

POINT RICHARDS BOAT RAMP

The Northerly winds often wash up dead seagrass onto the beach and the Point Richards Boat Ramp. This affects boating operations and safety. Consequently, the Bellarine Bayside Foreshore Committee of Management has to restrict ramp access to manage ongoing site safety.

The Department of Transport, Better Boating Victoria investigated several options to improve the Point Richards boating facilities. Investigations included site observations, sediment sampling, laboratory analysis and bathymetric survey of the area of interest. Additionally, numerical models were used to simulate coastal processes including the drifting of seagrass leaves from the Point Richards seagrass beds onto the boat ramp.

The investigation demonstrated that:

- Seagrass detach from the Point Richard Meadow
- The Meadow is currently growing and fluctuates with dry and wet climatic conditions (Figure 1)
- Alongshore ebb currents trap seagrass at the boat ramp
- Weak flood currents cannot flush seagrass out
- A sandbar gradually moves between breakwater heads
- This sandbar can only be dredged with specialist equipment

Three possible breakwater configurations were modelled and studied to reduce the accumulation of wrack near the ramp. The most effective configuration reducing seagrass ingress at the boat ramp consists of a deflector to the west of the existing boat ramp (Figure 2 and Figure 3).

Drifting seagrass leaves are deflected into Port Phillip Bay. Alongshore sand is trapped west of the boat ramp. Natural sedimentation will continue across the entrance; however, the deflector provides a convenient access for maintenance dredging of this sandbar.

No new impact will come to Portarlington beaches from sand drifting or seagrass accumulation.

The breakwater cost estimate is approximately \$2.1 million and construction may disrupt the site for approximately 12 weeks.

This infrastructure will facilitate the maintenance of the Point Richards boat ramp while providing a calm harbour basin around the boat ramp which substantially improves safety at the site.



Figure 1: Existing situation Point Richards Seagrass Meadow



Figure 2: Proposed Breakwater Concept - Plan View



Figure 3: Proposed Breakwater Concept - *artist impression*

