

TRESBP ENVIRONMENTAL MONITORING SUMMARY

MAY 2014

OVERVIEW

In May, 2014:

- 25,672 m³ of sand was pumped to Snapper Rocks East and 2,465 m³ of sand was pumped to Duranbah Beach.
- There were three media articles relating to the project area. Two media articles regarding the natural return of Kirra Reef and makes a reference to the project. The other media article related to the awarding of state titles for Australian Cleanest Beaches to Fingal Head in NSW and Rainbow Bay in Qld. Those two beaches will now compete for the national title.
- Sea conditions were calm to average (significant wave height 0.3 to 1.5m) for most of the month with only one short-lived moderate sea event on 18th (with significant wave height up to 2m). Wave directions varied from SE to ENE but mostly from ESE to ENE.
- 1,785 vessel crossings were recorded for the month. (This is about 10% less than the May average)
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 31,000 m³ (this is about 45% of the May average).

1. SAND PUMPING & DREDGING

Sand Delivery May 2014

Pumped:	28,137 m ³
Dredged:	0 m ³
Total:	28,137 m ³

Sand Delivery January 2014 to May 2014

Pumped:	205,796 m ³
Dredged:	0 m ³
Total:	205,796 m ³

Stage II Sand Delivery May 2000 to May 2014

Pumped:	7,290,678 m ³
Dredged:	2,061,972 m ³ *
Total:	9,352,650 m ³ *



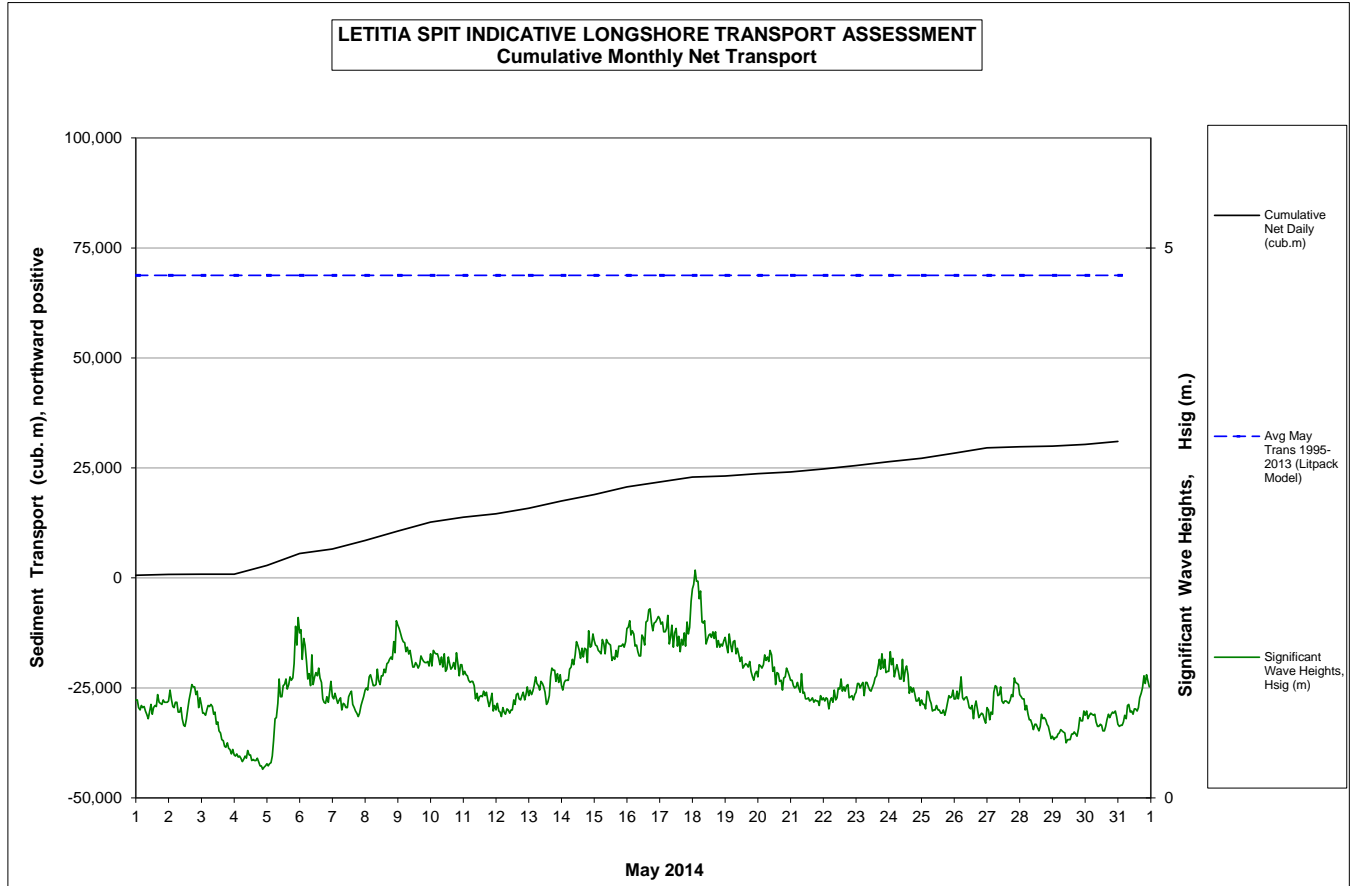
* This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005.

2. INDICATIVE LONGSHORE TRANSPORT

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

In May 2014 the estimated natural sand transport (moving North towards the Tweed River entrance): was calculated to be in the order of 31,000 m³.

This result is about 45% of the average estimated sand transport quantity of approximately 69,000 m³ for the month of May




3. MEDIA COVERAGE

There were three media articles relating to the project area. One on 16th May (ABC 7:30 Report Qld edition) and the other on 21st May (Tweed Daily News) relating to the natural return of Kirra Reef. The third article on 28th (Tweed Daily News) relating to the NSW and Qld states champions of the clean beaches award; Fingal Head (NSW) and Rainbow Bay (Qld) are now battling for the national title.

4. TWEED RIVER ENTRANCE CONDITIONS

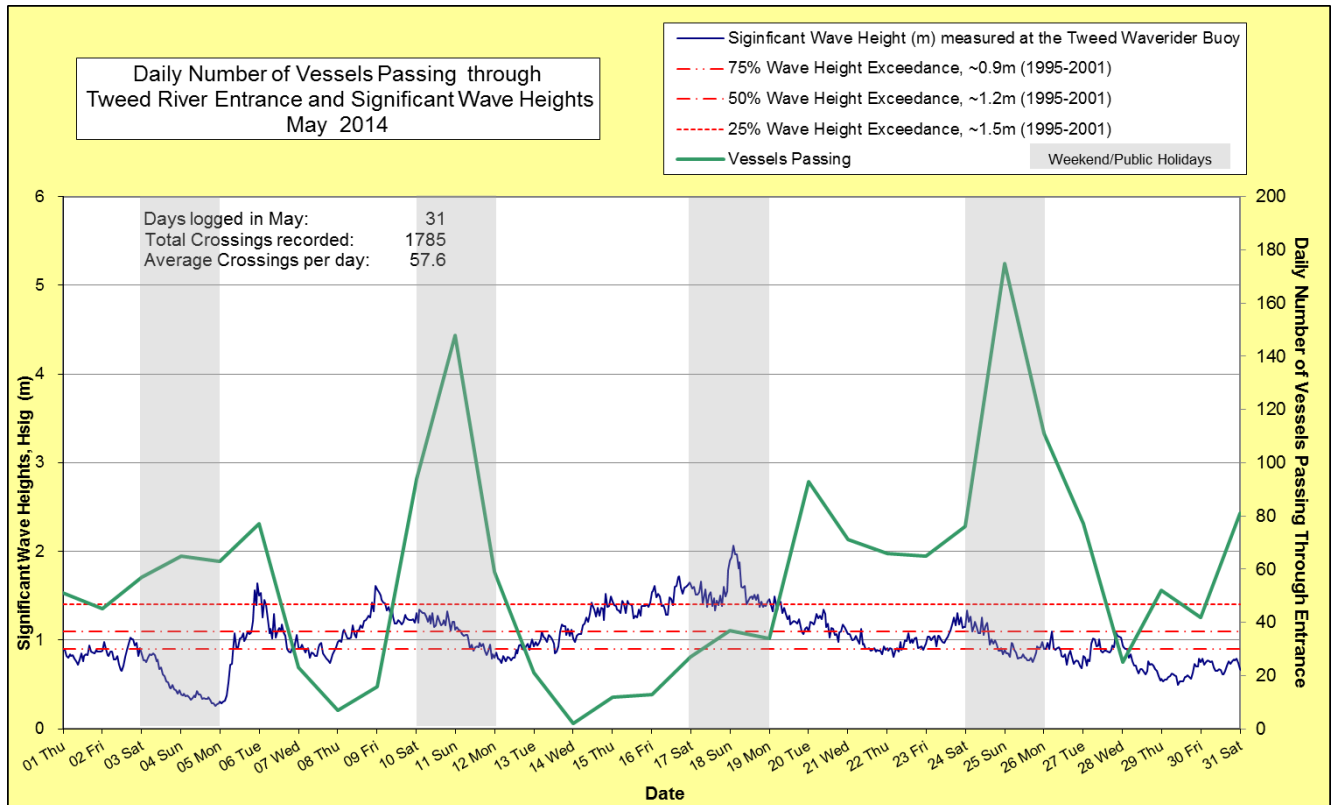
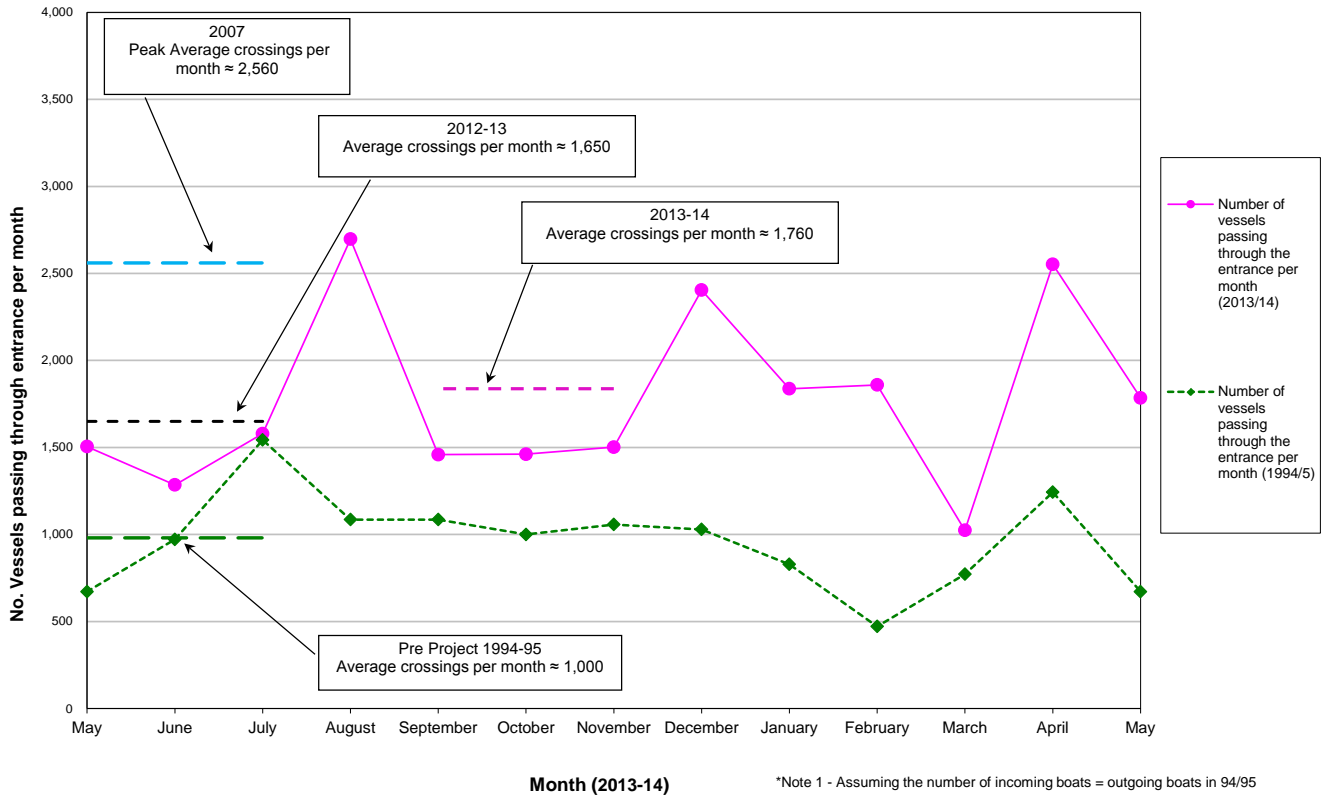
MARINE RESCUE NSW - MONITORING RESULTS

 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						51
2 nd						45
3 rd						57
4 th						65
5 th						63
6 th						77
7 th						23
8 th						7
9 th						16
10 th						94
11 th						148
12 th						59
13 th						21
14 th						2
15 th						12
16 th						13
17 th						27
18 th						37
19 th						34
20 th						93
21 st						71
22 nd						66
23 rd						65
24 th						76
25 th						175
26 th						111
27 th						77
28 th						25
29 th						52
30 th						42
31 st						81
Total						1,785

Source: Marine Rescue NSW, Point Danger

Comparison of the Number of Vessels Passing Through the Entrance per month 2013/14 compared to 2007 (peak crossings) and 1994/95 (prior to entrance improvements)



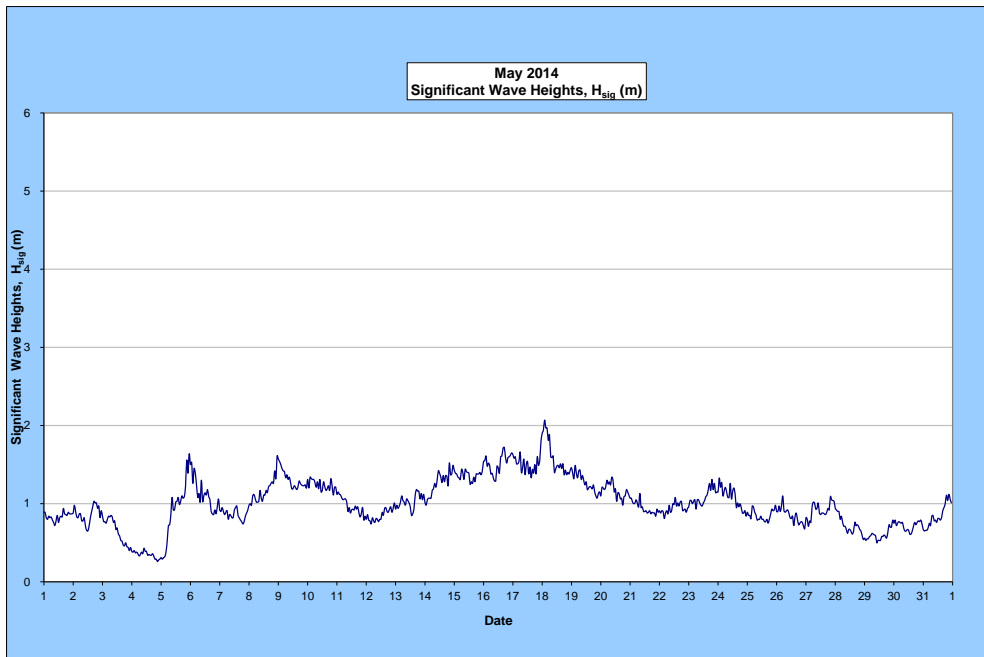
5. WAVE CONDITIONS

Wave Conditions over the month: Significant wave heights were calm to average (0.3 to 1.5m) with only one short-lived moderate sea event on 18th (with significant wave height up to 2m). Wave direction ranged from SE to ENE but mostly from ESE to ENE.

- Monthly minimum significant wave height: 0.3 m on 4th May.
- Monthly Maximum significant wave height: 2.1 m on 18th May.
- Number of days on which waves were below 1.0 m: 20 days
- Number of days on which waves were above 2.0 m: 1 day

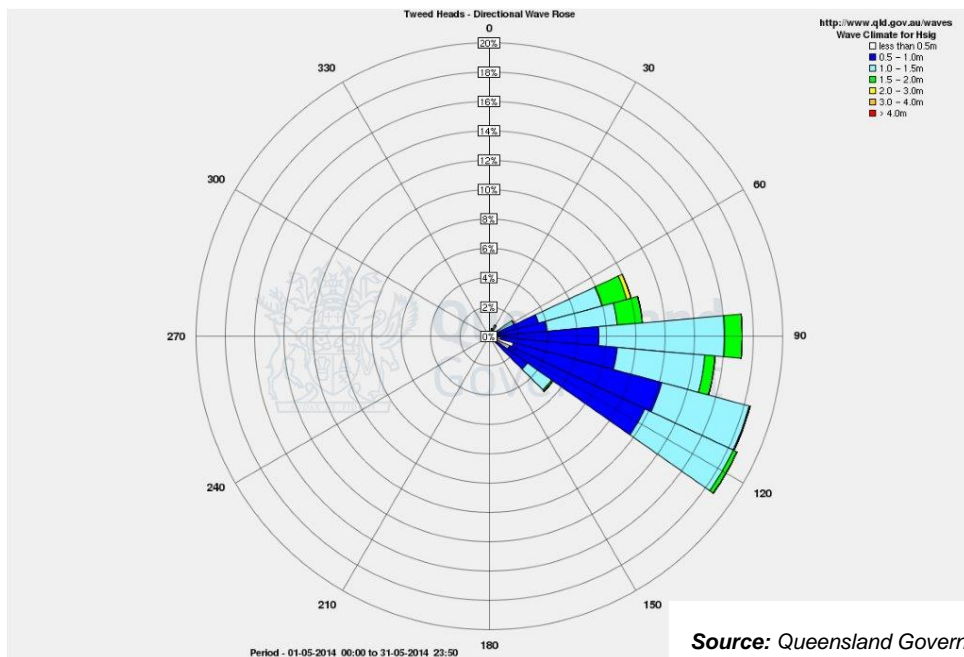
Note: Significant wave heights or H_{sig} is the average of the highest one third of recorded waves.

(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

END