TRESBP ENVIRONMENTAL MONITORING SUMMARY OCTOBER 2012

OVERVIEW

In October, 2012:

- 7,893 m³ of sand was pumped to Duranbah Beach and 35,461 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 one minor moderate sea event (occurring on the 23rd to 25th) with peak significant wave heights reaching 2.5 m. Wave directions varied mostly from E to ESE.
- 1,344 vessel crossings were recorded for the month (this is about 22% 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 44,000 m³ (this is about 160% greater than the October average).

1. SAND PUMPING & DREDGING

Sand Delivery October 2012

Pumped: $43,354 \text{ m}^3$ Dredged: 0 m^3 Total: $43,354 \text{ m}^3$

Sand Delivery January to October 2012 (YTD)

Pumped: $377,609 \text{ m}^3$ Dredged: 0 m^3 Total: $377,609 \text{ m}^3$

Sand Delivery January to October 2011

Pumped: $468,641 \text{ m}^3$ Dredged: 0 m^3 Total: $468,641 \text{ m}^3$

Stage II Sand Delivery May 2000 to October 2012

Pumped: 6,706,516 m³
Dredged: 2,039,904 m³
Total: 8,745,620 m³





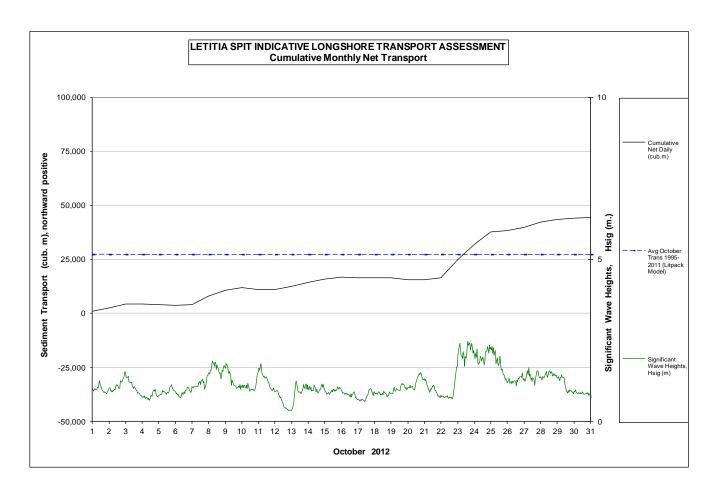


2. INDICATIVE LONGSHORE TRANSPORT

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

In October 2012 the estimated natural sand transport (moving North towards the Tweed River entrance): was calculated to be in the order of 44,000 m³.

This result is about 160% greater than the average estimated sand transport quantity of approximately 27,000 m³ for the month of October.



3. MEDIA COVERAGE

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

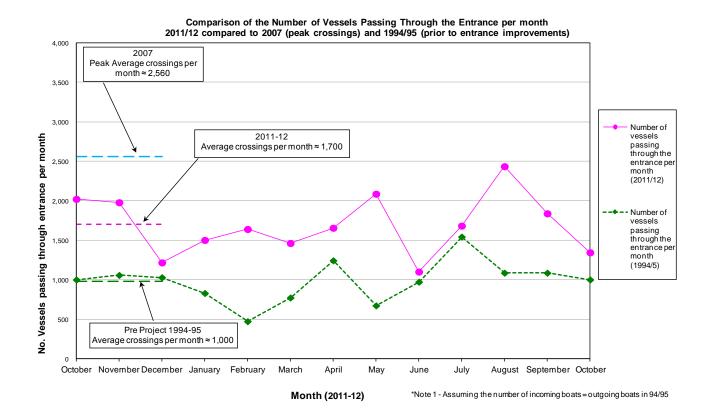
4. TWEED RIVER ENTRANCE CONDITIONS

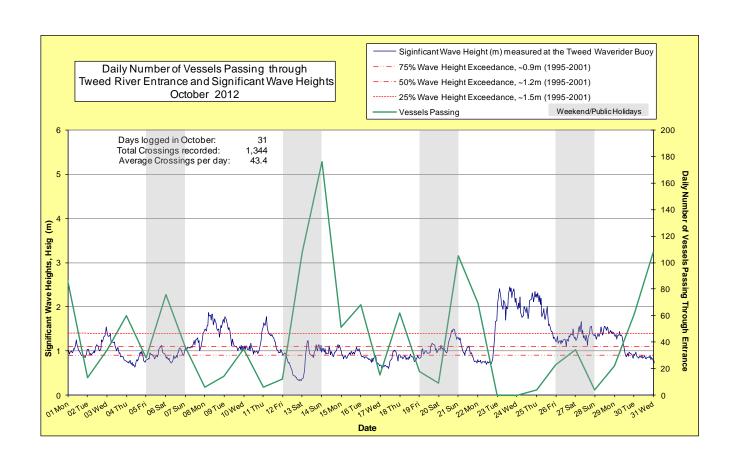
MARINE RESCUE NSW - MONITORING RESULTS

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						86
2 nd						13
3 rd						34
4 th						60
5 th						28
6 th						76
7 th						37
8 th						6
9 th						14
10 th						35
11 th						6
12 th						12
13 th						108
14 th						176
15 th						51
16 th						68
17 th						15
18 th						62
19 th						18
20 th						9
21 st						105
22 nd						69
23 rd						0
24 th						0
25 th						4
26 th						23
27 th						34
28 th						4
29 th						22
30 th						61
						108
					Total	1,344

Source: Marine Rescue NSW, Point Danger





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5. WAVE CONDITIONS

<u>Dominant swell condition</u>: Significant wave heights were calm to average for most of the month with a minor moderate sea event (occurring on the 23rd to 25th) with peak significant wave heights

moderate sea event (occurring on the 23rd to 25th) with peak significant wave heights to 2.5 m. Swell direction ranged from NE to ESE but dominantly from the E to ESE.

Major sea events: 23rd to 25th of October

Monthly minimum significant wave height: 0.3 m on 12th October.

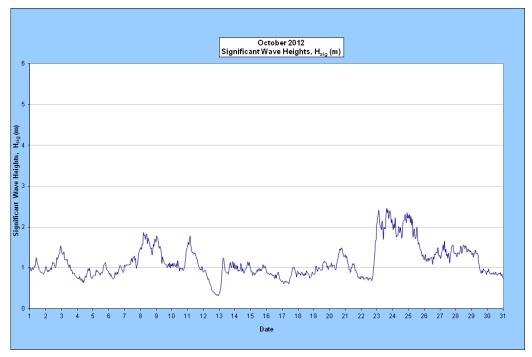
Monthly peak significant wave height: 2.5 m on 23rd October.

Number of days on which waves were below 1.0 m: 16 days

Number of days on which waves were above 2.0 m: 3 days

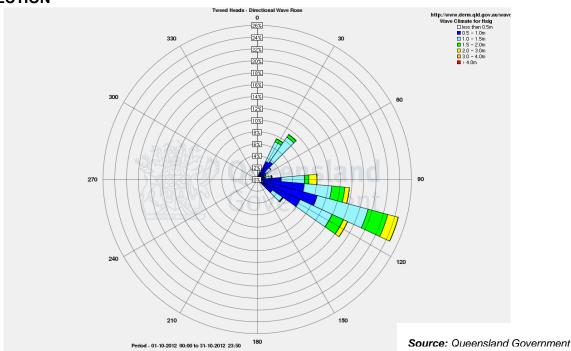
Note: Significant wave heights or H_{siq} is the average of the highest one third of recorded waves.

(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