

CHATHAM COUNTY ZONING BOARD OF APPEALS

MPC STAFF REPORT

PETITIONER: Robert Portman, Barnard Architects

FILE NO: ZBA-0324-000454

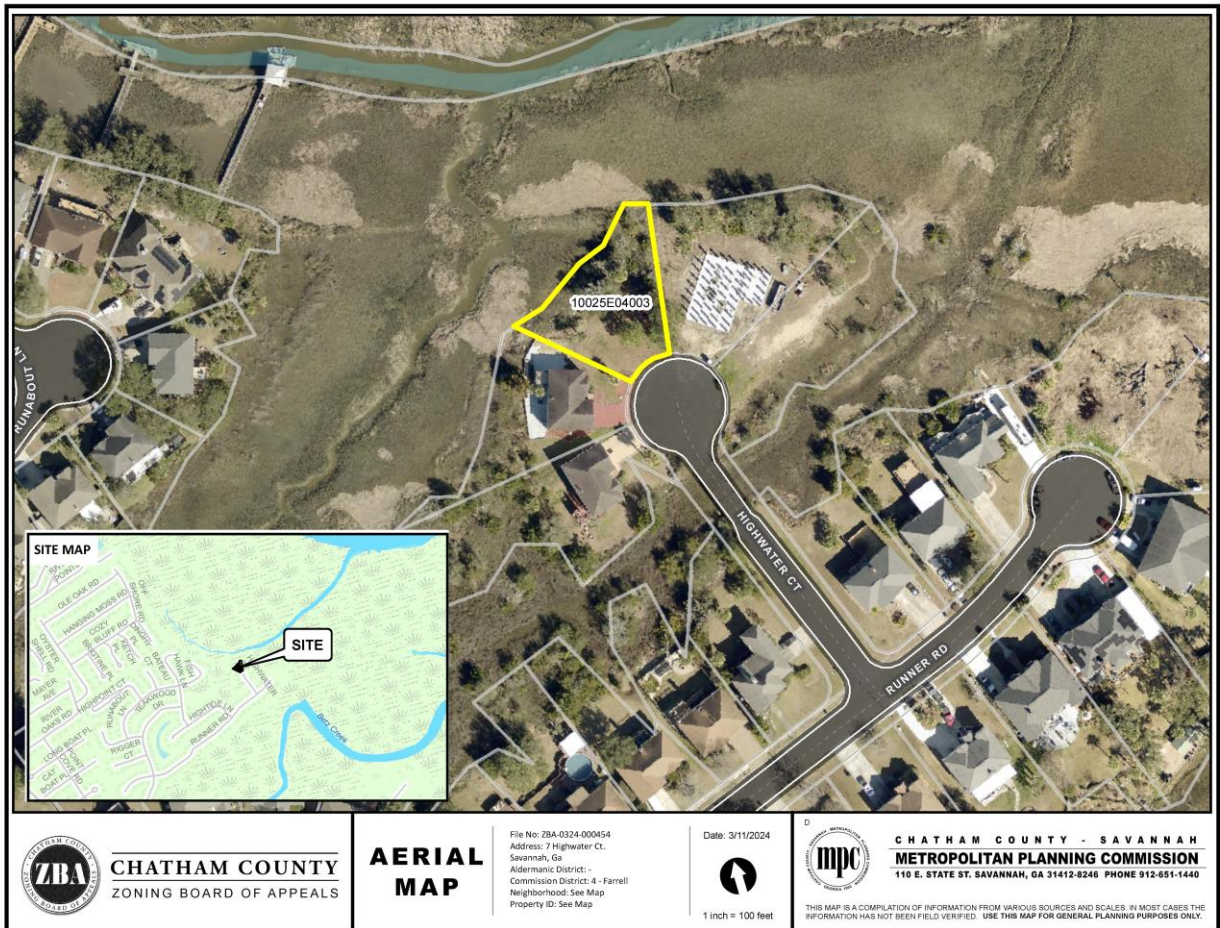
ADDRESS: 7 Highwater Court

PIN: 10025 E04003

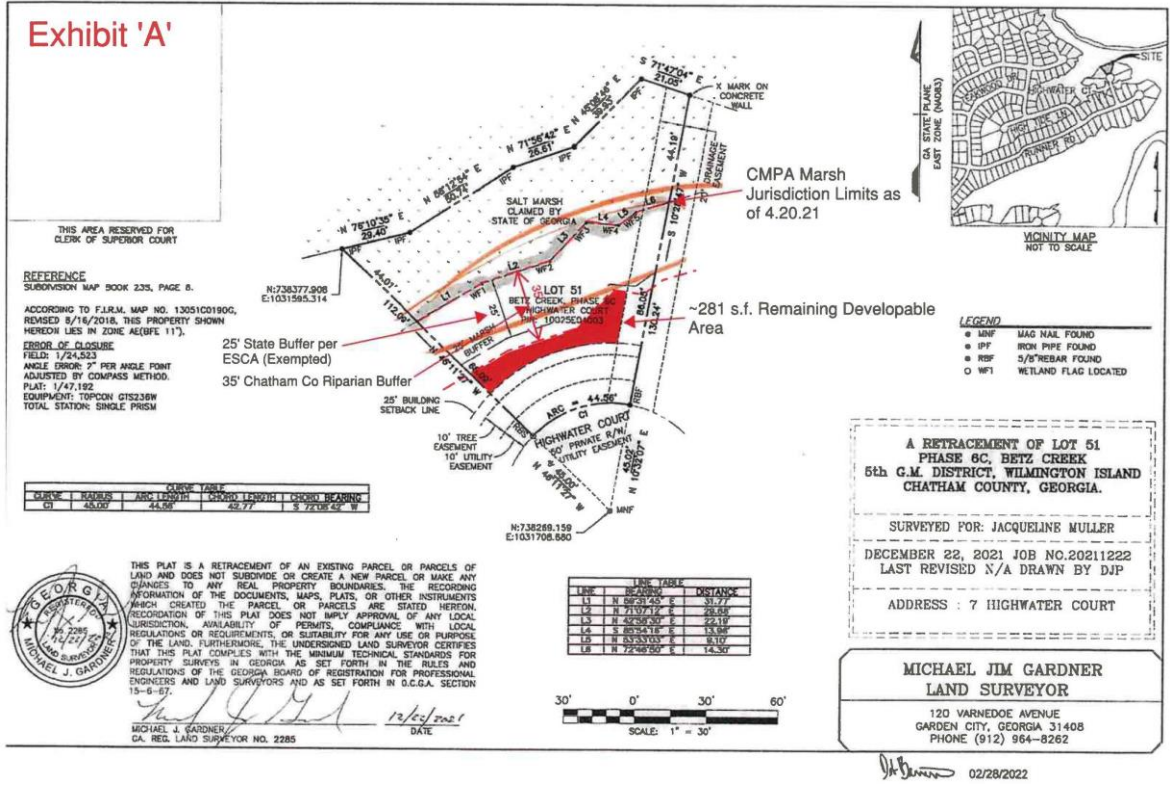
DATE: March 21, 2024

Nature of Request

The Petitioner is requesting a variance to reduce Chatham County's riparian buffer from 35 ft to 10 ft to construct a residential single-family structure on the lot. The property is 0.25 acres and located within the R-1/EO (One Family Residential - Environmental Overlay) zoning district at 7 Highwater Court. The current buildable lot area is approximately 281 sf, and the requested variance will allow for approximately 2,884 sf.

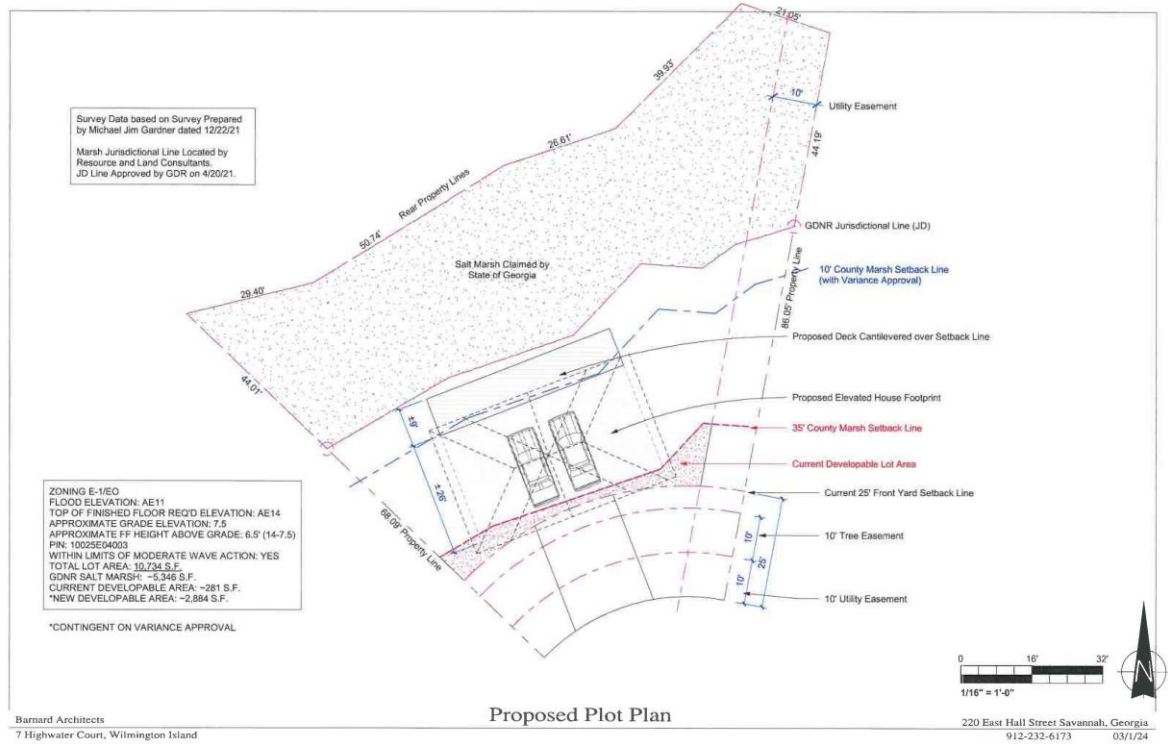


Aerial Map of 7 Highwater Court



Applicant Submission 'Exhibit A' Land Survey

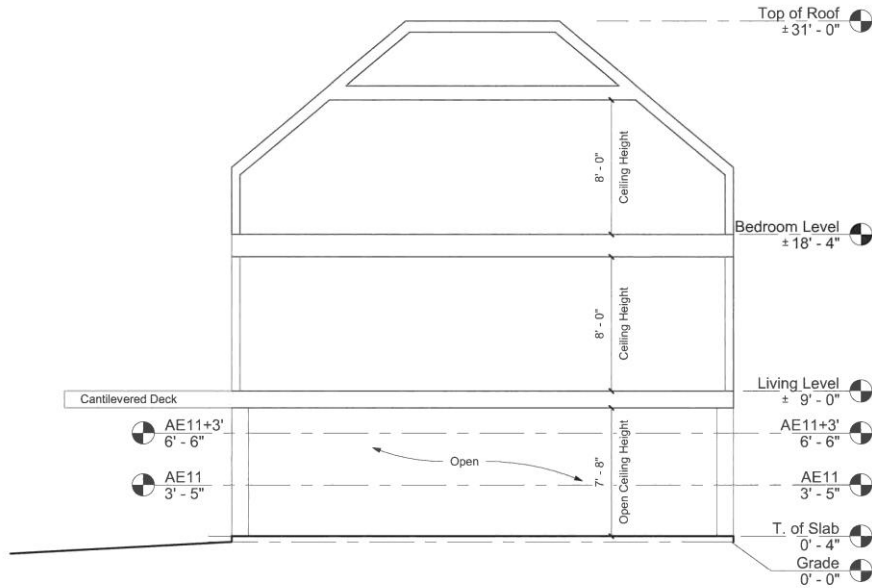
Exhibit 'D'



Applicant Submission 'Exhibit D Proposed Lot Plan'

Exhibit 'E'

Max Building Height
36' - 0"



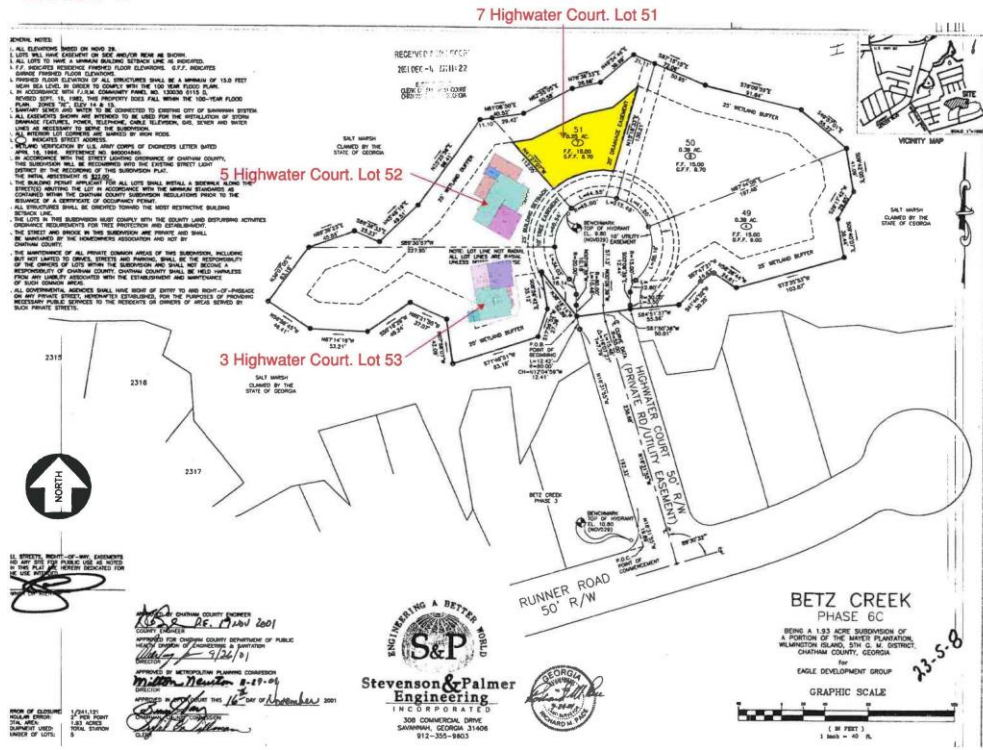
Barnard Architects.com

Schematic Building Section

220 East Hall Street Savannah, Georgia
912-232-6173 03/1/24

Applicant Submission 'Exhibit E Schematic Building Section'

Exhibit 'B'



Applicant Submission 'Exhibit B' Betz Creek Cul-de-sac

Background:

The Petitioner, Robert Portman, on behalf of the property owner, Jacqueline Muller, requested to reduce the County's riparian buffer from 35 ft to 10 ft. According to the land survey prepared in 2021, the current developable area is approximately 281 sf, and the requested variance, if granted, will allow for a new developable area of 2,884 sf. The parcel is in the R-1/EO zoning district and subject a riparian buffer of 35 ft as measured from the Department of Natural Resources jurisdictional marsh line as established by the Coastal Resources Division in accordance with the Coastal Marshlands Protection Act of 1970. The parcel is part of the Betz Creek Subdivision and was created in 2001. The existing homes in the subdivision were built in 2003, and are legal non-conforming, which do not meet the most current standards.

Findings:

1. The property is 0.25 acres and located within the R-1/EO Zoning District.
2. The R-1 development standards for a dwelling served by public water and sewer are:
 - a. Minimum Lot Area per Dwelling Unit: 6,000 sf
 - b. Minimum Lot Width: 60 ft
 - c. Front Yard Setback: 55 ft (Minor Street, Residential Street, or Marginal Access Street)
 - d. Side Yard Setback: 5 ft
 - e. Rear Yard Setback: 35 ft

The Proposed Plot Plan (Exhibit D) situates the dwelling at a 25 ft front yard setback and 10ft from the salt marsh GDNR Jurisdictional Line. There is a 10 ft utility easement on the east side and the side yard setback on the west side is unknown. The proposed plan requires a front yard setback variance to 25 ft in addition to the buffer variance.

3. Relevant Environmental Overlay District Standards:
 - a. The purpose of the Environmental Overlay District is to, "to establish supplemental standards to bolster those currently in the Chatham County Zoning Ordinance in order to, a) protect and enhance community character; b) provide for safe and orderly development; and c) protect environmental quality, especially the estuarine system that surrounds the community.
 - b. Maximum building height shall be 36 feet above grade or the 100-year base flood elevation; whichever is higher, excluding appurtenances otherwise exempted by the Zoning Ordinance.
 - c. A 35-foot riparian buffer as measured from the Department of Natural Resources jurisdictional marsh line as established by the Coastal Resources Division in accordance with the Coastal Marshlands Protection Act of 1970 is required. The buffer must remain undisturbed at all times, except as permitted in paragraph (2) of this section. The requirement of the riparian buffer does not exclude the property owner from compliance with any other State or local buffers of State waters. Except that for marinas, only the provisions of Coastal Marshlands Protection, Chapter 391-2-3 shall apply.
 - d. No more than 30 percent of the riparian buffer may be altered by pruning or selective clearing for access and maintenance of view corridors.

The proposed building height is 36 ft, where the first level is raised to 9 ft. The applicant cannot meet the 35 ft buffer requirement and is requesting it be reduced to 10ft. With an exemption from

the State buffer requirement of 25ft, this will leave 10 ft between the salt marsh GDNR Jurisdictional Line and the proposed structure.

Analysis:

This variance request requires the analysis of State and local laws regarding riparian buffers and consideration of future environmental conditions. While the property is exempt from State riparian buffers, this does not exempt the property from the local Chatham County riparian buffer in the Environmental Overlay District. The intent behind the development standards varies by law and will be discussed below.

GA Code § 12-7-6 (2020) provides an exemption for lots platted prior to December 31, 2015, “if roadways, bridges, or water and sewer lines have been extended to such lot prior to December 31, 2015, and if the requirement to maintain a 25 foot buffer would consume at least 18 percent of the high ground of the platted lot otherwise available for development; provided, however, that adequate erosion control measures are incorporated into the project plans and specifications and such measures are fully implemented.” Highwater Court extends to the cul-de-sac where 7 Highwater Court is located, two parcels are fully developed, with one in construction. The cul-de-sac is served by City of Savannah water and sewer and Chatham County stormwater.

Additionally, GA Code § 12-7-6 (2020) states, “Nothing contained in this chapter shall prevent any local issuing authority from adopting rules and regulations, ordinances, or resolutions which contain stream buffer requirements that exceed the minimum requirements in subsection (b) of this Code section.” Therefore, Chatham County is able to adopt more stringent buffer requirements and a variance for the County buffer is required despite the State exemption.

Relevant Development Standards in the Environmental Overlay District (Chatham County Zoning Regulations Sec 4-12):

Sec. 4-12(c)(1): General Development Standards:

Maximum building height shall be 36 feet above grade or the 100-year base flood elevation; whichever is higher, excluding appurtenances otherwise exempted by the Zoning Ordinance.

Sec. 4-12(f): Environmental Standards:

A 35-foot riparian buffer as measured from the Department of Natural Resources jurisdictional marsh line as established by the Coastal Resources Division in accordance with the Coastal Marshlands Protection Act of 1970 is required. The buffer must remain undisturbed at all times, except as permitted in paragraph (2) of this section. The requirement of the riparian buffer does not exclude the property owner from compliance with any other State or local buffers of State waters. Except that for marinas, only the provisions of Coastal Marshlands Protection, Chapter 391-2-3 shall apply.

The intent of the Environmental Overlay District Standards is to comply with the Coastal Marshlands Protection Act of 1970 (CMPA). The CMPA declares the following:

1. *Georgia's coastal marshlands have long been recognized by the General Assembly and the Board as a vital natural resource system, a vital area of the state, and essential to maintain the health, safety, and welfare of all the citizens of the State.*

2. *The Coastal Marshlands Protection Act (CMPA) provides a grant of authority to the Board of Natural Resources and Coastal Marshlands Protection Committee to regulate certain activities that affect or have the potential to affect the coastal marshlands of the state, to ensure the values and functions of the coastal marshlands are not impaired and to protect the public interest.*
3. *Stormwater management measures, impervious surface coverage standards, and marshlands buffer design and maintenance measures as applied to projects which are subject to permitting under the Coastal Marshlands Protection Act are warranted so as to protect this vital area and to protect the public interest.*

The Chatham County Ordinance Environmental Overlay District intent is more aligned with the CMPA, than the GA Code § 12-7-6 (2020), which focuses on the “Control of Soil Erosion and Sedimentation.” Protecting the marsh and waterways from soil erosion and sedimentation is critical to maintaining a healthy wetland, however, the CMPA recognizes marshlands as, “essential to maintain the health, safety, and welfare of all the citizens of the State.” Chatham County contains approximately 228 square miles of wetlands, and the Environmental Overlay District is intended to protect them.

Relevant Sections in GA Code § 12-7-6 (2020): Conservation and Natural Resources; Control of Soil Erosion and Sedimentation; Best Management Practices; Minimum Requirements for Rules, Regulations, Ordinances, or Resolutions

(a)(1) Best management practices as set forth in subsection (b) of this Code section shall be required for all land-disturbing activities. Proper design, installation, and maintenance of best management practices shall constitute a complete defense to any action by the director or to any other allegation of noncompliance with paragraph (2) of this subsection or any substantially similar terms contained in a permit for the discharge of storm water issued pursuant to subsection (f) of Code Section 12-5-30. As used in this subsection, the terms "proper design" and "properly designed" mean designed in accordance with the hydraulic design specifications contained in the "Manual for Erosion and Sediment Control in Georgia" specified in subsection (b) of this Code section.

(b)(17)(A)(F) The buffer shall not apply to:

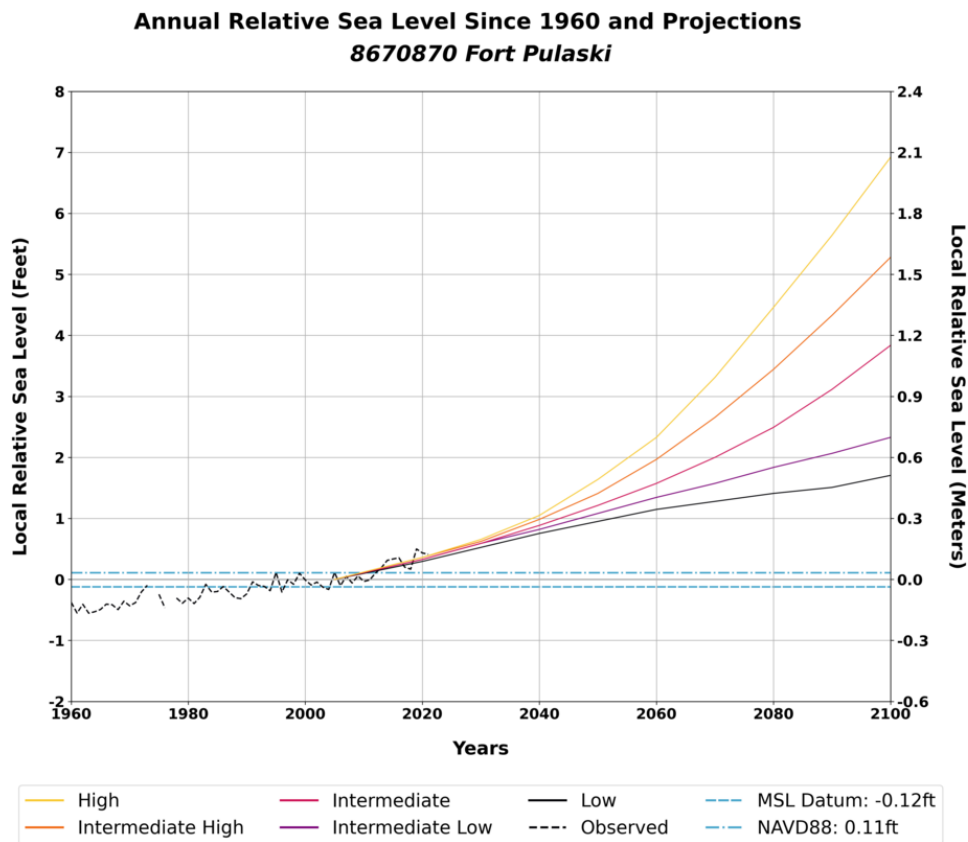
- i. Any land-disturbing activity conducted pursuant to and in compliance with a valid and effective land-disturbing permit issued subsequent to April 22, 2014, and prior to December 31, 2015; provided, however, that adequate erosion control measures are incorporated into the project plans and specifications and such measures are fully implemented; or
- ii. Any lot for which the preliminary plat has been approved prior to December 31, 2015, if roadways, bridges, or water and sewer lines have been extended to such lot prior to December 31, 2015, and if the requirement to maintain a 25 foot buffer would consume at least 18 percent of the high ground of the platted lot otherwise available for development; provided, however, that adequate erosion control measures are incorporated into the project plans and specifications and such measures are fully implemented.

(c) Nothing contained in this chapter shall prevent any local issuing authority from adopting rules and regulations, ordinances, or resolutions which contain stream buffer requirements that exceed the minimum requirements in subsection (b) of this Code section.

Projected Sea Level Rise

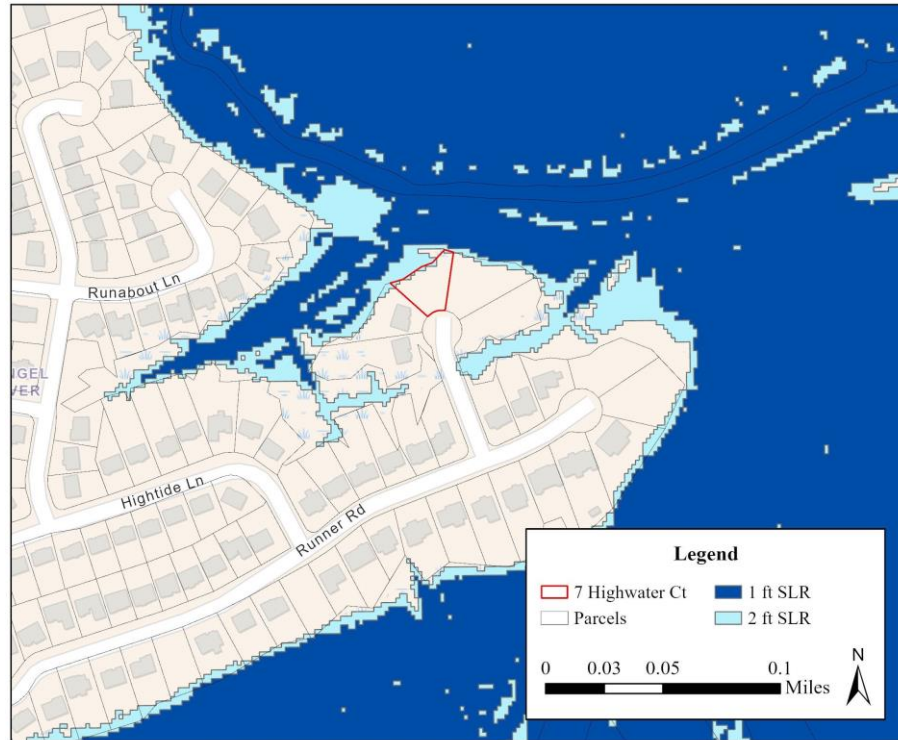
A review of projected future conditions due to climate change is necessary due to the property’s proximity to the coast and tidal-influenced water bodies. The coastal environment is a dynamic ecosystem that will change as sea level rises, and property owners cannot expect current development conditions to reflect future conditions.

The projected sea level rise at the Fort Pulaski tide gauge in an intermediate scenario is 0.95 ft in 2040 and 1.64 ft in 2060. In a high scenario, projected sea level rise is 1.12 ft in 2040 and 2.4 ft in 2060. In less than 20 years, the Georgia coast is projected to experience approximately 1 ft sea level rise. The ocean-connected sea level rise inundation is mapped out to demonstrate the impact on 7 Highwater Court. Therefore, the parcel is expected to experience additional flooding as the marsh converts to open water.



Source: NOAA Tides and Currents (2022)

Projected Sea Level Rise of 1 ft and 2 ft at 7 Highwater Court



Prepared by Anna B. McQuarrie on 3/18/2024
Data Source: NOAA Office For Coastal Management Sea Level Rise Inundation Data
Service Layers: Esri Community Maps Contributors, Savannah Area GIS, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

The report “Vegetated Buffers in the Coastal Zone” was written for the Georgia Department of Natural Resources Coastal Resource Division and describes the benefits of saltmarshes and buffers in Coastal Georgia. The excerpts below describe the benefits of salt marshes, and impacts of marsh migration, such as “coastal squeeze,” which can cause additional flooding. Buffer areas are critical to protect both the environment and property owners.

Vegetated Buffers in the Coastal Zone (Myszewski and Alber, 2014)

Wetland buffers maintain and protect the porous vegetated connections between wetlands and upland areas while preserving wetland ecological functions. In addition to protecting wetlands, these buffers perform many of the same beneficial services as the wetland itself. In marshes, this includes: slowing and spreading out stormwater runoff; filtering sediment, nutrients and pollutants; stabilizing the shoreline and preventing erosion; providing wildlife habitat; and moderating flooding from storm surges. Buffers adjacent to tidal marshes also provide potential migration space for areas affected by sea level rise (i.e., coastal squeeze) (Adamus 2007, Bason 2008).

Marsh Migration and “Coastal Squeeze”

The additional flooding caused by an increase in sea level can drown the vegetation at the seaward edge, converting it to open water. At the same time, the higher water level floods additional areas that were formerly high ground. If there are no barriers (e.g. sea walls), the upland edge converts to marsh vegetation and the entire area moves inland. If there is no area available for this migration to occur the marsh is lost due to a decrease in the intertidal area, a phenomenon known as “coastal squeeze”. Coastal marshes are particularly susceptible to this loss because they have gradual slopes, so a small change in

the vertical dimension due to sea level rise translates to a relatively larger change in the horizontal dimension.

Myszewski, M and Alber, M. (2014). Vegetated Buffers in the Coastal Zone Prepared for GA DNR–Coastal Resources Division. <https://www.gcrc.uga.edu/wp-content/uploads/2019/09/Final-Vegetated-Buffers-in-the-Coastal-Zone.pdf>

Takings Case Law: Lucas v. South Carolina Coastal Council (505 U.S. 1003, 1992)

The denial of this variance has potential to result in a regulatory takings claim. *Lucas v. South Carolina Coastal Council (Lucas)* is the standard case to decide regulatory takings. Lucas alleged a taking under the Fifth and Fourteenth Amendments that required payment of just compensation. In this case, Lucas purchased lots on Isle of Palms, SC with the intent of building single-family homes. No restrictions existed at the time of purchase and South Carolina passed the Beachfront Management Act two years later. This imposed a blanket rule against building any habitable improvements on property that was closer to the ocean than a certain line on the Isle of Palms that connected points particularly vulnerable to erosion. The primary holding in the case created the “total takings” standard where,

“A taking that requires fair compensation exists when the government creates a regulation that negates all economically beneficial use of a property, and state nuisance law would have permitted such a use.”

In the context of this variance request, it is noted that Chatham County will likely need to specifically address properties that were created and approved prior to updating the Environmental Overlay to include a 35 ft buffer that can impact the ability develop a property as the owner wishes following all other rules.

Variance Criteria:

The Zoning Board of Appeals may authorize a variance in an individual case upon a finding that:

- (a) **There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape, or topography.**

The subdivision at Highwater Court was approved prior to the Chatham County Environmental Overlay revision requiring a 35 ft buffer. Two lots in the subdivision are currently developed, 3 and 5 Highwater Court, with structures built in 2003. The structures are built at the highest elevation of approximately 8 ft on the parcels. The highest elevation at 7 Highwater Court is approximately 7 ft, with the back portion of the parcel at 5-6 ft. The property owner is raising the house and following other development standards in the Environmental Overlay District.

Climate change is expected to change the coastal landscape in many ways. Wilmington Island, along with other coastal areas in the County, will face increasing levels of sea level rise by mid-century. This property backs into a salt marsh, which is expected to be inundated with water as sea level rises an expected 1 ft by 2040 and 1.6-2 ft by 2060. Saltmarshes are dynamic, not static, ecosystems and are expected to migrate upland as water rises. There is expected to be a loss of natural flood protection to properties if the marsh is unable to migrate, causing a phenomenon known as “coastal squeeze.” Development decisions require thoughtful consideration of future conditions as opposed

to solely relying on historical development patterns and environmental conditions.

(b) **The application of this chapter to this particular piece of property would create an unnecessary hardship.**

The applications of this chapter create a hardship for this particular property, however, a necessary one. The subdivision was approved, and structures on 3 and 5 Highwater Court were built prior to implementation of the 35 ft buffer in the Environmental Overlay District. The required setbacks and buffer leave a remaining 281 sf of developable area, approximately the size of a “tiny house.”

This parcel is in a high-risk AE-11 flood zone (Special Flood Hazard Area), meaning there is a 1% annual chance of flooding and at least a 1 in 4 chance of flooding during a 30-year mortgage period. Further, this property is expected to face increasing threats of flooding caused by extreme weather events, sea level rise, storm surge, and tides. These hazards put both the physical property and resident at risk.

(c) **Such conditions are peculiar to the particular piece of property involved.**

There are approximately 228 square miles of wetlands in Chatham County (Plan 2040, pg. 310). This is not a unique or special hardship because much of the county must consider wetlands for development purposes. This property was purchased in 2005 by Jacqueline Miller, and the Chatham County Environmental Overlay Standards were updated in 2010. The standard has been in place for approximately 14 years.



Wetlands in Chatham County, Plan 2040

- (d) **Relief, if granted, would not cause substantial detriment to the public good, or impair the purposes and intent of the Chatham County Zoning Ordinance.**

This variance would go against the intent of the Chatham County Zoning Ordinance. The purpose of the Environmental Overlay District is to, “to establish supplemental standards to bolster those currently in the Chatham County Zoning Ordinance in order to, a) protect and enhance community character; b) provide for safe and orderly development; and c) protect environmental quality, especially the estuarine system that surrounds the community.

The Chatham County Ordinance Environmental Overlay District intent is more aligned with the CMPA, than the GA Code § 12-7-6 (2020),² which focuses on the “Control of Soil Erosion and Sedimentation.” Protecting the marsh and waterways from soil erosion and sedimentation is critical to maintaining a healthy wetland, however, the CMPA recognizes marshlands as, “essential to maintain the health, safety, and welfare of all the citizens of the State.”

The CMPA recognizes that protecting the function and value of coastal marshlands is part of the public interest. The parcel abuts to saltmarshes that provide valuable protection against flooding on Wilmington Island. If the variance is granted, marshlands will be put at risk and be less likely to protect the developed parcel from environmental hazards.

There is potential for regulatory takings case by enforcing the setback and buffer requirements.

Recommendation

Based on the variance criteria, MPC Staff recommends **denial** of the request for a variance to reduce Chatham County’s riparian buffer from 35 ft to 10 ft to construct a residential single-family structure on the lot.

Note: This recommendation could change subject to new information provided at the Zoning Board of Appeals meeting. Final decisions will be made by the Zoning Board of Appeals at the public hearing based on information provided at the meeting, as well as information submitted for the staff report.