

TRESBP ENVIRONMENTAL MONITORING SUMMARY

APRIL 2016

OVERVIEW

In April 2016:

- 38,111 m³ of sand was pumped to Snapper Rocks East and 1,483 m³ of sand was pumped to Duranbah beach.
- 11,974 m³ of sand was dredged from the entrance bar and placed on the inner Duranbah placement area.
- There were no media articles relating to the Project area during April.
- Wave heights ranged mostly from calm to a minor storm (0.6 to 3.2 m), with a maximum significant wave height of 3.2 m on 25th April. Consistent moderate sea events were seen from 27th to 30th. Wave directions varied from E by N to SE by E but mostly from the E.
- 1531 vessel crossings were recorded for the month. (This is 20% less than the April average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 60,000 m³ (this is almost the same the April average).

1. SAND PUMPING & DREDGING

Sand Delivery April 2016

Pumped:	39,594 m ³
Dredged:	11,974 m ³
Total:	51,568 m ³

The number of days sand was pumped this month = 21

Sand Delivery January 2016 to April 2016

Pumped:	190,104 m ³
Dredged:	11,974 m ³
Total:	202,078 m ³

Stage II Sand Delivery April 2000 to April 2016

Pumped:	8,293,169 m ³
Dredged:	2,073,946 m ³ *
Total:	10,367,115 m ³ *

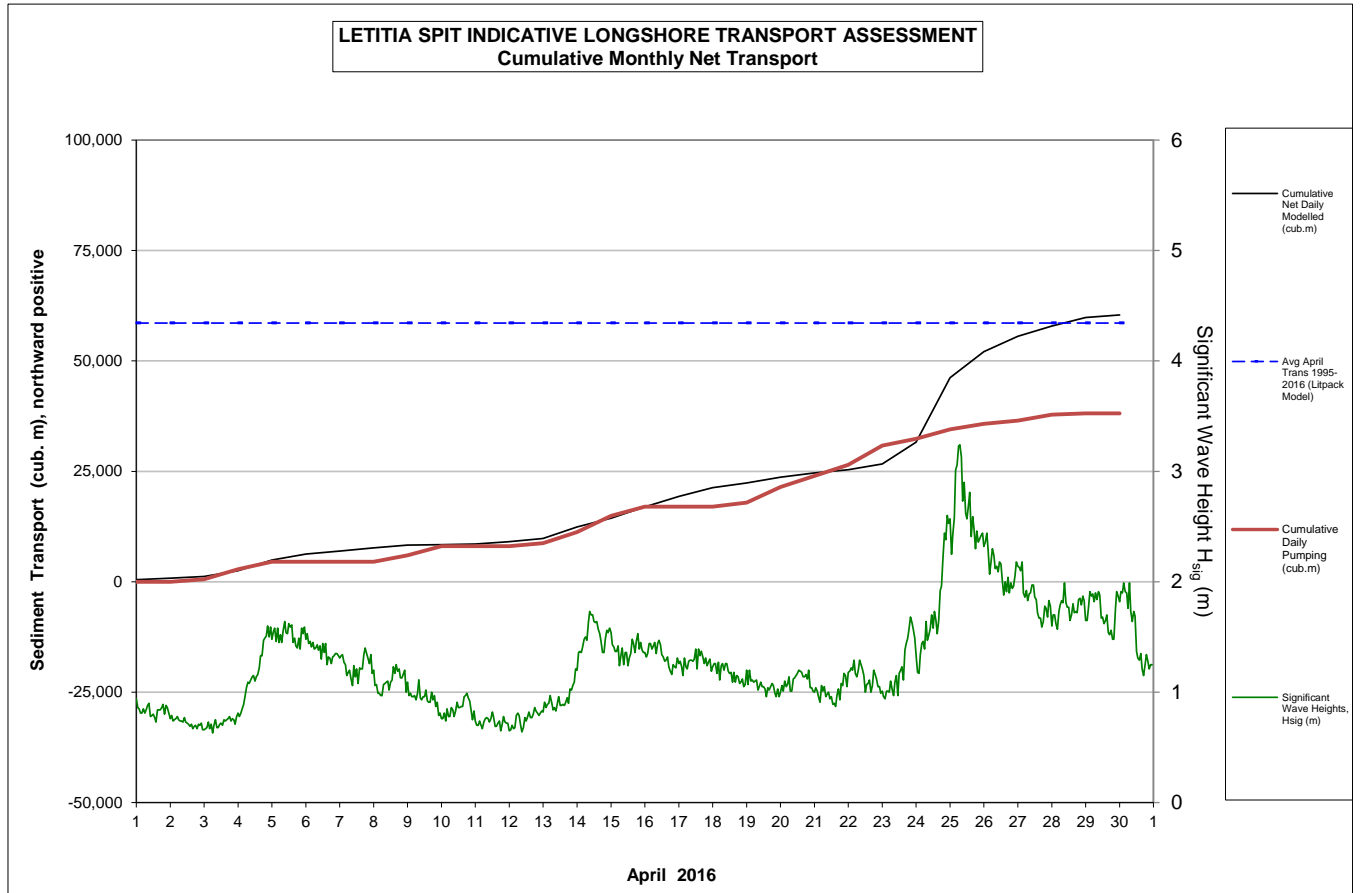
* This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In April 2016 the estimated natural sand transport moving North towards the Tweed River entrance was calculated to be in the order of 60,000 m³.

This result is almost the same as the April average.




3. MEDIA COVERAGE

There were no media articles relating to the Project area during April.

4. TWEED RIVER ENTRANCE CONDITIONS

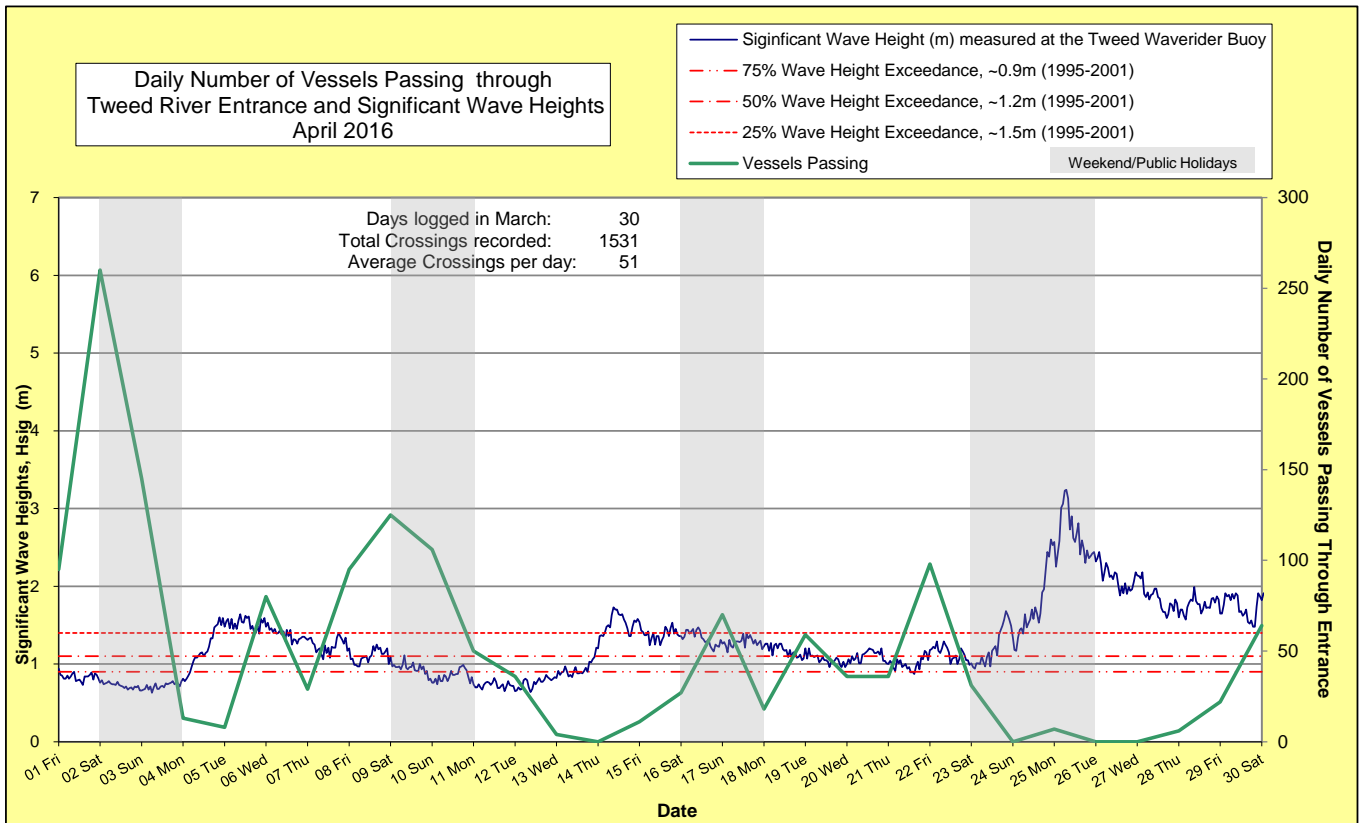
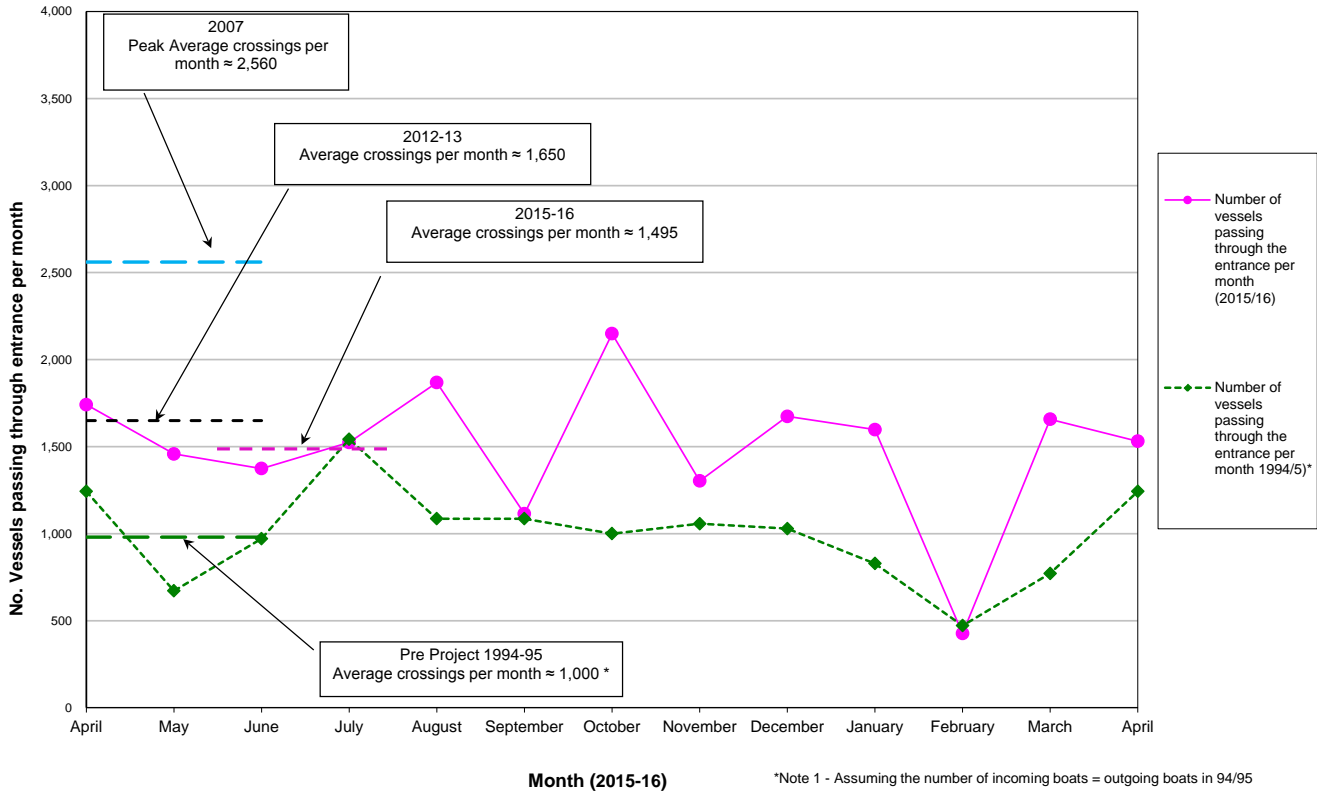
MARINE RESCUE NSW - MONITORING RESULTS

 Weekends and public holidays

Date	Navigation Rating Impassable-----Good					Number of Boats
	Impassable (1)	Difficulty Encountered (2)	Some Difficulty Encountered (3)	Relatively Good Crossing (4)	Good Conditions (5)	
1 st						95
2 nd						260
3 rd						145
4 th						13
5 th						8
6 th						80
7 th						29
8 th						95
9 th						125
10 th						106
11 th						50
12 th						36
13 th						4
14 th						0
15 th						11
16 th						27
17 th						70
18 th						18
19 th						59
20 th						36
21 st						36
22 nd						98
23 rd						31
24 th						0
25 th						7
26 th						0
27 th						0
28 th						6
29 th						22
30 th						64
						Total
						1531

Source: Marine Rescue NSW, Point Danger

Comparison of the Number of Vessels Passing Through the Entrance per month 2015/16 compared to 2007 (peak crossings) and 1994/95 (prior to entrance improvements)



5. WAVE CONDITIONS

Wave conditions over the month: Wave heights ranged mostly from calm to a minor storm (0.6 to 3.2 m), with a maximum significant wave height of 3.2 m on 25th April. Consistent moderate sea events were seen from 27th to 30th. Wave directions varied from E by N to SE by E but mostly from the E.

Monthly minimum significant wave height: 0.6 m on 3rd April

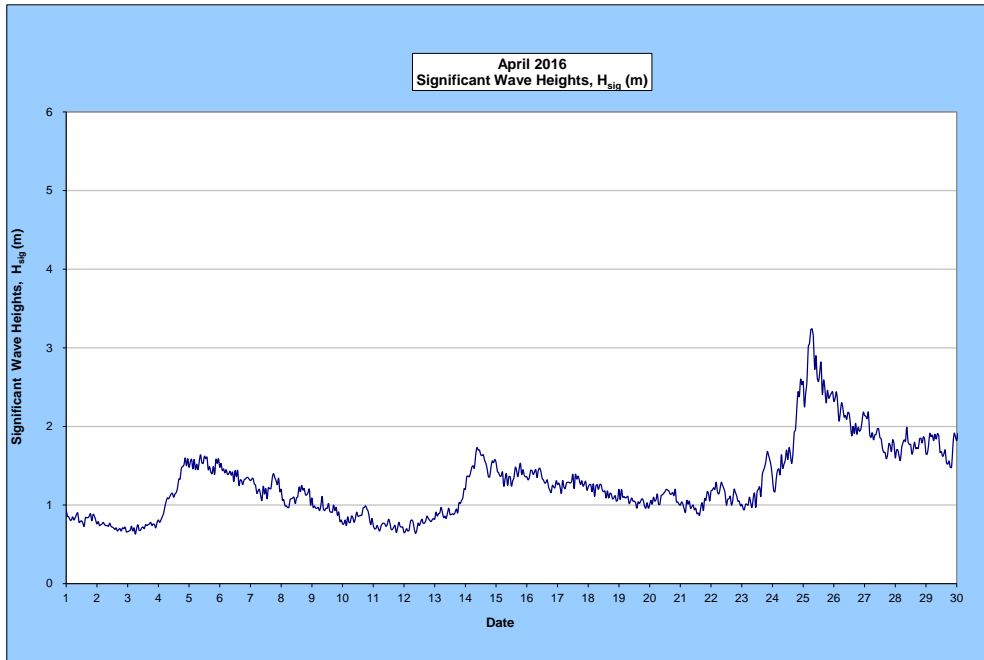
Monthly maximum significant wave height: 3.2 m on 25th April

Number of days on which waves were below 1.0 m at some point in the day: 12 days

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

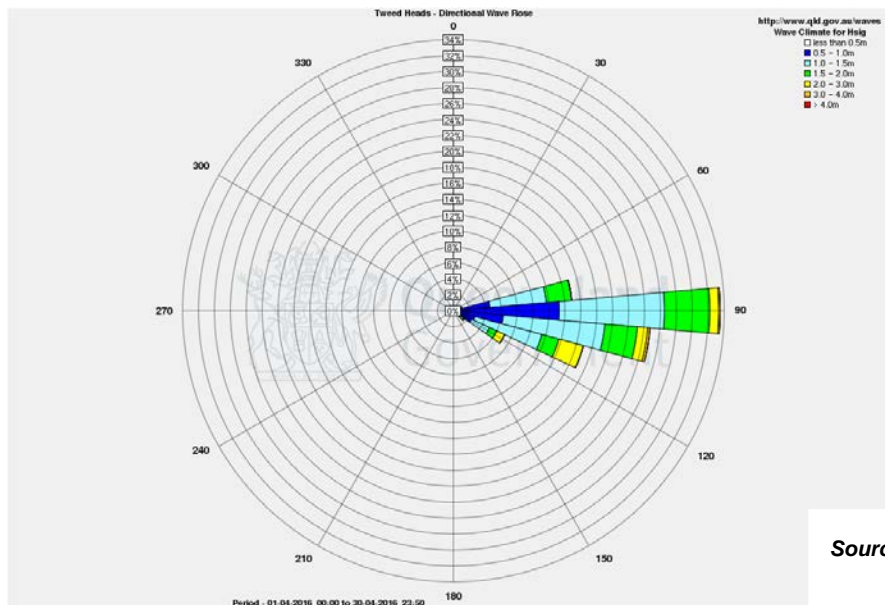
Note: Significant wave heights or H_{sig} is the average of the highest one third of recorded waves.

(Source: Tweed & Brisbane 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



Source: Queensland Government