iSimangaliso
News Flash
iSimangaliso Wetland Park
KOSI BAY COASTAL FOREST LAKE SIBAYA SODWANA BAY UMKHUZE FALSE BAY CHARTERS CREEK LAKE ST LUCIA CAPE VIDAL MAPHELANE

16 November 2026

Lake St Lucia: Life After the Estuary Mouth Closes

Introducing iSimangaliso Science Watch

Welcome to the first edition of iSimangaliso Science Watch, our quarterly look at the fascinating aquatic ecosystems of iSimangaliso Wetland Park. Through stories from the field, scientific observations and photographs, we share how our scientists monitor the Park's rivers, lakes, estuaries and marine environments, and what these findings tell us about the natural processes shaping these ecosystems.

In this edition, we explore the recent natural closure of the Lake St Lucia Estuary mouth and how scientists are tracking changes in water levels, water quality and aquatic life.

What happens when the mouth of Africa's largest estuarine lake closes? At iSimangaliso Wetland Park, scientists are keeping a close eye on how the system responds.

Over the past three years, the Lake St Lucia Estuary mouth has undergone several natural opening and closing events, reflecting the dynamic nature of this remarkable wetland. In January 2026, the mouth opened naturally, with water levels reaching a peak of approximately 2.6 metres above mean sea level (MSL). On 4 July 2026, the mouth closed naturally again, when water levels were around 1.1 metres MSL. These changes mark another chapter in the ever-changing life of Lake St Lucia, where opening and closing of the estuary mouth form part of its natural cycle, influenced by rainfall, river inflows, sediment movement and coastal processes.



Photo: © iSimangaliso Wetland Park Authority, 2026.

But what happens beneath the water's surface when the mouth closes?

Keeping a Finger on the Pulse of Lake St Lucia

Throughout July, August and September, iSimangaliso's Research and Monitoring team continued tracking changes across the estuary.

One of the most important things we monitor is water levels. An automated monitoring station at the St Lucia Bridge records water-level changes every 20 minutes, helping scientists understand how the estuary responds to rainfall, freshwater inflows and changing environmental conditions.

Our scientists also visit monitoring stations across the lake each month, measuring water temperature, salinity, oxygen levels and water clarity. Drone surveys provide an additional bird's-eye view of the estuary, helping us observe changes across this vast wetland.

Together, these observations help us understand how Lake St Lucia is responding to its closed-mouth conditions.

Rainfall Brings Changes to the Lake

Despite the mouth remaining closed, Lake St Lucia is far from a static body of water.

During the quarter, rainfall continued to influence conditions, with 129.7 mm recorded in August and 201.9 mm in September.

Our monitoring also recorded relatively low salinity levels across the estuary, ranging between 0.31 and 5.02 PSU. In False Bay, elevated turbidity levels were recorded, reflecting reduced water clarity and spatial variability in water quality across Lake St Lucia. Green discolouration of the water was also observed along sections of the False Bay shoreline, suggesting elevated phytoplankton concentrations. These discolourations were temporary and subsequently dissipated, highlighting the dynamic nature of water quality conditions within the estuary.



Photo: © iSimangaliso Wetland Park Authority, 2026.

Aquatic plants were also observed in parts of the system, reminding us that important ecological processes continue even when the estuary is disconnected from the sea.

Green Patches on the Water: Should We Be Concerned?

Visitors and residents may occasionally notice greenish algal mats or patches accumulating in shallow sections of Lake St Lucia.

These can be more noticeable during periods of calm weather, particularly when there is little wind to disturb the surface of the water.



Photo: © iSimangaliso Wetland Park Authority, 2026.

Algae occur naturally in aquatic ecosystems, and their presence is not necessarily a sign that something is wrong. However, excessive algal growth can become a concern, particularly when large accumulations begin to decompose and reduce oxygen available to fish and other aquatic life.

This is why our scientists continue measuring oxygen levels, water temperature and other indicators such as amphipods help us understand whether these conditions are part of natural environmental changes or require closer investigation.



Photo: © iSimangaliso Wetland Park Authority, 2026.

Not every green patch is a cause for alarm, but every observation helps us better understand the lake.

A Living, Changing Wetland

Lake St Lucia is a dynamic ecosystem shaped by rainfall, river inflows, wind, evaporation and its connection to the Indian Ocean.

The closure of the estuary mouth does not mean that the lake has stopped functioning. Instead, it marks a different phase in its natural cycle, one that requires continued scientific observation.

Through regular field surveys, automated water-level monitoring and drone observations, iSimangaliso Wetland Park Authority continues to build a better understanding of how Lake St Lucia responds to changing rainfall patterns, fluctuations in water levels and other natural processes that shape this remarkable wetland.

Lake St Lucia is constantly changing, and understanding those changes is essential to protecting its biodiversity for future generations.

Coming Up in Our Next Edition

Mapping the Depths: Exploring the Lake St Lucia Estuary Mouth

In our next edition, we explore how scientists use bathymetric surveys to map the underwater landscape of the estuary mouth, revealing changes in water depth, sediment distribution and channel structure. These surveys provide valuable insights into the natural processes that shape the St Lucia estuary mouth.

Information source: iSimangaliso Wetland Park Authority — Research and Monitoring Programme

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