TRESBP ENVIRONMENTAL MONITORING SUMMARY APRIL 2012

OVERVIEW

In April, 2012:

- 38,530 m³ of sand was pumped to Snapper Rocks East.
- There one positive article which related directly and indirectly to the project.
- Sea conditions were average to moderate for most of the month with three moderate sea events (5th & 6th, 18th to 23rd (inclusive) & 29th) with maximum significant wave heights to 2.5 m.
- 1,655 vessel crossings were recorded for the month (this is about 11% less than the April average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes is in the order of 80,000 m³ (this is about 122% of the April average).

1. SAND PUMPING & DREDGING

Sand Delivery April 2012

Pumped: $38,530 \text{ m}^3$ Dredged: 0 m^3 Total: $38,530 \text{ m}^3$

Sand Delivery January to April 2012 (YTD)

Pumped: $137,847 \text{ m}^3$ Dredged: 0 m^3 Total: $137,847 \text{ m}^3$

Sand Delivery January to April 2011

Pumped: $161,441 \text{ m}^3$ Dredged: 0 m^3 Total: $161,441 \text{ m}^3$

Stage II Sand Delivery May 2000 to April 2012

Pumped: 6,466,754 m³
Dredged: 2,039,100 m³
Total: 8.505.854 m³



Department of **Environment** and **Resource Management**



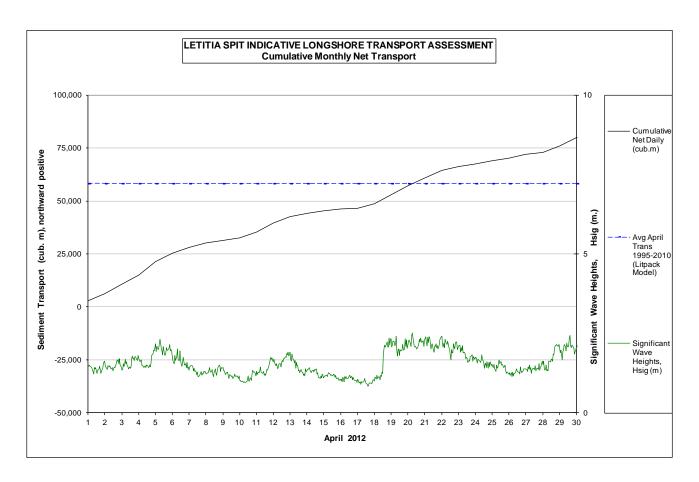


2. INDICATIVE LONGSHORE TRANSPORT

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

In April 2012 the estimated natural sand transport (moving N towards Tweed entrance): to be in the order of 80,000 m³.

This result is well above the average sand transport quantity of approximately 58,000 m³ for the month of April (ie about 122% of the average).



3. MEDIA COVERAGE

http://www.couriermail.com.au/life/outabout/top-10-surf-spots-in-se-qld-northern-nsw/story-fn8ujcxa-1226328104751

"Southeast Queensland/northern NSW is one of the world's top surfing meccas, luring boardriders from around the globe....

... the region offers a smorgasbord of world-class breaks along a relatively short stretch of coastline from Ballina to the Sunshine Coast."

The article gives a brief overview of the 'Superbank' (direct reference to the project), Kirra Point (indirect link to the project) and Duranbah.

4. TWEED RIVER ENTRANCE CONDITIONS

MARINE RESCUE NSW - MONITORING RESULTS

Weekends and public holidays

Date	Impassable (1)	Difficulty Encountered (2)	Some Difficulty Encountered (3)	Relatively Good Crossing (4)	Good Conditions (5)	Number of Boats
1 st						38
2 nd						36
3 rd						22
4 th						39
5 th						9
6 th						83
7 th						120
8 th						104
9 th						303
10 th						11
11 th						0
12 th						10
13 th						4
14 th						114
15 th						144
16 th						100
17 th						79
18 th						57
19 th						13
20 th						5
21 st						20
22 nd						23
23 rd						17
24 th						27
25 th						185
26 th						38
27 th						40
28 th						14
29 th						0
30 th						0
					Total	1,655

Source: Marine Rescue NSW, Point Danger

Comparison of the Number of Vessels Passing Through the Entrance per month 2011/12 compared to 2008/09 and 1995 (prior to entrance improvements) 4.000 2008-09 Average crossings per month ≈ 2,550 3,500 3,000 Number of vessels 2010-11 No. Vessels passing through entrance per month Average crossings per month ≈ 1,730 passing through the entrance per month (2011/12) 2 500 Number of vessels passing through the entrance per 1.500 month (1994/5) 500

August September October November December January February

Month (2011-12)

March

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

April

1994-95 Average crossings per month ≈ 1,000

Mav

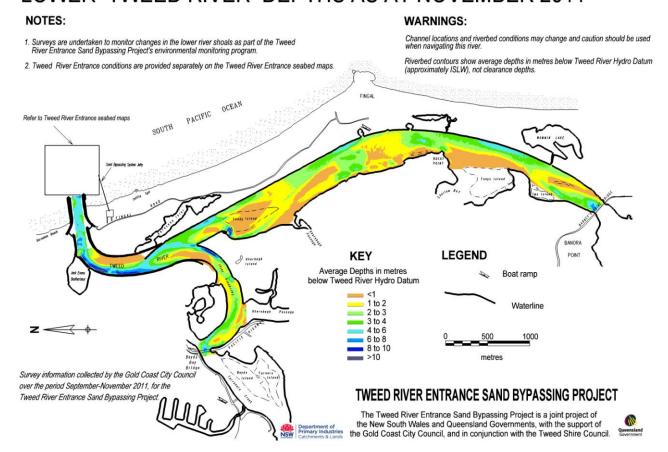
June

July

April

Siginficant Wave Height (m) measured at the Tweed Waverider Buoy 75% Wave Height Exceedance, ~0.9m (1995-2001) Daily Number of Vessels Passing through Tweed River Entrance and Significant Wave Heights 50% Wave Height Exceedance, ~1.2m (1995-2001) April 2012 25% Wave Height Exceedance, ~1.5m (1995-2001) Vessels Passing Weekend/Public Holidays Days logged in April: Total Crossings recorded: Average Crossings per day: 300 30 1,655 55.2 5 Daily Number of Vessels Passing Through Entrance 250 Ξ 200 Significant Wave Heights, Hsig 150 100 0,5wn2Non3tre New 05Thu 06Ft 0158 05 No Non 0,0 Tre New 2,2 Thu 3,3 Ft 1,4 58 1,55m 6 No 1,1 Tre New 1,9 Thu 20 Ft 2,4 58 2,55m 2,3 Mo 2,4 Tre 2,5 Wed 2,6 Thu 2,7 Ft 2,8 58 2,9 5m 3,0 Mon Date

LOWER TWEED RIVER DEPTHS AS AT NOVEMBER 2011



5. WAVE & SURFING CONDITIONS

<u>Dominant swell condition</u>: Significant wave heights were average to moderate from 1st to 18th April (1 m to 2 m) and mostly moderate for the rest of the month. There were three moderate sea events (5th & 6th, 18th to 23rd (inclusive) & 29th) with maximum significant wave heights to 2.5 m. Swell direction ranged from ENE to ESE but dominantly from the

Moderate sea events: 5th & 6th, 18th to 23rd (inclusive) and 29th April. Monthly minimum significant wave height: 0.83 m on 17th April.

Monthly maximum significant wave height: 2.5 m on 20th April. Number of days on which waves were below 1.0 m: 3 days

Number of days on which waves were above 2.0 m: 9 days

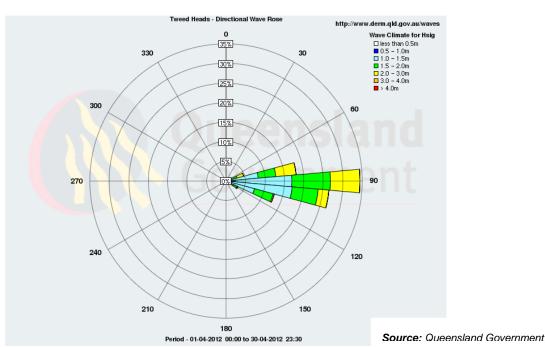
Note: Significant wave heights or H_{siq} is the average of the highest one third of recorded waves.

(Source: Tweed & Brisbane Wave Buoy; QDERM)



A link to data recorded by the Tweed Waverider Buoy is available at: http://www.derm.qld.gov.au/waves

WAVE DIRECTION



TRESBP ENVIRONMENTAL MONITORING SUMMARY - APRIL 2012

UPCOMING SURF AND SURF LIFESAVING EVENTS

- 2012 Bradnam's Windows & Doors Queensland Longboard Titles, 2 & 3 June 2012, Gold Coast, Qld
- Surfing Queensland SUP & Ocean Paddle Festival XCEL OPEN OCEAN PADDLE RACE (Long Course), 9 June 2012, Gold Coast, Qld
- Surfing Queensland SUP & Ocean Paddle Festival SUP SURFING, 10 & 11 June 2012, Currumbin Alley, Qld
- Surfing Queensland SUP & Ocean Paddle Festival SUP TECHNICAL SPRINT RACING, 11 June 2012, Currumbin Beachfront (Primary Location), Qld
- 2012 Billabong Occy's Grom Comp, 30 June to 4 July 2012, Gold Coast Qld
- 2012 Queensland State Junior Titles, 25 to 27 September 2012, Gold Coast Qld

PHOTOGRAPHS OF SURF CONDITIONS



Greenmount, 4 April 2012 (source: Coastal Watch)



Duranbah, Easter 2012 (source: Coastal Watch)



Duranbah, 22 April 2012 (source: Coastal Watch)



Snapper Rocks, 26 April 2012 (source: Coastal Watch)



Greenmount Point, 27 April 2012 (source: Coastal Watch)



Kirra, 30 April 2012 (source: Coastal Watch)

TRESBP ENVIRONMENTAL MONITORING SUMMARY - APRIL 2012

SURF REPORT OVERVIEW

DATE	SURF	DIRECTION	COMMENTS	
2	Clean, 0.9 m	ESE	The ESE swell is having a good effect on the beachies, with less sets shutting down.	
4	Clean, 0.6-0.9 m	ESE	D'bah and all the points will have some very nice ones as the tide drops during the morning, but are busy with school holiday crowds.	
5	0.9-1.5 m	ESE	The swell has increased and is solid and straight. It is for the experienced.	
6	0.9-1.5 m	ESE	It is for the experienced. D'bah has some solid ones early and full ones on the points that will fire up as the tide drops.	
7	0.6-0.9+ m	SE	1.2m waves on the S facing beaches	
8	0.6-0.9+ m	SE	There are fun ones on the points. D'bah has more size with smaller beachies on the S end beaches where ever you can find a bank.	
9	0.6-0.9 m	ESE	There are fun ones on the points at Currumbin Alley.	
10	0.6 m	ESE	D'bah has a touch more size are small beachies along the S end that will improve on the incoming tide	
11	0.3-0.6m	SSE	There's not much happening this morning with most of the SSE swell sliding past the coast.	
12	0.6-0.9 m	SSE	D'bah has more size and will improve on the incoming tide.	
13	0.6 m	SE	Very similar to the last couple of days.	
14	0.6m	SE	The SE swell is small and a bit uneven.	
15	0.3-0.6 m	ESE	Overcast skies and the swell is small and a bit messy.	
16	0.3-0.6 m	ESE	Almost a carbon copy of yesterday with the swell is small and a bit messy.	
17	0.3-0.6 m	Е	It's a lame looking grey morning. We've only got a very small, weak E swell.	
18	0.3-0.6 m	Ш	There's only a very small E swell.	
19	1.2-1.5 m	E	The swell has come up overnight and is solid from the E. There are nice waves on the points this morning that will improve as the tide drops.	
20	1.2-1.5 m	E	The E swell is solid and a bit uneven.	
21	1.2-1.8 m	E	The points are pumping for the experienced from Snapper to Kirra the pick and it has been very crowded.	
22	1.2-1.8 m	E	The points are the go for the experienced from Snapper to Kirra the pick and it has been very crowded.	
23	0.9-1.5 m	E	Once again, the points are the go early on the incoming tide before the winds go to the N.	
24	Clean, 0.9-1.2 m	E	There are fun waves on the points early. Try the N end beachies later when the wind goes NW.	
25	0.6-0.9 m	E	There are some small fun waves on the points now on the incoming tide.	
26	Inconsistent, 0.6-0.9m	E	There are some nice waves on the points now on the incoming tide, D'bah and the S end beachies will improve as the tide gets higher.	
27	Clean, 0.6-0.9 m	ESE	There are some nice small ones on the points early on low tide. D'bah and the S end beachies will improve during the morning on the rising tide.	
28	0.6-0.9 m	E	The points and D'bah are the pick again with the swell still too straight for the open beachies.	
30	Clean, 0.9-1.2 m	E	ESE swell is bigger on the open Tweed Beachies and the magnets.	

Source: Swellnet & CoatalWatch Surf Report

Generally, April experienced average to moderate waves for most of the month (with significant wave heights from 0.8 to 2.5 m). There were three moderate sea events on the on 5^{th} & 6^{th} , 18^{th} to 23^{rd} (inclusive) & 29^{th} .

END