TWEEDSAND BYPASSING

OVERVIEW

In March 2017:

- 58,397 m^3 of sand was pumped to Snapper Rocks East.
- 5,307 m^3 of sand was dredged and placed at Snapper Rocks East.
- 0 m^3 of sand was pumped to Duranbah Beach.
- 21,126 m^3 of sand was dredged and placed at Duranbah Beach.
- Wave heights ranged from calm to minor storm (0.62 m to 3.61 m), with a maximum significant wave height of 3.61 on 30th March. Wave directions varied from NE by N to SE but mostly from the E.
- 1053 vessel crossings were recorded for the month (This is 63% of the March average).
- The estimated amount of sand moving north towards the Tweed River entrance by natural processes was in the order of 79,084 m^3 (this is 144% of the March average of 55,038 m^3).

1. SAND PUMPING & DREDGING

Sand Delivery March 2017

Pumped:	58,397 m^3
Dredged:	26,433 m^3
Total:	84,830 m^3

The number of days sand was pumped this month = 28

Sand Delivery January 2017 to December 2017

Pumped:	92,597 m^3
Dredged:	38,876 m^3
Total:	131,473 m^3

Stage II Sand Delivery April 2000 to March 2017

Pumped:	8,615,226 m^3
Dredged:	2,142,786 m^3 *
Total:	10,758,012 m^3 *

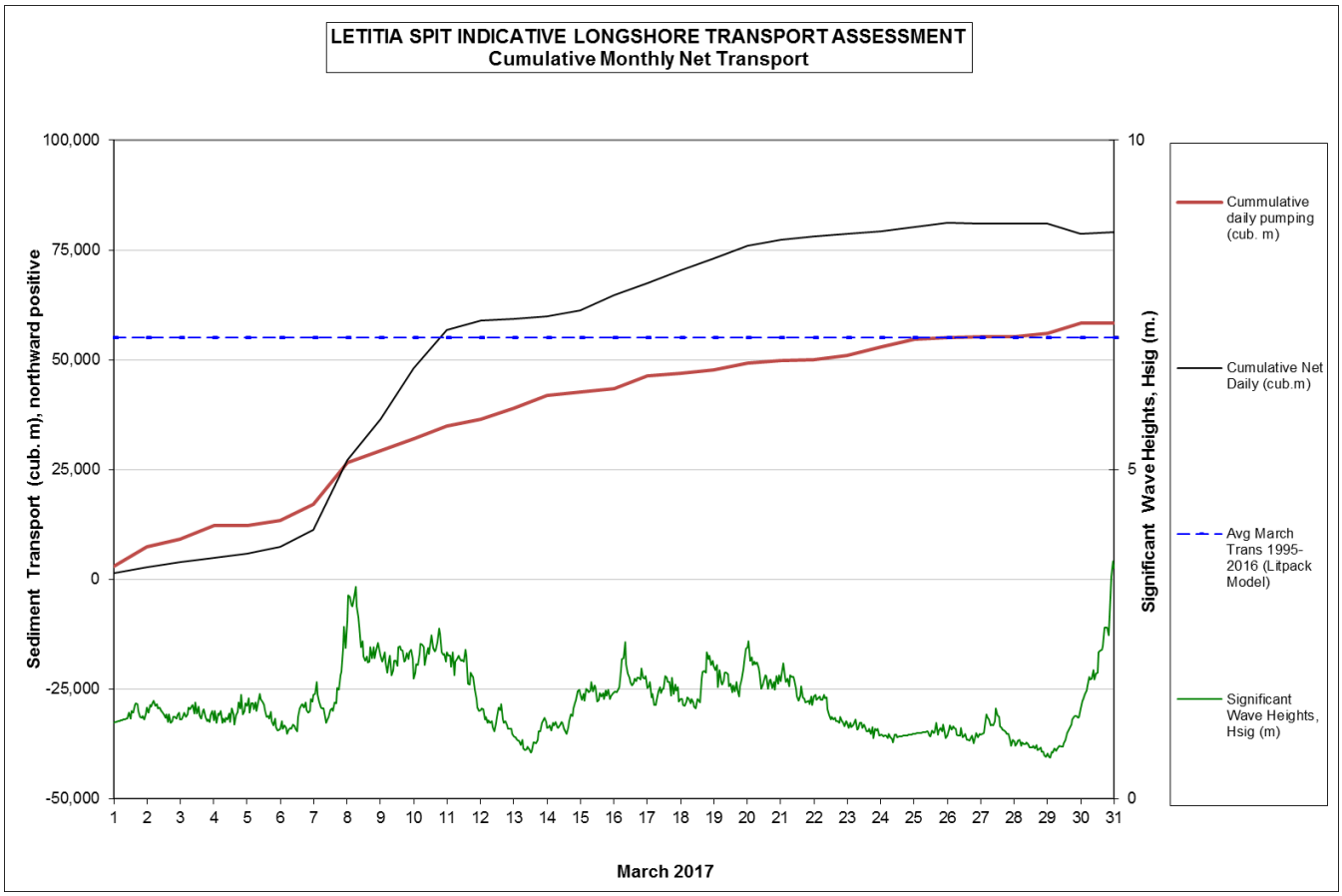
* This Includes 22,870 m^3 of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In March 2017 the estimated natural sand transport moving north towards the Tweed River entrance was calculated to be in the order of 79,084 m^3.

This result is 144% of the average estimated sand transport quantity of approximately 55,038 m^3 for the month of March.



3. TWEED RIVER ENTRANCE USAGE

Marine Rescue NSW - Monitoring Results (Not including trawlers)

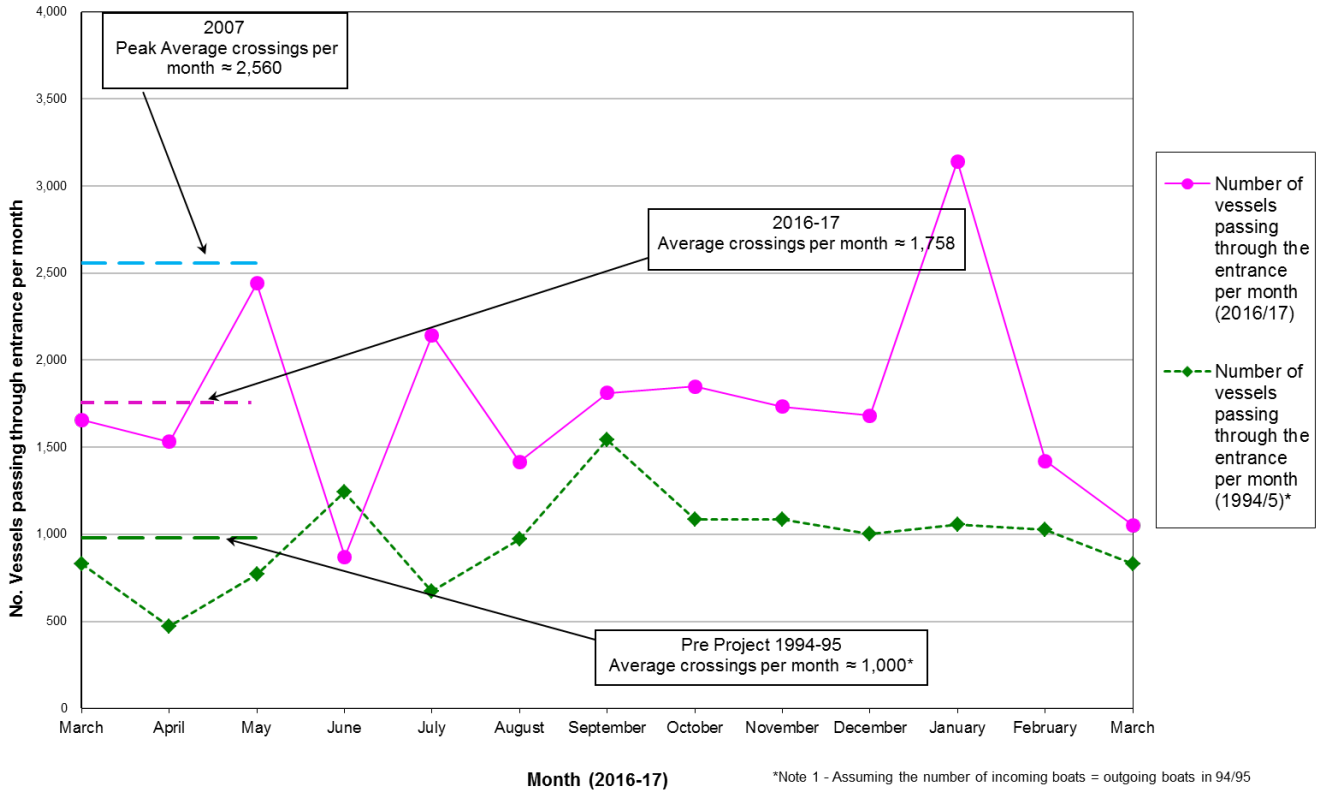
Weekends and public holidays

Date	Navigation Rating Impassable----------Good					Number of Boats
	Impassable (1)	Difficulty Encountered (2)	Some Difficulty Encountered (3)	Relatively Good Crossing (4)	Good Conditions (5)	
1st						22
2nd						33
3rd						56
4th						134
5th						108
6th						20
7th						6
8th						14
9th						4
10th						12
11th						13
12th						150
13th						22
14th						26
15th						4
16th						18
17th						25
18th						6
19th						20
20th						0
21st						2
22nd						8
23rd						54
24th						34
25th						40
26th						84
27th						40
28th						69
29th						25
30th						0
31st						4
					Total	1053

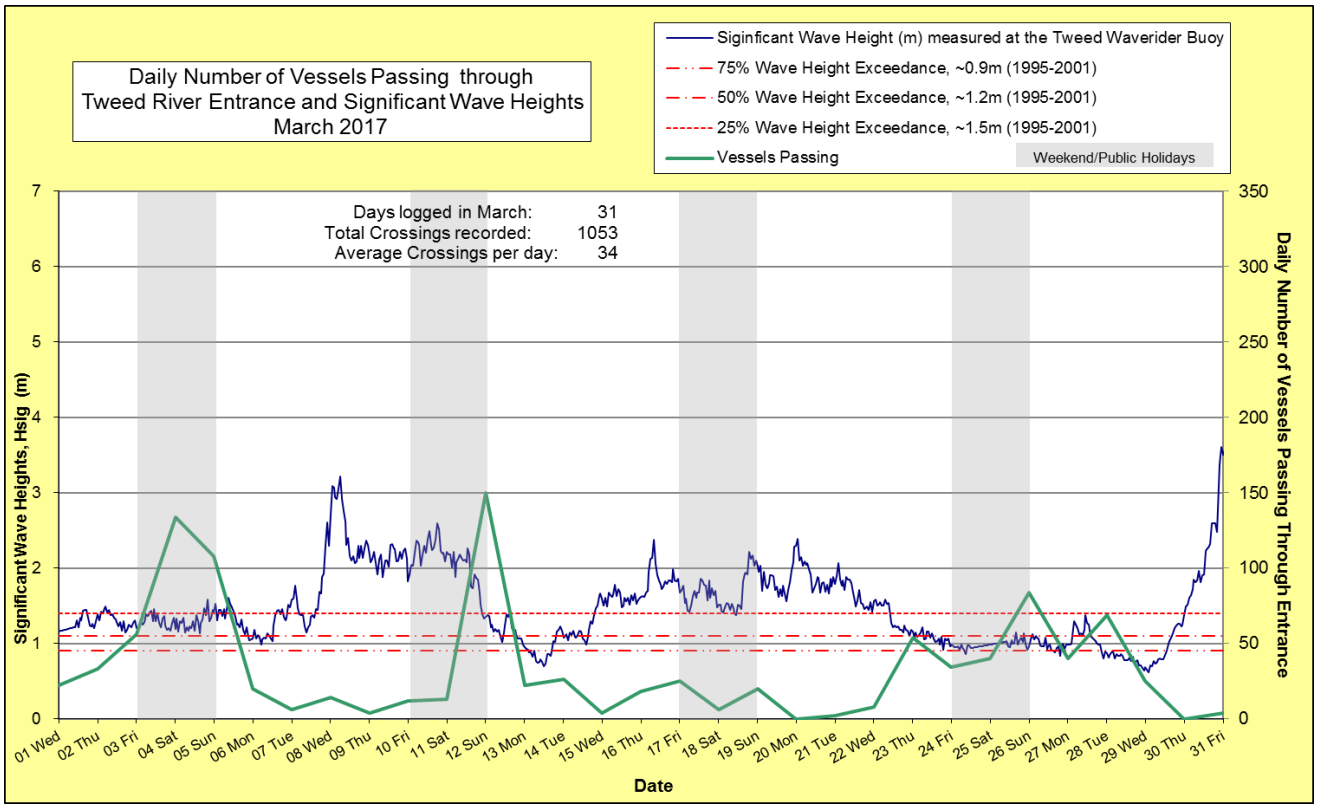
Source: *Marine Rescue NSW, Point Danger*

TWEEDSAND BYPASSING

Comparison of the number of vessels passing through the entrance per month 2016/17 compared to 2007 (peak crossings) and 1994/95 (prior to entrance improvements)



*Note 1 - Assuming the number of incoming boats = outgoing boats in 94/95



4. WAVE CONDITIONS

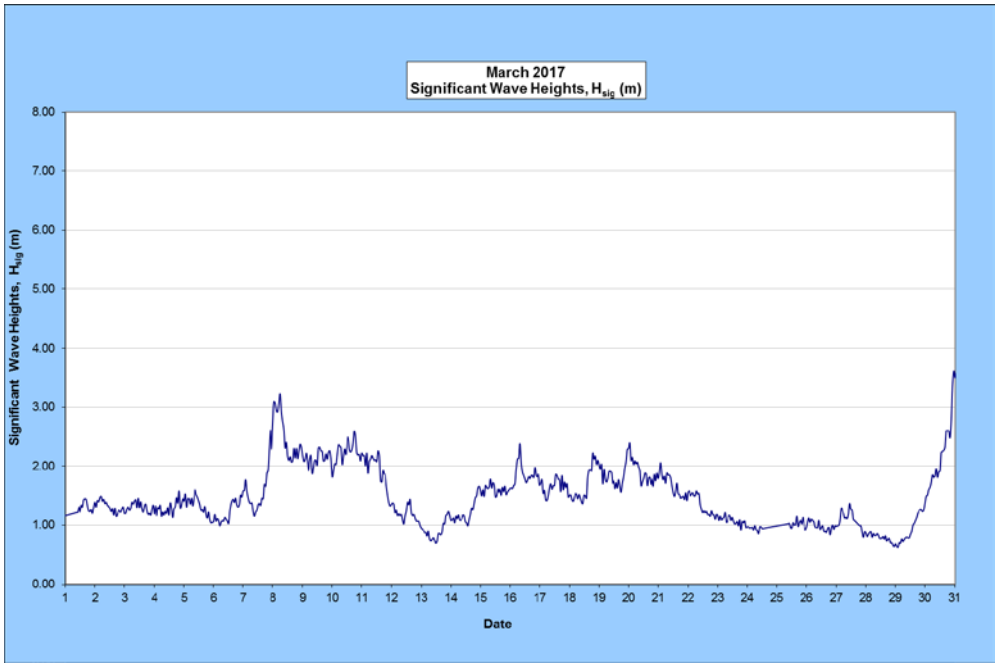
Wave conditions over the month: Wave heights ranged mostly from calm to minor storm (0.62 to 3.61 m), with a maximum significant wave height of 3.61 m on 30th March. Wave directions varied from NE by N to SE but mostly from the E.

Monthly minimum significant wave height: 0.62 m on 29th March
Monthly maximum significant wave height: 3.61 m on 30th March

Number of days on which waves were below 1.0 m at some point in the day: 11 days

Number of days on which waves were above 2.0 m at some point in the day: 11 days

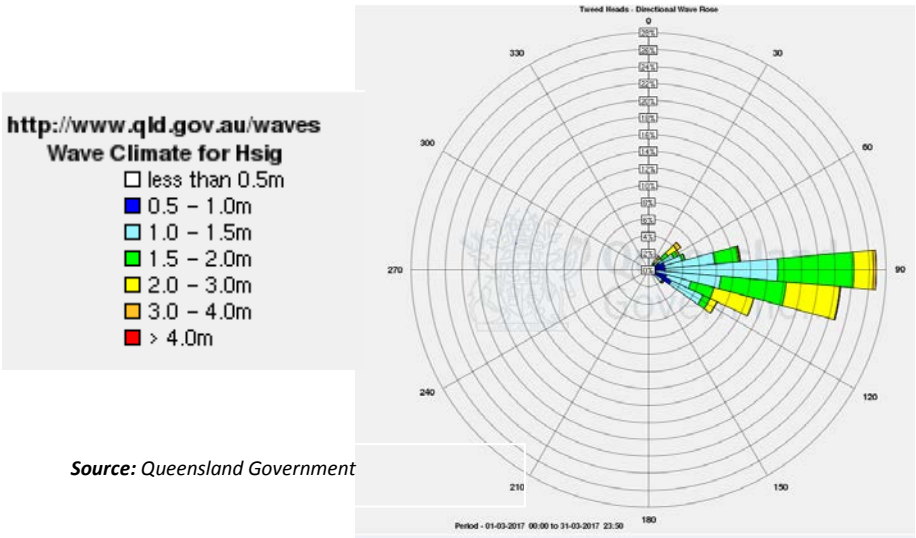
Note: Significant wave height (H_{sig}) is defined as the average of the highest one-third of waves recorded over a period of approximately 30 minutes.



*(**Source:** Tweed 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*