



Wetland Mapping and Classification Methodology

Overall Framework

A Method to Provide Baseline Mapping and Classification for Wetlands in Queensland

VERSION 1.2

Attachment 7e

River Mouth – Identification and Boundaries

Contents

1. The Purpose	2
2. The Principle	2
3. The Surrogates	2

1. The Purpose

In this Method, four types of river mouths are recognised and are treated differently to reflect the differences between the system extents. For example many waterways (usually fresh water such as a creek, river, etc.) run directly to the ocean either across a beach or over a cliff etc. and consequently do not have a discernable river mouth or estuarine zone, i.e. riverine to marine.

Rivers/creeks that do not have a river mouth but are within an embayment run into an estuarine area because the lack of wave action in the embayment means that mixing times are extended. Therefore they are treated as though they do have a river mouth.

The four river mouth types are:

1. Without a river mouth, and not in an embayment;
2. With a river mouth, and not in an embayment;
3. Without a river mouth, within a embayment; and
4. With a river mouth, and with an embayment.

2. The Principle

Ideally, river mouths would be recognised easily through a mapped coastline and tidal salinity would be used to determine the outmost limit of the estuarine system. The outer influence of embayments would also be easily delineated by a change in mixing (see definition of Embayment in main document). However, there are not sufficient data to enable this approach.

3. The Surrogates

Firstly, a river mouth (or lack of mouth) needs to be determined. To determine where the river mouth is located, Steps 1 and 2a of the Method need to be undertaken. These steps delineate the river mouth and the coastline.

It then needs to be determined if the river mouth is within a bay. This can also be assessed from the mapping. For further information on this, see [attachment 7c](#).

- *Without a river mouth and not in an embayment* – the highest astronomical tide (HAT) line will be the dividing line between the fresh and marine waters.

- *With a river mouth and not in an embayment* – the dividing line will be determined by the furthestmost point of the headlands either side of the river mouth (catchment boundaries can help with this decision) and potentially bathymetric data.
- *Without river mouth within an embayment* – will be treated in the same manner as a river mouth within an embayment.
- *With river mouth, within an embayment* – will be based on the surrogates which define the marine and estuarine components within an embayment (refer to [attachment 7d](#)).

It should be noted that the product resulting from the application of the process outlined above is available as per Decision Rule 1 in the Method.

For further technical information please refer to the Technical Specifications and Data Recording Standards (Decision Rule 11 in the main text of the Method).