

TRESBP ENVIRONMENTAL MONITORING SUMMARY

JANUARY 2014

OVERVIEW

In January, 2014:

- 54,911 m³ of sand was pumped to Snapper Rocks East.
- There were no media articles which related to the project.
- Sea conditions were calm to moderate for most of the month with two moderate events (occurring on the 20th and the 27th to 29th) with peak significant wave heights reaching 2.4 m. Wave directions varied mostly from NE to ESE but dominantly from E to ENE.
- 1,837 vessel crossings were recorded for the month (this is about the same as the January average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 29,000 m³ (this is about 65% of the January average).

1. SAND PUMPING & DREDGING

Sand Delivery January 2014

Pumped:	54,911 m ³
Dredged:	0 m ³
Total:	54,911 m ³

Sand Delivery January to December 2013

Pumped:	319,883 m ³
Dredged:	0 m ³
Total:	319,883 m ³

Stage II Sand Delivery May 2000 to January 2014

Pumped:	7,139,793 m ³
Dredged:	2,039,104 m ³
Total:	9,178,897 m ³

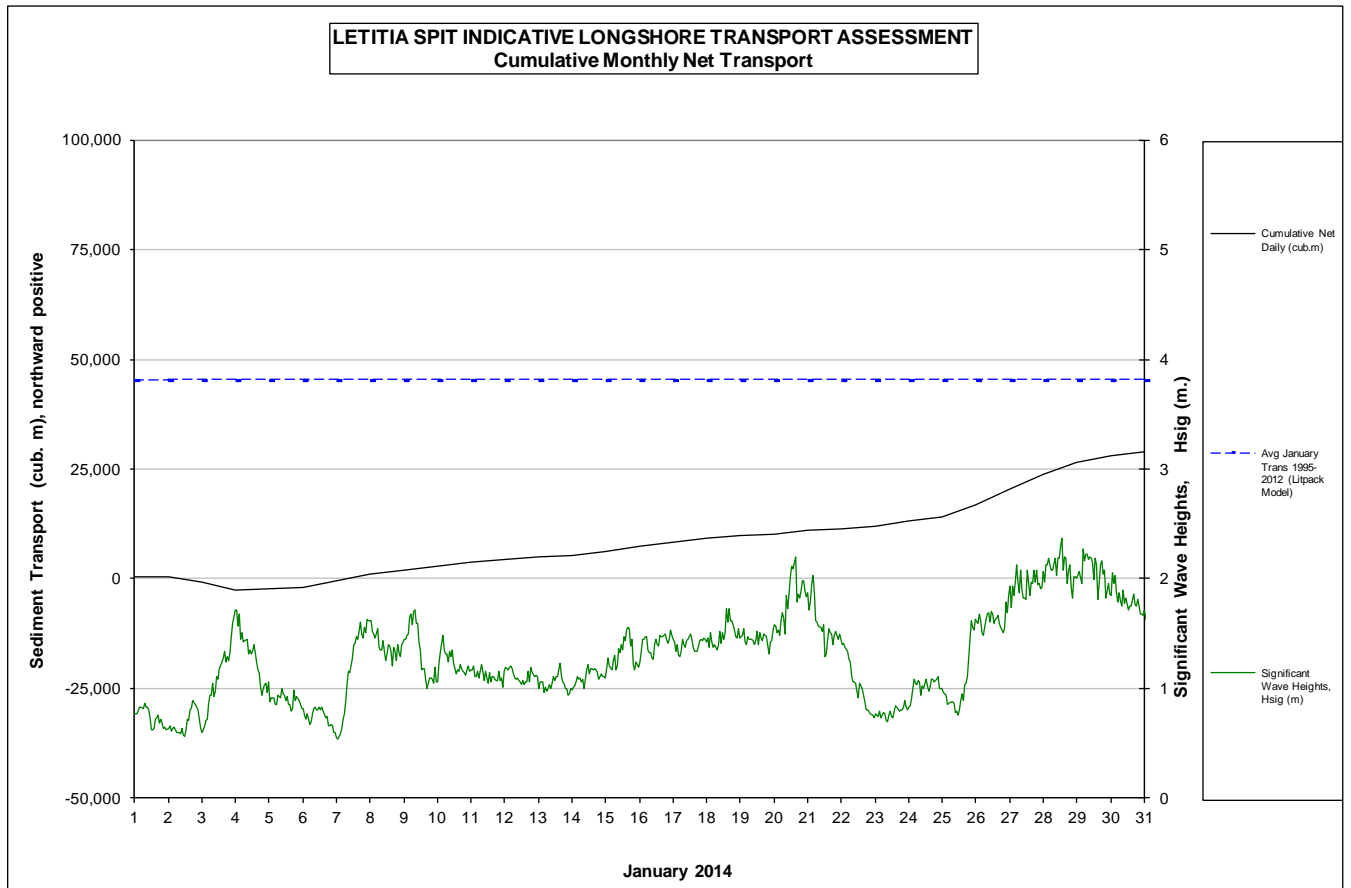


2. INDICATIVE LONGSHORE TRANSPORT

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


In January 2014 the estimated natural sand transport (moving North towards the Tweed River entrance): was calculated to be in the order of 29,000 m³.

This result is about 65% of the average estimated sand transport quantity of approximately 45,000 m³ for the month of January.



3. MEDIA COVERAGE

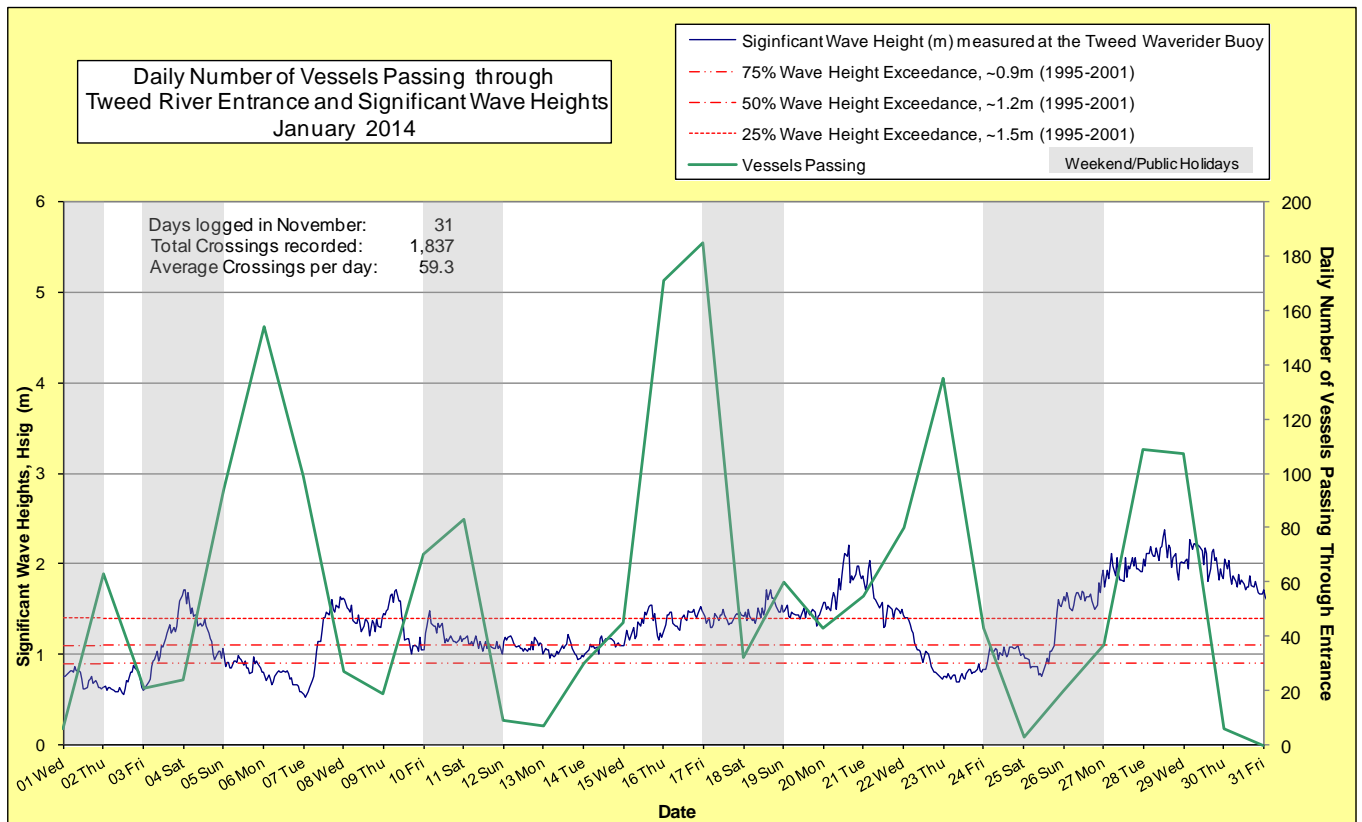
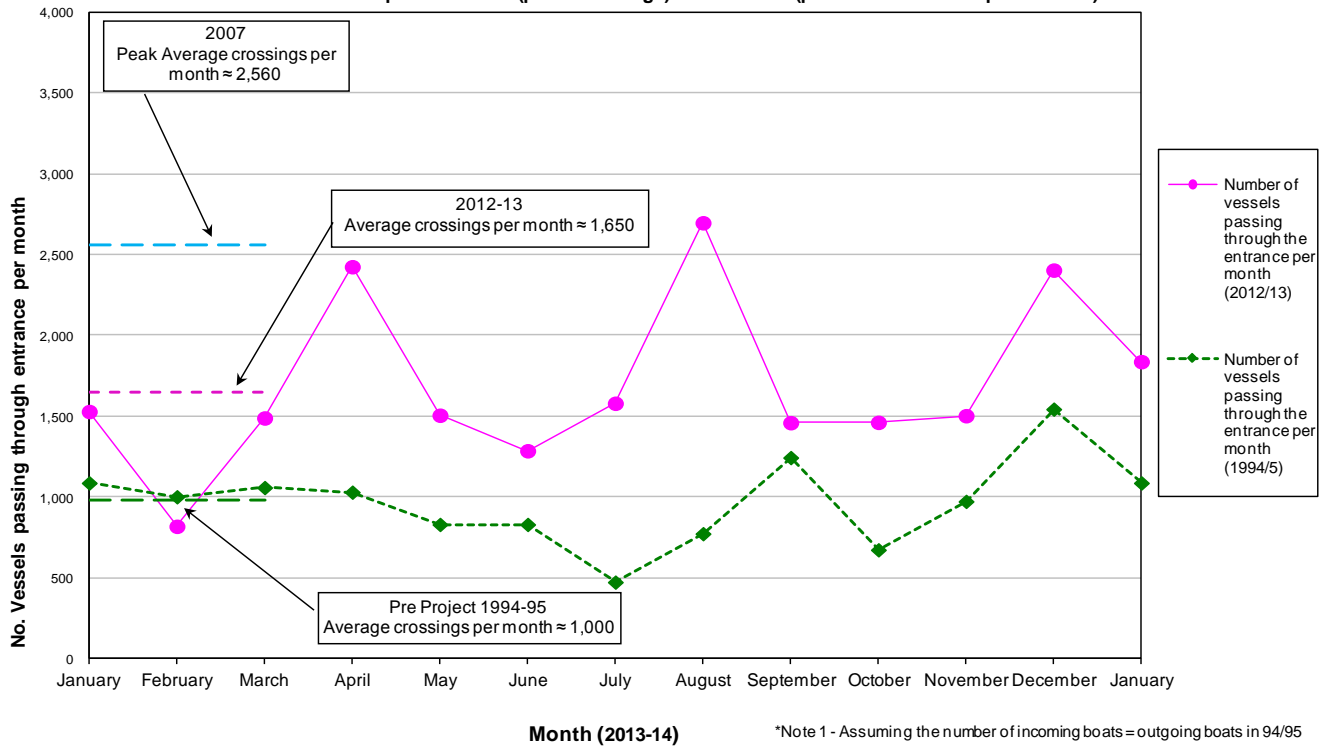
There were no media articles relating to the project during January.

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						6	
2 nd						63	
3 rd						21	
4 th						24	
5 th						94	
6 th						154	
7 th						99	
8 th						27	
9 th						19	
10 th						70	
11 th						83	
12 th						9	
13 th						7	
14 th						30	
15 th						45	
16 th						171	
17 th						185	
18 th						32	
19 th						60	
20 th						43	
21 st						55	
22 nd						80	
23 rd						135	
24 th						43	
25 th						3	
26 th						20	
27 th						37	
28 th						109	
29 th						107	
30 th						6	
31 st						0	
						Total	1,837

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)



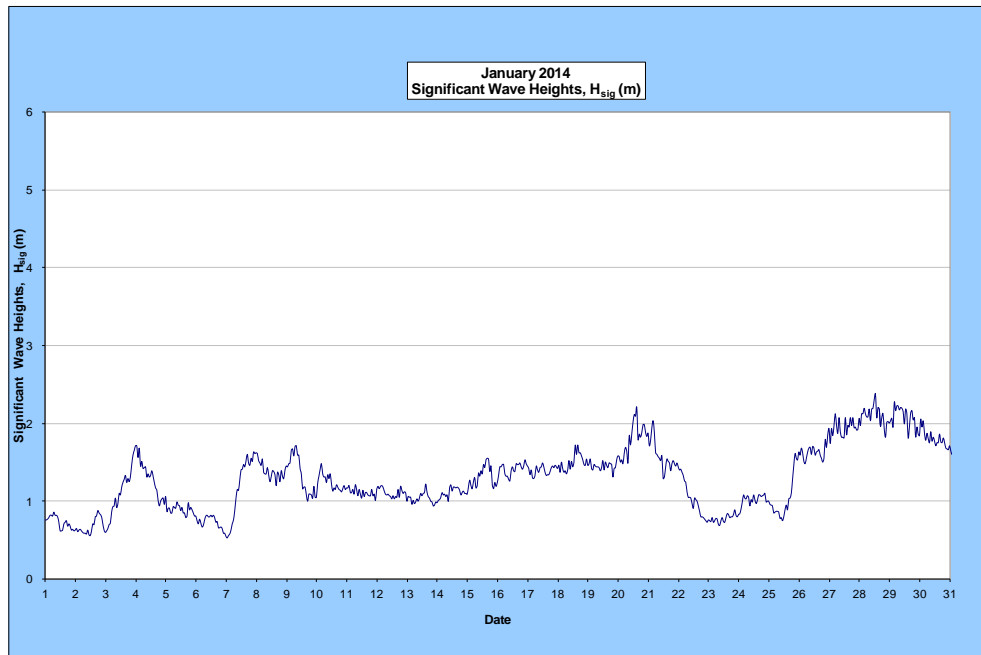
5. WAVE CONDITIONS

Wave Conditions over the month: Significant wave heights were calm to moderate throughout the month with two moderate events (occurring on the 20th and 27th to 29th) with peak significant wave heights to 2.4 m. Wave direction ranged from NE to ESE but dominantly from the E to ENE.

- Major sea events: 20th and 27th to 29th of January
- Monthly minimum significant wave height: 0.5 m on 7th January.
- Monthly peak significant wave height: 2.4 m on 28th January.
- Number of days on which waves were below 1.0 m: 12 days
- Number of days on which waves were above 2.0 m: 4 days

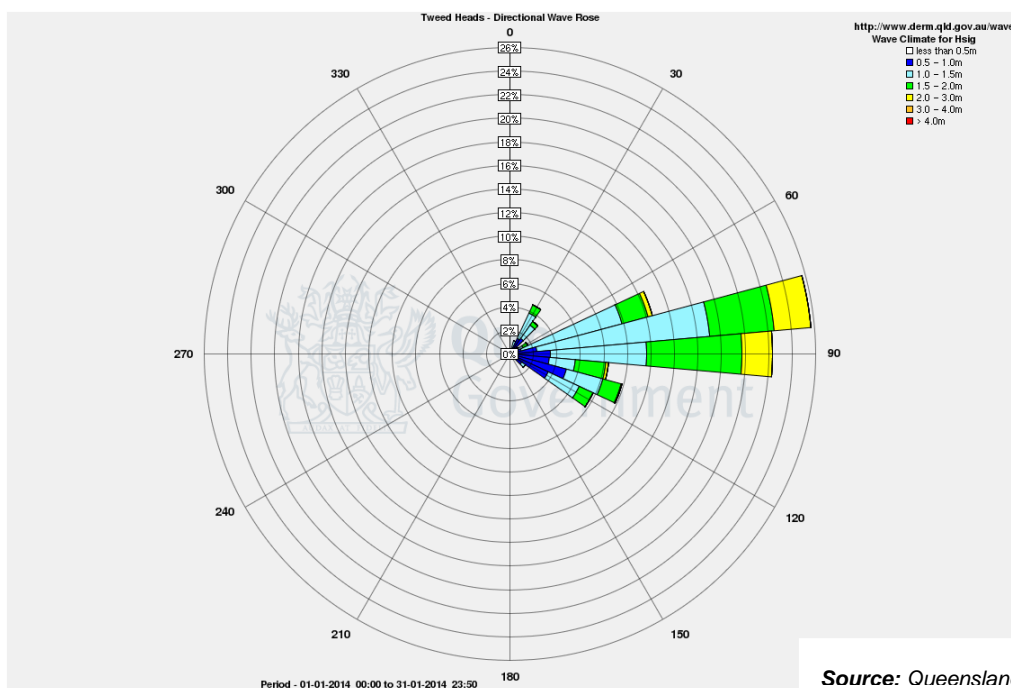
Note: Significant wave heights or H_{sig} is the average of the highest one third of recorded waves.

(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

END