



# Lagoon & Lake System Elevated Readings Policy

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**Policy Number: M-2025-01**

**Effective Date: 5/28/2025**

**Responsible Party: General Manager / Asset & Enhancement Manager**

## I. Purpose

This policy outlines the procedure the Palmetto Dunes Property Owners Association (PDPOA) will follow if routine water quality testing detects elevated levels of coliform or E. coli bacteria in the lagoon or lake system. The purpose is to ensure a prompt, transparent, and effective response to protect the health of the community and maintain the integrity of the lagoon and lake ecosystem.

## II. Scope

This policy applies to:

- All areas of the lagoon system, including lakes, within Palmetto Dunes POA
- All PDPOA staff and contractors responsible for water quality monitoring, testing, and maintenance
- Communications with residents in the event of elevated bacterial readings

## III. Monitoring and Testing Standards

Water quality tests will be conducted at least quarterly, or more frequently as needed due to:

- Major weather events
  - Debris removal operations
  - Notification or request from Broad Creek PSD
  - Resident concerns or visible water quality issues at the discretion of the General Manager
- Water quality test results will be posted on the PDPOA's webpage within 5 business days of receipt.

Multiple testing will be conducted when the lagoon is at normal levels, locations include but are not limited to: Queens Folly Bridge; Carnoustie Bridge; Queens Way Bridge; Leamington Court

Parameters monitored:

Turbidity (NTU)

Conductivity ( $\mu\text{S}/\text{cm}$ )

Salinity (ppT)

Free Reactive Phosphorus ( $\mu\text{g}/\text{L}$ )

Total Phosphorus ( $\mu\text{g}/\text{L}$ )

Alkalinity (mg/L as  $\text{CaCO}_3$ )

Total Hardness (mg/L as  $\text{CaCO}_3$ )

E. coli (CFU/100mL)

Total Coliforms (CFU/100mL)

pH

#### **IV. Coliform and E. coli Trigger Thresholds for Response**

The acceptable level of coliforms in a lagoon or lake system depends on how the water is used (e.g., for recreation, aesthetics, irrigation, or wildlife habitat). Since Palmetto Dunes' lagoons and lakes are not used for swimming or drinking, the standards used are typically based on recreational water guidelines and environmental health benchmarks.

<b>Indicator</b>	<b>Action Threshold</b>
Total Coliform	>1,000 CFU (colony-forming unit) per 100 mL (EPA recreational standard)
E. coli	>235 CFU per 100 mL (EPA recreational standard)

#### **V. Response Procedures**

##### **1. Notification**

- The General Manager shall be notified immediately.
- If E. coli levels are detected above the action threshold range, the POA may notify relevant health agencies, including the South Carolina Department of Health and Environmental Control (DHEC).

##### **2. Communication**

- Within 48 hours, PDPOA will issue a community notice, via email, to property owners, Rental companies and others (where possible) with an email on file in our database, including the Outfitters Rentals, outlining:
  - Areas affected
  - Interim safety guidance (e.g., avoid water contact)
  - Steps being taken to investigate and resolve the issue

##### **3. Retesting**

- Follow-up water samples must be collected within 72 hours of the initial result.
- Additional locations may be tested to assess the scope of the issue.

##### **4. Investigation**

- The Asset & Enhancement Manager will conduct a site assessment to identify potential contamination sources:
  - Animal waste
  - Irrigation runoff
  - Septic or drainage issues
  - Organic debris or water stagnation

##### **5. Remediation Actions**

Depending on findings, remediation may include:

- Debris removal
- Aeration or circulation enhancement
- Application of biological water treatments
- Temporary closure of access points or warning signage
- Coordination with external utility or environmental agencies



## 6. Clearance for Normal Use

- Normal lagoon and lake activity may resume after two consecutive clean water tests show acceptable levels of coliform or E. coli.
- Residents will be notified once the issue is resolved and water quality is confirmed safe.

## VI. Documentation and Recordkeeping

All water test results, investigation reports, remediation actions, and communications will be documented and retained for a minimum of three (3) years. An annual summary report on lagoon and lake water quality will be submitted to the Board and made available to residents upon request.

## VII. Review and Updates

This policy shall be reviewed annually by the General Manager and updated as needed to reflect best practices and regulatory changes.