

TWEED SAND BYPASSING

Advisory Committee and Community Meeting 28th August 2019

Summary of Discussions – Key Issues & Sand Movements

Welcomes / Apologies – Project Manager Brendan Logan welcomed guests and outlined respectful behaviour is expected of all attendees.

Beach and Entrance Condition - Reports were received from various lifeguards, surf clubs, boardrider clubs and entrance users. In addition AC attendees provided the following comments;

- Fingal has recently experienced some erosion resulting in scarping of the beach
- Letitia beach has experienced erosion
- Dredging has had minimal impact on Qld beaches but improved navigation
- Wave quality at Snapper and Duranbah have been good
- Kirra conditions have been good
- Qld beaches and swimming have been in good shape

Sand Placement / Pumping and Dredging

Approximately 268,250 m³ of sand was pumped during the period January 2019 to end July 2019. The January 2019 to July 2019 volume was lower than the past five year average. The June and July 2019 pumping volumes were higher than the previous 5 year average for these months. Significant wave events through June and July 2019 resulted in higher pumping volumes.

An entrance dredging campaign was undertaken in July and August 2019. Dredging commenced on 14 July and concluded on 8 August 2019. A total of 151,360 m³ was removed from the entrance by dredge. Placement of sand was distributed to the approved placement areas of Duranbah (36,035 m³), Snapper Rocks East (54,060 m³), Fingal (31,366 m³) and Tugun/Bilinga (29,899 m³).

Wave Conditions – Wave conditions between February 2019 and July 2019 were presented and a number of significant events were identified. Cyclone Oma produced wave heights over 4.5m in February. There were at least two low pressure systems between April 2019 and July 2019 with wave heights over 2m. In the last week of June and into July a sustained swell of over 2m was experienced including a large easterly groundswell over 3m. A greater proportion of the wave direction was noted as being from the east and ENE than the same period in 2017-18.

Beach Conditions –

A presentation was provided to the audience which covered:

- Sand bypassing system operations + delivery program
- Environmental Monitoring
- Entrance conditions , usage and survey
- TSB projects and enhancements
- Communications

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Recent Fingal / Letitia aerials were presented showing erosion along the central section of Letitia. A comprehensive visual presentation of Fingal aerials was shown in conjunction with wave height / direction data to demonstrate the effect of wave conditions on beach amenity and shoreline position. An isopach of hydrographic survey data was displayed to show the cross-shore movement of sand between June 2018 and May 2019. This indicated that bed elevations along the beach and nearshore had reduced and conversely the bed elevations offshore had increased. A volume analysis of total beach compartment volumes were shown and it was highlighted that central Letitia had seen a reduction in volume until approximately 2014-15 and this volume has been relatively stable since.

Duranbah aerials showed the seasonal impact on beach rotation and beach width. Rainbow Bay images showed the change in bank orientation due to recent wave conditions and also the reestablishment of Snapper. Greenmount aerials indicated a buildup of sand along the southern side of Kirra Point groyne. The bank orientation at Kirra was shown to change through this period with it moving shoreward over recent months. Tugun to Currumbin was noted to show apparent recession at the lee side of coastal hard points (e.g. Flat Rock Creek) likely due to the recent easterly and ENE conditions.

Surf Amenity –

- Bank quality has returned at Snapper
- Bank quality at Duranbah has been good particularly in the central portion of the beach.
- Some quality days at Kirra coinciding with larger swell events
- Juraki surf invitational 2019 – 9 August to 11 August held on Tweed Coast beaches
- Pumping Jetty has had quality waves in smaller swell
- 2019 SAE Group Australian Surf Championships – Tweed Coast – 9 to 26 August

Entrance Conditions and Usage

Entrance survey of 14 August 2019 shows a clear navigational channel. The pre (12 July 2019) and post (14 August 2019) dredge campaign entrance maps were shown and compared. Entrance usage (via VMR records) has shown the number of entrance crossings to be above the 12 month average.

TSB Projects – Updates were provided on the following projects;

- REF backpass by dredge – approved. Fingal utilised as a placement area in August 2019.
- STIS003 – Sand Trapping and Energy efficiency investigation complete (available on website)
- TRESBP Transition Project – Phase 1 investigations underway (governance/risk, cost, operations, social benefit, asset management, environmental, stakeholder)
- Duranbah northern access pit – a new pit over the existing pipeline in the central part of Duranbah. Will improve system flexibility and reduce amount of temporary pipe when nourishing central and northern part of beach.
- Kirra boardwalk renewal – Working with City of Gold Coast to incorporate an allowance in the structure for a future pipeline.

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Communications

- A revision of the schools package is under development
- TSB app was updated to include the new placement areas, data was pushed to the app throughout recent dredge campaign
- Website was updated with dredging information based on the 2018/19 campaign
- A Fingal Storymap is under development. It will be considered for inclusion on the website and there is the potential to expand across the project area

Discussion with community members:

- Fingal community members expressed strong concerns regarding erosion on Letitia beach.
- There was a request to make shoreline/vegetation mapping available on the website. TSB responded informing that a project is underway to georeference historical imagery which may be made available through an interactive mapping portal. Development of this capability is in early stages
- The Tweed Shire Coastline Hazard Definition Study (2001) was tabled by a community member. Concerns were directed to the TRESBP team regarding findings of the report.
- Letitia/Fingal community members highlighted their observations of recent erosion along central Letitia. Long term recession was also raised as a concern based on community members' analysis using Google Earth imagery.
- Suggestion by community representative to trial turning off nearshore jet pumps to promote seaward movement of shoreline.
- Request for more detailed technical information and survey data to be presented at future meetings.
- Request by a Fingal community member to hold a local community meeting later in the evening to allow greater participation.
- A community member noted the state of Rainbow Bay and considers that it does not resemble a bay and is unsuitable for swimming.