

TRESBP ENVIRONMENTAL MONITORING SUMMARY

OCTOBER 2014

OVERVIEW

In October, 2014:

- 20,516 m³ of sand was pumped to Snapper Rocks East.
- There were 3 media articles relating to the project area. Details are given in Section 3.
- Sea conditions were calm to average for most of the month (significant wave heights 0.6 to 1.6 m) with no significant sea events. Wave directions varied mostly from NE to ESE.
- 1500 vessel crossings were recorded for the month (this is about 11% less than the October average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 20,000 m³ (this is about 75% of the September average).

1. SAND PUMPING & DREDGING

Sand Delivery October 2014

Pumped:	20,516 m ³
Dredged:	0 m ³
Total:	20,516 m ³

The number of days sand was pumped this month = 15

Sand Delivery January 2014 to October 2014

Pumped:	420,299 m ³
Dredged:	0 m ³
Total:	420,299 m ³

Stage II Sand Delivery April 2000 to October 2014

Pumped:	7,505,181 m ³
Dredged:	2,061,972 m ³ *
Total:	9,567,153 m ³ *

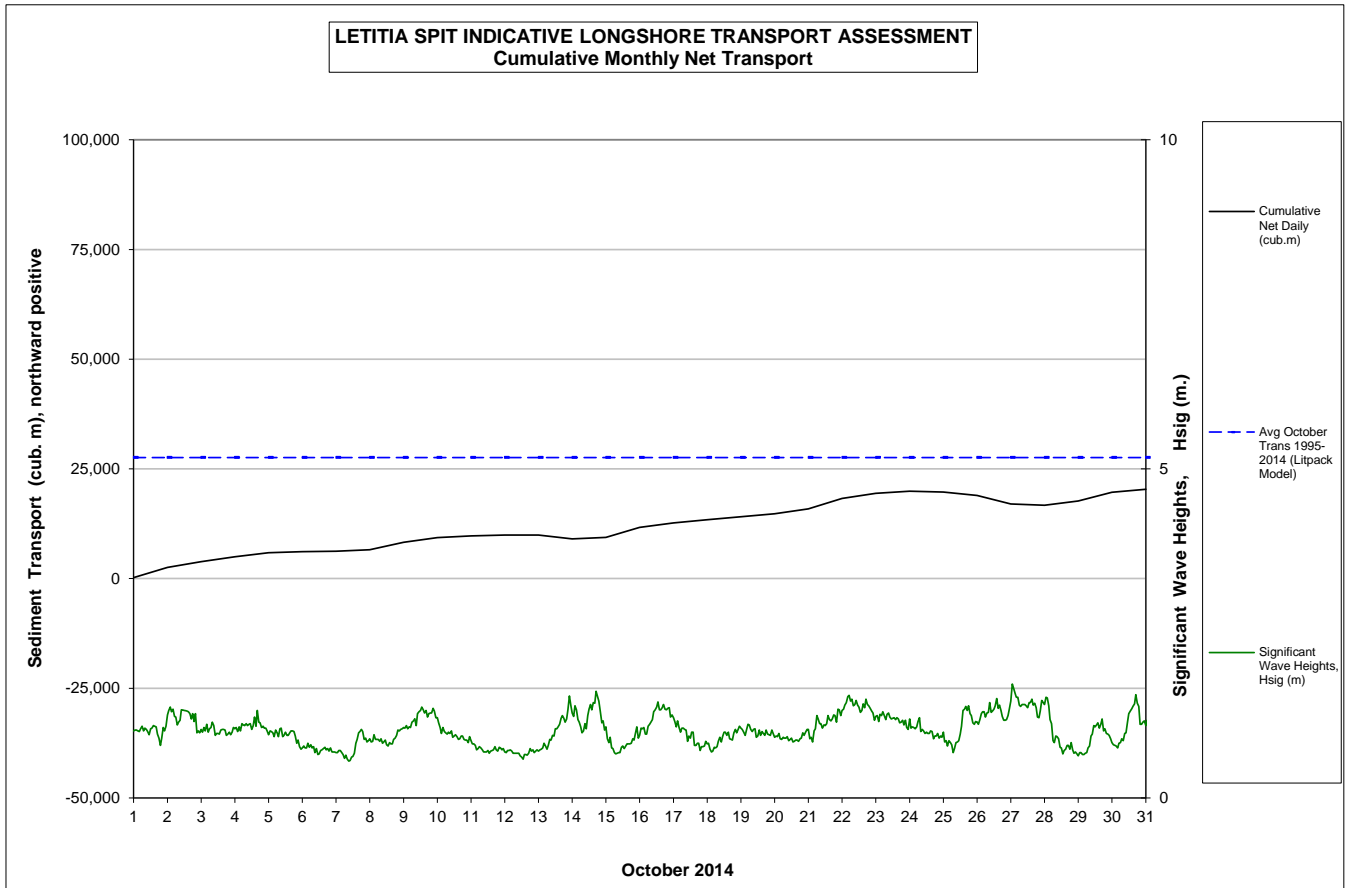
* This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In October 2014 the estimated natural sand transport moving North towards the Tweed River entrance was calculated to be in the order of 20,000 m³.

This result is about 75% of the average estimated sand transport quantity of approximately 27,500 m³ for the month of October.



3. MEDIA COVERAGE

On the 1st, GC Bulletin published two media articles. One was related to the support given by the Gold Coast surf industry to create new beach breaks with dredged sand to reduce surf congestion at Snapper rocks.

On the 12th, GC Bulletin published a media article relating to a leading surf industry leader calling for a large chunk of the \$3 billion industry's profits to be channelled back to the city's famous beaches.

On the 26th, GC Bulletin published a media article relating to surf etiquette signs could soon be a common sight on Gold Coast beaches to ease conflict between surfers.

4. TWEED RIVER ENTRANCE CONDITIONS

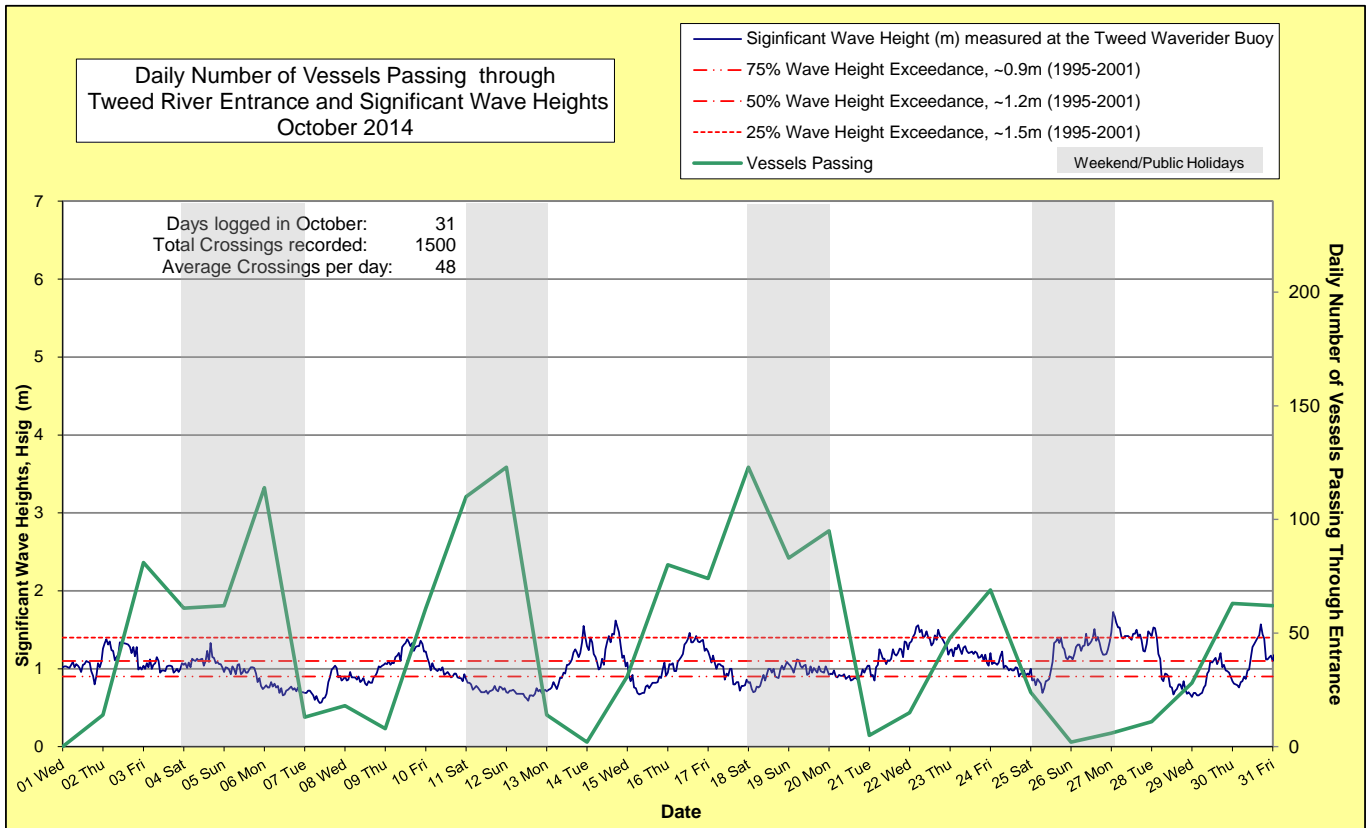
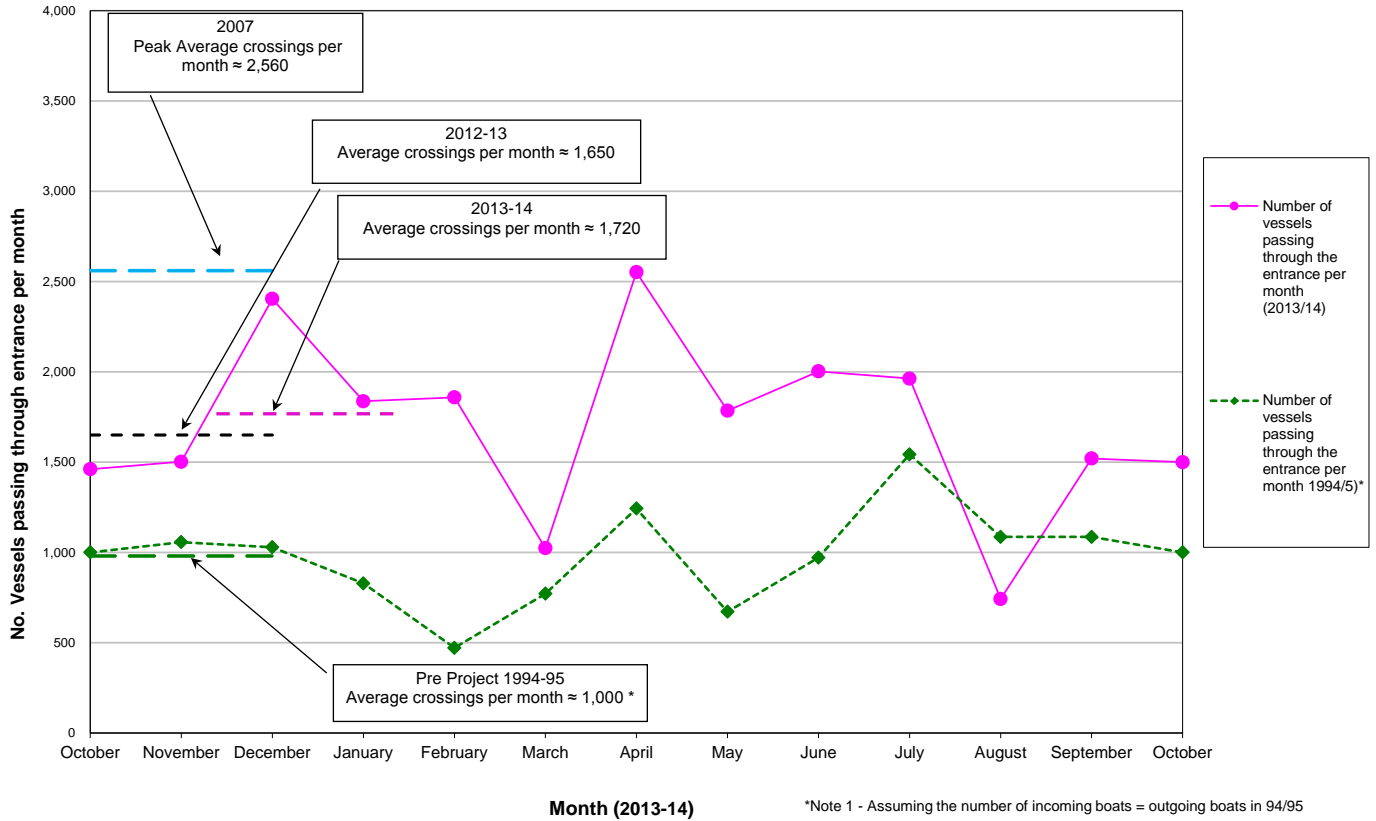
MARINE RESCUE NSW - MONITORING RESULTS

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						0
2 nd						14
3 rd						81
4 th						61
5 th						62
6 th						114
7 th						13
8 th						18
9 th						8
10 th						61
11 th						110
12 th						123
13 th						14
14 th						2
15 th						31
16 th						80
17 th						74
18 th						123
19 th						83
20 th						95
21 st						5
22 nd						15
23 rd						48
24 th						69
25 th						24
26 th						2
27 th						6
28 th						11
29 th						28
30 th						63
31 st						62
Total						1500

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 for most of the month (0.6 to 1.6 m) with no significant sea events. Wave directions varied mostly from NE to ESE.

Monthly minimum significant wave height: 0.6 m on 17th October.

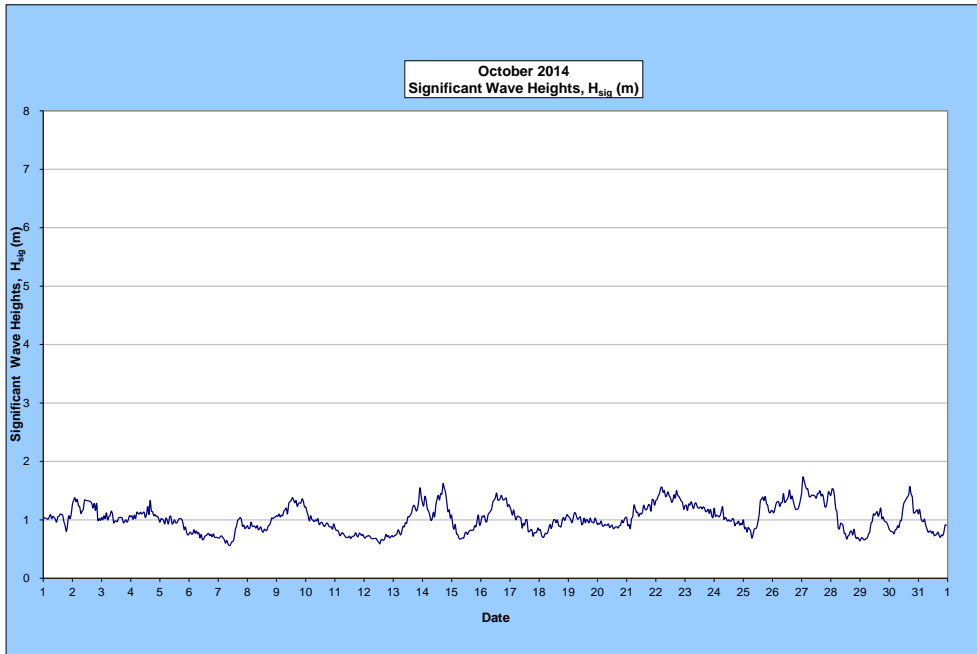
Monthly Maximum significant wave height: 1.7 m on 27th September.

Number of days on which waves were below 1.0 m: 26 days

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

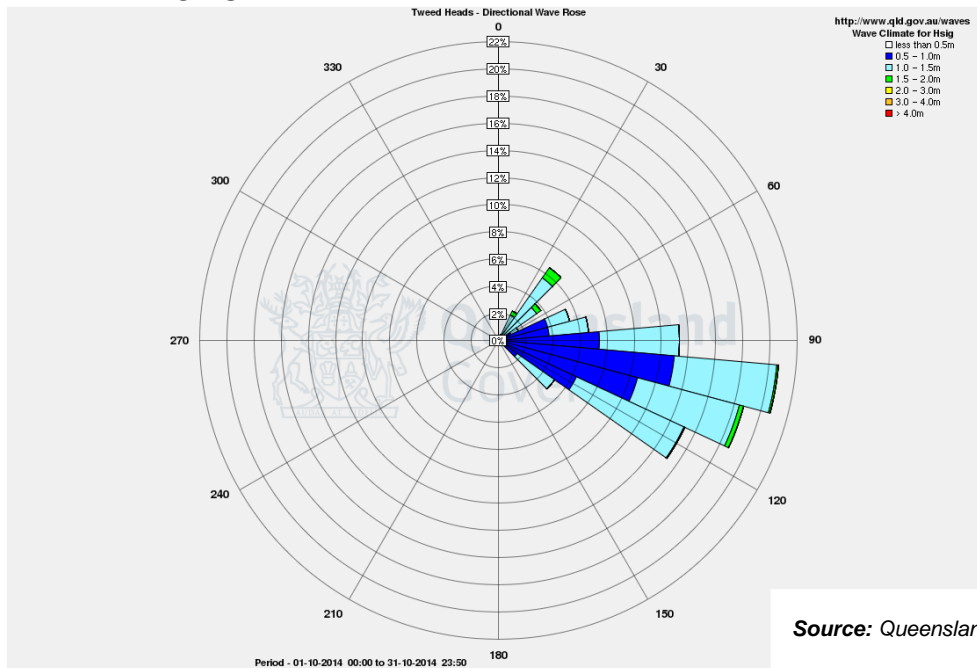
Note: Significant wave heights or H_{sig} is the average of the highest one third of recorded waves.

(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



Source: Queensland Government