are based on historic rainfall and flooding data.<sup>4</sup> As storm frequency and intensity is expected to increase in the coming decades, the actual risk of flooding will likewise increase, heightening the likelihood and damage from flooding events. We urge the City of Richmond Hill 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. In particular, ORK and OHM ask that no structures are built within the 100-year flood zone.

Should the development still plan to fill wetlands, ORK and OHM recommend Richmond Hill require a detailed wetlands plan from the developers. As a prerequisite, the developers should more clearly delineate the wetlands present on the property. While the Conceptual Site Plan notes a general location of "preserved jurisdictional wetlands, the plan fails to clearly demarcate where any wetlands are located. If wetlands are ultimately filled, we strongly urge the City of Richmond Hill to require mitigation on the properties or as close to the site as possible. Doing so will minimize the localized impacts of wetlands loss on the human and natural environment.

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<sup>3</sup> EPA. "Wastewater Technology Fact Sheet - Package Plants." Sept. 2000. Available at: [https://www3.epa.gov/npdes/pubs/package\\_plant.pdf](https://www3.epa.gov/npdes/pubs/package_plant.pdf)

<sup>4</sup> [https://hdsc.nws.noaa.gov/pfds/pfds\\_map\\_cont.html?bkmrk=ga](https://hdsc.nws.noaa.gov/pfds/pfds_map_cont.html?bkmrk=ga)

**2. Establish buffer areas between industrial use and mixed-use within the PUD to reduce sound, noise, and pollutants.**

- a. Add a “zone border compatibility” space or a “business zone” between adjacent residential and industrial land use. It is problematic to have the mixed use with residential and residential land uses adjoin industrial land uses. We recommend a designated transition area be established between these zones. An example is a designated business zone. This would gradually decrease the heavy use from industrial activity to medium use of businesses and then to low-impact use in the residential area.
- b. Increase the size of buffers around industrial land uses and include sound and light controls as well. Since the Industrial zone is encroaching into the mixed-use area with residential homes, there needs to be an increased buffer zone to provide protection from industrial noise and lights. While it is standard to have a barrier of trees, a 100 foot buffer and vegetated berm would provide an additional barrier to reduce dust, noise, and light pollution between incompatible land uses.

**3. Require the applicant to implement a robust stormwater management plan.**

On-site stormwater management should be as resilient as possible. Storms are becoming stronger and more frequent. This, combined with increasing the impervious surface cover on the property, will increase stormwater damage in the area. To reduce negative flooding and inundation impacts, the applicant should reduce impervious surface coverage, construct retention features well above minimum requirements, and preserve wetlands wherever possible. These general measures will help to reduce the related pollution impacts to already-impaired waters.

Additionally, stormwater retention ponds or other similar features planned for the site should go beyond the minimum required management standards. 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 intensive than the retention ponds will likely be required to retain and process in the coming years and decades. To extend the functional lifetime of these retention ponds and to successfully prevent flooding, ORK and OHM urge developers and decision makers to go beyond minimum standards in constructing these stormwater features.

Thank you for considering these comments. Should you have any questions or need clarification on any of the points made herein, please contact either of us at the numbers listed below.

Sincerely,

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