

# TWEED SAND BYPASSING

## ENVIRONMENTAL MONITORING SUMMARY – June 2025

### 1. SAND PUMPING & DREDGING

- 18,962 m<sup>3</sup> was pumped to Snapper Rocks East.
- 0 m<sup>3</sup> of sand was dredged.

#### Sand Delivery June 2025

Pumped: 18,962 m<sup>3</sup>

Dredged: 0 m<sup>3</sup>

Total: 18,962 m<sup>3</sup>

The number of days sand was pumped this month = 14

The number of days sand was dredged this month = 0

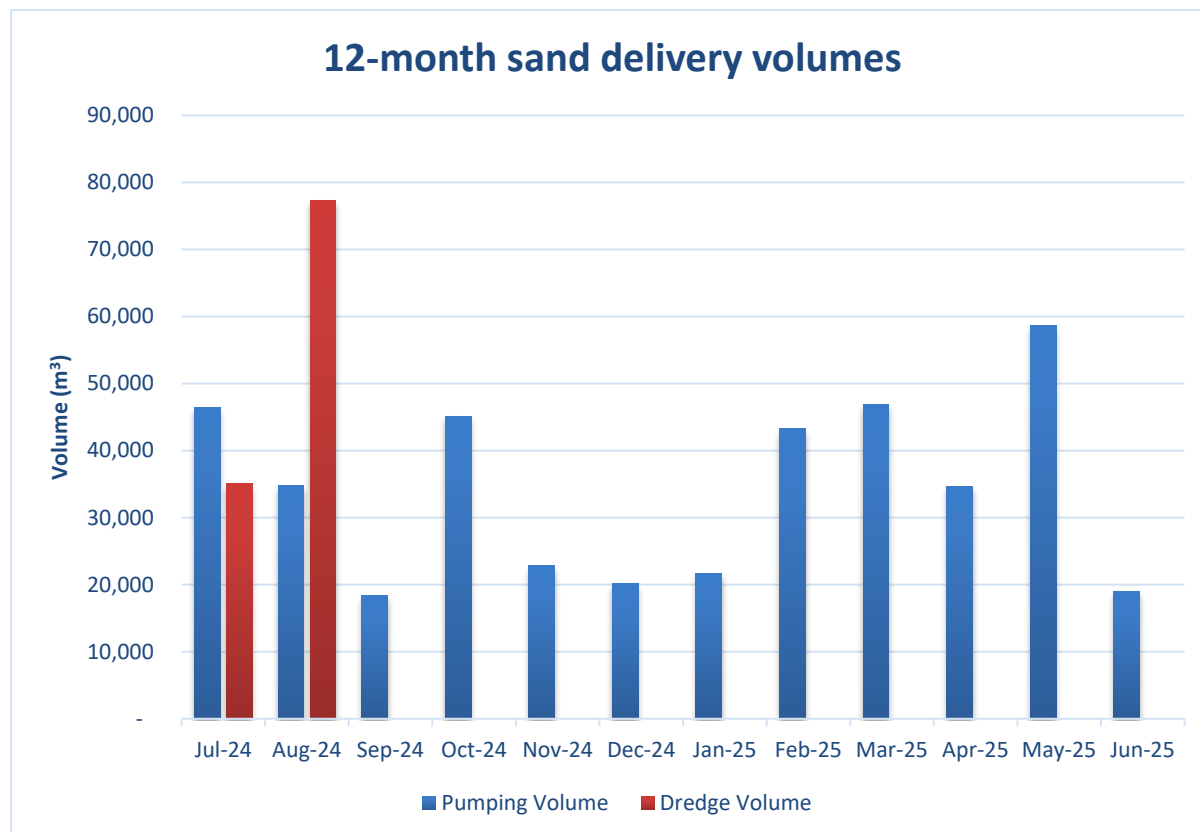
#### Sand Delivery May 2000 to June 2025

Pumped: 12,207,129 m<sup>3</sup>

Dredged\*: 3,159,617 m<sup>3</sup>

Total\*: 15,366,786 m<sup>3</sup>

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



OFFICIAL

ENVIRONMENTAL MONITORING SUMMARY – June 2025

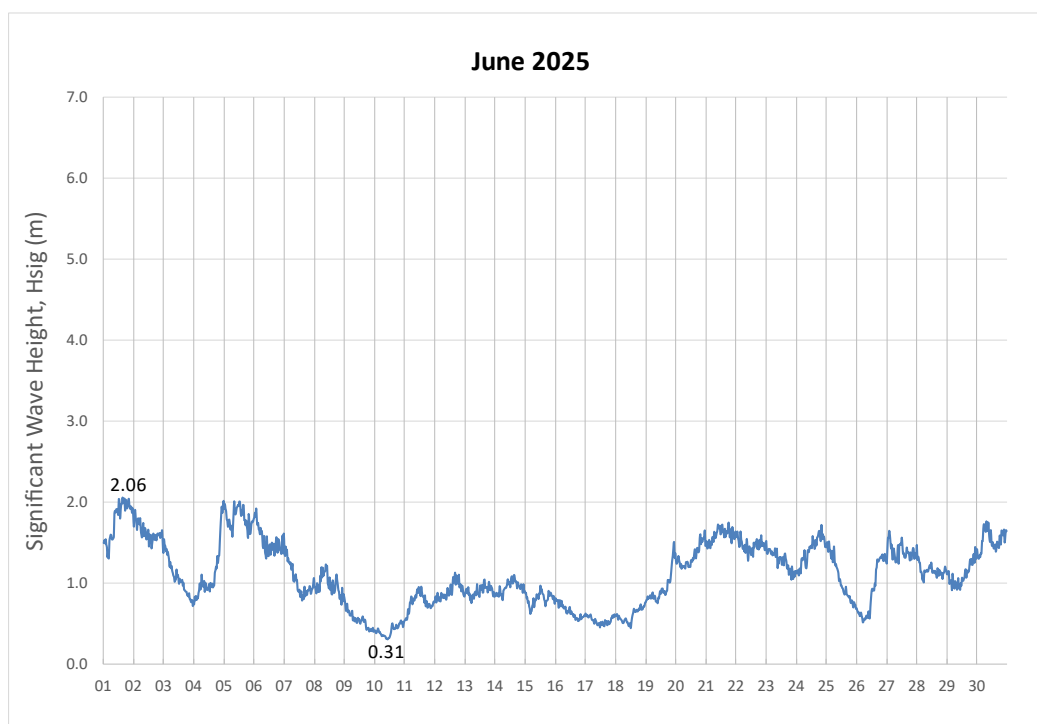
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## 2. WAVE CONDITIONS

Wave conditions were relatively mild throughout the month of June, with 18 days observed to have a minimum  $H_{sig} < 1$  m. Consistent directional conditions were trending in an ESE direction. A maximum  $H_{sig}$  was observed on the 1<sup>st</sup> at 2.06 m, only 1 of 3 days of the month observed with  $H_{sig} > 2$  m.

- Minimum  $H_{sig}$ : 0.31 m on 10 June 2025
- Maximum  $H_{sig}$ : 2.06 m on 01 June 2025
- Number of days where  $H_{sig} < 1$  m at some point: 18
- Number of days where  $H_{sig} > 2$  m at some point: 3

**Note:**  $H_{sig}$  is defined as the average of the highest  $\frac{1}{3}$  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 Heads and Tweed Offshore Waverider buoys is available at:

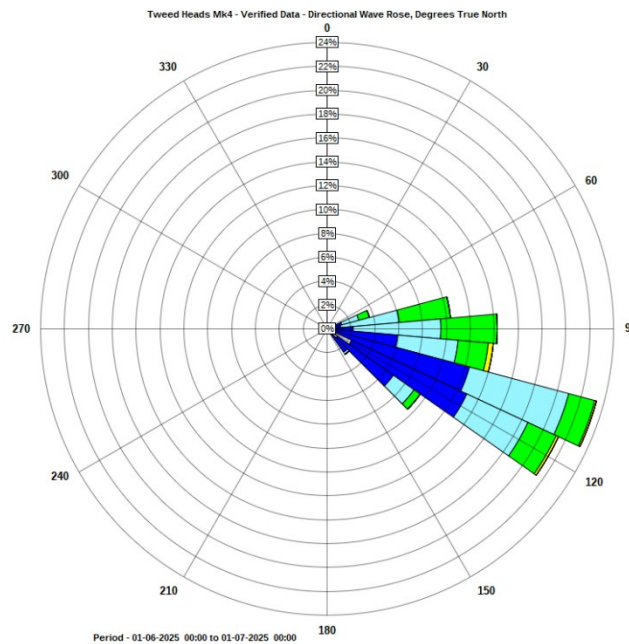
<http://www.qld.gov.au/waves>

<https://www.qld.gov.au/environment/coasts-waterways/beach/monitoring/waves-sites/tweed-offshore>

<https://www.qld.gov.au/environment/coasts-waterways/beach/monitoring/waves-sites/tweed-heads>

# TWEED SAND BYPASSING

## NEARSHORE WAVE DIRECTION

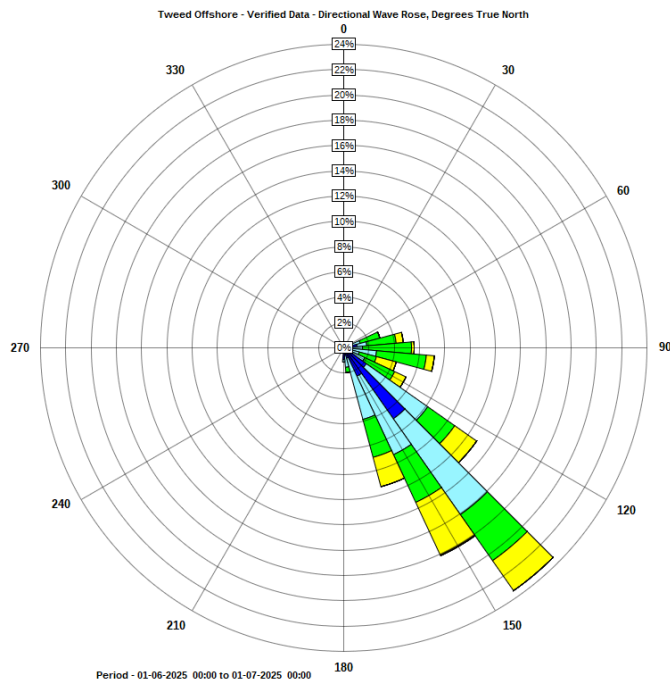


<http://www.qld.gov.au/waves>

### Wave Climate for Hsig

- less than 0.5m
- 0.5 - 1.0m
- 1.0 - 1.5m
- 1.5 - 2.0m
- 2.0 - 3.0m
- 3.0 - 4.0m
- > 4.0m

## OFFSHORE WAVE DIRECTION



OFFICIAL

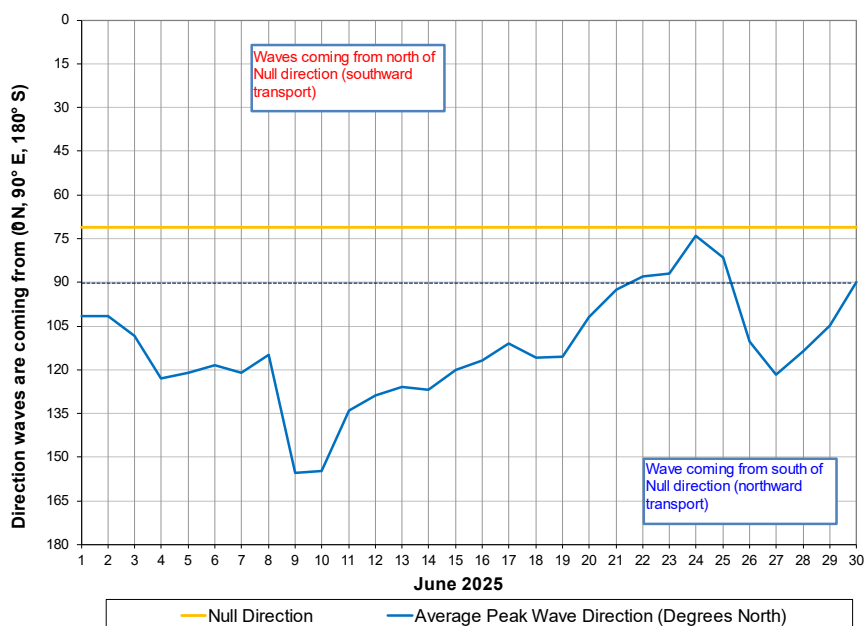
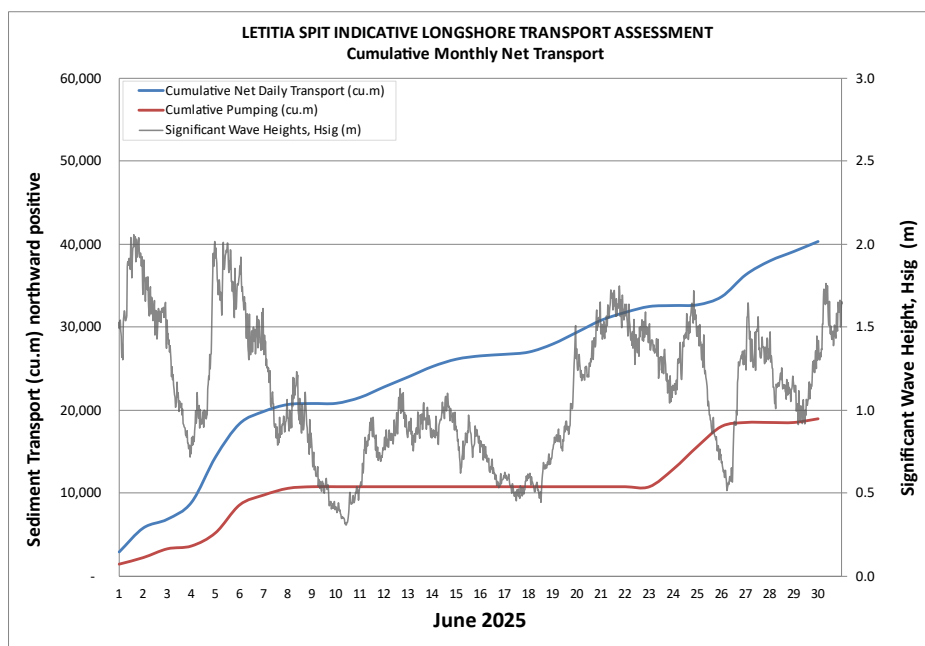
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## 3. INDICATIVE LONGSHORE TRANSPORT

The first graph below is based on simplified sediment transport modelling and is indicative only. The second graph indicates the wave direction in relation to the shoreline null direction (a wave direction coming from south of this line generally results in northward transport of sand).

In June 2025, the estimated natural sand transport moving north towards the Tweed River entrance was calculated to be in the order of 40,300 m<sup>3</sup>. This result is 71 per cent of the average estimated sand transport quantity of approximately 56,900 m<sup>3</sup> for June.



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## **4. BEACH AND SURF AMENITY OBSERVATIONS**

Stable beaches have been observed over the month of June. Gutters have been forming along several beaches including Rainbow Bay and Duranbah as the offshore bar continues to move in a landward direction post Ex-Tropical Cyclone Alfred, which made landfall on 9 March 2025.



**Coolangatta 10 June 2025**



**Rainbow Bay 10 June 2025**



**Kirra 10 June 2025**



**Duranbah 10 June 2025**



# TWEED SAND BYPASSING

The Duranbah shoals are providing favourable surf conditions in a variety of different metocean environments that usually result in other southern Gold Coast breaks to be less consistent. Snapper was observed to provide mixed surfing amenity due to mild wave conditions.



**Duranbah 29 June 2025**



**Duranbah 29 June 2025**



**Duranbah 20 June 2025**



**Duranbah 20 June 2025**



**Snapper 1 June 2025**

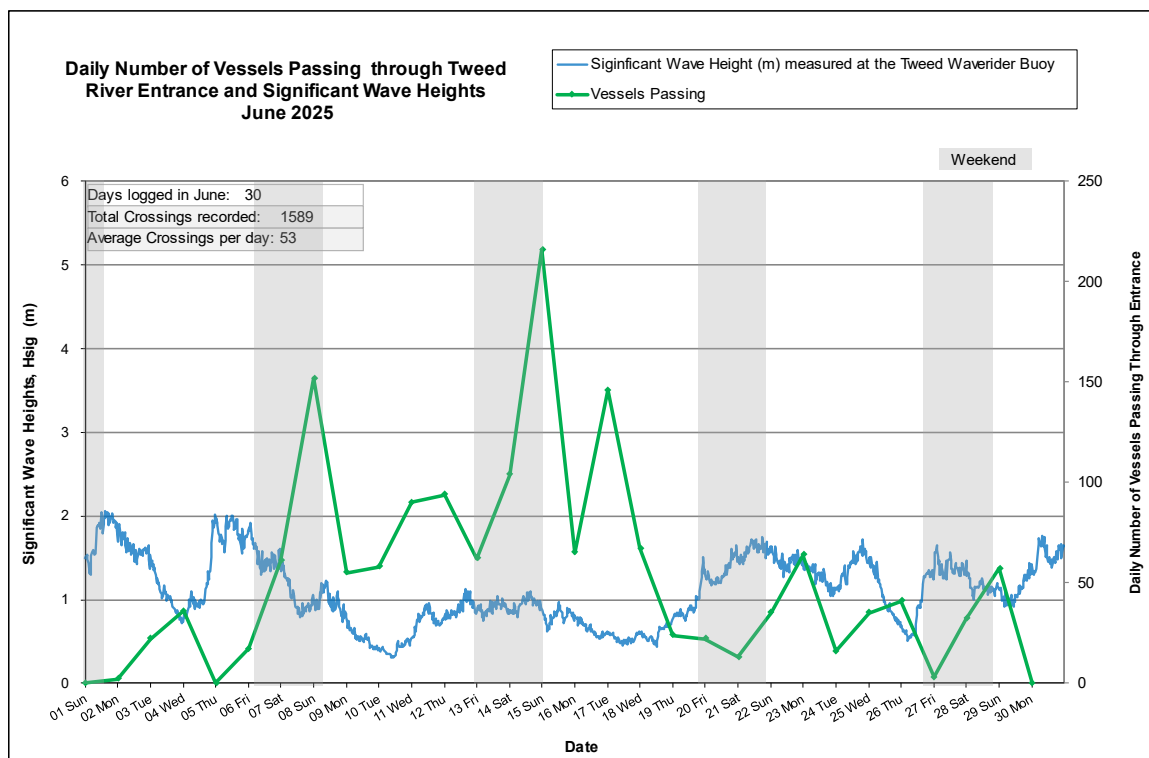
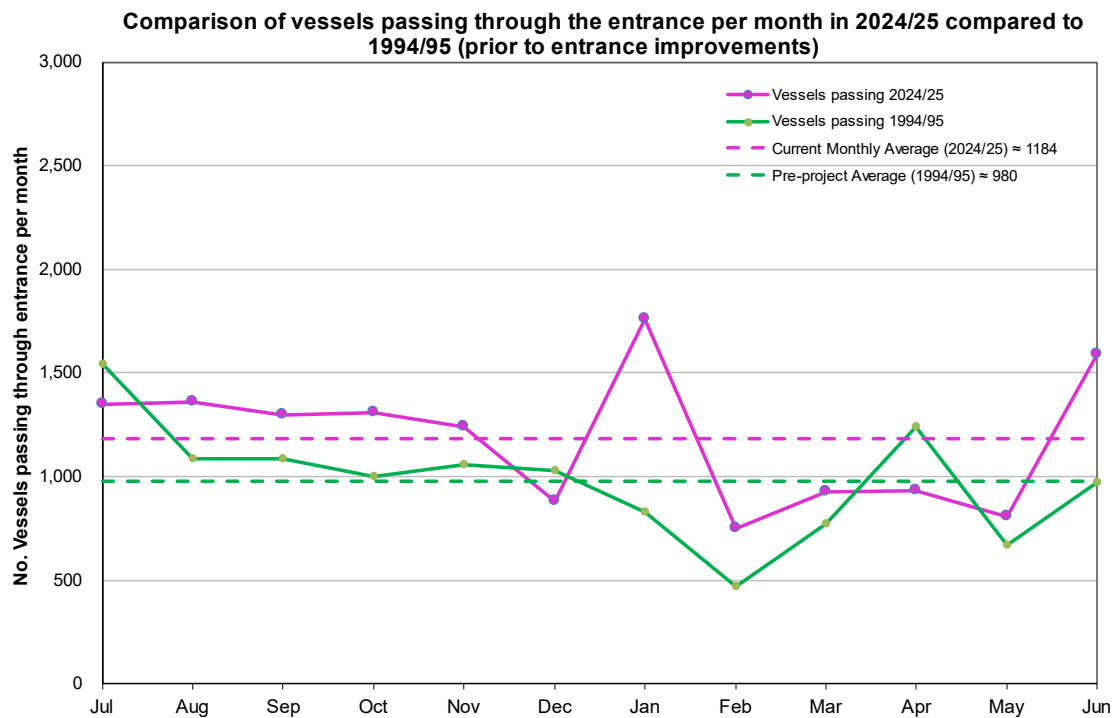


**Snapper 22 June 2025**

# TWEED SAND BYPASSING

## 5. TWEED RIVER ENTRANCE USAGE


A total of 1589 Tweed River entrance vessel crossings were recorded for the month (95 per cent of the monthly average (2002–2025)).



# TWEED SAND BYPASSING

Date June 2025	Navigation Rating					Number of Crossings
	Impassable < - - - - - > Good					
	Impassable	Difficulty Encountered	Some Difficulty Encountered	Relatively Good Crossing	Good Conditions	
	1	2	3	4	5	
1						0
2						2
3						22
4						36
5						0
6						17
7						61
8						152
9						55
10						58
11						90
12						94
13						62
14						104
15						216
16						65
17						146
18						67
19						24
20						22
21						13
22						35
23						64
24						16
25						35
26						41
27						3
28						32
29						57
30						0
					Total:	1,589

Marine Rescue NSW - Monitoring Results (Not including trawlers)

 Weekends

**Source:** Marine Rescue NSW, Point Danger