



Bunbury Storm Surge Barrier

Purpose and Operation



Bunbury Storm Surge Barrier

The timely operation of Bunbury's storm surge barrier, at the western end of the Leschenault Inlet, is vital as it prevents flooding of Bunbury's low lying areas.



Location of the Bunbury Storm Surge Barrier.



Flooding of Bunbury, Cyclone Alby 1978. Photo courtesy of The West Australian

The barrier was installed in 1980 following flooding of Bunbury townsite during cyclone Alby in 1978.

Today the barrier protects Bunbury's low lying areas from ocean flooding but careful consideration must be given to extended closure of the gates due to the threat of flooding from rainfall runoff.

Factors influencing operation

High ocean water levels are the main factor influencing the closing and opening of the barrier. High ocean water levels are caused by a combination of tide, wind and barometric pressure.

Significant high ocean water levels are most common from May to September during winter storms (low barometric pressure with strong winds) combined with high astronomical tides. However, high ocean water levels can also occur in summer associated with thunderstorms or ex-tropical cyclone events.

Based on analysis of water level information, drainage into the inlet, the duration the barrier may need to be closed, estimated rates of water level rise and damage to the City; the barrier should be closed at a maximum ocean water level of 1.2 metres above lowest astronomical tide (LAT).

Operation of the barrier

To prevent ocean and runoff flooding of Bunbury's low lying areas, the barrier may be closed before ocean water levels reach 1.2 metres LAT. When high ocean water levels are predicted, the barrier is closed to allow the CBD drainage network to fill the inlet without flooding. When high ocean water levels are predicted it is common for the barrier to be closed around 1 metre LAT.

It is rare for the barrier to be closed for extended periods; extended closure of the barrier is only likely during severe weather events.

Knowing when the barrier is closed

Two orange lights are located on the light post at the barrier and flash on and off when the barrier is closed.

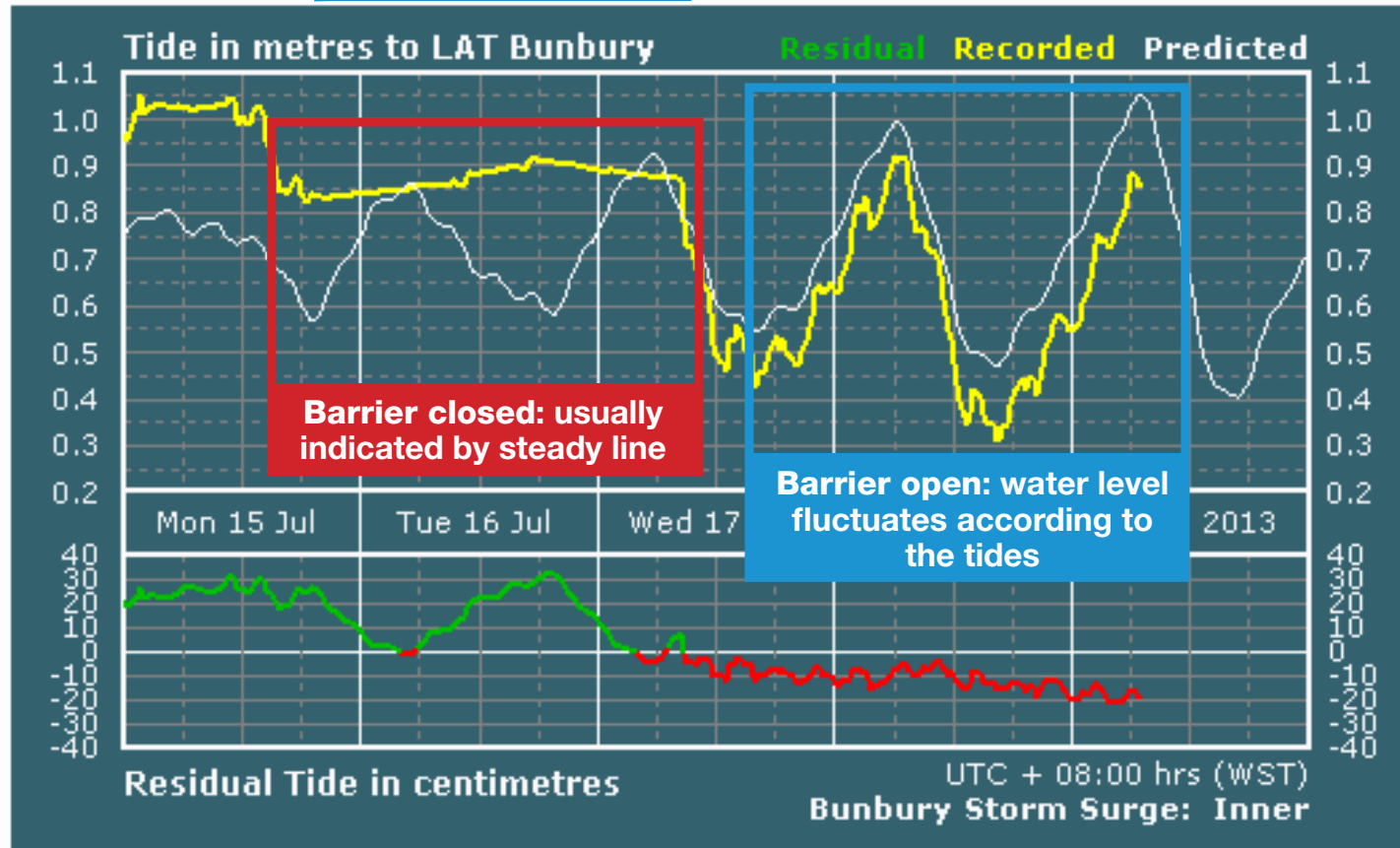


The best way to find out if the barrier is closed is to check online at www.transport.wa.gov.au/imarine/bunbury-storm-surge-barrier-tide.asp

Storm surge water levels can be viewed live online and can be interpreted to determine when the barrier is closed.

Inner Storm Surge Barrier

Inside Leschenault Inlet



The graph is a plot of the actual water level (yellow line), predicted tide (white line) and the residual tide (green and red line: the difference between the actual water level and the predicted tide).

Before going boating on the Leschenault Inlet always plan ahead and check online at www.transport.wa.gov.au/imarine/bunbury-storm-surge-barrier-tide.asp if the barrier is closed or could be closed.

Contact

Department of Transport
Coastal Management
Telephone: (08) 9435 7796
Email: bunburystormsurge@transport.wa.gov.au
Website: www.transport.wa.gov.au/imarine/bunbury-storm-surge-barrier-tide.asp

The information contained in this publication is provided in good faith and believed to be accurate at time of publication. The State shall in no way be liable for any loss sustained or incurred by anyone relying on the information.