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# DRAFT SEAWALL MANAGEMENT PLAN

03 March 2017

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Dear Keiley

Our ref: 4260-01\_L01v01a\_SeawallMgmtPlan-DRAFT

## Draft Seawall Management Plan - Arrawarra Beach Caravan Park

The follow document presents a draft seawall management plan for the proposed new seawall at the Arrawarra Beach Caravan Park. If you have any comments or queries on the plan please do not hesitate to contact me.

Yours sincerely



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## ARRAWARA BEACH CARAVAN PARK SEAWALL MANAGEMENT PLAN

### 1.1 On-going Works

The rock armour of the seawall has been sized so as to accommodate the expected effects of future sea level rise, as well as changes to the regional wave climate. As such, the rock armouring is more robust than needs to be for present day climate conditions and there will be no need to later increase the rock characteristics.

It is therefore not anticipated that on-going works will be required once the wall is in place.

A higher ocean level in the future may result in an increase in wave overtopping. This can be included as subsequent upgrading works. The design approach adopted has been to structurally accommodate present-day overtopping rates by incorporating a crest scour blanket, but is cognisant of the possibility that future works (such as raising the crest level slightly higher by adding another layer of rocks) may be required in the later years of the seawall's design life. In this way the design and initial construction do not compromise options for dealing with any possible increased overtopping due to climate change at a later date.

If monitoring (as per Item 1.2 below) indicates reoccurring damage to the scour blanket as a result of wave overtopping this would be a trigger for reassessing the design requirements as noted above.

### 1.2 Monitoring Requirements

The wall should be inspected at least annually to ensure that minor damage (e.g. vandalism) is identified and rectified promptly. The wall should also be inspected after any major storm events to identify any damaged or dislodged rocks which may threaten the integrity of the structure or present a safety hazard so that these risks can be addressed.

No formal monitoring of the performance / impacts is planned at this stage.

### 1.3 Repair and Maintenance

It is noted that the revetment design is such as to limit damage levels to 5%. Even this damage level may not necessarily require any significant repair works. The term "damage" nominated in such a way in coastal engineering designs accounts for the percentage of individual rocks which move from their initially placed position – which can be to a more stable position within the rock armour matrix. Often during severe storm events, the rock armour slope consolidates – resulting in a tightening of interlocking between individual rocks. So future 5% "damage" can also represent an improvement in structural stability at some locations within the revetment.

If, following inspection by a coastal engineering, it is determined that the structural has suffered damage sufficient to warrant repairs, any required repairs and maintenance is to be undertaken as soon as practicable. This may include re-placement of rock armour which have moved during storm events. It is anticipated that timing of repair works may be subject to the scale of the repair and (in the event of larger-scale repairs) availability of suitable contractors as well as prevailing tides and wave conditions.

Wave overtopping of the structure during extreme storm tide events may result in damage and/or erosion of soil and vegetation placed on top of the scour blanket, to the rear of the seawall crest. This will not affect the structural integrity of the scour blanket but reinstatement of the soil and vegetation should be undertaken to restore the visual amenity of the site.

### 1.4 Costs

The Arrawarra Beach Caravan Park owner will be responsible for all costs associated with the wall on their property.