

# Tweed River Entrance Sand Bypassing Project

## Advisory Committee Meeting

13 October 2014

### Summary of Discussions – Key Issues & Sand Movements

**Sand Delivery** – The amount of sand pumped in Contract Year 13 is a total of 458,402 m<sup>3</sup>. Most of this sand was delivered to Snapper Rocks East with 8,806 m<sup>3</sup> delivered to Duranbah in three placements in Nov'13, Apr'14 and May'14.

**Sand Movements** – This year to date (Jan to Sept '14) has been a relatively calm year with only minor storms in March and August and some moderate seas mainly from the ESE. The estimated sand transport over the last 9 months is in the order of 364,000 m<sup>3</sup>. This is only about 75% of the average transport for this time of the year.

**Fingal Beach** – the beach is showing positive signs of substantial rebuilding at the southern section up to Sept'14.

**Duranbah** – the beach was eroded following the August 2014 storm and requires upper beach nourishment to restore lost sand quantities. Without nourishment it is vulnerable to the impacts of major storms. Sand nourishment is planned for October/November following assessment of sand volume needed and consultation. Arrangements have been made for Tweed shire council to survey the beach. The results will be used to calculate sand quantities required to restore the beach to the agreed profile.

**The southern Gold Coast Beaches** – The beaches continue to show large seasonal fluctuations in width with an overall trending of reduction in sand volumes. Rainbow Bay became wider over August to reach its typical maximum condition and began a seasonal retreat during September. The sand from Rainbow Bay is beginning to move around the headland to reach Greenmount/Coolangatta. A sand slug is moving into Greenmount/Coolangatta and the beach is growing to a wider seasonal condition after reaching a record retreated state (not seen since 2001) during April-June 2014. The beaches will continue to naturally fluctuate under the restored sand supply. High quality surfing conditions were observed at Snapper, Greenmount and Kirra during the August swell event.

**Kirra Beach** – Kirra Beach may become vulnerable to storm erosion particularly if the extension of the groyne has short-term impacts on sand flow. There has been recent beach erosion at Kirra under only a minor August storm and moderate seas and will require ongoing monitoring and potential review of the sand delivery program over the coming year. The head of Miles Street groyne has been re-exposed since the August storm.

**Kirra Reef** – A biological survey of Kirra Reef indicates increasing diversity of flora and fauna due to natural succession, including the re-establishment of soft corals due to improved habitat conditions attributed to exposure.

**Tweed River Entrance** – The entrance was last surveyed in June and a Clear Navigation Channel has been maintained. The entrance channel (as of June) realigned to a straight out easterly approach in contrast to the typical NE alignment. Under calmer wave conditions and efficient jetty operations to reduce sand infeed to the entrance, ebb tidal flows have become more dominant, causing an outflow of river sand and pushed sand offshore into deeper waters. The movement of sand into deeper waters has slightly reduced the crest level to widen the channel area that satisfies the navigation channel criteria. The August

2014 storm may have modified the last recorded entrance bar condition (June 2014). Recent survey results are expected within the next month and an updated seabed map will be produced (with a QR code). Due to the continuing clear channel there is no current plan to dredge the entrance. The operator is continuing to monitor the entrance and check the availability of dredges.

**Sand Placement** – The CY14 Target Quantity has been set at 375,000 m<sup>3</sup> based on advice received from the operator prior to the August storm event and higher than expected delivery for CY13. A Target quantity Increase has been requested by the Operator for period ending 30 September 2014, to account for delivery of about 22,000 m<sup>3</sup> above the CY13 Target Quantity of about 436,000 m<sup>3</sup> set at the beginning of the year. This is being reviewed. There is currently no plan for dredging as the entrance channel is compliant.

**Feasibility Options** – It was generally agreed to proceed with options 2B and 4 (including dredge placement) and Option 2A subject to agreement from GCCC. They will improve flexibility of the system to manage the highly variable natural conditions.

**NSW & QLD Advisory Committee Positions** - Advertising for two NSW community representatives for AC membership was carried out in February. The applications have been reviewed and a recommendation prepared for submission to the Minister. QLD representative positions are due to expire in March 2015. A recommendation for the QLD appointments is currently being prepared.

**Communications** - The project website is updated on a monthly basis. Seabed maps can now be accessed by PCs, smartphones, ipads and tablets by a QR code. A new project noticeboard has been installed at Fingal boat ramp and another noticeboard proposed for Rainbow Bay. Posters in all noticeboards are currently being updated.