TWEEDSAND BYPASSING

OVERVIEW

In January 2019:

- 24,515 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.
- Significant wave heights ranged mostly from calm to moderate (0.61 m to 1.79 m), with a maximum significant wave height of 1.79 m on 13th January. Wave directions ranged from NE.
- 2,350 vessel crossings were recorded for the month (This is 121% of the January average (2002 – 2019)).
- The modelled estimated amount of sand moving north towards the Tweed River entrance by natural processes was in the order of 13,000 m^3 (this is 28% of the January average of 45,201 m^3).

1. SAND PUMPING & DREDGING

Sand Delivery January 2019

Pumped:	24,515 m^3
Dredged:	0 m^3
Total:	24,515 m^3

The number of days sand was pumped this month = 19

Sand Delivery January 2019 to December 2019

Pumped:	24,515 m^3
Dredged:	0 m^3
Total:	24,515 m^3

Stage II Sand Delivery April 2000 to January 2019

Pumped:	9,313,915 m^3
Dredged:	2,320,514 m^3 *
Total:	11,634,429 m^3 *

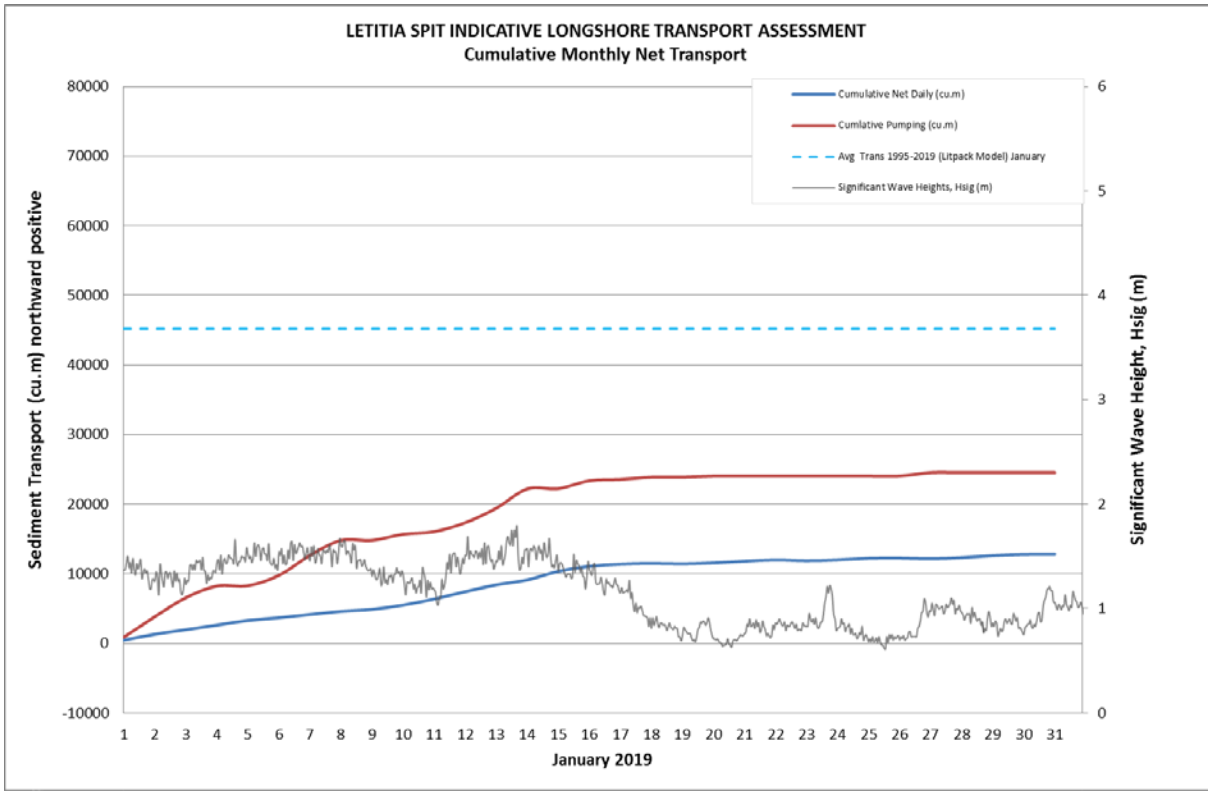
* This Includes 22,870 m^3 of sand delivered by dredge to Palm Beach between June and September 2005

2. INDICATIVE LONGSHORE TRANSPORT

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

In January 2019 the estimated natural sand transport moving north towards the Tweed River entrance was calculated to be 12,803 m^3.

This result is 28% of the average estimated sand transport quantity of approximately 45,201 m^3 for the month of January.



3. TWEED RIVER ENTRANCE USAGE

Marine Rescue NSW - Monitoring Results (Not including trawlers)

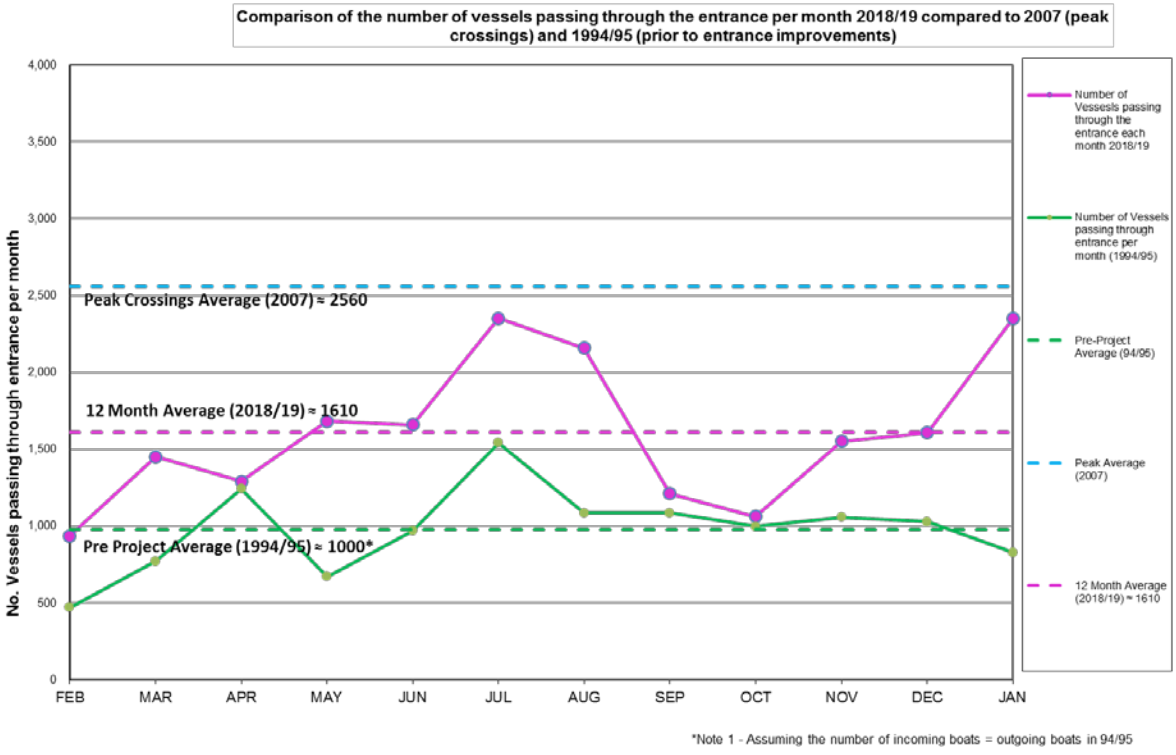
Weekends and public holidays

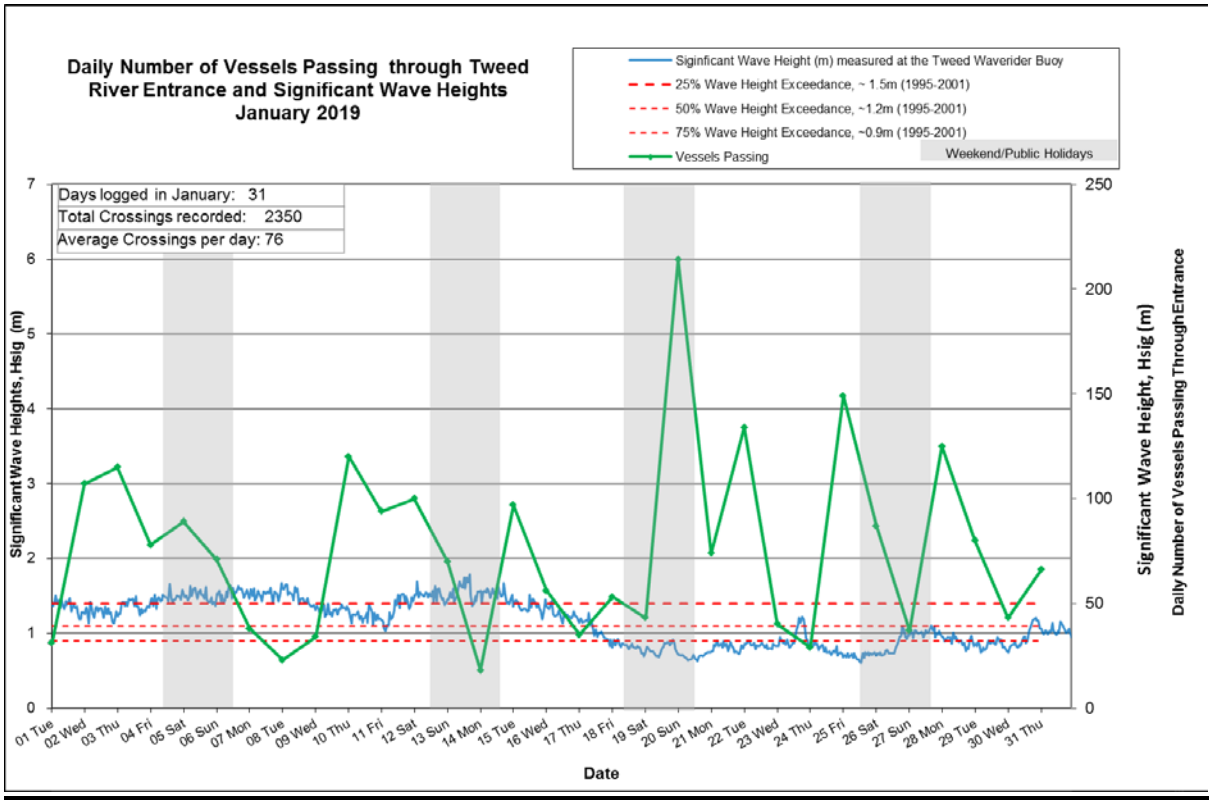
Date January 2019	Navigation Rating Impassable < - - - - - > Good					Number of Crossings
	Impassable	Difficulty Encountered	Some Difficulty Encountered	Relatively Good Crossing	Good Conditions	
	1	2	3	4	5	
1						31
2						107
3						115
4						78
5						89
6						71
7						38
8						23
9						34
10						120
11						94
12						100
13						70
14						18
15						97
16						56
17						35
18						53
19						43
20						214
21						74
22						134
23						40
24						29
25						149
26						87
27						37
28						125
29						80
30						43
31						66
					Total:	2350

Source: *Marine Rescue NSW, Point Danger*

* Total does not include trawlers

TWEEDSAND BYPASSING





4. WAVE CONDITIONS

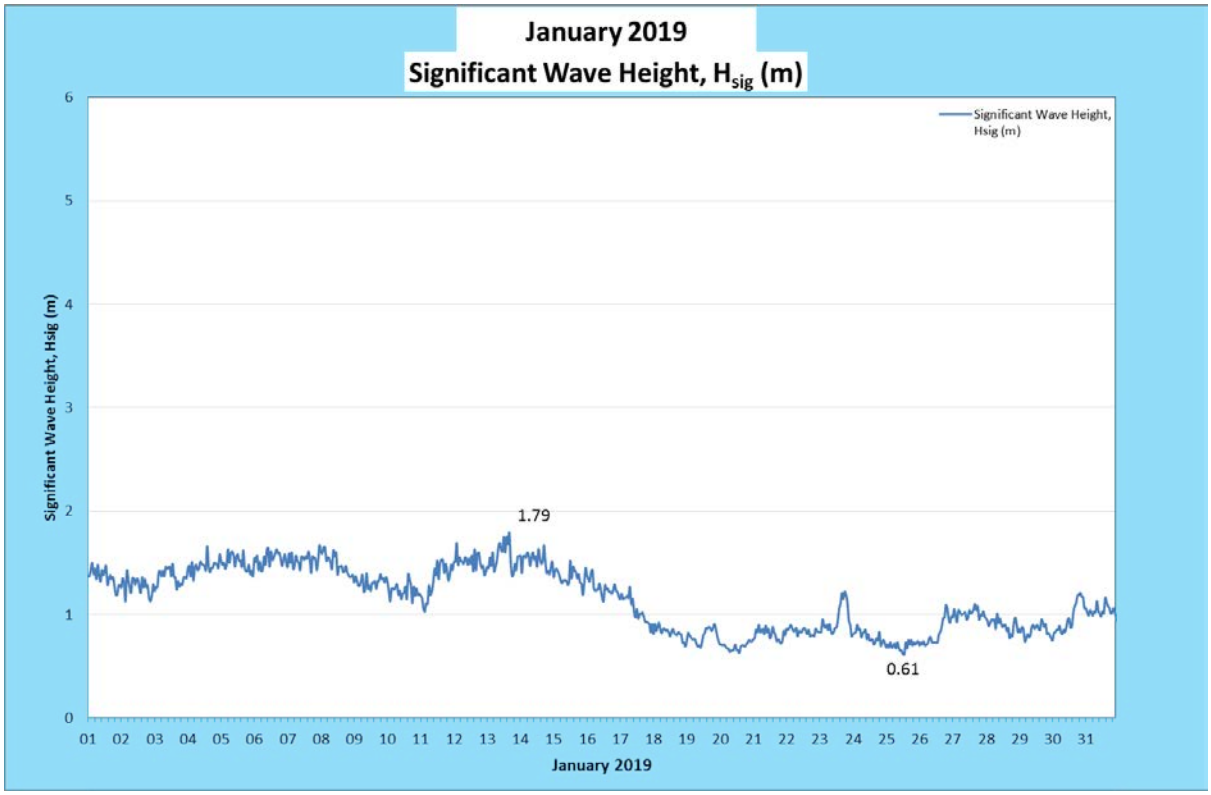
Wave conditions over the month: Significant wave heights ranged mostly from calm to moderate (0.61 m to 1.79 m), with a peak significant wave height of 1.79 m on 13th January. Wave directions were predominantly from the NE.

Monthly minimum significant wave height: 0.61 m on 9th January
Monthly maximum significant wave height: 1.79 m on 25th January

Number of days on which waves were below 1.0 m at some point in the day: 15 days

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

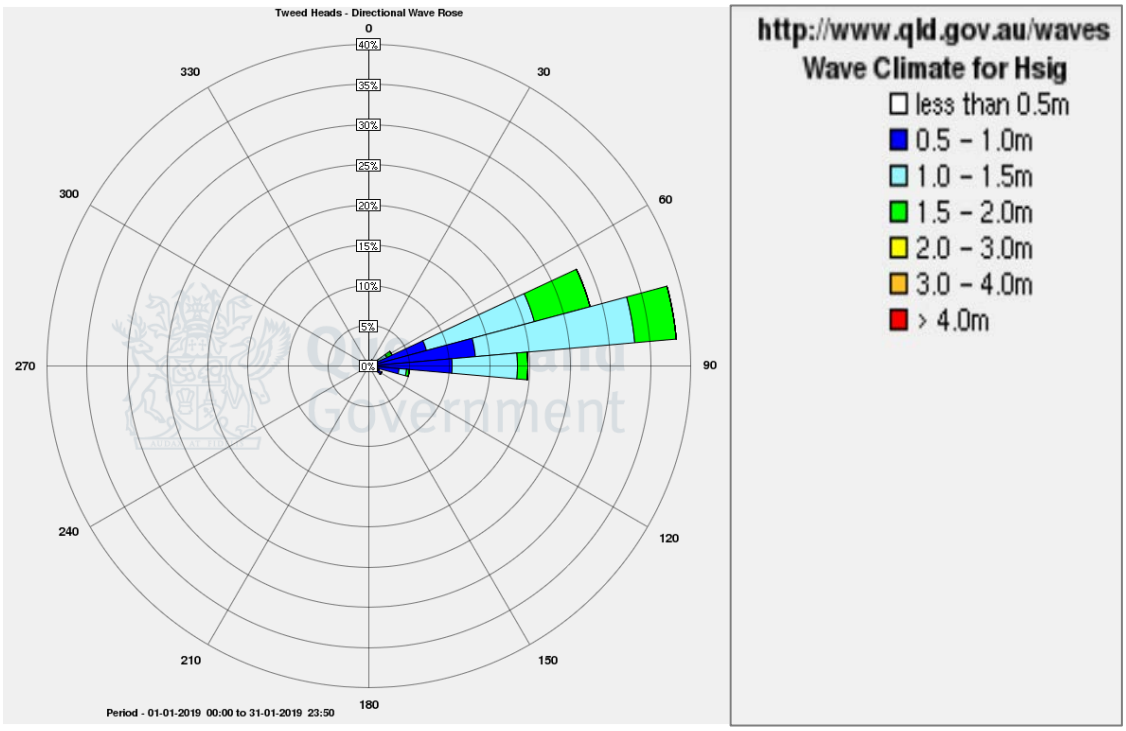
Note: Significant wave height (H_{sig}) is defined as the average of the highest one-third of waves recorded over a period of approximately 30 minutes



(***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)*