

# TRESBP ENVIRONMENTAL MONITORING SUMMARY

## SEPTEMBER 2015

### OVERVIEW

In September 2015:

- 56,139 m<sup>3</sup> of sand was pumped to Snapper Rocks East.
- There were no media articles relating to the project area during September.
- Wave heights ranged from calm to moderate (0.5 to 1.9 m) but mostly from calm to average (0.5 to 1.5m), with a maximum significant wave height of 1.9 m on 18<sup>th</sup> September. Wave directions varied from NNE to ESE but mostly from East to ESE.
- 1,114 vessel crossings were recorded for the month. (This is less than 30% of the September average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 45,000 m<sup>3</sup> (this is about 160% of the September average).

### 1. SAND PUMPING & DREDGING

#### **Sand Delivery September 2015**

Pumped:	56,139 m <sup>3</sup>
Dredged:	0 m <sup>3</sup>
Total:	56,139 m <sup>3</sup>

The number of days sand was pumped this month = 24

#### **Sand Delivery January to September 2015**

Pumped:	428,258 m <sup>3</sup>
Dredged:	0 m <sup>3</sup>
Total:	428,258 m <sup>3</sup>

#### **Stage II Sand Delivery April 2000 to September 2015**

Pumped:	7,978,641 m <sup>3</sup>
Dredged:	2,061,972 m <sup>3</sup> *
Total:	10,040,613 m <sup>3</sup> *

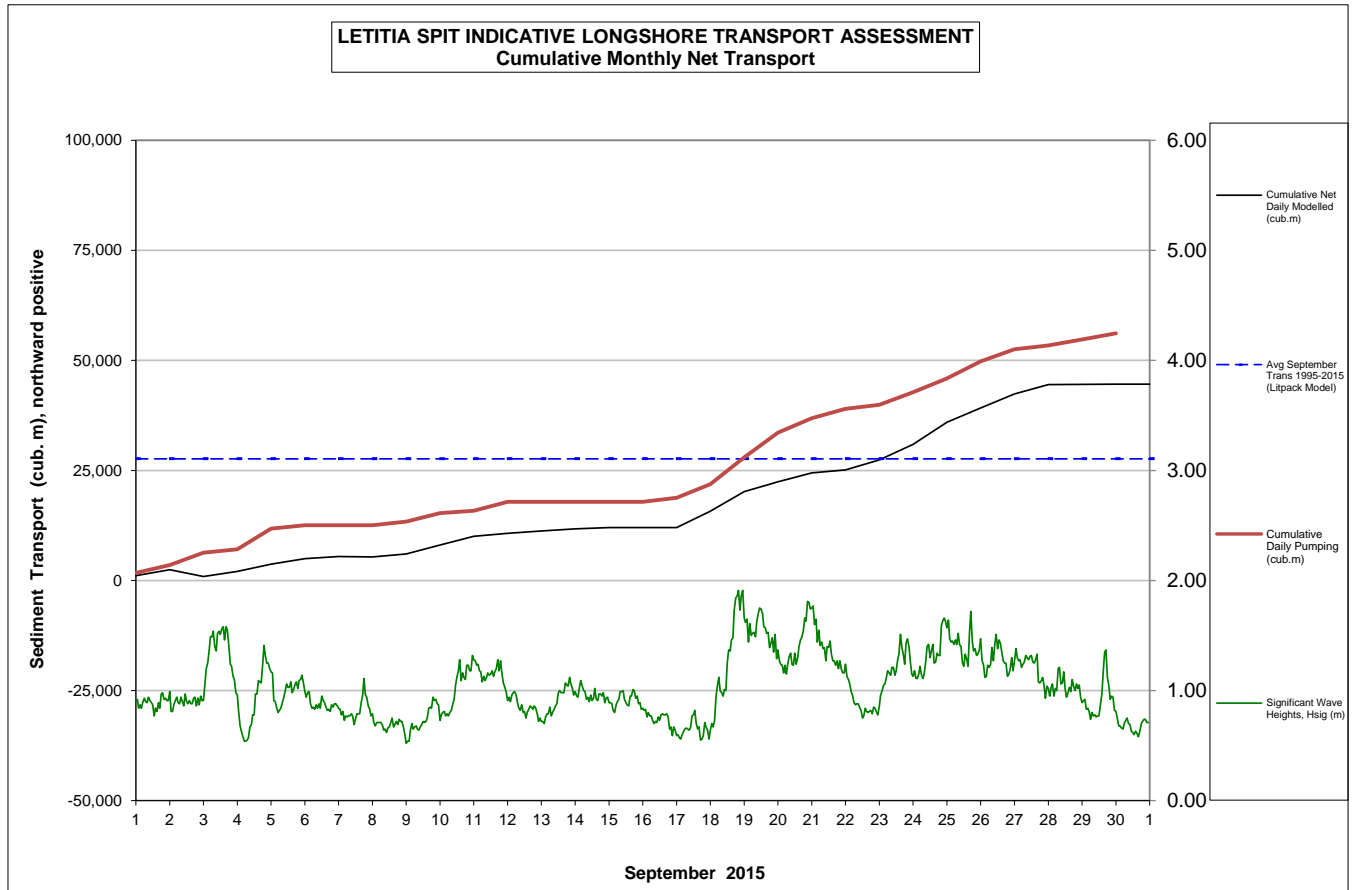
\* This Includes 22,870 m<sup>3</sup> of sand delivered by dredge to Palm Beach between June and September 2005

## 2. INDICATIVE LONGSHORE TRANSPORT

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

In September 2015 the estimated natural sand transport moving North towards the Tweed River entrance was calculated to be in the order of 45,000 m<sup>3</sup>.

This result is about 160% of the average estimated sand transport quantity of approximately 28,000 m<sup>3</sup> for the month of September.



## 3. MEDIA COVERAGE

There were no media articles relating to the project area during September.

**4. TWEED RIVER ENTRANCE CONDITIONS**

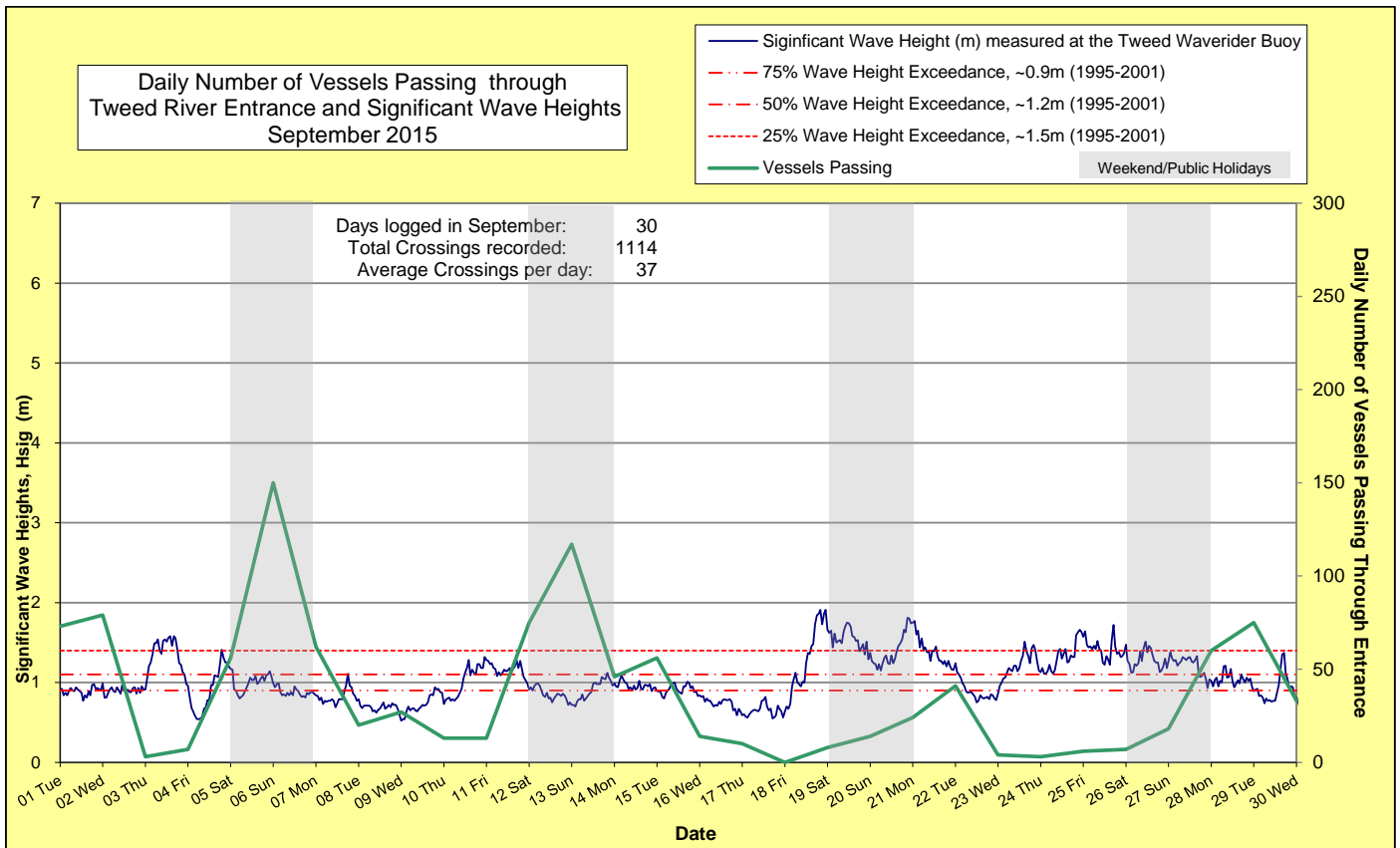
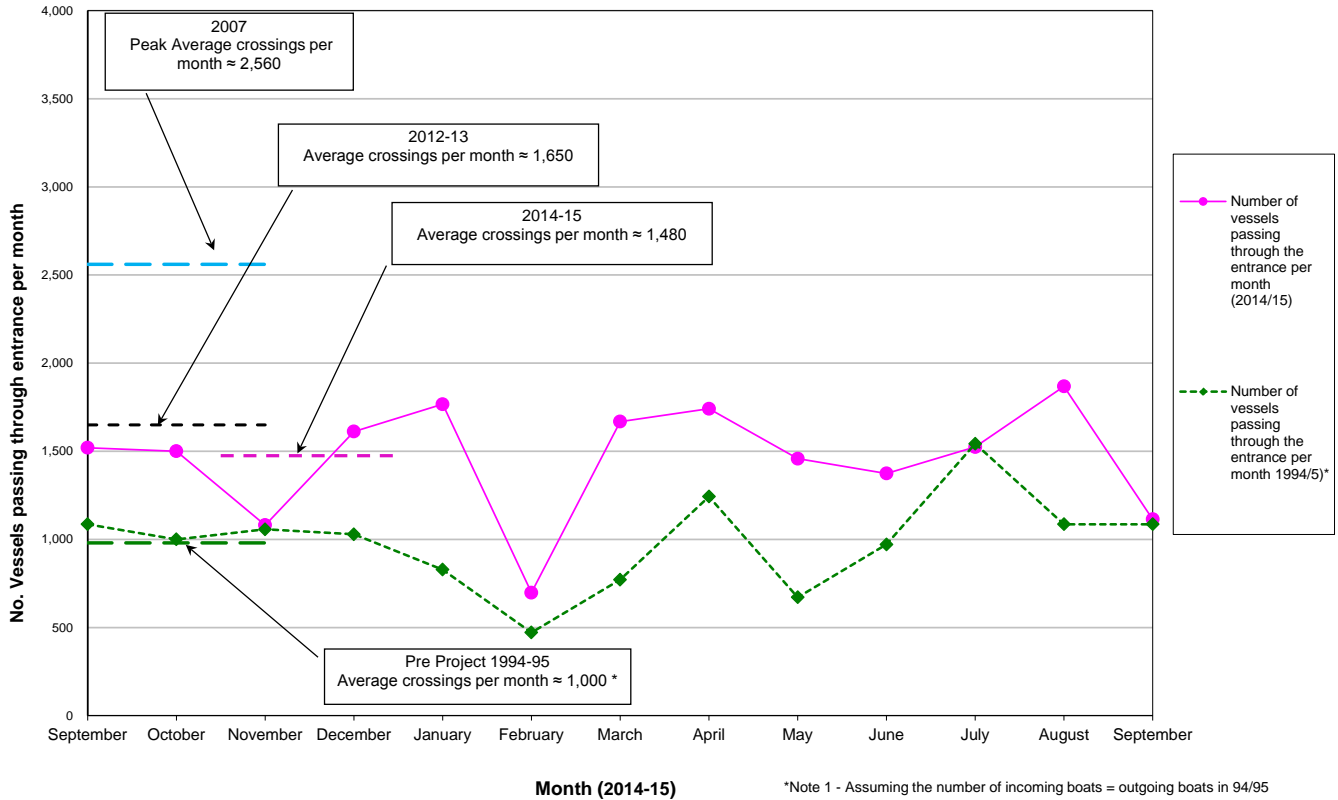
MARINE RESCUE NSW - MONITORING RESULTS

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 <sup>st</sup>						73
2 <sup>nd</sup>						79
3 <sup>rd</sup>						3
4 <sup>th</sup>						7
5 <sup>th</sup>						56
6 <sup>th</sup>						150
7 <sup>th</sup>						62
8 <sup>th</sup>						20
9 <sup>th</sup>						27
10 <sup>th</sup>						13
11 <sup>th</sup>						13
12 <sup>th</sup>						75
13 <sup>th</sup>						117
14 <sup>th</sup>						46
15 <sup>th</sup>						56
16 <sup>th</sup>						14
17 <sup>th</sup>						10
18 <sup>th</sup>						0
19 <sup>th</sup>						8
20 <sup>th</sup>						14
21 <sup>st</sup>						24
22 <sup>nd</sup>						41
23 <sup>rd</sup>						4
24 <sup>th</sup>						3
25 <sup>th</sup>						6
26 <sup>th</sup>						7
27 <sup>th</sup>						18
28 <sup>th</sup>						60
29 <sup>th</sup>						75
30 <sup>th</sup>						33
						<b>Total</b>
						<b>1114</b>

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 from calm to moderate (0.5 to 1.9 m) but mostly from calm to average (0.5 to 1.5m), with a maximum significant wave height of 1.9 m on 18th September. Wave directions varied from NNE to ESE but mostly from East to ESE.

Monthly minimum significant wave height: 0.5 m on 9<sup>th</sup> September

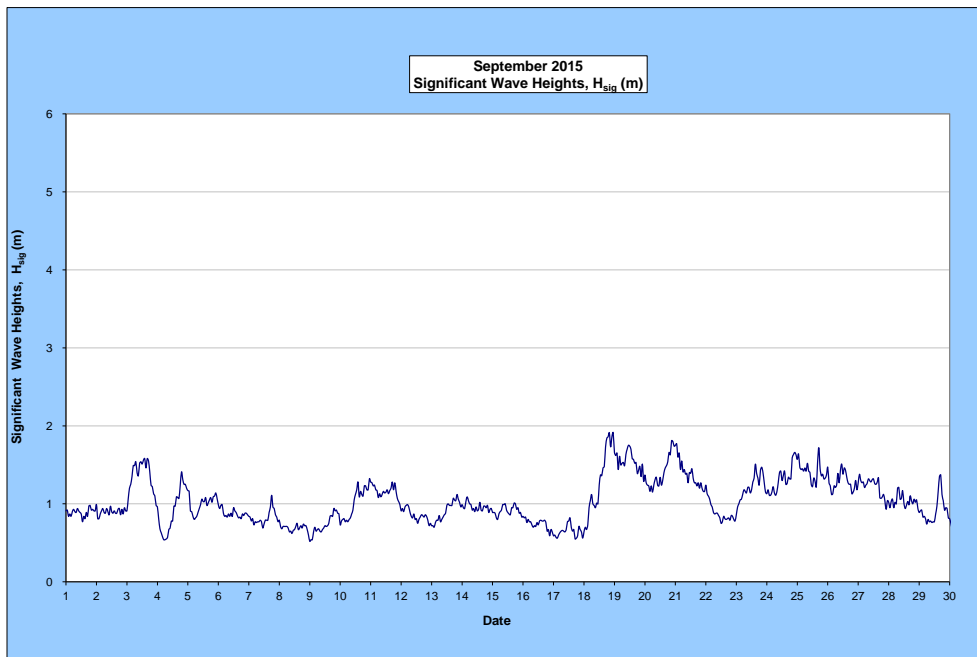
Monthly maximum significant wave height: 1.9 m on 18<sup>th</sup> August.

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

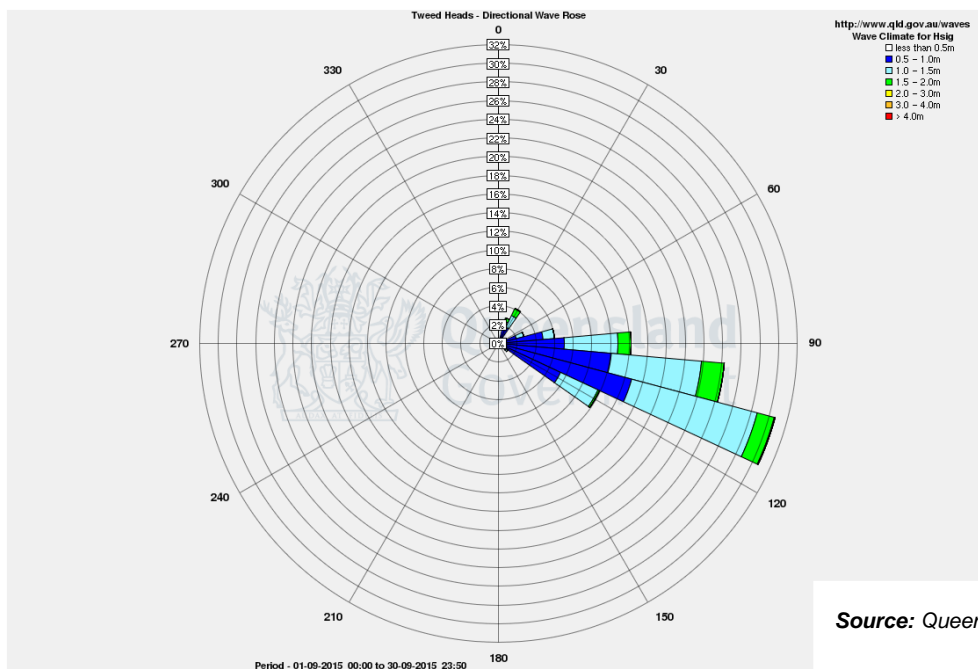
**Note:** Significant wave heights or  $H_{sig}$  is the average of the highest one third of recorded waves.

(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



Source: Queensland Government