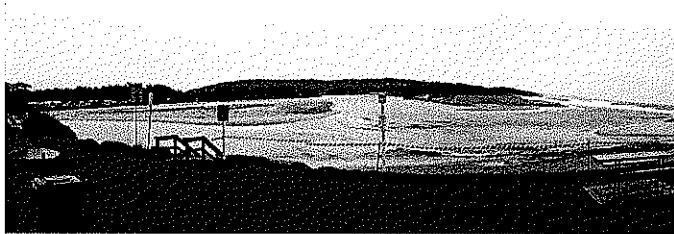


Why does the lake close?

Many physical factors contribute to the opening or closing of the lake. Mostly these are natural forces such as tides, ocean swell, wind and rain. Their balance controls the lake's entrance.

Burrill Lake has been closed for long periods in the late 1960s and over most of 1970. More recently, the lower rainfall experienced in past years means there has been less force to clear sand from the entrance spit on an outflowing (ebb) tide. Therefore, sand can build up across the spit and choke the ebb channel.

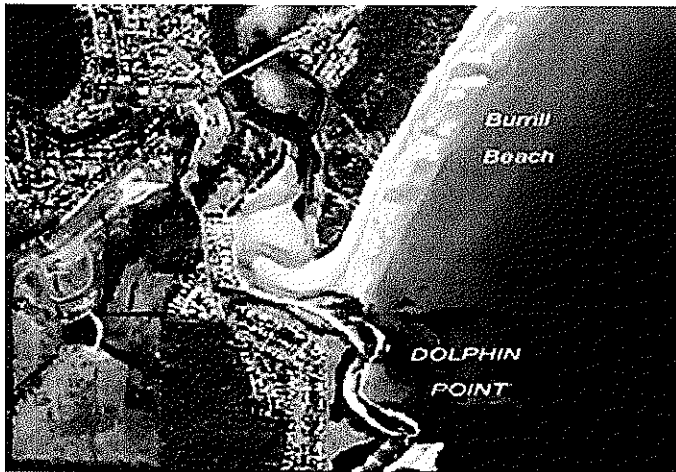


Wide ebb channel behind sand spit - June 2007 opening

Is Burrill Lake more prone to closure than other coastal lakes?

Burrill Lake is susceptible to closing due to the plentiful beach sand that washes into the lake inlet channel under ocean storm conditions or high tides. Many other coastal lakes in NSW are intermittently open or closed. Some are closed more often than Burrill Lake and some less often.

Burrill Lake is mechanically opened at a lower water level than many other coastal lakes, therefore the opening will not necessarily create a deep, stable entrance channel. This means the lake may remain open for a short time only.



Aerial photo showing sand spit extended west to choke ebb channel

Why have a policy on lake opening?

The Burrill Lake Opening Policy is intended to protect natural processes while providing flood protection. This interim policy considers:

- sand movement and channel changes
- impacts of lake closure on lake ecology, wetlands and water quality
- impacts on tourism, recreation and amenity
- inundation height of infrastructure, balancing flood levels and optimum intervention levels.

How does the policy work?

The policy defines a number of trigger levels at which Council may breach the entrance berm and open the lake:

- An immediate opening can be carried out if the lake reaches a water level at 1.2m above AHD. (AHD is approximately equal to Mean Sea Level).
- If the lake stabilizes at a level between 1.1m and 1.2m AHD, a future opening can be planned when rainfall is predicted and ocean conditions are favourable.
- In recognition of the perceived significance of lake opening to local businesses reliant on tourism, the lake can also be opened at a trigger level above 1.0m AHD within one month prior to or during Christmas or Easter holiday periods, if conditions are favourable.

When can Council breach the entrance berm?

A lake opening aims to achieve the best channel 'scour'. Conditions are favourable to maximise the success of an opening when:

- Moderate to heavy rainfall is ongoing or predicted in the catchment
- The opening is timed for the start of a falling tide with tidal range greater than 1.0 m
- Ocean swell is slight
- Barometric pressure is high.

Before Council can open the lake, it needs to confirm that no threatened species of shorebirds are breeding in the entrance area.

Why is Council sometimes excavating behind the beach?

Opening coastal lakes is complex. The excavated channel from the lake to the ocean should be as short as possible and should connect with deeper water in the lake. When large volumes of sand are deposited in the entrance, Council may need to reform a channel.

This preparation for an eventual lake opening needs to happen when lake levels are low. The excavated channel is located on an alignment that mimics the usual ebb channel position.



Excavated Channel March 2007

How healthy is Burrill Lake?

The lake is healthy. No matter whether the entrance is open or closed, water quality monitoring shows short periods of lower water quality occurring from catchment runoff immediately after rainfall. This is typical of a waterway with a catchment containing urban development. Importantly, the lake is a healthy ecosystem operating within its natural range of variability.

Russ Pigg

General Manager

This brochure provides information on the Interim Burrill Lake Entrance Management Policy adopted by Council in May 2008.

The Interim Entrance Management Policy has been prepared under the guidance of the Far South Natural Resources and Floodplain Management Committee. The committee has representatives of the community and several state government agencies (including Department of Environment and Climate Change, Department of Industry and Investment (Fisheries), National Parks and Wildlife Service, Department of Lands, NSW Maritime Authority) as they also have an interest in how the entrance is managed. The policy is supported by these Government agencies and the Committee recommended on 1st April 2008 that council adopt the Interim Entrance Management Policy.

The policy is provisional on the findings of the Burrill Lake Floodplain Risk Management Study and Plan which will commence during 2009

Enquiries about the information in this brochure should be directed to **Council's Natural Resources and Floodplain Unit on 4429 3392**. Quote file # 3423-05

You can view the Interim Burrill Lake Entrance Management Policy and the Flood Study reports at **www.shoalhaven.nsw.gov.au** or at Council's Administrative Centre.

August 2009

BURRILL LAKE



LAKE OPENING POLICY