

TRESBP ENVIRONMENTAL MONITORING SUMMARY

JULY 2015

OVERVIEW

In July 2015:

- 65,512 m³ of sand was pumped to Snapper Rocks East and 4,525 m³ of sand pumped to Duranbah.
- There were two media articles relating to the project area during July.
- Wave heights ranged mostly from calm to average (0.5 to 1.5 m) with a maximum significant wave height of 1.8m on 18th July. Wave directions varied from ENE to ESE but mostly from ESE.
- 1524 vessel crossings were recorded for the month. (this is about 20% less than the July 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 90% of the July average).

1. SAND PUMPING & DREDGING

Sand Delivery July 2015

Pumped:	70,037 m ³
Dredged:	0 m ³
Total:	70,037 m ³

The number of days sand was pumped this month = 30

Sand Delivery January to July 2015

Pumped:	326,973 m ³
Dredged:	0 m ³
Total:	326,973 m ³

Stage II Sand Delivery April 2000 to July 2015

Pumped:	7,877,356 m ³
Dredged:	2,061,972 m ³ *
Total:	9,939,328 m ³ *

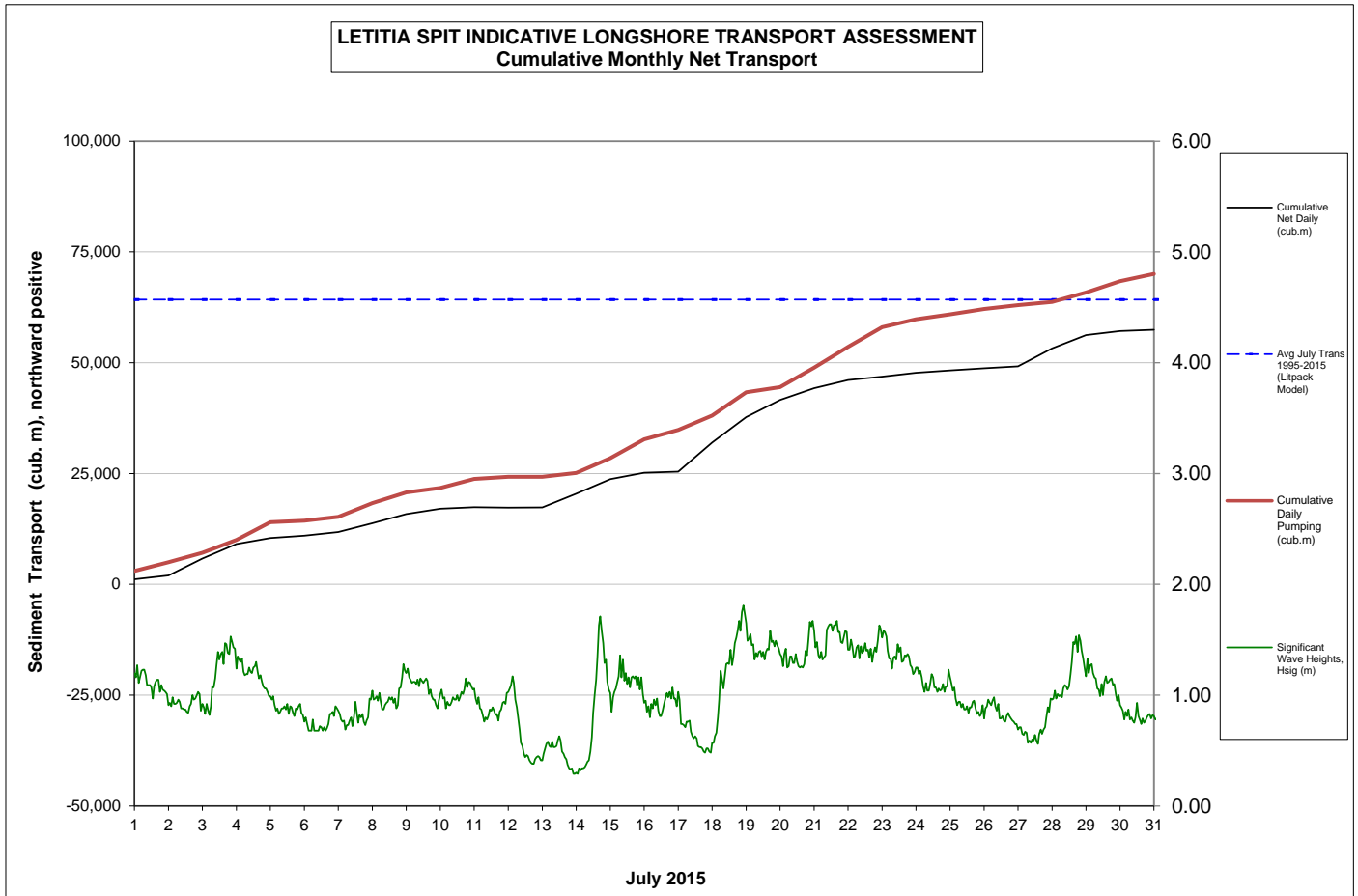
* This Includes 22,870 m³ of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In July 2015 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 90% of the average estimated sand transport quantity of approximately 64,000 m³ for the month of July.



3. MEDIA COVERAGE

Surfrider Foundation Australia published a media article on the 8th reporting that Surfrider Foundation brought together key Gold Coast stake holders to discuss Gold Coast’s Ocean Beach Strategy 2013-2030.

Marsden Jacob Associates published a media article on the 20th reporting that Marsden Jacob Associates has been engaged to do a cost benefit analysis of sand management options for the Tweed River.

4. TWEED RIVER ENTRANCE CONDITIONS

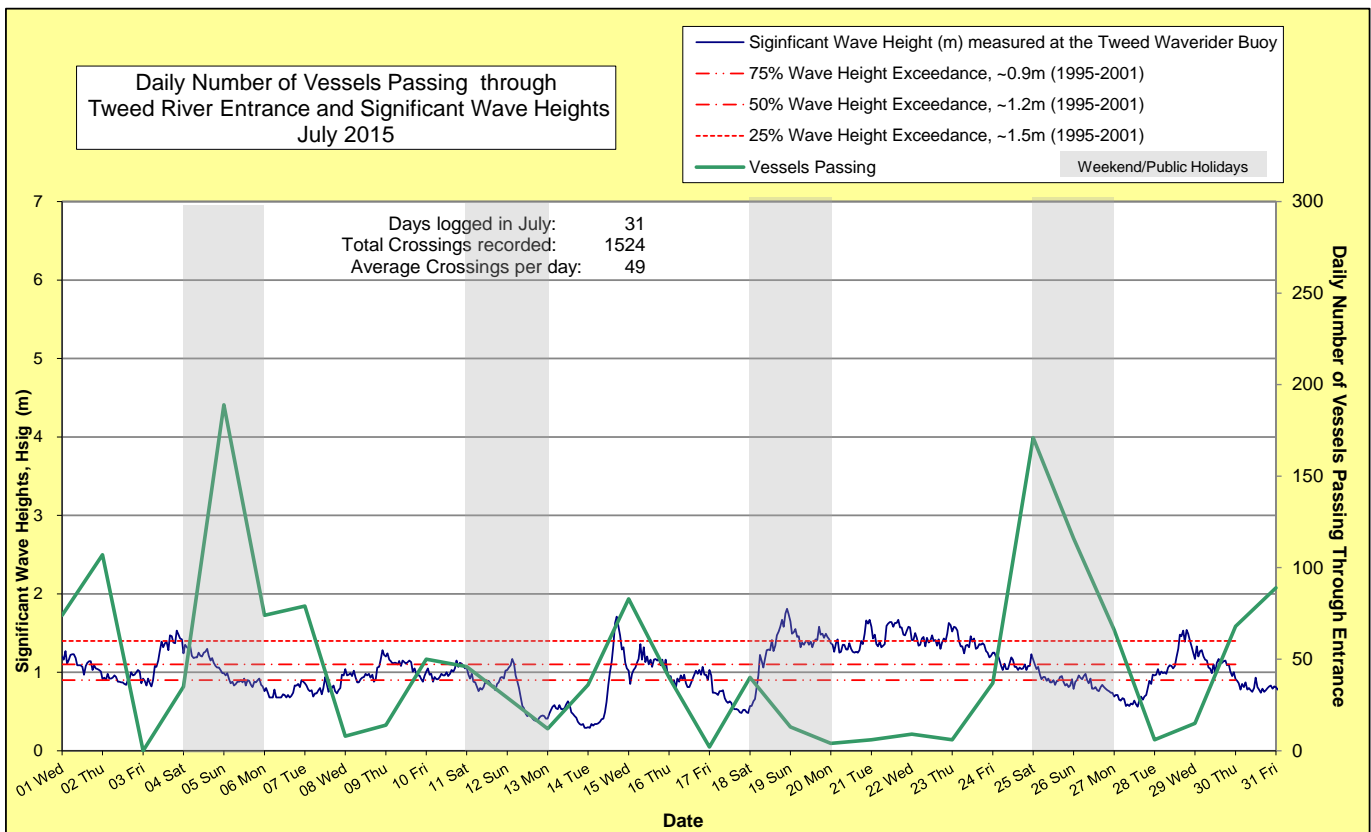
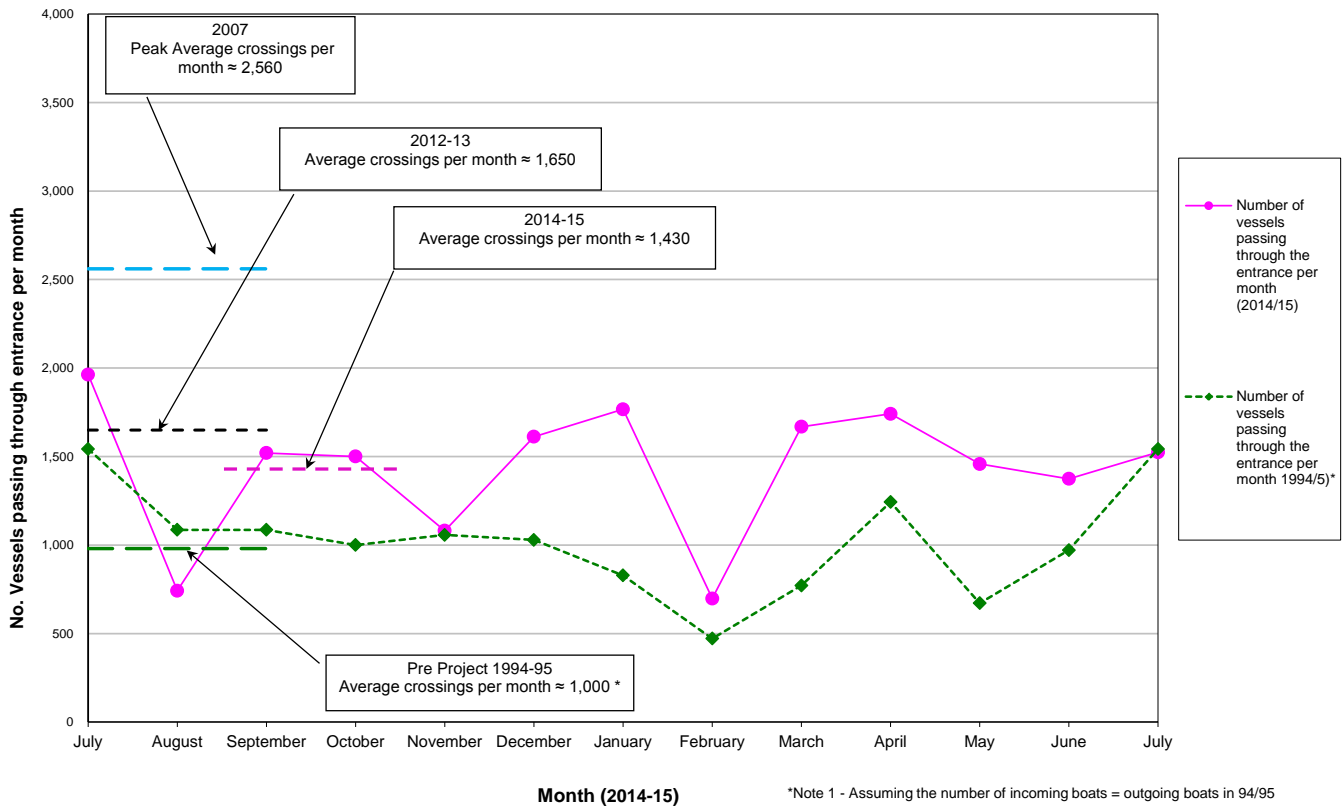
MARINE RESCUE NSW - MONITORING RESULTS

 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						74	
2 nd						107	
3 rd						0	
4 th						35	
5 th						189	
6 th						74	
7 th						79	
8 th						8	
9 th						14	
10 th						50	
11 th						46	
12 th						29	
13 th						12	
14 th						36	
15 th						83	
16 th						40	
17 th						2	
18 th						40	
19 th						13	
20 th						4	
21 st						6	
22 nd						9	
23 rd						6	
24 th						37	
25 th						171	
26 th						116	
27 th						66	
28 th						6	
29 th						15	
30 th						68	
31 st						89	
						Total	1524

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 average (0.5 to 1.5 m) with a maximum significant wave height of 1.8m on 18th July. Wave directions varied from ENE to ESE but mostly from ESE.

Monthly minimum significant wave height: 0.3 m on 13th July.

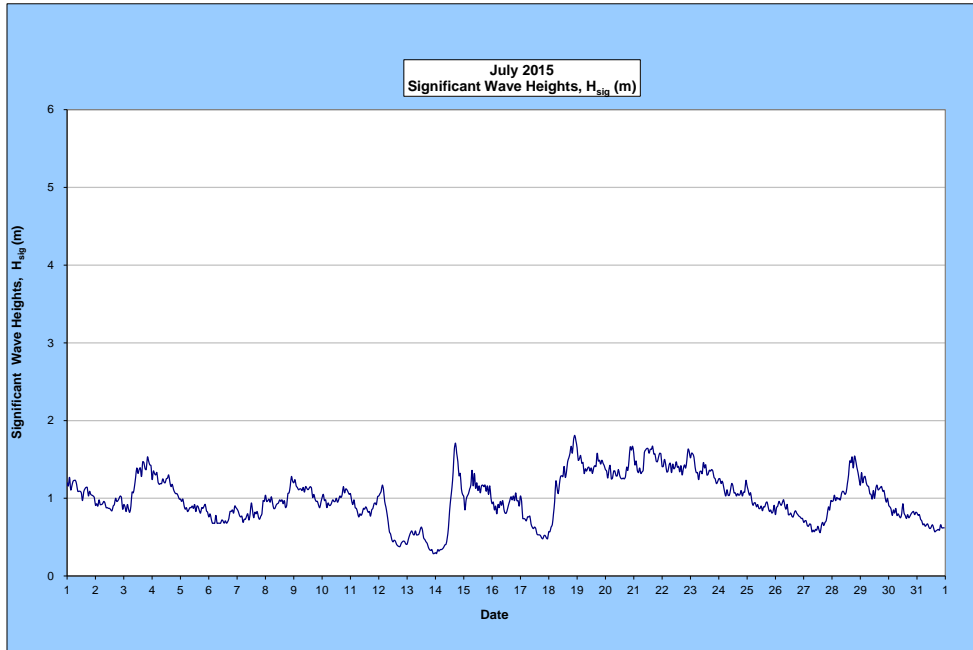
Monthly maximum significant wave height: 1.8 m on 18th July.

Number of days on which waves were below 1.0 m: 24 days

Number of days on which waves were above 2.0 m: None

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

