

Tweed River Entrance Sand Bypassing Project

Advisory Committee Meeting

29th July 2014

Summary of Discussions – Key Issues & Sand Movements

Sand Delivery – The amount of sand pumped in Contract Year 13 to date is approximately 51,500 m³. Most of this sand was delivered to Snapper Rocks East with approximately 8,800 m³ delivered to Duranbah in three placements in Nov'13, Apr'14 and May'14.

Sand Movements – This year to date (Jan to Jun '14) has been a relatively calm year with only a minor storm in March and some moderate seas mainly from the ESE. The estimated sand transport over the last 6 months is in the order of 215,000 m³. This is only about 60% of the average transport for this time of the year.

Fingal Beach – the beach is showing signs of rebuilding at the southern section up to May'14. There has been some rebuilding of the southern end of Fingal Beach following the severe beach erosion (during Jan/Feb/April 2013). There has also been good build-up of the sand shoal around Fingal Headland and improved surfing conditions reported at the last AC meeting in May.

Duranbah – Duranbah fared relatively well to recent ocean storms compared to other beaches with evidence of natural bypassing of sand to Duranbah to aid in rebuilding upper beach conditions. The natural bypassing has reduced the need for pumping to replenish beach widths and maintain surfing banks. Council is going to undertake vegetation restoration behind Duranbah and up on to Point Danger.

The southern Gold Coast Beaches – The beaches continue to show large seasonal fluctuations in width with an overall trending of reduction in sand volumes. Surf banks off Snapper and Rainbow were forming well up to and through March but stopped with no swells in April to June. Surfing conditions have experienced a relatively calm winter.

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 moderate seas and will require ongoing monitoring and potential review of the sand delivery program over the coming year. The sand delivery pipeline to Kirra was tested for water quality as it has not been used since 2003, the results were OK. Monitoring of the structural works of Kirra Point groyne extension and potential impact of the groyne is being carried out and Council will report on monitoring results shortly.

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. There was a positive "ABC 7:30 QLD" report in May concerning the recovery of the reef.

Tweed River Entrance – The entrance was surveyed in June and a Clear Navigation Channel has been maintained. The entrance channel has realigned to a straight out easterly approach in contrast to the typical NE alignment that entrance users have grown to expect. From Apr '13 to Jun '14 there has been a small net scour of the entrance, with reworking of sand pushing the crest of the bar seawards. 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 net sand movement is northward to feed Duranbah and helped rebuild the Snapper Rocks

surfing bank. Dredging is not currently planned as the channel is complying. The entrance conditions continue to be monitored with the next survey due in October.

Sand Placement – 400,000 m³ of sand is targeted for Contract year 13 (October 2013 to September 2014) which could potentially include up to 50,000 m³ of dredging. The majority of sand is intended for pumping to the primary Snapper Rocks East outlet and a lesser portion to the Duranbah outlet. The next Duranbah placement is scheduled for Oct-Nov'14 for potentially up to 20,000 m³, subject to monitored conditions and stakeholder consultation.

Feasibility Options – There was an outline presentation of the feasibility options for enhancement of system operations: Options 2B and 4 are being progressed. The project is awaiting advice from GCCC regarding the need for Option 2A. Options 2A & 2B would give flexibility to the system in the longer term. Current monitoring has been undertaken around Snapper Rocks to help with the assessment of deepwater dredge placement area Option 2B.

NSW Advisory Committee Positions - Advertising for two NSW community representatives for AC membership was carried out in February. The applications are being reviewed.

Communications - The new TRESBP website is live and will provide a stronger communication platform for the project. Quotes have been received for additional project noticeboards at Rainbow Bay and Fingal boat ramp. The project has been used as a case study of coastal management issues in a Year 10 National curriculum textbook for school students.