TRESBP ENVIRONMENTAL MONITORING SUMMARY MAY 2011

OVERVIEW

In May, 2011:

- 24,674 m³ of sand was pumped to Duranbah Beach and 27,031 m³ of sand was pumped to Snapper Rocks East (total of 51,705 m³).
- There were no media articles referring to the project.
- Sea conditions were calm to moderate with significant wave heights of 0.6 to 2.6 m.
- 1,251 boats crossings were recorded for the month (this is about 40% fewer than the May average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes in the order of 76,000 to 79,000 m³ (this is about 110% of the May average).

1. SAND PUMPING & DREDGING

Sand Delivery May 2011

Pumped: $51,705 \text{ m}^3$ Dredged: 0 m^3 Total: $51,705 \text{ m}^3$

Sand Delivery January to May 2011 (YTD)

Pumped: 213,146 m³

Dredged: 0 m³

Total: 213,146 m³

Sand Delivery January to May 2010

Pumped: $190,678 \text{ m}^3$ Dredged: 0 m^3 Total: $190,678 \text{ m}^3$

Stage II Sand Delivery May 2000 to May 2011

Pumped: 6,023,884 m³
Dredged: 2,038,900 m³
Total: 8,062,784 m³



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



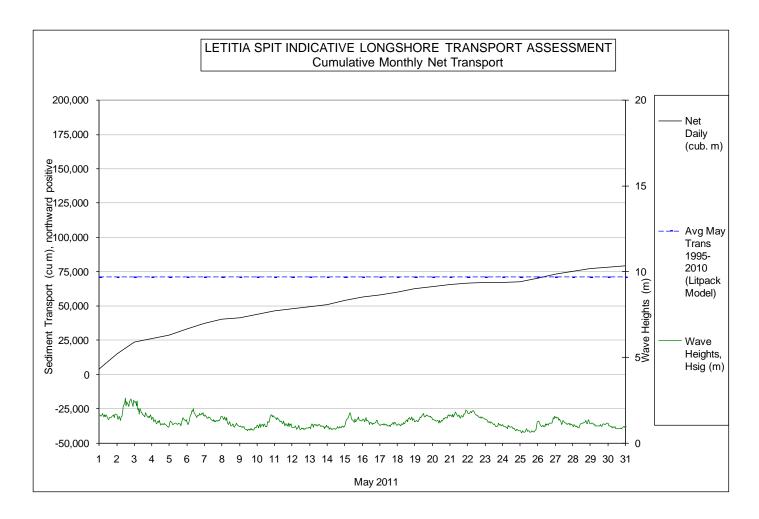


2. INDICATIVE LONGSHORE TRANSPORT

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

In May 2011 estimated natural sand transport (moving N towards Tweed entrance): to be in the order of 76,000m³ to **79,000m³** (based on two separate models).

This result is about 110% of the average sand transport quantity for the month of May.



3. MEDIA COVERAGE

No media coverage referring to the project this month.

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 | | | | | | 26 | |
| 2 nd | | | | | | 42 | |
| 3 rd | | | | | | 10 | |
| 4 th | | | | | | 11 | |
| 5 th | | | | | | 12 | |
| 6 th | | | | | | 0 | |
| 7 th | | | | | | 44 | |
| 8 th | | | | | | 77 | |
| 9 th | | | | | | 64 | |
| 10 th | | | | | | 12 | |
| 11 th | | | | | | 36 | |
| 12 th | | | | | | 34 | |
| 13 th | | | | | | 97 | |
| 14 th | | | | | | 133 | |
| 15 th | | | | | | 18 | |
| 16 th | | | | | | 16 | |
| 17 th | | | | | | 44 | |
| 18 th | | | | | | 18 | |
| 19 th | | | | | | 6 | |
| 20 th | | | | | | 32 | |
| 21 st | | | | | | 68 | |
| 22 nd | | | | | | 25 | |
| 23 rd | | | | | | 4 | |
| 24 th | | | | | | 60 | |
| 25 th | | | | | | 36 | |
| 26 th | | | | | | 6 | |
| 27 th | | | | | | 40 | |
| 28 th | | | | | | 90 | |
| 29 th | | | | | | 120 | |
| 30 th | | | | | | 22 | |
| 31 st | | | | | | 48 | |
| | | | | | Total | 1,251 | |

Comparison of the Number of Vessels Passing Through the Entrance per month 2010/11 compared to 2008/09, 2003/4 and 1995 (prior to entrance improvements) 4.000 2008-09 Average crossings per month ≈ 2,400 3,500 Number of vessels passing through the entrance per month (2010/11) 3,000 2003-04 Average crossings per month ≈ 1,400 No. Vessels passing through entrance per 2.500 Number of vessels passing through the entrance per month (2003/4) 2,000 1,500 1.000 Number of vessels passing through the entrance per month (1994/5) 500 1994-95 Average crossings per month ≈ 1,000

August September October NovemberDecember January February

Month (2010-11)

March

*Note 1 - Based on March to April averages

April

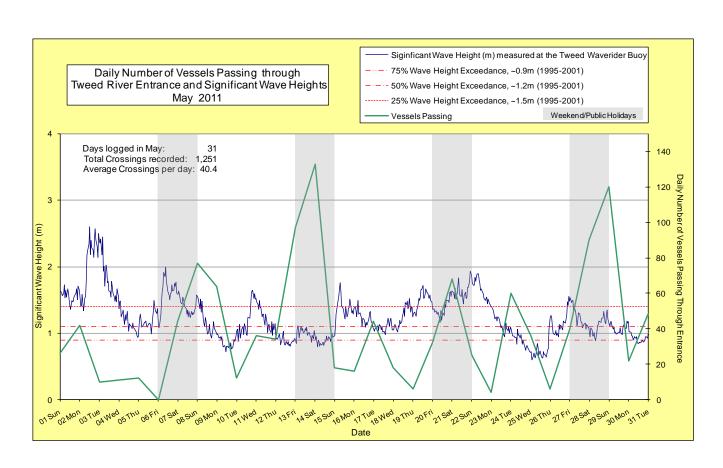
*Note 2 - Assuming the number of incoming boats = outgoing boats in 94/95

May

May

June

July



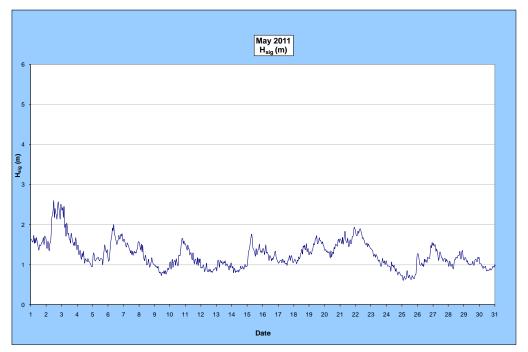
5. WAVE & SURFING CONDITIONS

<u>Dominant swell condition</u>: Wave heights ranged from calm to moderate seas (0.6 to 2.6 m). Wave directions varied from E to ESE.

High sea events: 2nd to 3rd May

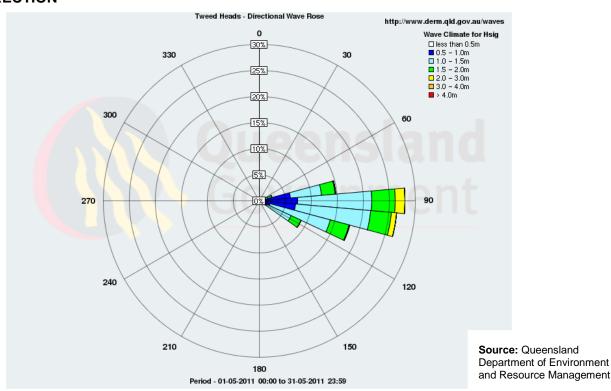
Monthly minimum significant wave height: 0.6 m on 25th May Monthly maximum significant wave height: 2.6 m on 2nd May Number of days on which waves were below 1.0 m: 12 days Number of days on which waves were above 2.0 m: 1 days

(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



UPCOMING SURF AND SURF LIFESAVING EVENTS

- 2011 XCEL Open Ocean Paddleboard Race, 4 June Gold Coast
- Jesus Pro Am CADETS 16 & Under Boys and 16 & Under Girls Divisions, 18-19 June 2011, Duranbah Beach
- Jesus Pro Am, Open Men's and Women's Divisions, 18-19 June 2011, Duranbah Beach
- Queensland Masters Surfing Championship, 25-26 June 2011, Gold Coast Qld
- Billabong Occy's Grom Comp, 2-6 July 2011, Gold Coast
- Girls Surf Slam Qld Championships, 23-24 July 2011, Gold Coast

PHOTOGRAPHS OF SURF CONDITIONS



Duranbah, 1 May 2011 (source: Swellnet Surf Report)



Snapper Rocks, 3 May 2011 (source: Swellnet Surf Report)



Kirra Point, 5 May 2011 (source: Swellnet Surf Report)



Greenmount, 10 May 2011 (source: Swellnet Surf Report)

TRESBP ENVIRONMENTAL MONITORING SUMMARY - MAY 2011



Duranbah, 10 May 2011 (source: Crown Lands Division, NSW DPI)



Snapper Rocks, 10 May 2011 (source: Crown Lands Division, NSW DPI)



Kirra, 17 May 2011 (source: Swellnet Surf Report)



Greenmount, 30 May 2011 (source: Swellnet Surf Report)

SURF REPORT OVERVIEW

| DATE | SURF | DIRECTION | COMMENTS |
|------|-------------------|-----------|---|
| 1 | Clean, 0.9-1.5m | E | Fantastic conditions this morning, 1.2-1.5m double and up to triple overhead sets rolling through Snapper, D'Bah 0.9-1.2m+ and clean; Rainbow Bay and Greenmount 0.6m peelers & fun waves for big boards; Kirra 0.6m clean and fast |
| 3 | Clean, 0.9-1.5m | E | There are 1.2-1.5m sets rolling through Snapper with the odd bigger one. Rainbow and Greeny through to Kirra have had a 0.9m sets with 0.6m+ peaks. |
| 4 | Glassy, 0.6-1.2m | E | Max 0.9m sets. |
| 5 | Clean, 0.3-0.6m | ESE | Kirra and Greeny getting about 0.45m of swell and not much else. D'bah is probably the pick with 0.6m+ |
| 9 | Clean, 0.3-0.6m | SE | Very small breaks with a bit of a wall forming at Snapper and D'bah, and not much else |
| 10 | Clean, 0.3-0.6m | E | Very small 0.6m sets at Snapper and D'bah, and0.3-0.45m beachies at Greeny/Kirra |
| 11 | Clean, 0.6m | E | 0.6m+ sets through S, D'bah, Kirra and Greeny |
| 12 | Clean, 0.3-0.45m | Е | A bit hit and miss this morning |
| 17 | Clean, 0.3-0.6m | E | Allot of fun options around this morning with 0.6m rolling through D'Bah, 0.6m+ rolling through Snapper with the odd howler in the clean out set. |
| 18 | Clean, 0.3-0.6m | E | While there is a wait between sets, there are some fun ones about this morning |
| 19 | Bumpy, 0.3-0.6m | E | A bit lumpy, the rain and breeze is chopping up the wave surface |
| 20 | Clean, 0.3-0.6m | E | Similar conditions this morning |
| 23 | Sloppy, 0.3-0.6m | E | Lumpy and all over the place |
| 25 | Choppy, <0.3m | E | Not allot available to ride this morning |
| 26 | Choppy, 0.3-0.45m | ESE | Still not much on offer |
| 27 | Clean, 0.3-0.6m | ESE | A few great 0.6m waves at Snapper and 0.45-0.6m at Greeny |
| 30 | Glassy, 0.3-0.45m | E | Good rides on the sets through Rainbow and Greeny |
| 31 | Clean, 0.3-0.45m | E | Snapper, Rainbow and Greeny all picking up a tiny 0.45m set wave. D'Bah had a little more size, upto 0.6m and a few barrels |

Source: Swellnet - Coolangatta Surf Report

Generally, May experienced calm to moderate conditions.

END