

Confirmed - Port Hacking dredge sand will be strategically placed off Cronulla Beach to act as a Wave Focusing Sand Slug

Summary; prepared by the Bate Bay Sand Placement Committee, 28th June 2011

This August 2011 the navigation channels in Port Hacking will be dredged to maintain safe boating access. The dredged material is similar in colour and size to nearby sand at Cronulla Beach. Approximately 45,000m³ of dredged sand will be transported via barge to a placement zone located 250m offshore the Prince Street Seawall at Cronulla Beach.

In 2008 Cronulla was recognised as a National Surfing Reserve, as an iconic surfing location that links past, present and future generations with the coast. Previous dredging/placement works in 2003 and 2007 created sand banks that influenced wave breaking patterns for up to six months. Local surfers sought a better outcome.

The 2011 dredging/placement works will trial an innovative sand placement configuration, as similar projects have been successful in the USA and Netherlands. The Cronulla trial will add no financial cost to the project, yet will provide additional benefits for the local surfing community.

The dredged sand will be strategically released within a placement zone/template, located 250 to 400m offshore the Prince Street seawall, in waters -4m to -8m deep. The resulting sand-only feature will be a submerged, elongated mound, a ridge-like sand bar that is transverse to the shoreline. It will be a temporary wave focusing sand slug, with an indirect influence on wave breaking patterns.

The sand feature will act as a wave focusing sand slug and provide;

- 1) **improved surfing** opportunities inshore of the sand feature, by inducing wave 'peaks' with longer length of surfing ride, rather than wave 'close outs', there will be no surfing directly over the sand feature, with waves head height and smaller,
- 2) a slightly **wider beach** in the lee of the sand feature, (as in previous works) the sand slug will naturally disperse in a shoreward direction, depositing more sand in front of the Prince Street seawall.

The impacts of the trial have been considered and appraised by Sutherland Council, coastal experts and computer modelling. The life cycle of the wave focusing sand slug is three to six months, depending on storm frequency and intensity. The Bate Bay Sand Placement Committee was established to help steer the process and circulate information. Please email your comments, suggestions and observations to; andrew@surfingramps.com.au

Bate Bay Sand Placement Committee

Chair – John Veage jveage@fairfaxmedia.com.au
Secretary – Andrew Pitt andrew@surfingramps.com.au
Mark De Pena, Committee Communications Officer
Tommy Tyler, President Elouera Boardriders
Ben Horvath, Coastalwatch
Observer - Brad Whittaker, Cronulla Beach Manager



Image 1. Cronulla, an offshore sand mound, a sand slug, was created during the spring 2007 dredging/disposal works. This photo of a surfer riding a rare overhead wave was taken in January 2008. The 'life expectancy' of a sand bank can be up to 6 months. Photo, Ben Horvath

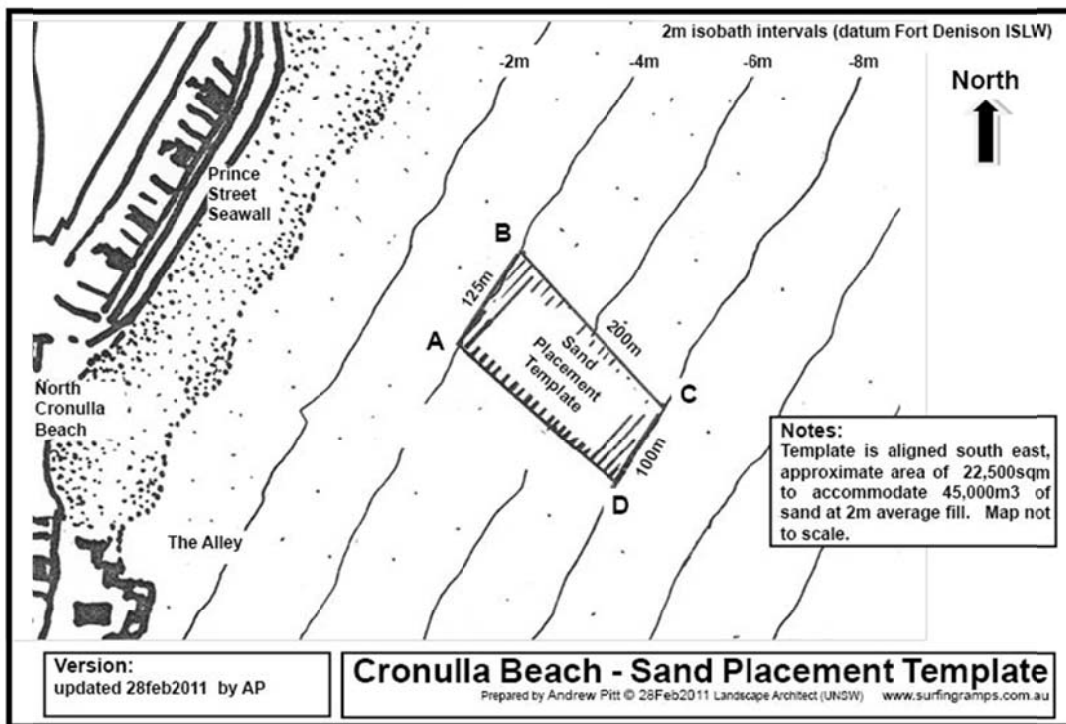


Image 2. The Placement Zone, will act as a template for disposal of dredged sand, to shape a **wave focusing sand slug** located beyond the breaker line. With typical wave height, waves pass over the transverse sand bar and break as peaks in the lee of the sand feature.



Image 3. Peeling peaks, anticipated benefits of a wave focusing sand slug. Photo, John Veage