

### **OVERVIEW**

In May 2017:

- 26,800 m<sup>3</sup> of sand was pumped to Snapper Rocks East.
- 20,113 m<sup>3</sup> of sand was dredged and placed at Snapper Rocks East.
- 12,013 m<sup>3</sup> of sand was pumped to Duranbah Beach.
- 16,117 m<sup>3</sup> of sand was dredged and placed at Duranbah Beach.
- Wave heights ranged from calm to moderate (0.59 m to 2.40 m) with a maximum significant wave height of 2.40 m on 9<sup>th</sup> May. Wave directions varied from NE by E to SE but mostly from the E.
- 1712 vessel crossings were recorded for the month (This is 85% of the May average).
- The estimated amount of sand moving north towards the Tweed River entrance by natural processes was in the order of 42,672 m³ (this is 64% of the May average of 66,976 m³).

#### 1. SAND PUMPING & DREDGING

### Sand Delivery May 2017

Pumped:  $38,813 \text{ m}^3$ Dredged:  $36,231 \text{ m}^3$ Total:  $75,044 \text{ m}^3$ 

The number of days sand was pumped this month = 26

### Sand Delivery January 2017 to December 2017

Pumped: 181,285 m<sup>3</sup>

Dredged: 93,355 m<sup>3</sup>

Total: 274,640 m<sup>3</sup>

### Stage II Sand Delivery April 2000 to May 2017

Pumped: 8,703,914 m<sup>3</sup>

Dredged: 2,197,265 m<sup>3</sup> \*

Total: 10,901,179 m<sup>3</sup> \*

<sup>\*</sup> This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005

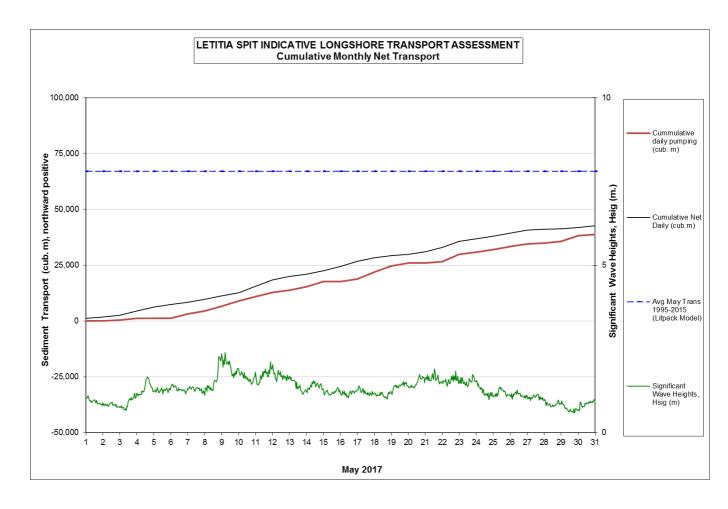


### 2. INDICATIVE LONGSHORE TRANSPORT

The graph below is based on simplified sediment transport modelling and is indicative only.

In May 2017 the estimated natural sand transport moving north towards the Tweed River entrance was calculated to be in the order of 42,672 m<sup>3</sup>.

This result is 64% of the average estimated sand transport quantity of approximately 66,976 m<sup>3</sup> for the month of May.



# TWEEDSAND BYPASSING

## 3. TWEED RIVER ENTRANCE USAGE

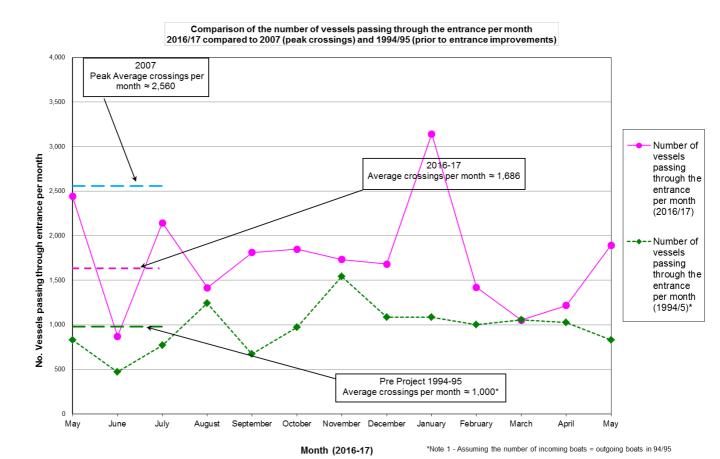
Marine Rescue NSW - Monitoring Results (Not including trawlers)

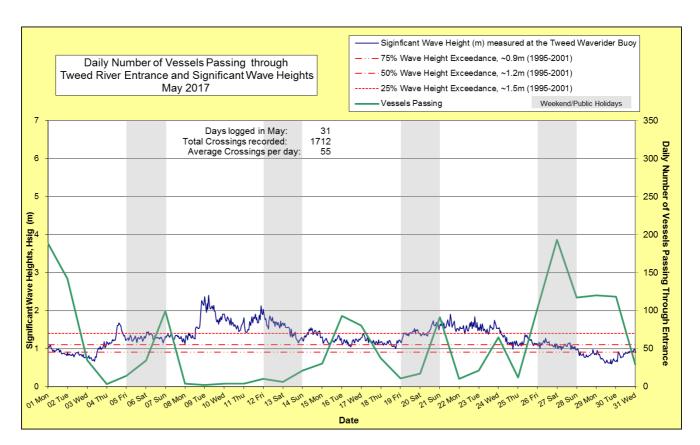
Weekends and public holidays

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						Total	1712

Source: Marine Rescue NSW, Point Danger

# TWEEDSAND BYPASSING







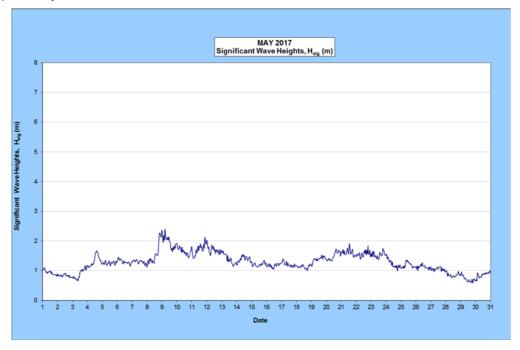
### **4. WAVE CONDITIONS**

Wave conditions over the month: Wave heights ranged mostly from calm to moderate (0.59 to 2.40 m), with a maximum significant wave height of 2.40 m on 9<sup>th</sup> May. Wave directions varied from NE by E to SE but mostly from the E.

Monthly minimum significant wave height: 0.59 m on 29<sup>th</sup> May Monthly maximum significant wave height: 2.40 m on 9<sup>th</sup> May

Number of days on which waves were below 1.0 m at some point in the day: 9 days Number of days on which waves were above 2.0 m at some point in the day: 4 days

**Note:** Significant wave height  $(H_{sig})$  is defined as the average of the highest one-third of waves recorded over a period of approximately 30 minutes.



(Source: Tweed Wave Buoy; Queensland Government)

A link to data recorded by the Tweed Waverider Buoy is available at: http://www.qld.gov.au/waves

#### **WAVE DIRECTION**

