

6 Assessment of Erosion Risk

6.1 Erosion Prone Area Definition

Statutory erosion prone areas are declared under Part 4 section 70 of the Coastal Protection and Management Act 1995 (Coastal Act) by reference to an erosion prone area plan.

These plans are to be used for development assessment purposes, and to inform the preparation of planning instruments, such as planning schemes and regional plans under the Sustainable Planning Act 2009.

Erosion prone areas have been declared for all coastal local government areas. The erosion prone area definitions are provided in “*Coastal Hazard Technical Guide: Determining Coastal Hazard areas*” (EPH 2013)” and mapping is available online at <http://sara.dsdip.esriaustraliaonline.com.au/saraviewer>. The statutory plan outlines the following:

- (1) Erosion prone areas are deemed to exist over all tidal water to the extent of Queensland Coastal Waters and on all land adjacent to tidal water.
- (2) Erosion prone areas include areas subject to inundation by the highest astronomical tides (HAT) by the year 2100 or at risk from sea erosion.
- (3) On land adjacent to tidal water the landward boundary of the erosion prone area shall be defined by whichever of the following methods gives the greater erosion prone area width:
 - (a) A line measured 40 metres landward of the plan position of the present day HAT level except where approved revetments exist in which case the line is measured 10 metres landward of the upper seaward edge of the revetment, irrespective of the presence of outcropping bedrock; and
 - (b) A line located by the Erosion Prone Area Width Assessment Formula and measured, unless specified otherwise, inland from:
 - (i) The seaward toe of the frontal dune (the seaward toe of the frontal dune is normally approximated by the seaward limit of terrestrial vegetation or, where this cannot be determined, the level of present day HAT); or
 - (ii) A straight line drawn across the mouth of a waterway between the alignment of the seaward toe of the frontal dune on either side of the mouth.
 - (c) The plan position of the level of HAT plus 0.8 m vertical elevation.

Except:

- (1) Where the linear distance specified in 3b is less than 40 metres, in which case section 3a. does not apply and the erosion prone area width will be the greater of 3b and 3c; or
- (2) Where outcropping bedrock is present and no approved revetments exist, in which case the line is defined as being coincident with the most seaward bedrock outcrop at the plan position of present day HAT plus 0.8m; or

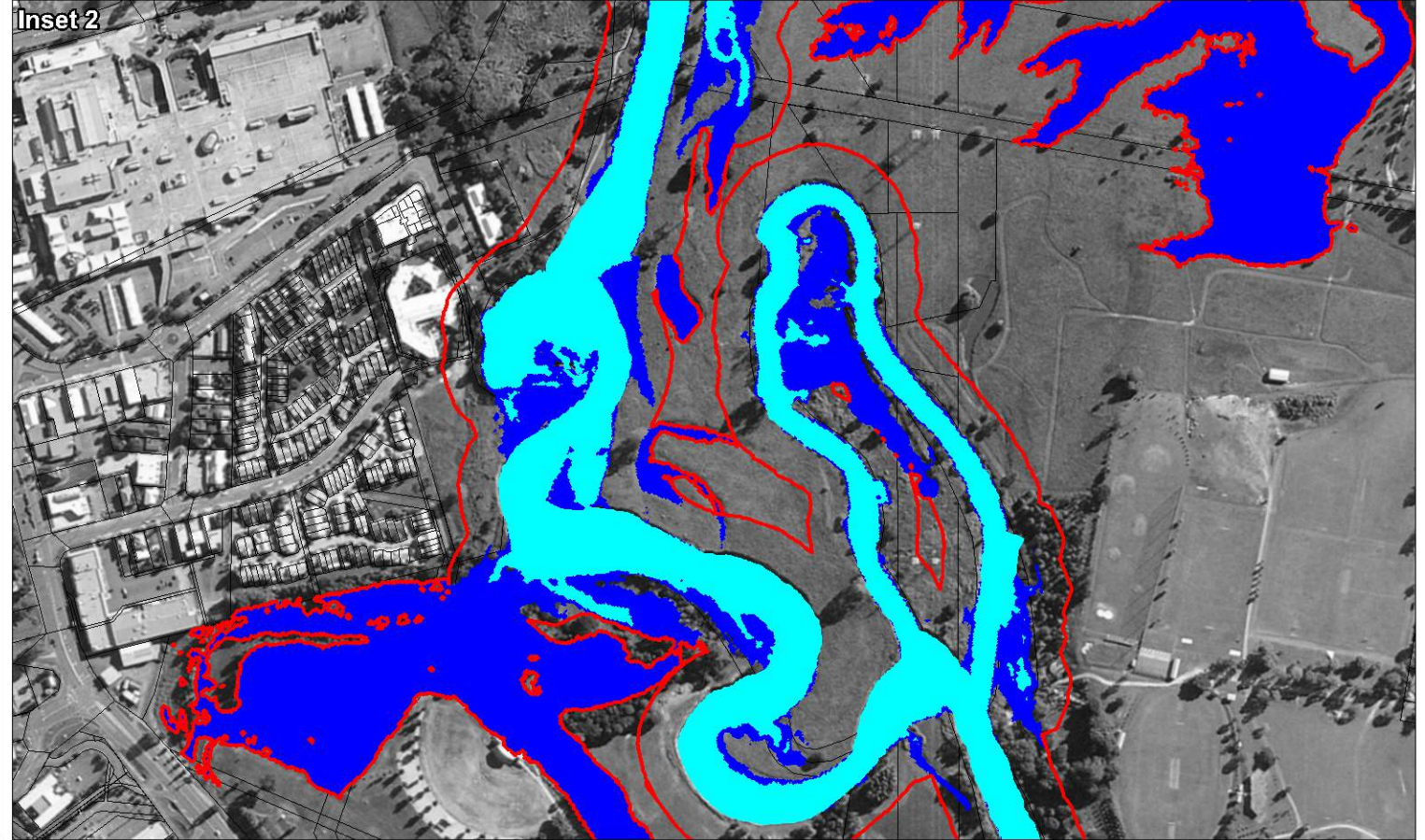
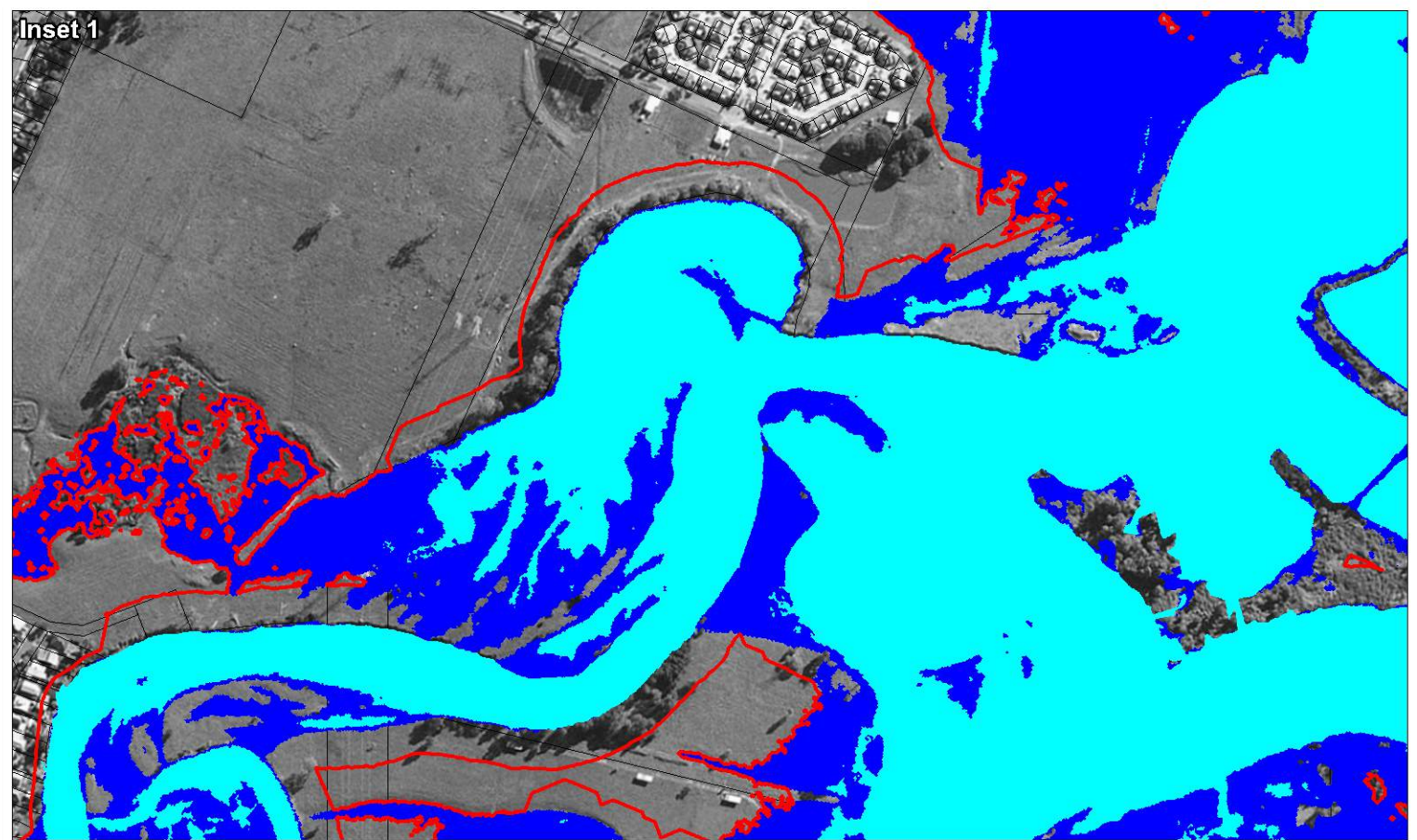
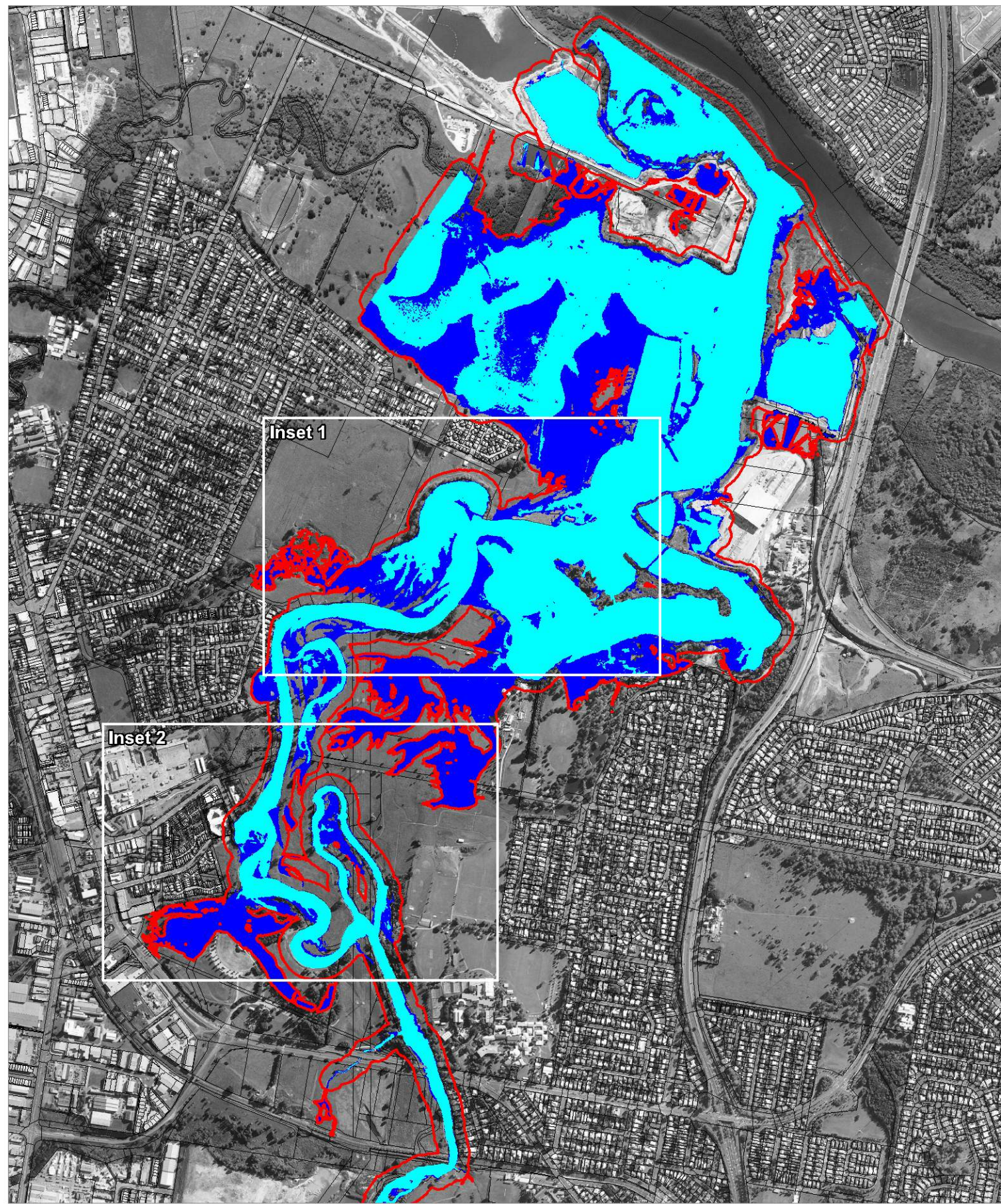
- (3) In approved canals in which case the line of present day HAT applies, irrespective of the presence of approved revetments or outcropping bedrock.

6.2 Summary of Calculated Erosion Prone Area Widths

Erosion prone area widths have been mapped using the above listed definition, based on the following inputs:

- Topography Data = 2013 ALS data;
- Present day HAT = 2.6mLAT / 1.37mAHD (Queensland Tide Tables 2012; at Shorncliffe and Sandgate); and
- 2100 HAT = 3.4mLAT / 2.17mAHD.

The South Pine River erosion prone areas are provided in Figure 6-1.



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- Extent of Erosion Prone Area
- █ Present day HAT
- █ 2100 Planning Horizon HAT
- Cadastral Boundary

Title:

South Pine River SEMP Erosion Prone Areas

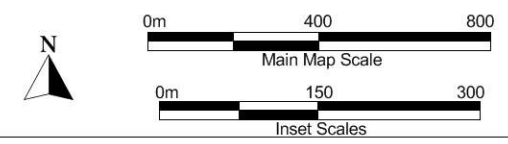
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BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.



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