TRESBP ENVIRONMENTAL MONITORING SUMMARY JANUARY 2013

OVERVIEW

In January, 2013:

- 40,117 m³ of sand was pumped to Snapper Rocks East.
- There were no media articles which related to the project.
- Sea conditions were calm to average for most of the month with an extreme sea event (occurring from 28th to 30th) with peak significant wave heights reaching 6.6 m. Wave directions varied mostly from NE to ESE.
- 1,528 vessel crossings were recorded for the month (this is about 20% less than the January average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 49,000 m³ (this is slightly greater than the January average).

1. SAND PUMPING & DREDGING

Sand Delivery January 2013

Pumped: $40,117 \text{ m}^3$ Dredged: 0 m^3 Total: $40,117 \text{ m}^3$

Sand Delivery January to December 2012

Pumped: $436,092 \text{ m}^3$ Dredged: 0 m^3 Total: $436,092 \text{ m}^3$

Stage II Sand Delivery May 2000 to January 2013

Pumped: 6,805,116 m³
Dredged: 2,039,904 m³
Total: 8,845,020 m³





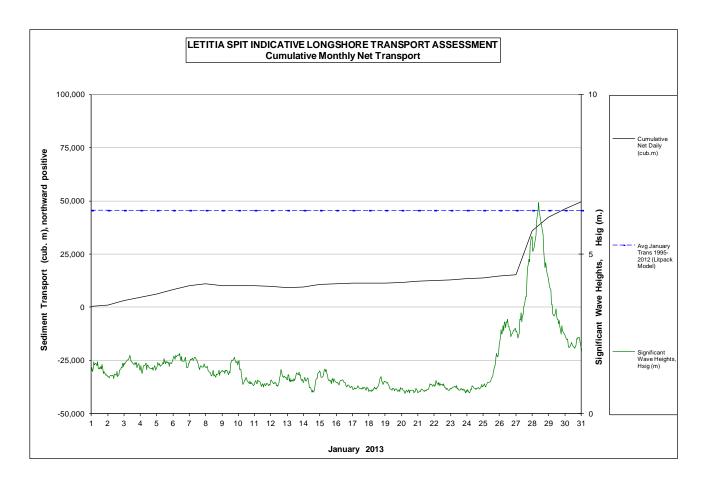


2. INDICATIVE LONGSHORE TRANSPORT

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

In January 2013 the estimated natural sand transport (moving North towards the Tweed River entrance): was calculated to be in the order of 49,000 m³.

This result is slightly greater than 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.

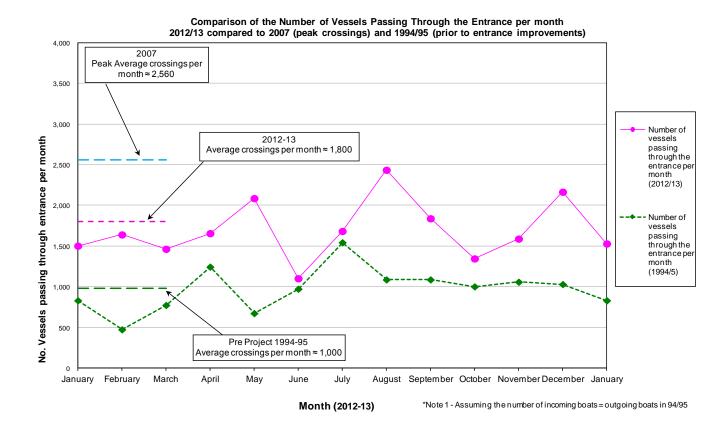
4. TWEED RIVER ENTRANCE CONDITIONS

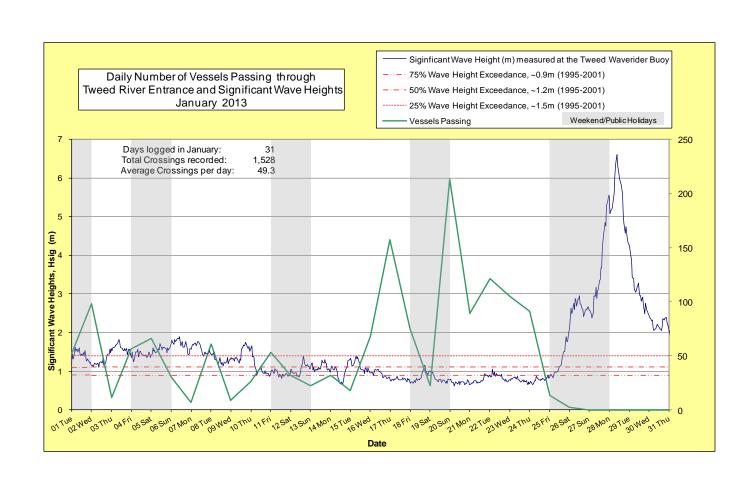
MARINE RESCUE NSW - MONITORING RESULTS

Weekends and public holidays

	Navigation Rating ImpassableGood					
Date	Impassable (1)	Difficulty Encountered (2)	Some Difficulty Encountered (3)	Relatively Good Crossing (4)	Good Conditions (5)	Number of Boats
1 st						51
2 nd						98
3 rd						11
4 th						56
5 th						66
6 th						30
7 th						7
8 th						61
9 th						9
10 th						26
11 th						53
12 th						32
13 th						22
14 th						32
15 th						18
16 th						68
17 th						157
18 th						75
19 th						22
20 th						213
21 st						89
22 nd						121
23 rd						105
24 th						91
25 th						13
26 th						2
27 th						0
28 th						0
29 th						0
30 th						0
31 st						0
					Total	1,528

Source: Marine Rescue NSW, Point Danger





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5. WAVE CONDITIONS

Wave Conditions over the month:

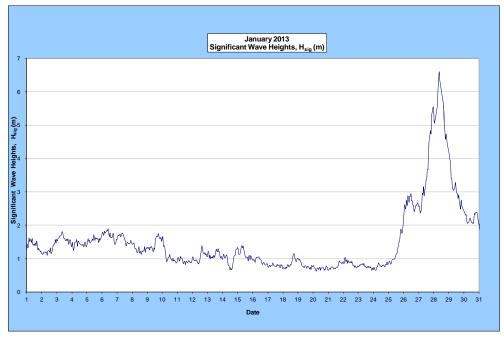
Significant wave heights were calm to average for most of the month with an extreme sea event (occurring on the 27th to 30th) with peak significant wave heights to 6.6 m. Wave direction ranged from NE to ESE but dominantly from the E.

Major sea events: 27th to 30th of January

Monthly minimum significant wave height: 0.6 m on 20th January. Monthly peak significant wave height: 6.6 m on 28th January. Number of days on which waves were below 1.0 m: 13 days Number of days on which waves were above 2.0 m: 5 days

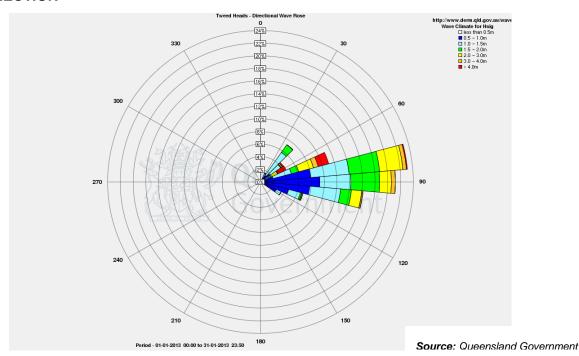
Note: Significant wave heights or H_{sig} is the average of the highest one third of recorded waves.

(Source: Tweed & Brisbane Wave Buoy; Queensland Government)



A link to data recorded by the Tweed Waverider Buoy is available at: http://www.ehp.qld.gov.au/coastal/monitoring/waves/index.php

WAVE DIRECTION



END