

## 1 General

This document sets out the DRAFT Entrance Management Policy (EMP) for management of the entrance to Lake Conjola. The primary driver for entrance management is the risk associated with flooding. Accordingly, the EMP allows for the future implementation of Council's Total Flood Warning System (TFWS) for Lake Conjola to support entrance management decision-making. The EMP has been developed based on the findings of the Lake Conjola Coastal Management Program (CMP), Lake Conjola Flood Study (2007), Lake Conjola Floodplain Risk Management Study & Plan (2013), and Shoalhaven LGA Floor Level Survey for Flood Planning (2024) investigations.

The EMP document is structured in the following way:

- Policy Name
- Objectives
- Review of Environmental Factors
- Land to which the EMP Applies
- Climate Change
- Relevant Legislation, Policy and Approvals
- Entrance Management Principles and Procedures
- Penalties
- Responsibility
- Contacts
- Authorisation
- Review Period
- Amendments
- Appendices
- References

## 2 Policy Name

Lake Conjola Entrance Management Policy.

## 3 Objectives

The EMP provides a framework that assists in the management of the entrance to Lake Conjola. The EMP aims to:

- Minimise risk to life and risk to public and private property and assets due to flooding.
- Establish clear triggers for initiating mechanical intervention in the natural processes of the entrance, with consideration of ocean conditions.
- Establish procedures for mechanical interventions at the entrance and for disposal of excavated material.

- Minimise interference with natural entrance behaviour and allow mechanical entrance openings to mimic a natural Intermittently Closed and Open Lake and Lagoon (ICOLL) opening regime as closely as possible.
- Accommodate future climate considerations, in particular sea level rise.
- Conserve or enhance the ecological diversity and flora and fauna communities of the lake system.
- Conserve or enhance the recreational activities within the lake and its foreshores.
- Define key responsibilities for management of the entrance.
- Detail the procedures for monitoring the entrance.

Council, is responsible for managing the Lake Conjola entrance for the purpose of flood mitigation for low-lying properties in accordance with authorisations from the NSW Government. The mechanical opening of the Lake Conjola entrance will not prevent flooding of houses within the entirety of the catchment. Even if the entrance is fully open at the start of a large flood (i.e., it has recently been scoured by a preceding flood) there are existing houses that can still flood. Accordingly, the EMP aims to reduce, not eliminate, the impacts of flooding.

## 4 Review of Environmental Factors

A supporting Review of Environmental Factors (REF) will need to be prepared to support the EMP and be updated over time in line with any EMP changes and/or new information. The REF describes the activities involved in management of the entrance in accordance with the EMP, outlines the potential impacts of implementing the EMP on the coastal and estuary environments, and details the mitigation measures to be adopted to minimise potential impacts in accordance with the *Environmental Planning and Assessment Act 1979*, Part 5.

## 5 Land to which the EMP Applies

The EMP applies to lands located at the entrance to Lake Conjola, including those lands where excavation of sand would be carried out as part of entrance management and those lands where excavated sand may be beneficially placed. In the latter case, such lands could include the sand spit north and south of the entrance, Conjola Beach, Manyana Beach, lake foreshore beaches downstream of the Holiday Haven Caravan Park, and along the Cunjurong shoreline. These locations are all within the same tertiary sediment compartment for this stretch of coastline as described in the Lake Conjola CMP.

The land to which the EMP applies is shown graphically in **Figure 5-1** and is wholly within Minister-managed Crown Land except for a section of the southern spit, which is council-managed Crown Reserve.

The REF for management of the entrance will consider the wider Lake Conjola estuary and catchment.

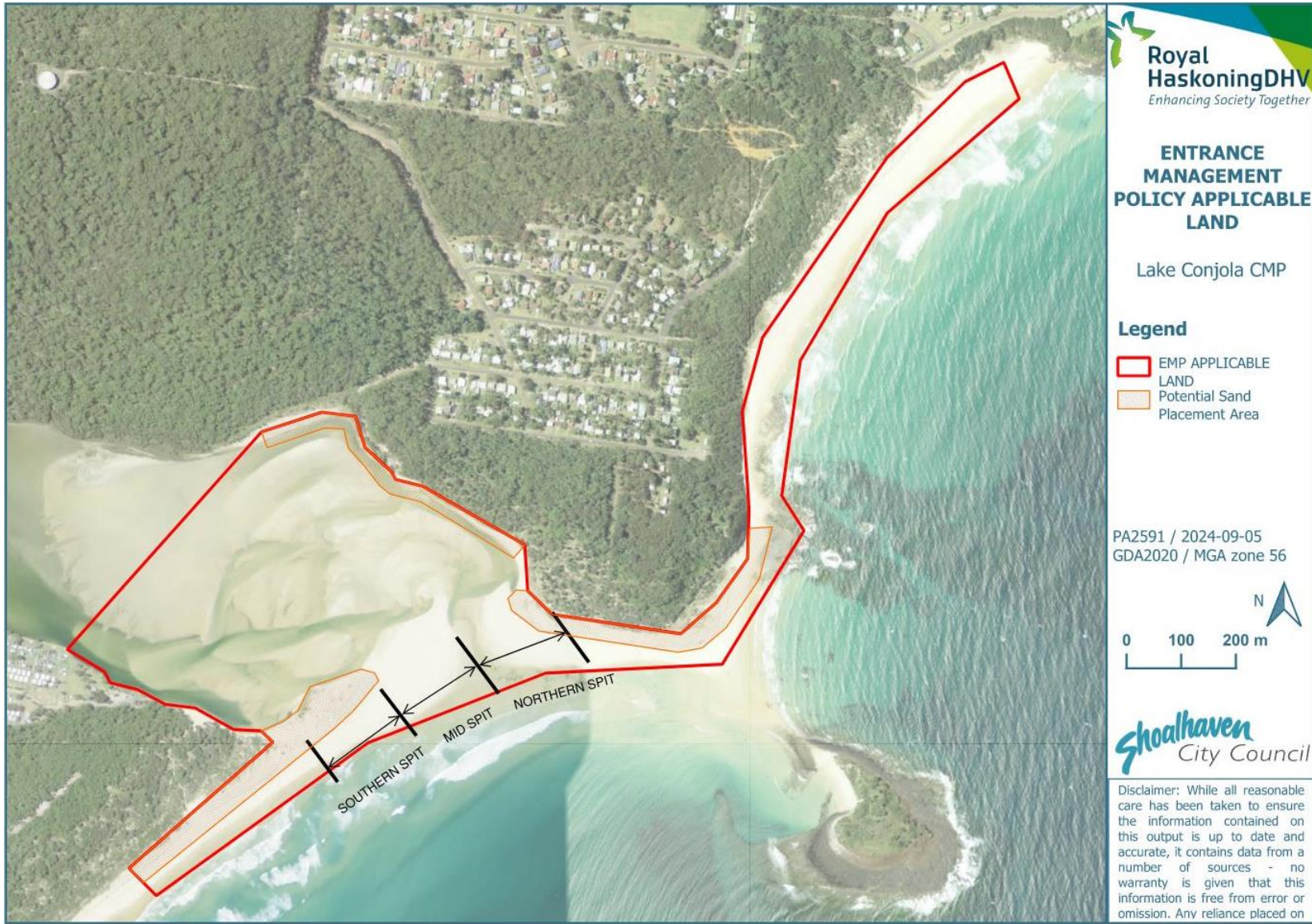


Figure 5-1: Land to which the EMP applies

## 6 Climate Change

The current proposed trigger values for management of the entrance to Lake Conjola (outlined in **Section 8**) will need to be revised over time associated with future sea level rise. These revisions should be considered at the proposed Review Periods of the EMP (refer **Section 13**) or at such other times determined by Council.

As of 2024, Council's adopted sea level rise projections are as below:

- 0.10 metres by 2030
- 0.23 metres by 2050
- 0.85 metres by 2100

In accordance with Council's Sea Level Rise Framework, Council will continue to monitor State and Federal Government advice and future Intergovernmental Panel on Climate Change (IPCC) reports to review existing sea level rise projections approximately every seven (7) years.

## 7 Relevant Legislation, Policy and Approvals

The EMP broadly complies with various State Government initiatives for environmental management of coastal lakes, and will be applied with consideration of the following legislation and policies:

- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999.*
- *NSW Environmental Planning and Assessment Act 1979.*
- *NSW Local Government Act 1993.*
- *NSW Coastal Management Act 2016.*
- *NSW Fisheries Management Act 1994.*
- *NSW Crown Land Management Act 2016.*
- *NSW Flood Prone Land Policy 2023.*
- *NSW National Parks and Wildlife Act 1974.*
- *NSW Biodiversity Conservation Act 2016.*
- *NSW Protection of the Environment Operations Act 1997.*
- *NSW State Environmental Planning Policy (Resilience and Hazards) 2021.*
- *NSW State Environmental Planning Policy (Transport and Infrastructure) 2021.*
- Fisheries NSW Policy and Guidelines for Fish Habitat Conservation and Management (2013 update)

**Table 7-1** provides a list of potential permits/approvals that may be required for the carrying out of mechanical interventions at the entrance. These will be confirmed following completion of the supporting REF for the EMP.

Table 7-1: Potential permits and approvals for mechanical interventions at the entrance

Relevant Act	Approvals Required	Approval Body
<i>NSW Crown Land Management Act 2016</i>	Licence to carry out activities on Crown Land	NSW Department of Planning, Housing and Infrastructure – Crown Lands
<i>NSW Fisheries Management Act 1994</i>	Permit to harm marine vegetation, if applicable. Permit for dredging and reclamation. <sup>1</sup>	NSW Department of Primary Industries and Regional Development - Fisheries
<i>NSW Biodiversity Conservation Act 2016</i>	Species Impact Statement (SIS), if applicable.	NSW Department of Climate Change, Energy, the Environment and Water
<i>NSW National Parks and Wildlife Act 1974</i>	Aboriginal Heritage Impact Permit (AHIP), if applicable.	NSW Department of Climate Change, Energy, the Environment and Water

Notes:

1. A dredging permit under section 200 of the *NSW Fisheries Management Act 1994* (FM Act) is not required, provided that dredging has been authorised under *NSW Crown Land Management Act 2016* and under s.199 of the FM Act NSW Department of Planning, Housing and Infrastructure – Crown Lands has consulted with NSW Department of Primary Industries and Regional Development – Fisheries prior to authorising.

## 8 Entrance Management Principles and Procedures

The EMP will be implemented in accordance with the principles and procedures set out in the following sections.

The approach for management of the entrance to Lake Conjola involves the future implementation of a TFWS (subject to funding), maintenance of a dry notch, mechanical berm lowering, and excavation of a pilot channel when water level triggers are met. In addition, as a contingency measure only, and subject to separate additional environmental approvals, occasional dredging of the ebb tide channel may be carried out in the event of a severe storm washover that could adversely impact the ability for Council to complete mechanical intervention works in a timely manner.

### 8.1 Management Principles

The following general principles apply to management of the entrance to Lake Conjola:

- Open the entrance when water level triggers (refer **Section 8.3** and **Section 8.5**) are reached or predicted to be reached due to rain falling or forecast heavy rainfall.
- Implementation of the EMP is a short-term to medium-term flood mitigation measure, as recommended in the Lake Conjola Floodplain Risk Management Plan (2013).
- Implementation of long-term flood mitigation measures, as identified in the Lake Conjola Floodplain Risk Management Plan (2013), to negate the need for mechanical intervention to restore a more natural opening regime over time.
- Incorporate provisions for increasing water level triggers commensurate with sea level rise and in accordance with Council's Sea Level Rise Framework. This would need to be undertaken in conjunction with the implementation of long-term flood mitigation measures investigated through a Floodplain Risk Management Study and Plan to ensure that existing low-lying dwellings and assets are raised over time and new development is appropriately located.

## 8.2 Excavation of a Pilot Channel

A pilot channel is excavated to facilitate the opening of the Lake at the nominated trigger level under closed entrance conditions during a flood event. The purpose of excavating a pilot channel is to control the timing, lake level and location of the Lake opening to coincide with favourable oceanic conditions and maximise scour potential to allow an effective opening, while also limiting impacts to shorebirds and possible erosion of the southern dunes. Pilot channel excavation should ideally be planned for implementation under conditions that will facilitate an effective opening which is largely dependent on the hydraulic gradient (water level difference across a distance) achieved between the Lake and the Ocean. The following aspects should be considered when planning a pilot channel excavation to achieve an effective opening:

- **Lake water levels:** For a mechanical opening to be as effective as possible the opening should be initiated at as high a lake level as feasible without impacting adversely on flood risk. Planning and preparation for an opening can take place at lower lake levels (in line with the trigger levels prescribed in the EMP, refer **Section 8.3**), particularly with the benefit of a TFWS.
- **Timing with ocean tides:** Initiating a mechanical opening around ocean high tide, subject to other factors such as the safety of operations, generally results in a well scoured entrance and generally a longer period of entrance open conditions. This greater effectiveness is related to the longer duration of sustained positive head (water level) difference between the lake and the ocean over time as the ocean tide level falls.
- **Length of the required excavation:** Pilot channel length is an important factor as it affects the response time for mechanical intervention (quantity of sand to be excavated) and the effectiveness of a mechanical breakout event (scouring of the channel). A situation where the required excavation for the pilot channel is overly long should be avoided, if possible, as a shorter channel length has the benefit of a steeper hydraulic gradient and quicker excavation duration for a mechanical opening. Allowing the water level in the lake to rise as a means of reducing the pilot channel length needs to be carefully managed due to the associated flood risk. Maintenance of a dry notch area (refer **Section 8.6**) is proposed to reduce the length of the sand berm through which a pilot channel needs to be excavated

The pilot channel should ideally be excavated within the dry notch area (typically maintained in the northern spit zone), with a base level of approximately 0m AHD. The channel base could be flat or graded towards the sea, with the relative effectiveness of this evaluated over time with review of lake opening records (refer **Section 8.9**). The preferred location of the pilot channel would be variable based on the entrance berm and shoal configuration at the time of opening and the presence of threatened migratory shorebirds.

Excavation of the pilot channel through the northern side of the northern spit zone (refer **Figure 5-1**) should be avoided as breakout channel scour would be prematurely limited by elevated bedrock levels in this area. Positioning the pilot channel towards the southern side of the northern spit zone would be expected to promote additional longevity of the opening, as the channel will typically tend to migrate north over time. Excavation of the pilot channel through the mid spit zone (refer **Figure 5-1**) could be undertaken to initiate an immediate opening, subject to conditions regarding the presence of threatened migratory shorebirds.

The nominal width of the pilot channel along its length should be 2m but should be made wider at its upstream end where it connects to the lake (where practicable), by a factor of at least two to three times, to increase the initial outflow from the lake and enhance natural scour of the breakout channel. Access for excavation of the pilot channel should be from the north at Cunjurong Point or Manyana Beach depending on the prevailing access conditions.

The exact dimensions of the pilot channel may be varied (within a range of metres) depending on operational experience and local site factors at the time.

### 8.3 Triggers for Mechanical Opening (excavation of a pilot channel)

Analysis of the performance of mechanical openings carried out over recent years by Council and the results of a numerical modelling study carried out as part of development of the CMP have shown the benefit of opening the lake at water levels as high as practicable. The proposed trigger water levels were also informed by the lowest habitable floor level of 1.79m AHD determined from the Shoalhaven LGA Floor Level Survey for Flood Planning (2024) and the lowest level for evacuation along Lake Conjola Entrance Rd of approximately 1.2m AHD.

Intervention trigger conditions for mechanical opening (excavation of a pilot channel) are as follows:

- (a) Planned Opening: When the lake water level is at or exceeds 1.0m AHD and heavy rainfall is falling or forecast in the Lake Conjola catchment which is expected to result in a lake water level of 1.2m AHD being exceeded and continuing to rise, a pilot channel can be excavated to open the lake; OR,
- (b) Planned Opening: When the lake water level is at or exceeds 1.0m AHD and a TFWS for Lake Conjola (following implementation) predicts that the lake water level will reach 1.2m AHD and continue to rise, a pilot channel can be excavated to open the lake; OR,
- (c) Immediate Opening: A lake level of 1.2m AHD facilitates an immediate entrance opening; AND,
- (d) Satisfaction of requirements regarding threatened migratory shorebirds. [subject to REF and licence conditions]

With implementation of dry notch maintenance, the TFWS (subject to funding), and pre-emptive mechanical berm lowering, it is expected that the need for immediate openings would reduce.

A Decision Flow Chart for management of the entrance to Lake Conjola is shown in **Figure 8-1**.

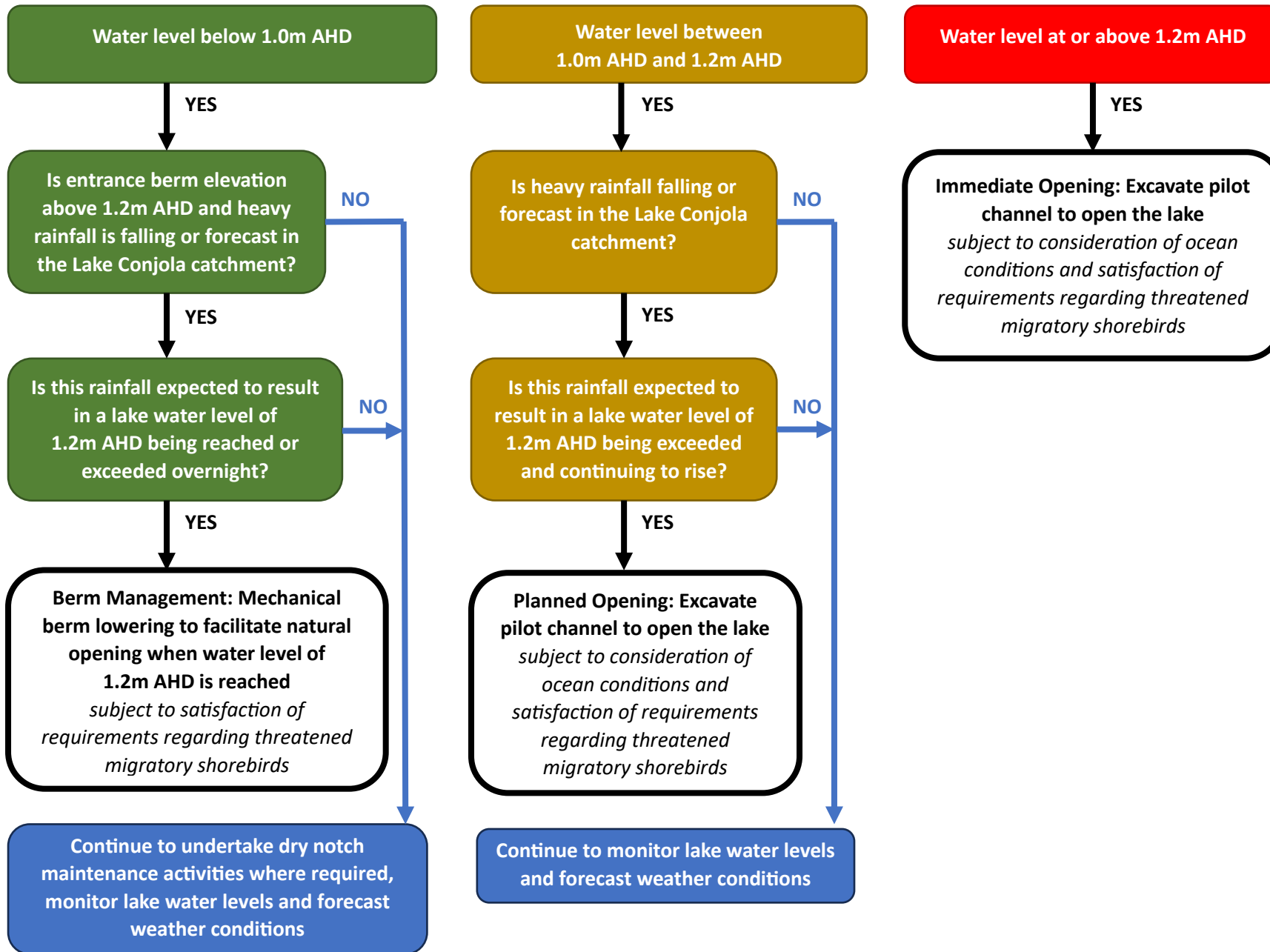


Figure 8-1: Decision Flow Chart

## 8.4 Timing of the Mechanical Opening of a Pilot Channel

Mechanical opening (commencement of outflow) should be timed to take place around ocean high tide and during mild wave conditions, where practicable. Consideration should also be made of any positive tidal anomaly that would affect the head difference between the lake and ocean water levels.

The effectiveness of the timing of the mechanical opening relative to ocean tide level should be monitored (refer **Section 8.9**). The timing may be varied based on continued experience and learnings.

## 8.5 Mechanical Berm Lowering

Mechanical berm lowering comprises the pre-emptive lowering of sand berm levels under closed entrance conditions ahead of a predicted flood event by excavation of sand over the dry notch footprint and the sand plug at the beach face. This should be carried out in daylight hours under certain circumstances to promote natural opening when flooding is expected to occur overnight, and further mechanical intervention may not be possible due to safety reasons. In these circumstances, undertaking pilot channel excavation procedures (refer **Section 8.2** and **Section 8.3**) would be hindered by the timing of the expected trigger level breach and coastal processes are anticipated to result in excavation works being ineffective (i.e. wave action results in return of sand to the berm and beach face, infilling pilot channel excavations). It should be noted that wave conditions will also impact the longevity of the berm lowering and that some sand build-up could occur again prior to the Lake opening being achieved. Hence it is important to undertake berm lowering at a time that has considered possible impacts of oceanic conditions and the predicted timing for the trigger level being met (i.e. the day prior).

Mechanical berm lowering is an effective management strategy in the following situation:

- A low lake level prior to a forecast rainfall event;
- Surveyed berm elevation is above the planned immediate opening level; and,
- Heavy rainfall (forecast or actual) would result in the trigger levels for an immediate opening potentially being reached overnight.

Mechanical berm lowering in this situation allows the lake level to rise and then naturally open at the planned opening level, reducing the risk of flooding and allowing the lake opening to better mimic natural ICOLL processes. In the event that the lake level does not reach the level of the lowered berm, the lake would not open. This therefore avoids ineffective entrance openings at a low level.

Intervention trigger conditions for mechanical berm lowering are as follows:

- (a) Berm Management: The lake water level is below 1.0m AHD, berm elevation above 1.2m AHD, and heavy rainfall is falling or forecast in the Lake Conjola catchment which is expected to result in a lake water level of 1.2m AHD being reached or exceeded overnight and continuing to rise; facilitates lowering of the entrance berm to promote natural opening when a water level of 1.2m AHD is reached and further mechanical intervention is not possible due to safety considerations; OR,
- (b) Berm Management: The lake water level is below 1.0m AHD, berm elevation above 1.2m AHD, and a TFWS for Lake Conjola (following implementation) predicts that the lake water level will reach 1.2m AHD and continue to rise overnight; facilitates lowering of the entrance berm to promote natural opening when a level of 1.2m AHD is reached; AND,

- (c) Satisfaction of requirements regarding threatened migratory shorebirds. [subject to REF and licence conditions]

## 8.6 Maintenance of a Dry Notch

Dry notch maintenance comprises the periodic lowering of the 'dry notch' area (refer **Figure 8-2**) under closed entrance conditions as a preparatory measure to reduce the burden of sand to be removed at the time of a mechanical entrance opening. This activity is intended to form part of the ongoing management of the Lake entrance to manage flood risk. The excavation and maintenance of a dry notch can benefit mechanical interventions (i.e. pilot channel excavation and berm lowering) as it can lead to a reduced pilot channel length (allowing for greater scour potential), and a reduced volume of sand to be excavated when undertaking mechanical interventions, allowing a faster opening to be achieved.

The dry notch should typically be maintained in the northern spit zone (refer **Figure 5-1**) during closed entrance conditions to minimise impacts on threatened migratory shorebirds, especially during shorebird nesting season (September to March inclusive). Access for maintenance of the dry notch should be achieved from the north at Cunjurong Point Boat Ramp or Manyana Beach.

The base of the dry notch should be maintained at a level of approximately 1.0m AHD to facilitate mechanical opening as per the possible flooding conditions outlined in **Section 8.3** below. The dry notch should have a typical approximate width of 50m (but can be varied, refer below), with a short sand 'plug' retained at the beach face (refer **Figure 8-2**).

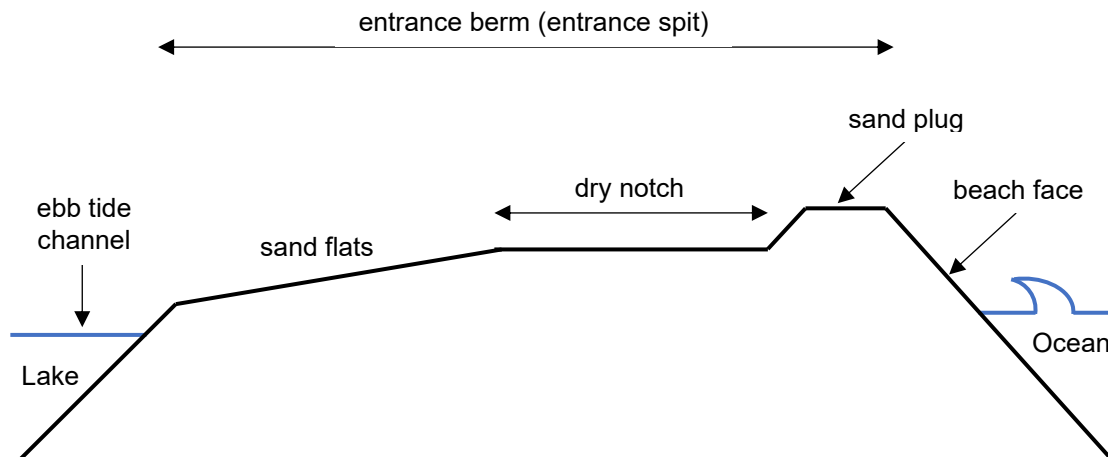


Figure 8-2: Diagrammatic east-west section showing configuration of the Dry Notch

The remote entrance berm monitoring station to be installed as part of the future implementation of a TFWS should be used to inform the timing and frequency of dry notch maintenance. In the interim, the condition of the entrance berm should be monitored with monthly entrance surveys when the entrance is closed using traditional manual topographic survey techniques.

The location and the width of the dry notch may vary (increased within 10's of metres) based on experience but must not impact adversely on threatened migratory shorebirds as determined through the REF. The largest dry notch maintenance area determined to be appropriate through the REF will ensure that entrance management operations are as efficient and flexible as possible for Council to implement in response to variable natural entrance berm and shoal configurations.

## 8.7 Occasional Dredging of the Ebb Tide Channel

As a contingency measure only, and subject to separate additional approvals on a case-by-case basis, occasional dredging of the ebb tide channel may be carried out in the event of a severe coastal storm washover. This does not include dredging to maintain a permanently open entrance.

A severe storm washover event occurs when waves during major to severe coastal storms wash over the entrance spit, leading to significant infilling of the entrance to the lake with sand. The washover sand deposits cover an extensive area and cut off the primary ebb tide channel that would typically run behind the entrance spit. The primary ebb tide channel becomes 'perched' on the sand deposits, leading to sudden and substantially diminished tidal flows, with further washover leading to entrance closure. Following closure of the entrance, sand berm levels on the seaward side of the spit would typically reach a level above 2m AHD due to wave and wind processes. Opening of the lake under such conditions would only occur in significant rainfall/flooding or by mechanical intervention.

For dredging to be considered, the following factors need to apply:

- The ebb tide channel is infilled such that the channel is stranded in the lee of the frontal dune.
- The amount of excavation (time) required to re-establish a dry notch and link a pilot channel to lake waters is excessive.
- The excavation required to re-establish a dry notch would impact adversely on threatened migratory shorebirds.

The details of any ebb tide channel dredging campaign would be determined at the time based on the individual circumstances and would be informed by a hydrographic survey of the entrance area. As a guide, the proposed minimum dimensions of the dredged channel would be nominally 20m wide, base level -0.8m AHD, and side slopes 1 Vertical to 3 Horizontal (1V:3H) for a distance of up to approximately 300-400m. The alignment of the dredged channel would follow the general natural alignment of the ebb tide channel behind the entrance sand spit as depicted in the Regime Entrance State (Patterson Britton, 1999).

Each ebb tide channel dredging campaign would need to be supported by a separate REF, which would be informed by site investigations at the time that dredging is planned. Investigations may include aquatic ecology survey, sediment sampling and analysis, and hydrographic survey to confirm the extent of dredging required, and other studies required for the completion of a comprehensive REF. Additional approval applications may be required for the following relevant licences and permits:

- Dredging licence under the *Crown Lands Management Act 2016*; and,
- Permit to harm marine vegetation under Part 7 of the *Fisheries Management Act 1994*.

## 8.8 Disposal of Excavated and Dredged Sand

Sand excavated to maintain the dry notch, lower the berm, and to create a pilot channel, and dredged to re-establish the natural ebb tide channel, should be reused beneficially, in the following ways:

- Sand from the dry notch maintenance, berm lowering, and ebb tide channel dredging should be placed on the spit to the south of the entrance to increase the height of the spit and mitigate storm washover (preferred option subject to the threatened migratory shorebird nesting season), and/or be used for beach nourishment to the north, and/or be used for restoration of erosion areas on the surrounding lake foreshore.
- Sand from the pilot channel excavation should be placed on the spit to the north of the pilot channel (noting that excavation of the pilot channel would be conducted from the north side of the channel, hence access to the south of the channel for disposal would not be possible),

and as far away as practicable from the edge of the pilot channel (i.e. within the reach of the excavator) to reduce the likelihood of the stockpiled sand falling back into the pilot channel prior to opening.

Sand placed on the spit to the south of the entrance to increase the height of the spit (dune) should be stabilised with vegetation where possible to reduce transport back into the entrance by wind action. Sufficient width should be retained north of any vegetated dune to accommodate flood flows through the entrance.

As noted above, placement of excavated or dredged sand must consider potential impacts to threatened migratory shorebirds, as determined through the preparation of supporting REFs and development of associated conditions and guidelines for placement to mitigate potential impacts.

## 8.9 Monitoring of Lake Openings

Comprehensive records of entrance opening events, both natural and mechanical, are to be maintained by Council staff. This should include a photographic and video record of entrance conditions before, during and after the event. The standard form included as an Appendix to this EMP should be completed by Council staff and capture the following details as a minimum:

- opening date;
- whether it was a natural or mechanical opening;
- berm level prior to opening (if known);
- position and geometry of the initial natural breach in the spit or the excavated pilot channel (i.e. length, width, base level);
- final channel dimensions;
- location of excavated material placement;
- ocean tide and wave conditions at the time of opening (from ocean tide gauges and waverider buoys);
- lake water level at the time of opening (from available Council or MHL gauges);
- rate of lake water level change following opening (from available Council or MHL gauges);
- peak lake water level during the flood event (from available Council or MHL gauges);
- recorded rainfall before, during and after the opening (from available Council or MHL gauges);
- actual rainfall versus predictions;
- relative rating of the effectiveness of the opening and opportunities for improvement/lessons learnt; and,
- duration of open conditions before commencement of entrance shoaling and/or closure.

## 9 Penalties

Council has the authority to penalise persons opening the lake without appropriate authorisation under Section 632(1) of the *Local Government Act 1993*. In some circumstances it is also illegal under the *Fisheries Management Act 1994* to conduct non-authorised opening of the lake entrance.

## 10 Responsibility

Primary responsibility for implementing this EMP is with Shoalhaven City Council.

## 11 Contacts

Key contacts regarding implementation of this EMP are shown in **Table 11-1**.

All key contacts are to be advised of any intention to carry out entrance works, prior to the activities.

Table 11-1: Lake Conjola Entrance Management Policy - Contacts

Organisation	Contact Details
Shoalhaven City Council	<p>Lead Floodplain Management Number: 1300 293 111 Email: <a href="mailto:Floodplain.Management@shoalhaven.nsw.gov.au">Floodplain.Management@shoalhaven.nsw.gov.au</a></p> <p>Lead Coastal Management Number: 1300 293 111 Email: <a href="mailto:coastal.management@shoalhaven.nsw.gov.au">coastal.management@shoalhaven.nsw.gov.au</a></p> <p>Manager Environmental Services Number: 1300 293 111 Email: <a href="mailto:Environmental.Services@shoalhaven.nsw.gov.au">Environmental.Services@shoalhaven.nsw.gov.au</a></p>
NSW Department of Climate Change, Energy, the Environment and Water	<p>Senior Coast and Estuaries Officer (South East Regional Delivery – Shoalhaven LGA) Number: (02) 4221 6917 (Wollongong office) Email: <a href="mailto:admin-southeast@environment.nsw.gov.au">admin-southeast@environment.nsw.gov.au</a></p>
NSW Department of Primary Industries and Regional Development – Fisheries	<p>Fisheries Manager – Coastal Systems Number: 1800 043 536 Email: <a href="mailto:information-advisory@dpi.nsw.gov.au">information-advisory@dpi.nsw.gov.au</a> and <a href="mailto:ahp.central@dpi.nsw.gov.au">ahp.central@dpi.nsw.gov.au</a></p>
National Parks and Wildlife Service Ulladulla	<p>Number: (02) 4554 9500</p>
National Parks and Wildlife Service	<p>Shorebird Ranger Number: (02) 4428 6300 (Nowra office) Email: <a href="mailto:npws.shoalhaven@environment.nsw.gov.au">npws.shoalhaven@environment.nsw.gov.au</a></p>
NSW Department of Planning, Housing and Infrastructure – Crown Lands	<p>Area Manager Number: 1300 886 235 Email: <a href="mailto:cl.enquiries@crowland.nsw.gov.au">cl.enquiries@crowland.nsw.gov.au</a></p>
Jerrinja Local Aboriginal Land Council	<p>Number: (02) 4447 5669</p>
Ulladulla Police Station	<p>Number: (02) 4454 8599</p>
Ulladulla State Emergency Service	<p>Number: 13 25 00</p>

## 12 Authorisation

This EMP was adopted on: XX/XX/2024 [To be Advised – Draft Only]

This EMP commenced on: XX/XX/2024 [To be Advised – Draft Only]

This EMP is due for review on: XX/XX/2029 [To be Advised – Draft Only]

## 13 Review Period

This EMP is to be reviewed following the implementation of the Lake Conjola TFWS and as necessary every 5 to 10 years depending on the duration of the NSW Crown Lands licence. This will be determined following the receipt of a Crown Lands Licence.

## 14 Amendments

[This section of the EMP should summarise the amendments to the EMP since its first adoption. The summary should include the date of the amendment, a brief description of the amendment, and the section within the EMP where the amendment can be found].

## 15 Appendices

[The EMP would likely include several Appendices providing specific further information relevant to the EMP. Based on similar EMPs for other ICOLLs, this further information could include:

- The assets at risk of inundation.
- Links to relevant information available online, including:
  - Lake Conjola Flood Study (2007)  
[https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/2444473/preview\\_latest\\_final\\_version\\_pdf](https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/2444473/preview_latest_final_version_pdf)
  - Lake Conjola Floodplain Risk Management Study & Plan (2013)  
[https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/3114010/preview\\_latest\\_final\\_version\\_pdf](https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/3114010/preview_latest_final_version_pdf)
  - Shoalhaven Council Online Flood Mapping  
<https://maps.shoalhaven.nsw.gov.au/SCCViewer/index.html?Viewer=extFlood>
  - Shoalhaven Council Entrance Management Website  
<https://www.shoalhaven.nsw.gov.au/Environment-and-emergency/Coast-and-waterways/Entrance-management>
- The entrance monitoring form to be completed for each lake opening.]

## 16 References

BMT WBM (2007), *Lake Conjola Flood Study*, Final Report R.N0758.004.05, July 2007.  
[https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/2444473/preview\\_latest\\_final\\_version\\_pdf](https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/2444473/preview_latest_final_version_pdf)

BMT WBM (2013), *Lake Conjola Floodplain Risk Management Study and Plan*, Final Report R.N1778.001.04, February 2013.  
[https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/3114010/preview\\_latest\\_final\\_version\\_pdf](https://doc.shoalhaven.nsw.gov.au/LinkGeneratorAPI/record/3114010/preview_latest_final_version_pdf)

GHD (2013), *Lake Conjola Interim Entrance Management Policy*, prepared for Shoalhaven City Council, August 2013.

Patterson Britton (1999), *Lake Conjola Entrance Study*, prepared for Shoalhaven City Council, Issue No.2, May 1999.

Royal HaskoningDHV [RHDHV] (2024), *Lake Conjola Coastal Management Program*, prepared for Shoalhaven City Council.

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