

TRESBP ENVIRONMENTAL MONITORING SUMMARY

JANUARY 2016

OVERVIEW

In January 2016:

- 64,363 m³ of sand was pumped to Snapper Rocks East.
- There were two media articles relating to the Project area during January.
- Wave heights ranged mostly from calm to moderate (0.5 to 2.2 m) with a maximum significant wave height of 2.2 m on 8th January. Moderate sea events were seen on the 8th and 16th. Wave directions varied from NNE to SE by E but mostly from E by S.
- 1,598 vessel crossings were recorded for the month. (This is 15% less than January average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 70,000 m³ (this is about 160% of the January average of about 44,000 m³).

1. SAND PUMPING & DREDGING

Sand Delivery January 2016

Pumped:	64,363 m ³
Dredged:	0 m ³
Total:	64,363 m ³

The number of days sand was pumped this month = 27

Sand Delivery January 2015 to December 2015

Pumped:	552,682 m ³
Dredged:	0 m ³
Total:	552,682 m ³

Stage II Sand Delivery April 2000 to January 2016

Pumped:	8,167,428 m ³
Dredged:	2,061,972 m ³ *
Total:	10,229,400 m ³ *

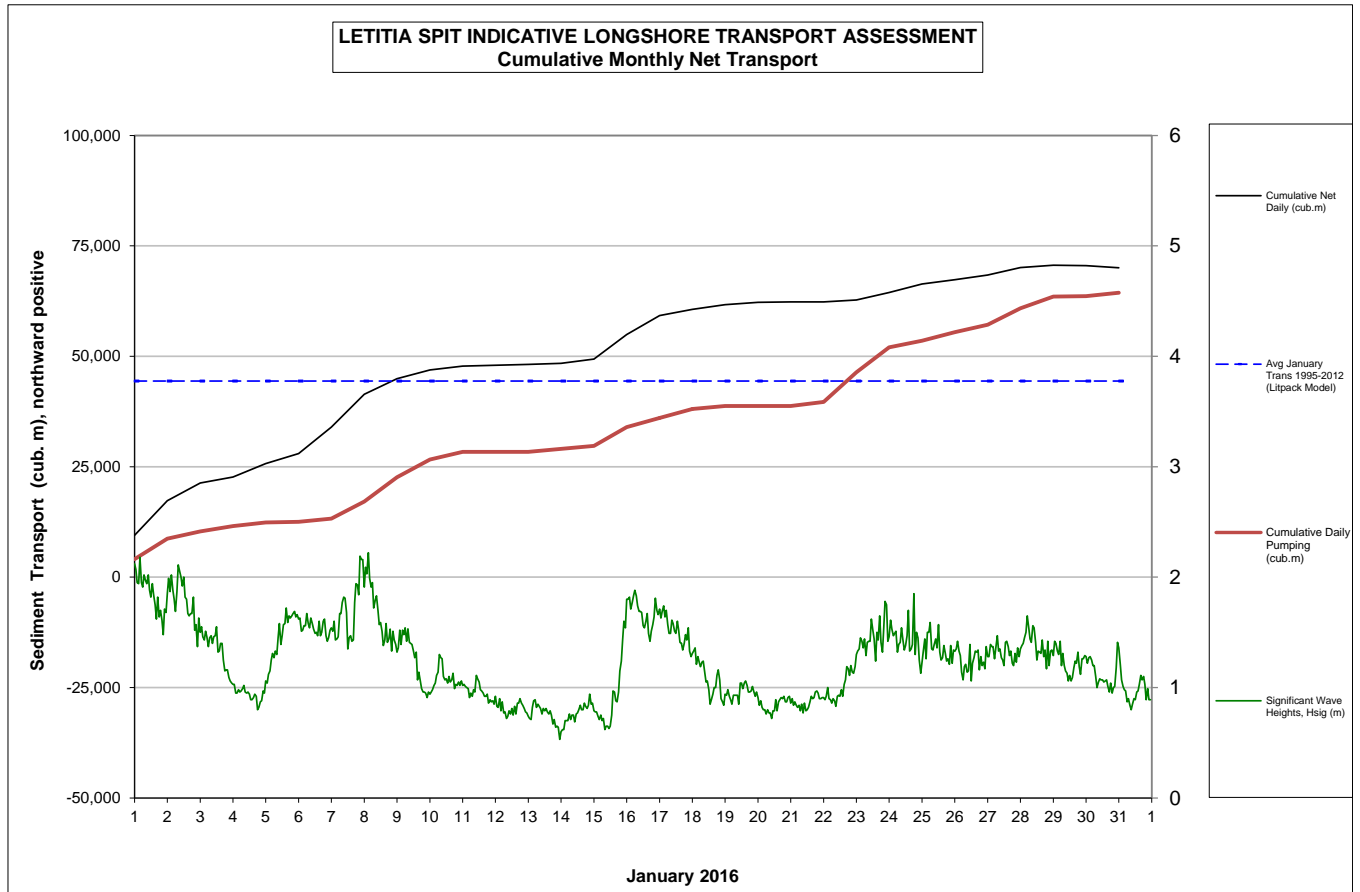
* This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In January 2016 the estimated natural sand transport moving North towards the Tweed River entrance was calculated to be in the order of 70,000 m³.

This result is about 160% of the average estimated sand transport quantity of approximately 44,000 m³ for the month of January.



3. MEDIA COVERAGE

Swellnet published two media articles reporting the Tweed River Entrance Sand Bypassing Project influences on the Superbank.

4. TWEED RIVER ENTRANCE CONDITIONS

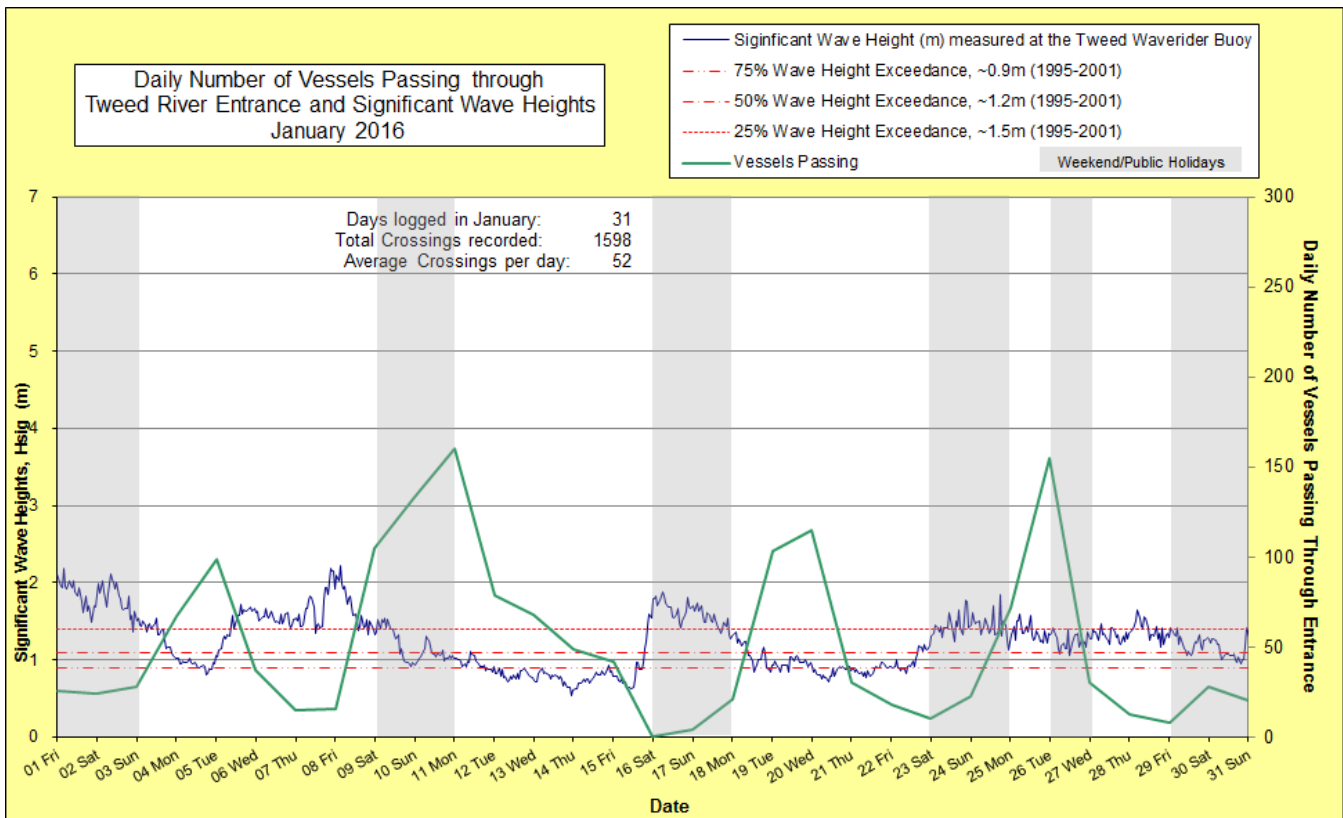
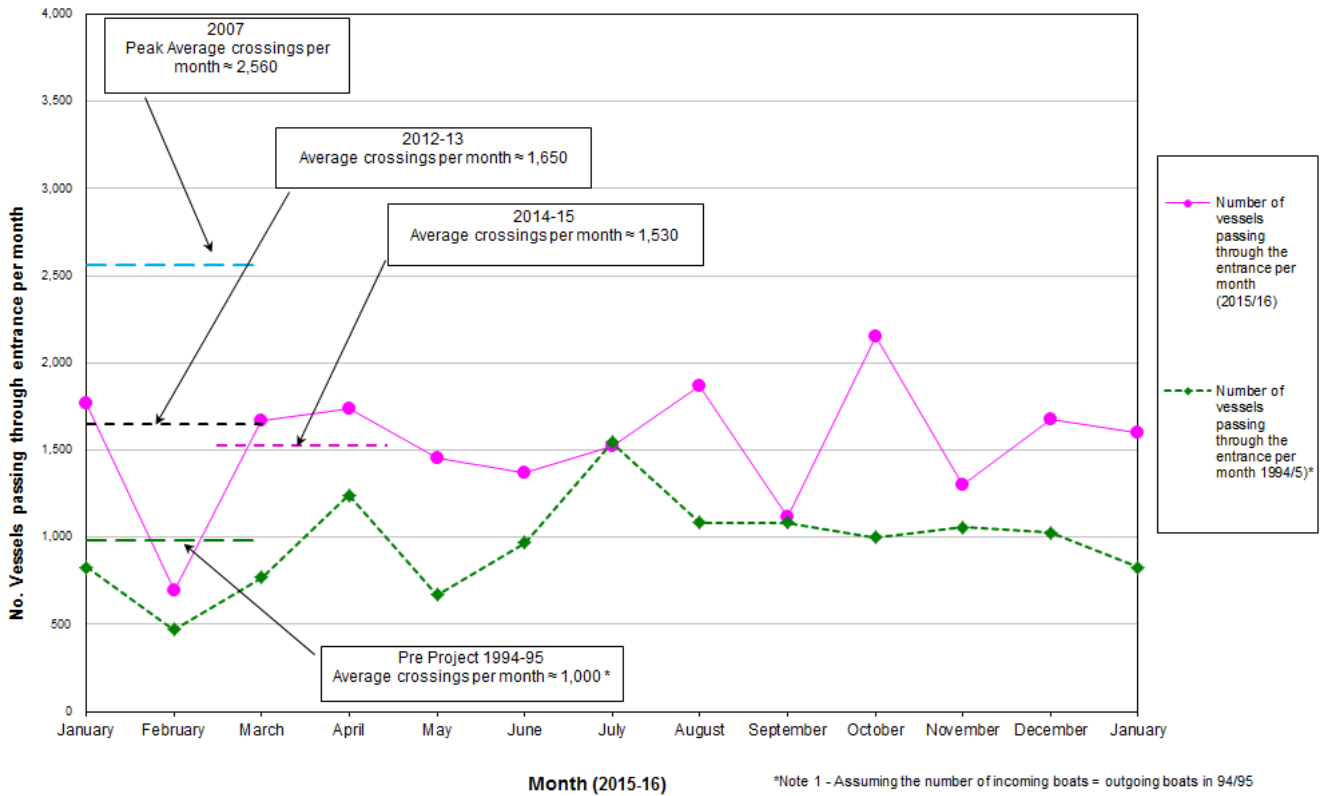
MARINE RESCUE NSW - MONITORING RESULTS

☐ 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						26
2 nd						24
3 rd						28
4 th						67
5 th						99
6 th						37
7 th						15
8 th						16
9 th						105
10 th						133
11 th						160
12 th						79
13 th						68
14 th						49
15 th						42
16 th						0
17 th						4
18 th						21
19 th						103
20 th						115
21 st						30
22 nd						18
23 rd						10
24 th						23
25 th						72
26 th						155
27 th						30
28 th						13
29 th						8
30 th						28
31 st						20
Total						1,598

Source: Marine Rescue NSW, Point Danger

Comparison of the Number of Vessels Passing Through the Entrance per month 2014/15 compared to 2007 (peak crossings) and 1994/95 (prior to entrance improvements)



5. WAVE CONDITIONS

Wave conditions over the month: Wave heights ranged mostly from calm to moderate (0.5 to 2.2 m) with a maximum significant wave height of 2.2 m on 8th January. Moderate sea events were seen on the 8th and 16th. Wave directions varied from NNE to SE by E but mostly from E by S.

Monthly minimum significant wave height: 0.5 m on 13th January

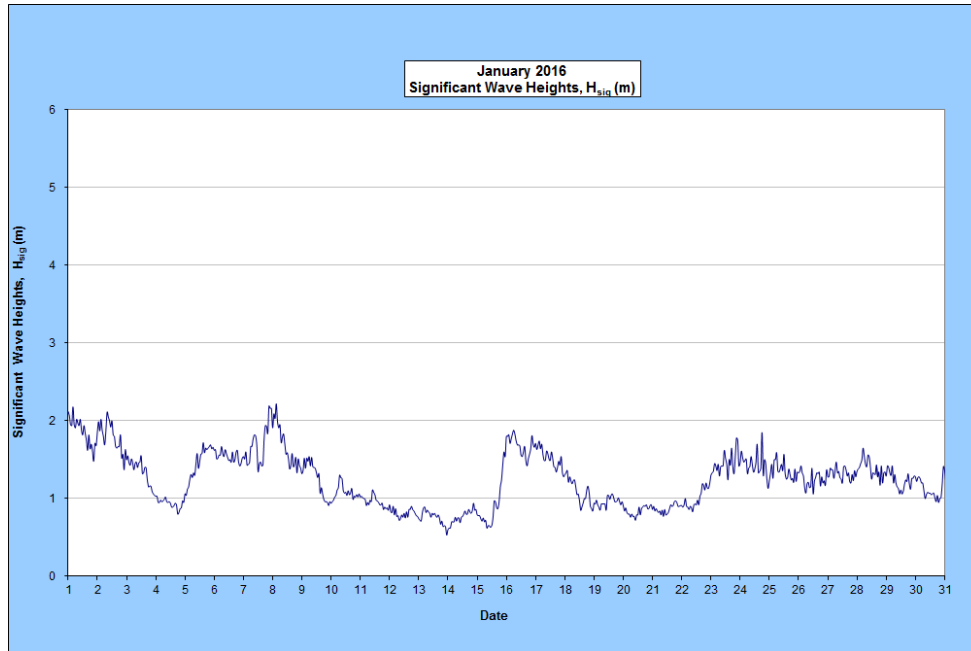
Monthly maximum significant wave height: 2.2 m on 8th January

Number of days on which waves were below 1.0 m at some point in the day: 13 days

Number of days on which waves were above 2.0 m at some point in the day: 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

