## Erosion Prone Area Cairns Region Local Government Area

### **Erosion Prone Area Definition**

- 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 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;
  - a line located by the linear distance shown on Table 1 and measured, unless specified otherwise, inland from:
    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
    - 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:

- i. 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
- ii. 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
- iii. in approved canals in which case the line of present day HAT applies, irrespective of the presence of approved revetments or outcropping bedrock.
- 4. Erosion prone areas defined in accordance with the above are deemed to exist throughout all the local government areas, irrespective of whether the entire local government area is depicted on erosion prone area plans for the area.

#### Notes to clarify the definition

- 1. The specific location along the coast to which each erosion prone area linear distance applies (a segment) is shown in Table 1.
- 2. A map indicating the approximate location along the coast of each linear distance segment is attached.
- 3. Each erosion prone area segment is located on the coastline between 2 points defined by latitude and longitude. A projection of each point to the nearest actual coastline and continuing inland perpendicular to the coast defines the erosion prone area segment.
- 4. "Present day HAT" in the definition is always taken to be the present day level of HAT for the coastline as defined in the Queensland Tide Tables for that year or as defined by empirical methodology at the site.
- 5. The extent of the erosion prone area where it is defined by "HAT plus 0.8m" is the HAT coastline at the year 2100 and includes sea level rise to that time. It is determined by the area of land inundated to the level HAT of the nearest adjacent open coast or river tide gauge plus 0.8m vertical elevation. Site based HAT is not to be used as present day attenuation of inland HAT level due to flow constraints may not persist to 2100 with coastline response to sea level rise. For further explanation see the Coastal Hazard Technical Guide.
- 6. Where noted on Table 1 (and the map) the specified linear distance applies except where a revetment has been constructed and maintained to the approved design in which case the landward boundary of the erosion prone area is at the upper seaward edge of the revetment (A-line).
- 7. The approximate erosion prone area footprint is shown on Coastal Hazard Area Maps available on the Department of Environment and Heritage Protection website at www.ehp.qld.gov.au. These footprints are indicative only and the definition in this plan prevails for any inconsistency between the two.
- 8. This erosion prone area plan may be updated from time to time and a new revision created. Please check with the Department of Environment and Heritage Protection or the local government that this copy is the current version prior to using the contained information in any way.

### Date of Erosion Prone Area Declaration: 8 July 2015

Date of Erosion Prone Area Amendment:



# CAR3A Table 1: Linear distances for the erosion prone area and the specific location of each segment

Erosion prone area segment number	Segment start longitude (degrees)	Segment start latitude (degrees)	Segment end longitude (degrees)	Segment end latitude (degrees)	Erosion prone area linear distance (Width in metres)
CAR001	146.07200	-17.40199	146.07238	-17.39725	400m
CAR002	146.07238	-17.39725	146.05300	-17.38719	0m
CAR003	146.05300	-17.38719	146.04307	-17.37549	130m
CAR004	146.04307	-17.37549	146.03586	-17.36119	165m
CAR005	146.03586	-17.36119	146.03449	-17.36078	0m
CAR006	146.03449	-17.36078	146.03399	-17.36096	115m
CAR007	146.03399	-17.36096	146.03178	-17.36113	0m
CAR008	146.03178	-17.36113	146.00125	-17.29883	165m
CAR009	146.00125	-17.29883	146.00007	-17.29100	400m
CAR010	146.00007	-17.29100	145.99891	-17.28920	0m
CAR011	145.99891	-17.28920	145.99568	-17.27407	165m Possible Bedrock
CAR012	145.99568	-17.27407	145.97698	-17.24907	0m
CAR013	145.97698	-17.24907	145.97033	-17.23406	165m
CAR014	145.97033	-17.23406	145.96997	-17.21225	400m
CAR015	145.96997	-17.21225	145.96473	-17.20207	130m
CAR016	145.96473	-17.20207	145.96163	-17.18471	165m
CAR017	145.96163	-17.18471	145.96310	-17.17596	400m
CAR018	145.96310	-17.17596	145.96507	-17.17027	165m
CAR019	145.85329	-16.87960	145.83748	-16.88059	0m
CAR020	145.83748	-16.88059	145.82908	-16.88839	75m Possible Bedrock
CAR021	145.82908	-16.88839	145.82504	-16.89128	0m
CAR022	145.82504	-16.89128	145.82473	-16.89457	75m
CAR023	145.82473	-16.89457	145.82324	-16.89756	0m
CAR024	145.82324	-16.89756	145.81282	-16.90314	130m
CAR025	145.81282	-16.90314	145.81190	-16.90500	0m
CAR026	145.81190	-16.90500	145.81021	-16.90909	130m
CAR027	145.81021	-16.90909	145.79045	-16.91634	400m
CAR028	145.79045	-16.91634	145.77664	-16.88159	35m
CAR029	145.77664	-16.88159	145.75797	-16.85919	400m

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CAR030	145.75797	-16.85919	145.75658	-16.85820	Trans 400m to 55m
CAR031	145.75658	-16.85820	145.75485	-16.85664	55m
CAR032	145.75485	-16.85664	145.75417	-16.85603	Trans 400m to 55m
CAR033	145.75417	-16.85603	145.75283	-16.85456	400m
CAR034	145.75283	-16.85456	145.75240	-16.85371	Trans 400m to 55m
CAR035	145.75240	-16.85371	145.74591	-16.84611	55m
CAR036	145.74591	-16.84611	145.74532	-16.84607	Om
CAR037	145.74532	-16.84607	145.74425	-16.84458	400m
CAR038	145.74425	-16.84458	145.74401	-16.84391	Trans 400m to 160m
CAR039	145.74401	-16.84391	145.73554	-16.82910	160m
CAR040	145.73554	-16.82910	145.73483	-16.82716	Trans 400m to 160m
CAR041	145.73483	-16.82716	145.73136	-16.81610	400m
CAR042	145.73136	-16.81610	145.72899	-16.81204	Trans 400m to 125m
CAR043	145.72899	-16.81204	145.72711	-16.80916	125m
CAR044	145.72711	-16.80916	145.72455	-16.80410	65m
CAR045	145.72455	-16.80410	145.71894	-16.80122	0m
CAR047	145.71531	-16.80155	145.70894	-16.79580	160m
CAR048	145.70894	-16.79580	145.70360	-16.79062	0m
CAR049	145.70360	-16.79062	145.69891	-16.78351	125m
CAR050	145.69891	-16.78351	145.69697	-16.77916	125m Possible Bedrock
CAR051	145.69697	-16.77916	145.69398	-16.77625	0m
CAR052	145.69398	-16.77625	145.69279	-16.77980	125m Possible Bedrock
CAR053	145.69279	-16.77980	145.68146	-16.77433	125m
CAR054	145.68146	-16.77433	145.67126	-16.75076	65m
CAR055	145.67126	-16.75076	145.67163	-16.73913	75m
CAR056	145.67163	-16.73913	145.66476	-16.73650	0m
CAR057	145.66476	-16.73650	145.65580	-16.73086	150m Possible Bedrock
CAR058	145.65580	-16.73086	145.65267	-16.73077	0m
CAR059	145.65267	-16.73077	145.64156	-16.72077	150m Possible Bedrock
CAR060	145.64156	-16.72077	145.62900	-16.70545	75m Possible Bedrock







