TRESBP ENVIRONMENTAL MONITORING SUMMARY APRIL 2013

OVERVIEW

In April, 2013:

- 19,406 m³ of sand was pumped to Snapper Rocks East.
- There were no media articles relating to the project.
- Sea conditions were generally calm to average throughout the month. There was a short moderate sea event on the 5th with peak significant wave heights to 2 m and a high sea event (occurring from the 13th to 16th) having peak significant wave heights to 3 m. Wave direction ranged from ENE to ESE but were dominantly from E.
- 2,425 vessel crossings were recorded for the month (this is about 28% greater than the April average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 57,000 m³ (this is about equal to the April average of about 58,000 m³).

1. SAND PUMPING & DREDGING

Sand Delivery April 2013

Pumped: $19,406 \text{ m}^3$ Dredged: 0 m^3 Total: $19,406 \text{ m}^3$

Sand Delivery January to April 2013 (YTD)

Pumped: $108,086 \text{ m}^3$ Dredged: 0 m^3 Total: $108,086 \text{ m}^3$

Sand Delivery January to April 2012

Pumped: $137,847 \text{ m}^3$ Dredged: 0 m^3 Total: $137,847 \text{ m}^3$

Stage II Sand Delivery May 2000 to April 2013

Pumped: 6,873,085 m³
Dredged: 2,039,104 m³
Total: 8,912,189 m³





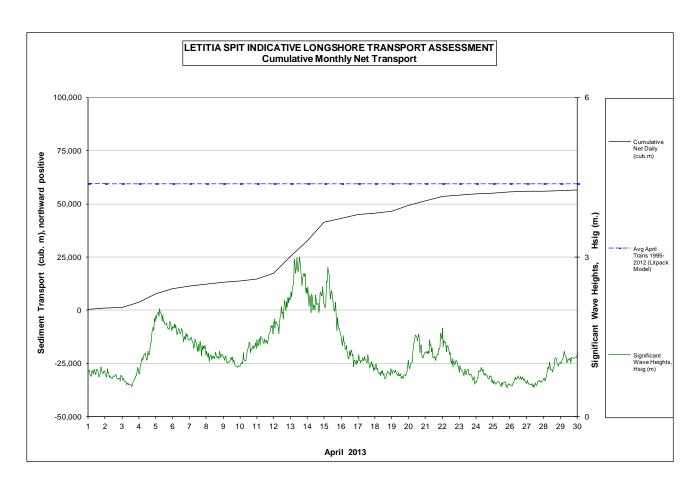


2. INDICATIVE LONGSHORE TRANSPORT

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

In April 2013 the estimated natural sand transport (moving North towards the Tweed River entrance): was calculated to be in the order of 57,000 m³.

This result is about equal to the average estimated sand transport quantity of approximately 58,000 m³ for the month of April.



3. MEDIA COVERAGE

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

4. TWEED RIVER ENTRANCE CONDITIONS

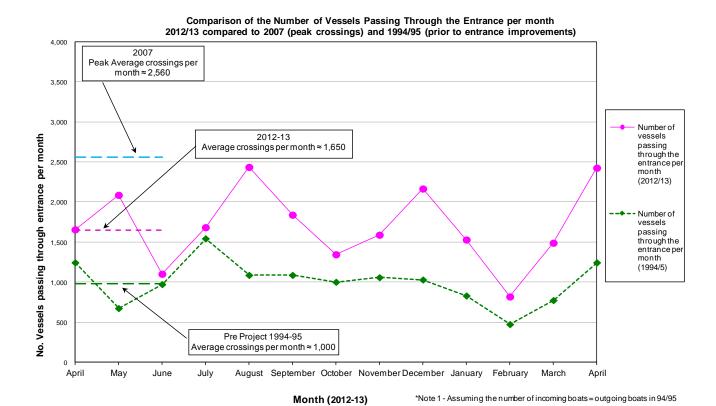
MARINE RESCUE NSW - MONITORING RESULTS

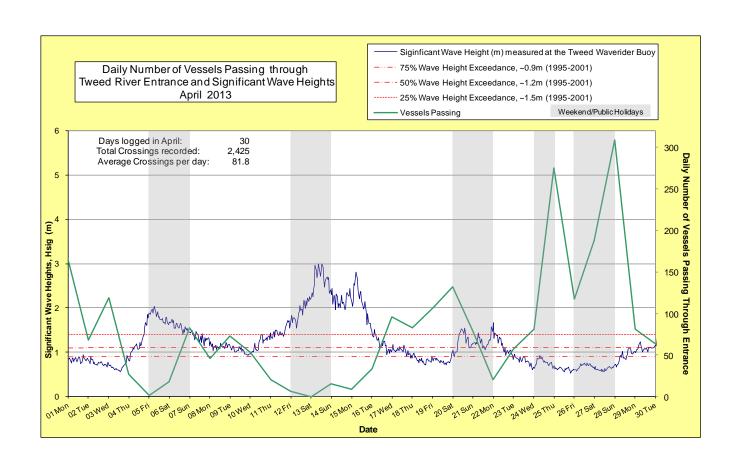
Weekends and public holidays

	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						166
2 nd						68
3 rd						119
4 th						27
5 th						1
6 th						18
7 th						83
8 th						46
9 th						73
10 th						53
11 th						20
12 th						6
13 th						0
14 th						15
15 th						9
16 th						33
17 th						96
18 th						83
19 th						107
20 th						132
21 st						78
22 nd						20
23 rd						57
24 th						81
25 th						275
26 th						117
27 th						188
28 th						309
29 th						81
30 th						64
	-				Total	2,425

Source: Marine Rescue NSW, Point Danger

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5. WAVE CONDITIONS

Wave Conditions over the month:

Significant wave heights were average for the second half of the month. One high sea event was recorded (occurring from the 13th to 16th) with peak significant wave heights to 3 m. Wave direction ranged from ENE to ESE but was dominantly from E.

Major sea events: 13th to 16th of April.

Monthly minimum significant wave height: 0.53 m on 25th April.

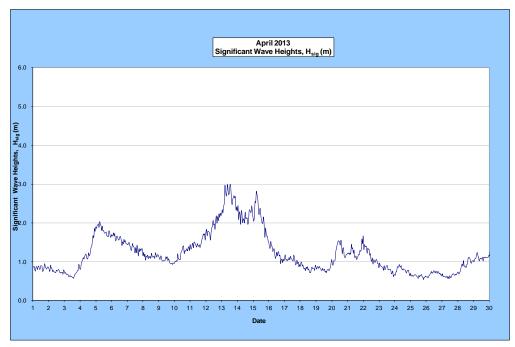
Monthly peak significant wave height: 3 m on 13th April.

Number of days on which waves were below 1.0 m: 13 days

Number of days on which waves were above 2.0 m: 4 days

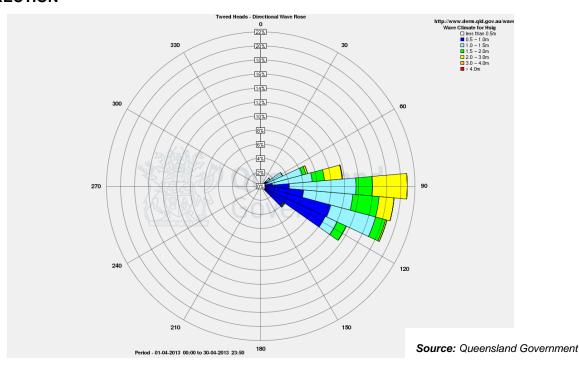
Note: Significant wave heights or H_{siq} is the average of the highest one third of recorded waves.

(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