TWEEDSAND BYPASSING

OVERVIEW

In December 2017:

- 17,003 m^3 of sand was pumped to Snapper Rocks East.
- 0 m^3 of sand was dredged and placed at Snapper Rocks East.
- 0 m^3 of sand was pumped to Duranbah Beach.
- 0 m^3 of sand was dredged and placed at Duranbah Beach.
- Wave heights ranged mostly from calm to moderate (0.32 m to 1.89 m), with a maximum significant wave height of 1.89 m on 5th December. Wave directions varied from ENE to ESE but mostly from the E.
- 3079 vessel crossings were recorded for the month (This is 145% of the December average (2002 – 2017)).
- The estimated amount of sand moving north towards the Tweed River entrance by natural processes was in the order of 18,235 m^3 (this is 64% of the December average of 28,699 m^3).

1. SAND PUMPING & DREDGING

Sand Delivery December 2017

Pumped:	17,003 m^3
Dredged:	0 m^3
Total:	17,003 m^3

The number of days sand was pumped this month = 16

Sand Delivery January 2017 to December 2017

Pumped:	405,524 m^3
Dredged:	216,604 m^3
Total:	622,128 m^3

Stage II Sand Delivery April 2000 to December 2017

Pumped:	8,928,153 m^3
Dredged:	2,320,514 m^3 *
Total:	11,248,667 m^3 *

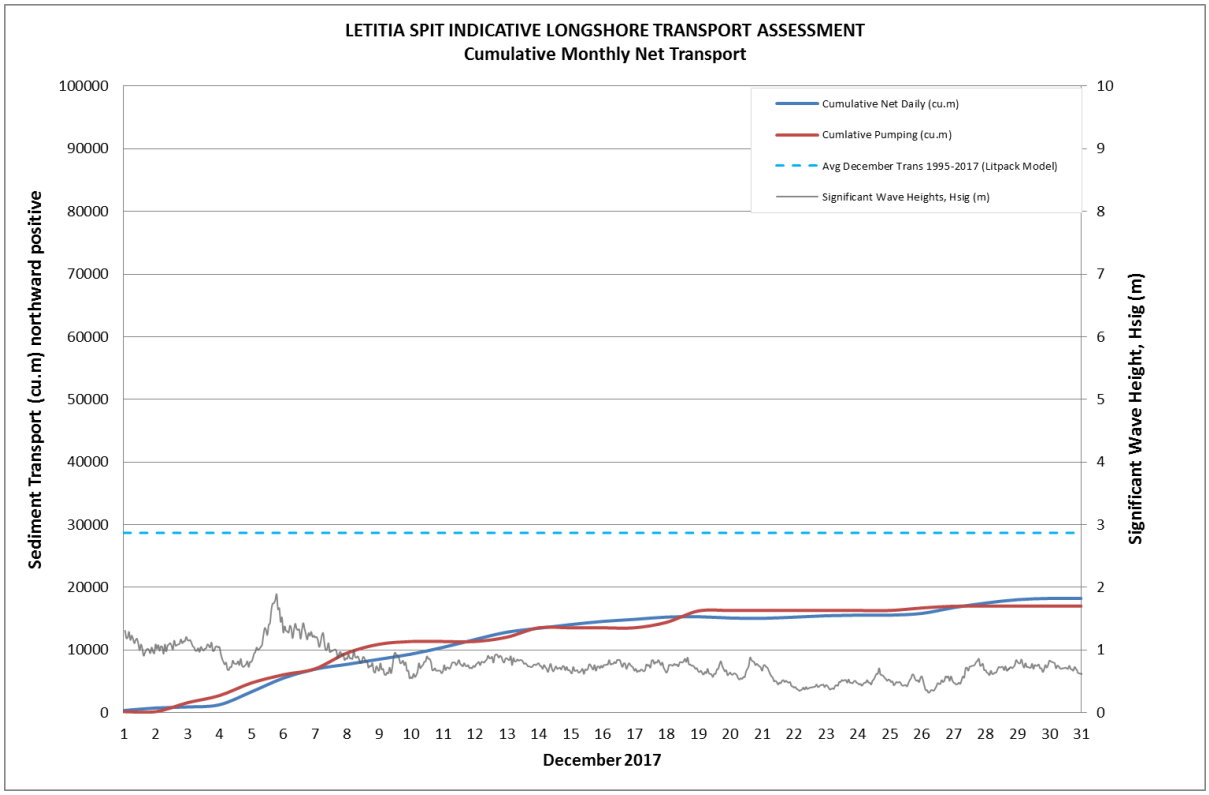
* This Includes 22,870 m^3 of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In December 2017 the estimated natural sand transport moving north towards the Tweed River entrance was calculated to be in the order of 18,235 m^3.

This result is 64% of the average estimated sand transport quantity of approximately 28,699 m^3 for the month of December.



3. TWEED RIVER ENTRANCE USAGE

Marine Rescue NSW - Monitoring Results (Not including trawlers)

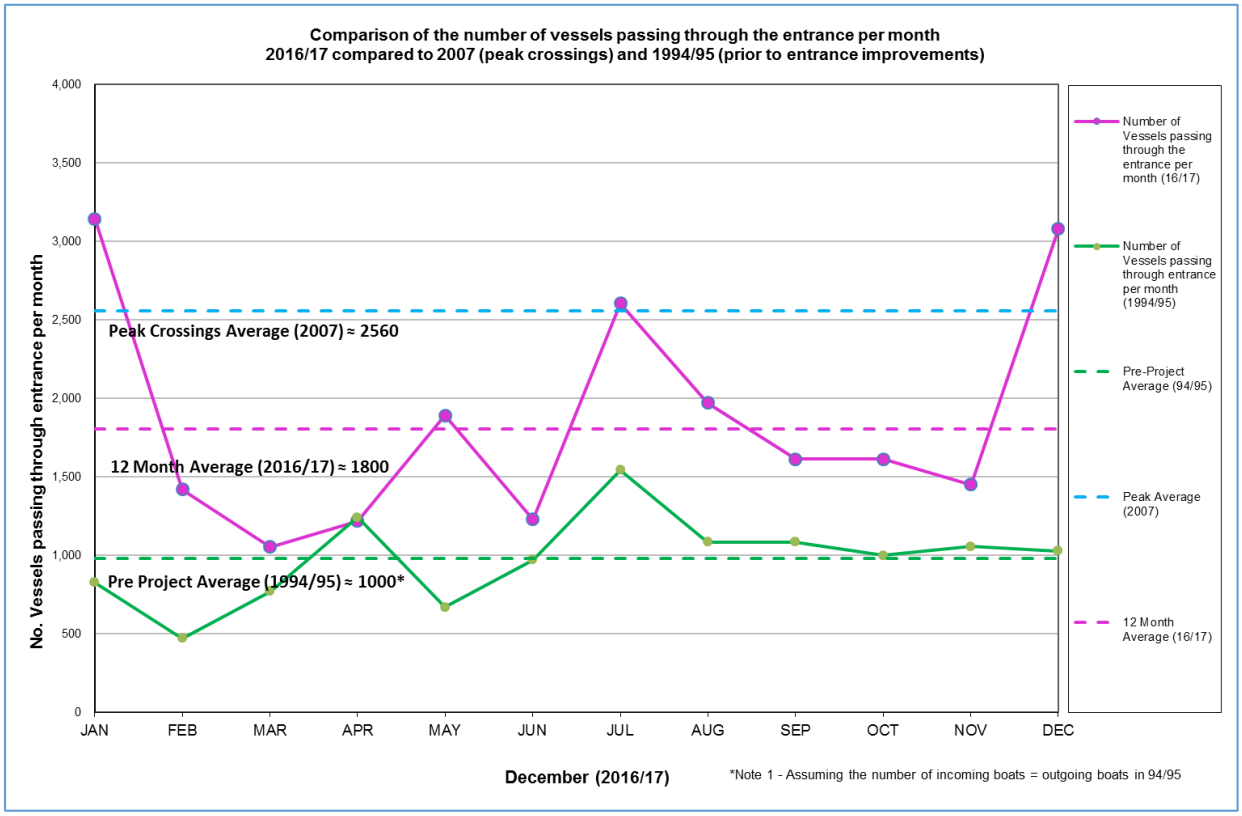
Weekends and public holidays

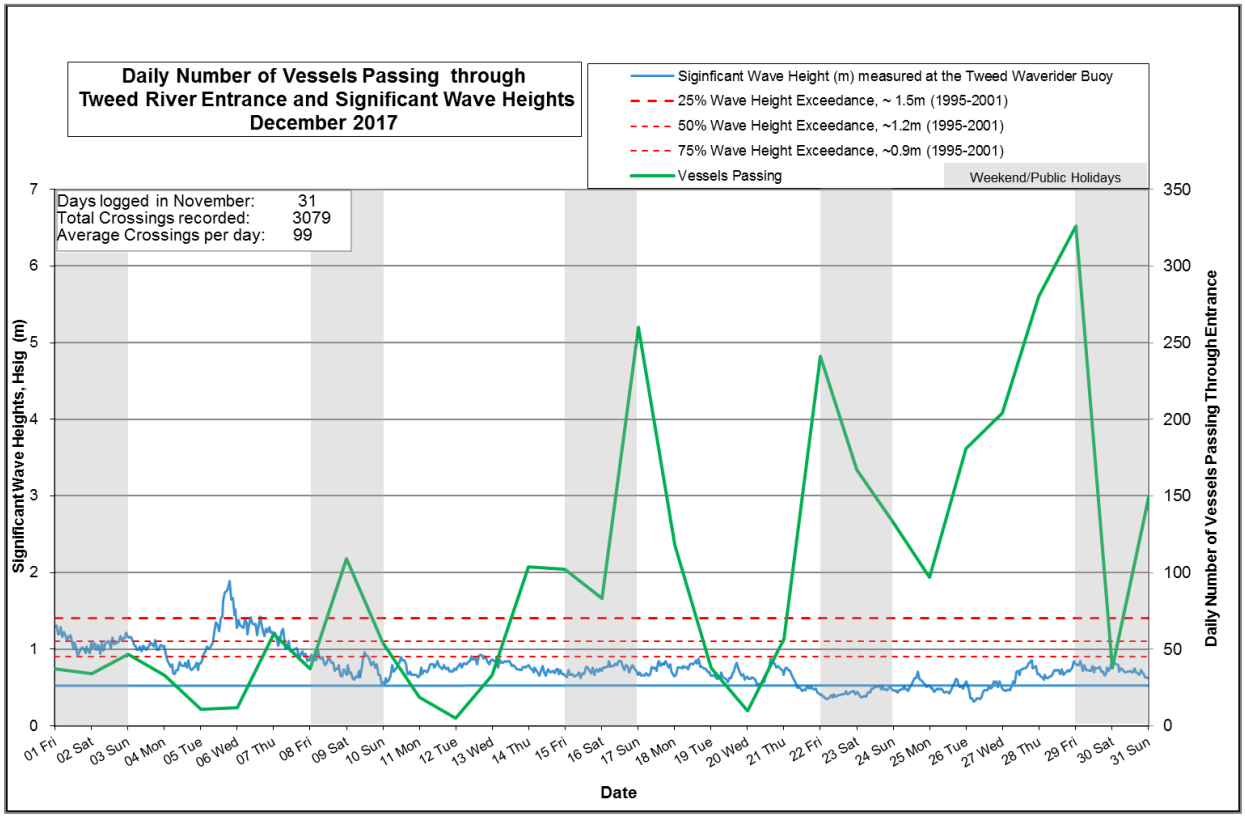
Date	Navigation Rating Impassable < - - - - - > Good					Number of Crossings
	Impassable	Difficulty Encountered	Some Difficulty Encountered	Relatively Good Crossing	Good Conditions	
	1	2	3	4	5	
1st						37
2nd						34
3rd						47
4th						33
5th						11
6th						12
7th						60
8th						37
9th						109
10th						54
11th						19
12th						5
13th						33
14th						104
15th						102
16th						83
17th						260
18th						118
19th						38
20th						10
21st						57
22nd						241
23rd						167
24th						133
25th						97
26th						181
27th						204
28th						280
29th						326
30th						38
31st						149
					Total:	3079

Source: *Marine Rescue NSW, Point Danger*

* Total does not include trawlers

TWEEDSAND BYPASSING





4. WAVE CONDITIONS

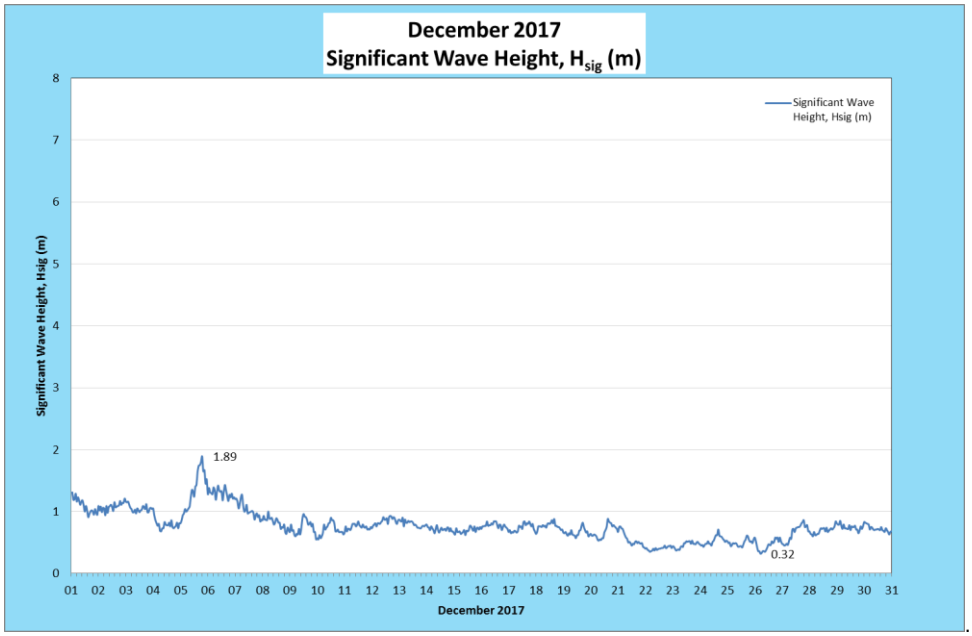
Wave conditions over the month: Wave heights ranged mostly from calm to moderate (0.32 m to 1.89 m), with a maximum significant wave height of 1.89 m on 5th December. Wave directions varied from ENE to ESE but mostly from the E.

Monthly minimum significant wave height: 0.32 m on 26th December
Monthly maximum significant wave height: 1.89 m on 5th December

Number of days on which waves were below 1.0 m at some point in the day: 30 days

Number of days on which waves were above 2.0 m at some point in the day: 0 days

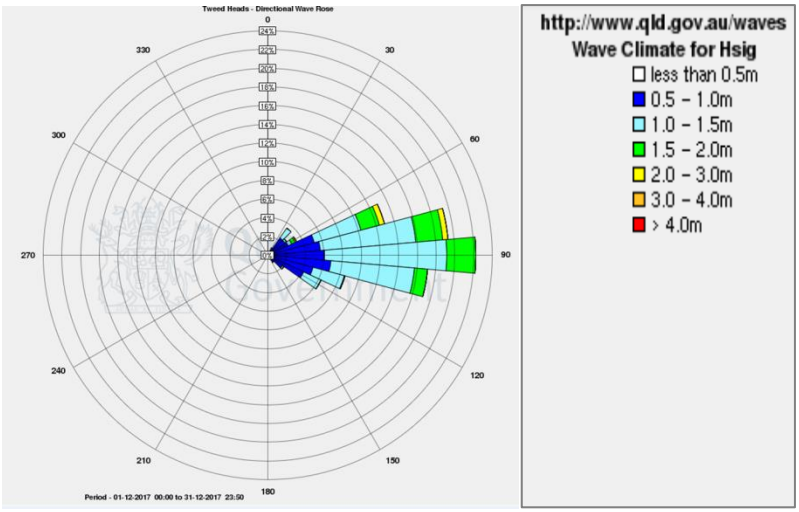
Note: Significant wave height (H_{sig}) is defined as the average of the highest one-third of waves recorded over a period of approximately 30 minutes



(***Source:*** *Tweed Heads Waverider 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:*** *Tweed Heads Waverider Buoy; Queensland Government)*