

TRESBP ENVIRONMENTAL MONITORING SUMMARY

JUNE 2014

OVERVIEW

In June, 2014:

- 26,473 m³ of sand was pumped to Snapper Rocks East.
- There was one media article relating to recovery of Kirra reef.
- Sea conditions were calm to average wave heights for most of the month (significant wave heights 0.5 to 1.5m) with only one short-lived moderate sea event on 10th (with significant wave height up to 1.9m). Wave directions varied from ESE to ENE but mostly from East to ESE.
- 2,003 vessel crossings were recorded for the month. (This is about 10% more than the June average)
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 32,000 m³ (this is about 50% of the June average).

1. SAND PUMPING & DREDGING

Sand Delivery June 2014

Pumped:	26,473 m ³
Dredged:	0 m ³
Total:	26,473 m ³

Sand Delivery January 2014 to June 2014

Pumped:	232,269 m ³
Dredged:	0 m ³
Total:	232,269 m ³

Stage II Sand Delivery May 2000 to June 2014

Pumped:	7,317,151 m ³
Dredged:	2,061,972 m ³ *
Total:	9,379,123 m ³ *



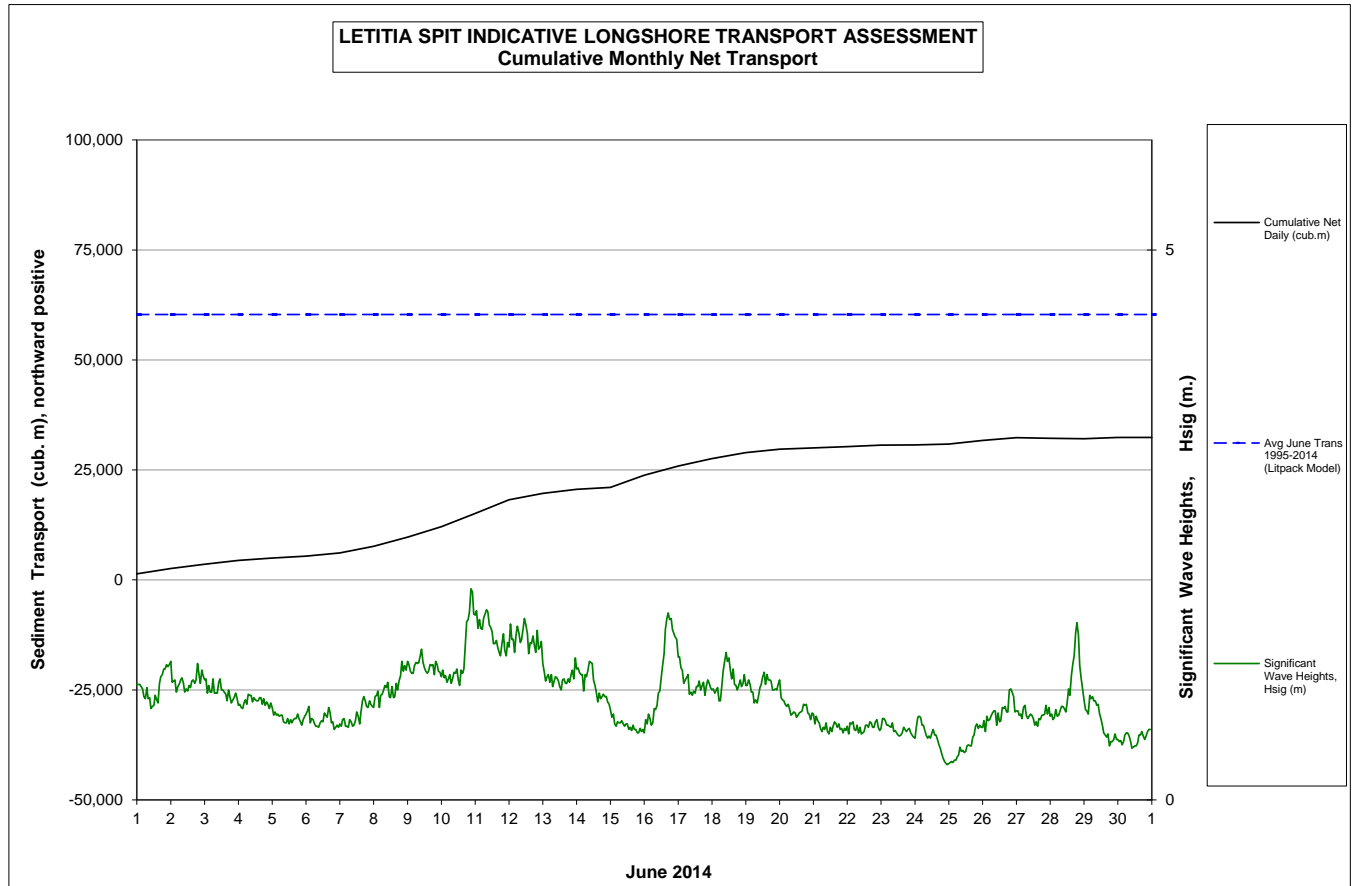
* This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005.

2. INDICATIVE LONGSHORE TRANSPORT

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


In June 2014 the estimated natural sand transport (moving North towards the Tweed River entrance): was calculated to be in the order of 32,000 m³.

This result is about 50% of the average estimated sand transport quantity of approximately 60,000 m³ for the month of June



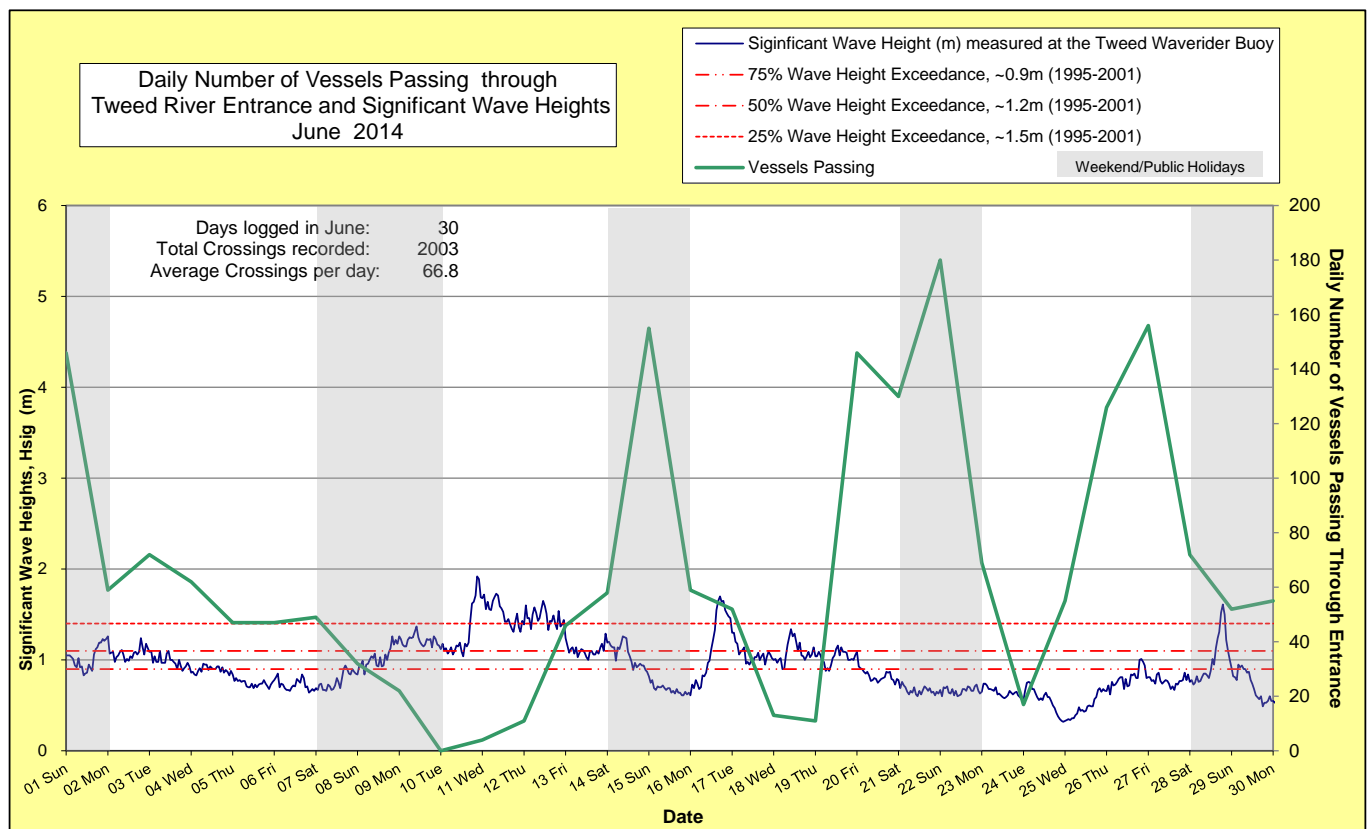
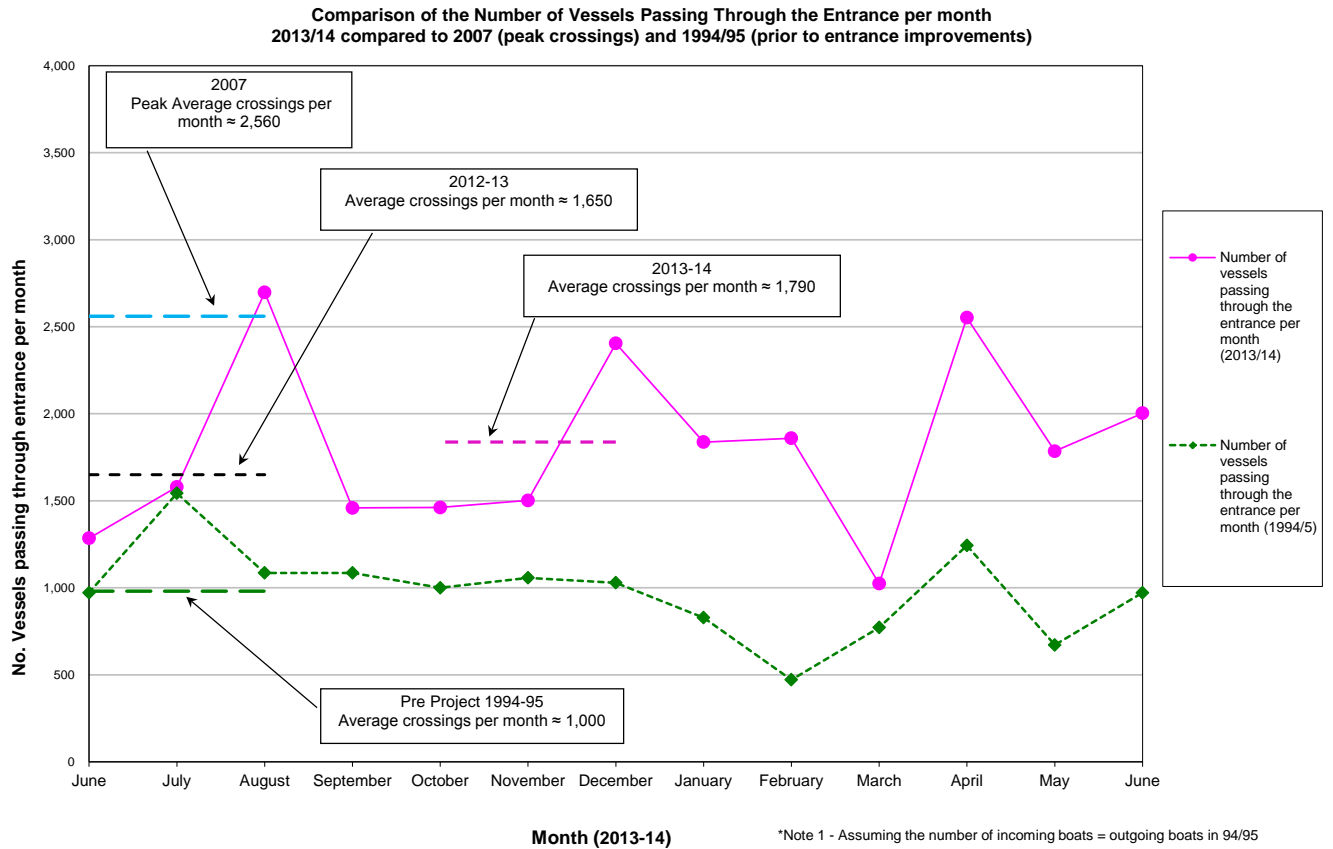
3. MEDIA COVERAGE

There was one media article on 4th June (Gold Coast Sun) relating to the recovery of Kirra reef.

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						146
2 nd						59
3 rd						72
4 th						62
5 th						47
6 th						47
7 th						49
8 th						32
9 th						22
10 th						0
11 th						4
12 th						11
13 th						46
14 th						58
15 th						155
16 th						59
17 th						52
18 th						13
19 th						11
20 th						146
21 st						130
22 nd						180
23 rd						69
24 th						17
25 th						55
26 th						126
27 th						156
28 th						72
29 th						52
30 th						55
					Total	2003

Source: Marine Rescue NSW, Point Danger



5. WAVE CONDITIONS

Wave Conditions over the month: Significant wave heights were calm to average (0.5 to 1.5m) with one short-brief moderate sea event on 10th (with significant wave height up to 1.9m). Wave direction ranged from ENE to ESE but mostly from EAST to ESE.

Monthly minimum significant wave height: 0.3 m on 24th June.

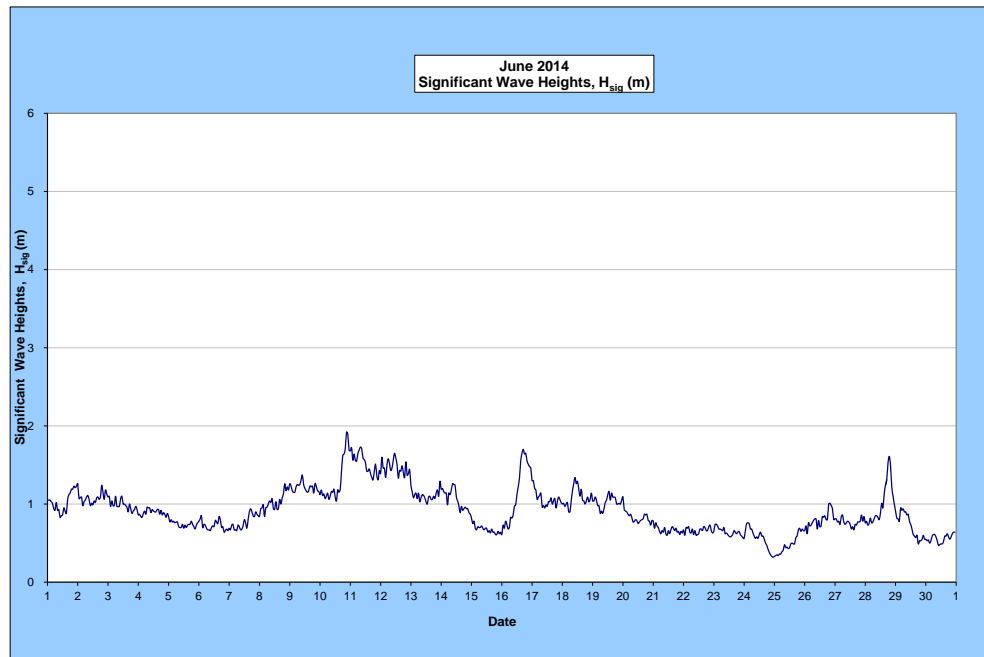
Monthly Maximum significant wave height: 1.9 m on 10th June.

Number of days on which waves were below 1.0 m: 24 days

Number of days on which waves were above 2.0 m: Nil

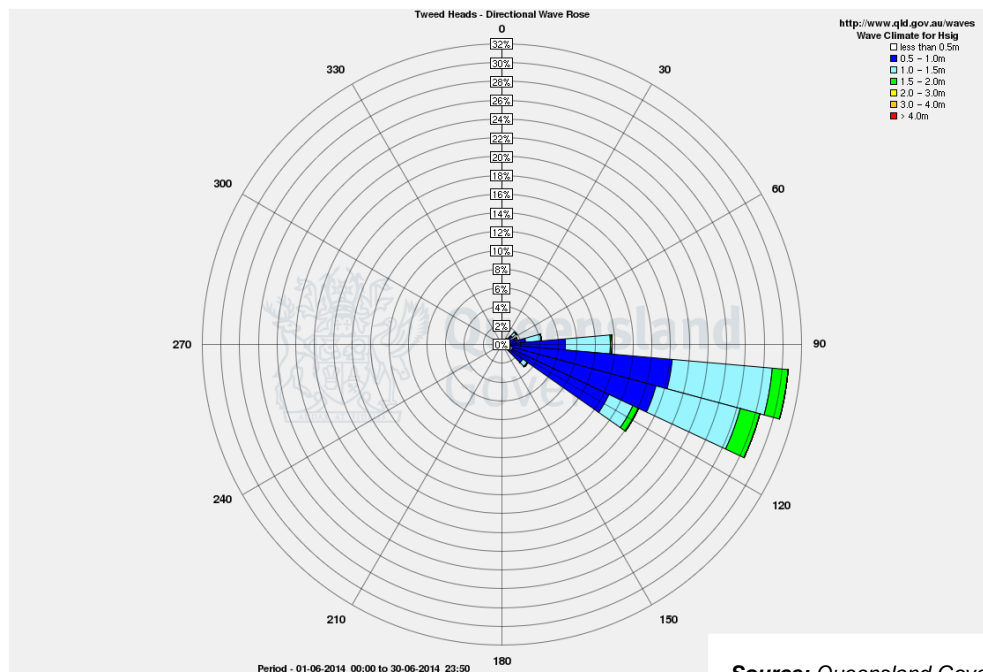
Note: Significant wave heights or H_{sig} is the average of the highest one third of recorded waves.

(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



END