

# TRESBP ENVIRONMENTAL MONITORING SUMMARY

## FEBRUARY 2016

### OVERVIEW

In February 2016:

- 61,124 m<sup>3</sup> of sand was pumped to Snapper Rocks East.
- There was one media report relating to the Project area during February.
- Wave heights ranged mostly from calm to minor storm (0.6 to 3.5 m) with a maximum significant wave height of 3.5 m on 26<sup>th</sup> February. Moderate sea events were seen on the 8<sup>th</sup> and 16<sup>th</sup>. Wave directions varied from ENE to ESE but mostly from E by N.
- 415 vessel crossings were recorded for the month. (This is 70% less than February average).
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was in the order of 55,000 m<sup>3</sup> (this is almost the same as the February average).

### 1. SAND PUMPING & DREDGING

#### **Sand Delivery February 2016**

|          |                       |
|----------|-----------------------|
| Pumped:  | 61,124 m <sup>3</sup> |
| Dredged: | 0 m <sup>3</sup>      |
| Total:   | 61,124 m <sup>3</sup> |

The number of days sand was pumped this month = 26

#### **Sand Delivery January 2016 to February 2016**

|          |                        |
|----------|------------------------|
| Pumped:  | 125,487 m <sup>3</sup> |
| Dredged: | 0 m <sup>3</sup>       |
| Total:   | 125,487 m <sup>3</sup> |

#### **Stage II Sand Delivery April 2000 to February 2016**

|          |                             |
|----------|-----------------------------|
| Pumped:  | 8,228,552 m <sup>3</sup>    |
| Dredged: | 2,061,972 m <sup>3</sup> *  |
| Total:   | 10,290,524 m <sup>3</sup> * |

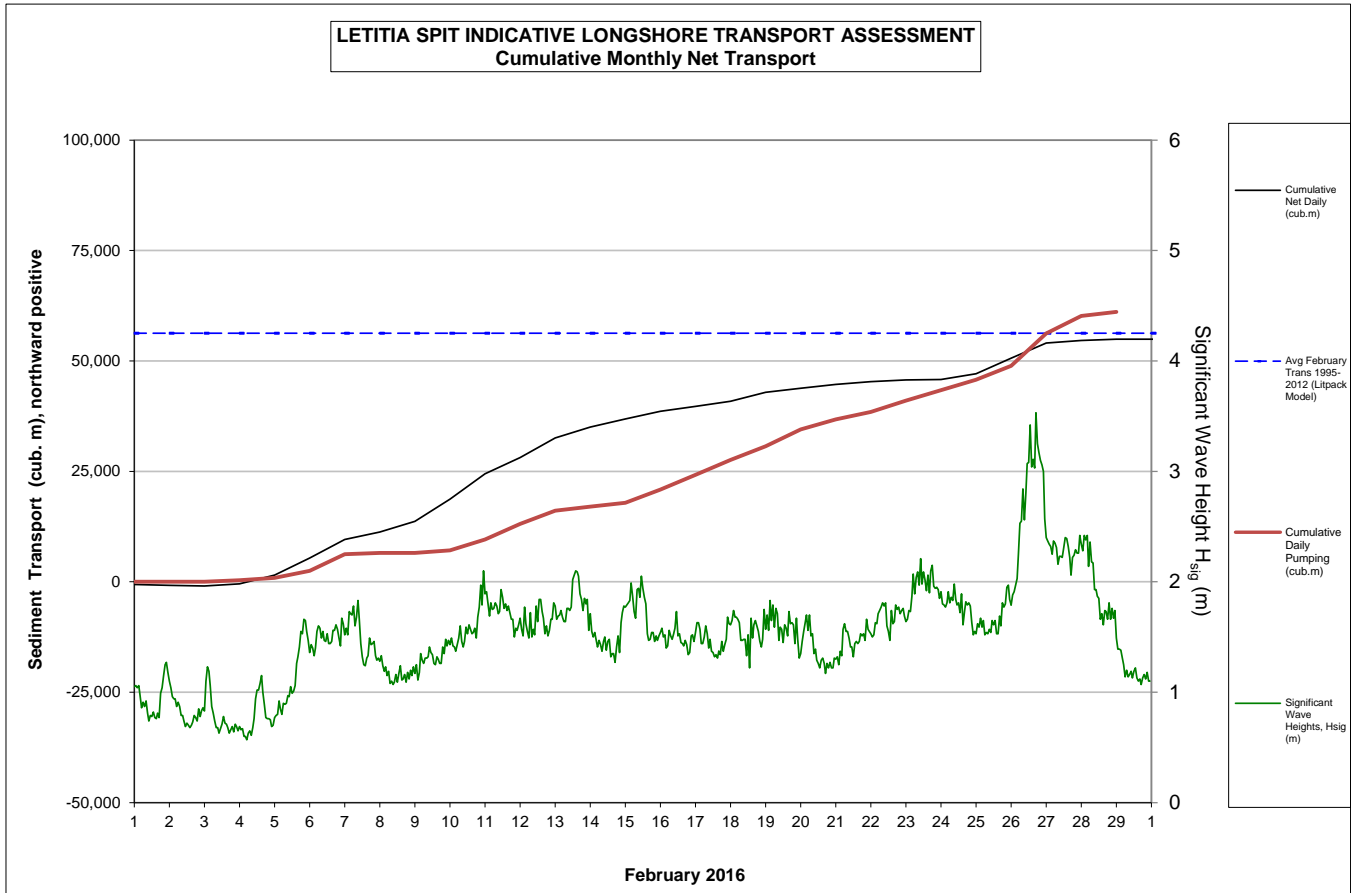
\* This Includes 22,870 m<sup>3</sup> of sand delivered by dredge to Palm Beach between June and September 2005

## 2. INDICATIVE LONGSHORE TRANSPORT

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

In February 2016 the estimated natural sand transport moving North towards the Tweed River entrance was calculated to be in the order of 55,000 m<sup>3</sup>.

This result is almost the same as the February average.



## 3. MEDIA COVERAGE

In February one media coverage was in ABC radio outlining sand pumping effects on surf breaks for the Quiksilver Pro.

**4. TWEED RIVER ENTRANCE CONDITIONS**

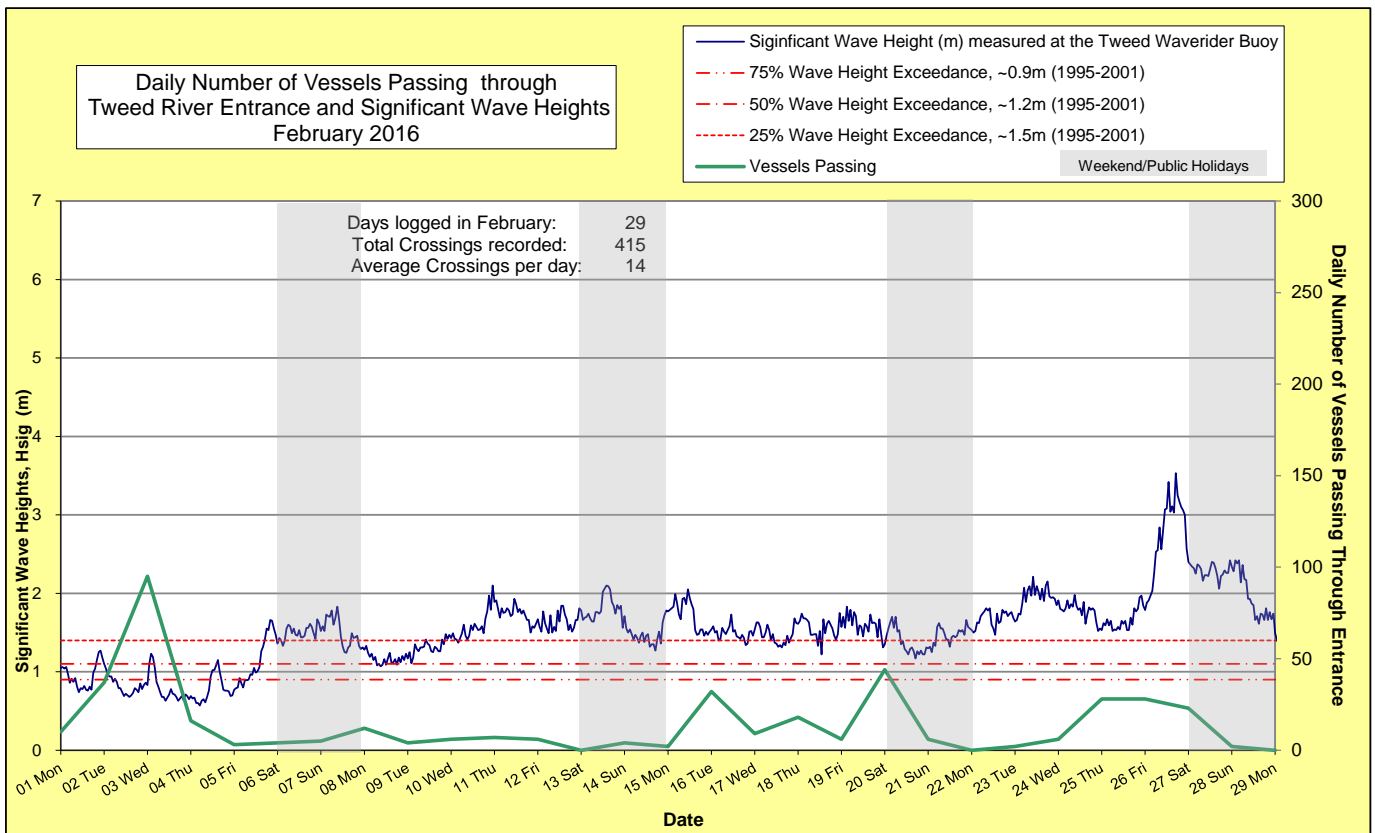
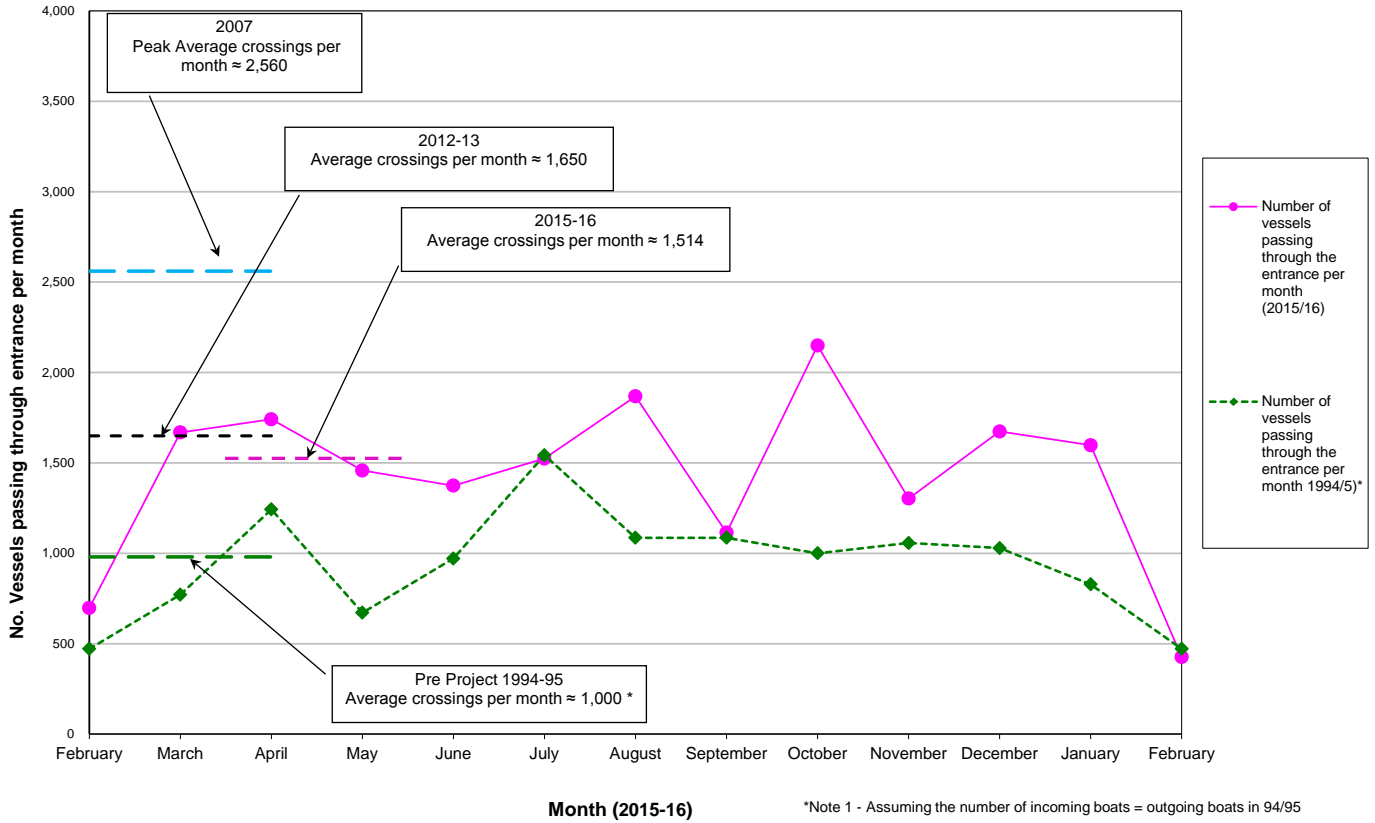
MARINE RESCUE NSW - MONITORING RESULTS

☐ Weekends and public holidays

| Date             | Navigation Rating<br>Impassable-----Good |                            |                                 |                              |                     | Number of Boats |
|------------------|--|----------------------------|---------------------------------|------------------------------|---------------------|-----------------|
|                  | Impassable (1)                           | Difficulty Encountered (2) | Some Difficulty Encountered (3) | Relatively Good Crossing (4) | Good Conditions (5) |                 |
| 1 <sup>st</sup>  |  |                            |                                 |                              |                     | 10              |
| 2 <sup>nd</sup>  |  |                            |                                 |                              |                     | 37              |
| 3 <sup>rd</sup>  |  |                            |                                 |                              |                     | 95              |
| 4 <sup>th</sup>  |  |                            |                                 |                              |                     | 18              |
| 5 <sup>th</sup>  |  |                            |                                 |                              |                     | 3               |
| 6 <sup>th</sup>  |  |                            |                                 |                              |                     | 4               |
| 7 <sup>th</sup>  |  |                            |                                 |                              |                     | 5               |
| 8 <sup>th</sup>  |  |                            |                                 |                              |                     | 12              |
| 9 <sup>th</sup>  |  |                            |                                 |                              |                     | 4               |
| 10 <sup>th</sup> |  |                            |                                 |                              |                     | 8               |
| 11 <sup>th</sup> |  |                            |                                 |                              |                     | 7               |
| 12 <sup>th</sup> |  |                            |                                 |                              |                     | 6               |
| 13 <sup>th</sup> |  |                            |                                 |                              |                     | 0               |
| 14 <sup>th</sup> |  |                            |                                 |                              |                     | 4               |
| 15 <sup>th</sup> |  |                            |                                 |                              |                     | 2               |
| 16 <sup>th</sup> |  |                            |                                 |                              |                     | 33              |
| 17 <sup>th</sup> |  |                            |                                 |                              |                     | 9               |
| 18 <sup>th</sup> |  |                            |                                 |                              |                     | 18              |
| 19 <sup>th</sup> |  |                            |                                 |                              |                     | 8               |
| 20 <sup>th</sup> |  |                            |                                 |                              |                     | 44              |
| 21 <sup>st</sup> |  |                            |                                 |                              |                     | 8               |
| 22 <sup>nd</sup> |  |                            |                                 |                              |                     | 0               |
| 23 <sup>rd</sup> |  |                            |                                 |                              |                     | 2               |
| 24 <sup>th</sup> |  |                            |                                 |                              |                     | 8               |
| 25 <sup>th</sup> |  |                            |                                 |                              |                     | 28              |
| 26 <sup>th</sup> |  |                            |                                 |                              |                     | 28              |
| 27 <sup>th</sup> |  |                            |                                 |                              |                     | 23              |
| 28 <sup>th</sup> |  |                            |                                 |                              |                     | 2               |
| 29 <sup>th</sup> |  |                            |                                 |                              |                     | 0               |
|                  |  |                            |                                 |                              |                     | <b>Total</b>    |
|                  |  |                            |                                 |                              |                     | <b>426</b>      |

Source: Marine Rescue NSW, Point Danger

Comparison of the Number of Vessels Passing Through the Entrance per month 2014/15 compared to 2007 (peak crossings) and 1994/95 (prior to entrance improvements)



### 5. WAVE CONDITIONS

Wave conditions over the month: Wave heights ranged mostly from calm to minor storm (0.6 to 3.5 m) with a maximum significant wave height of 3.5 m on 26<sup>th</sup> February. Moderate sea events were seen on the 8<sup>th</sup> and 16<sup>th</sup>. Wave directions varied from ENE to ESE but mostly from E by N.

Monthly minimum significant wave height: 0.6 m on 4<sup>th</sup> February

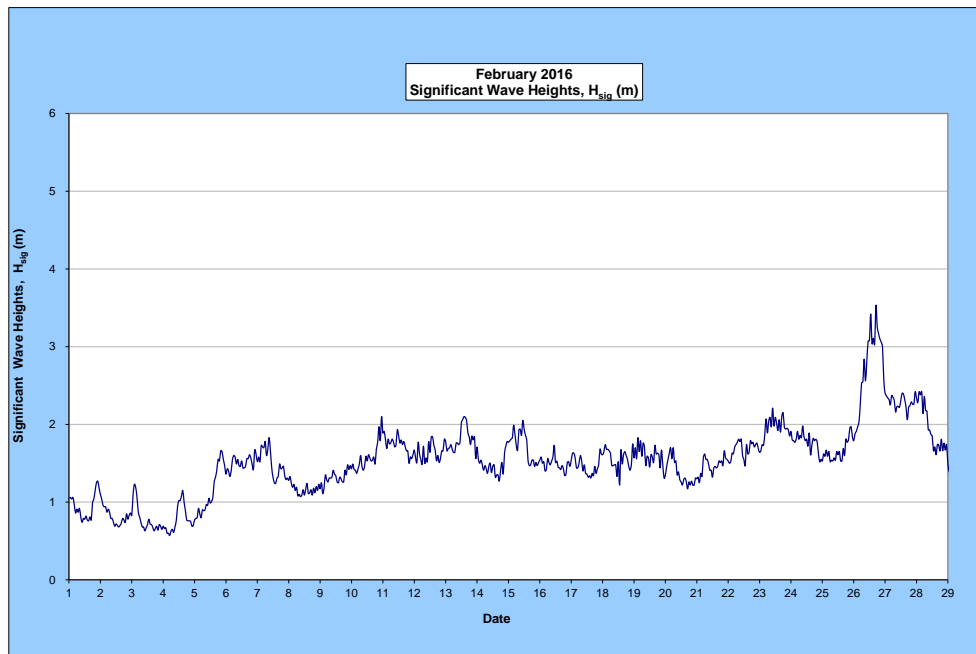
Monthly maximum significant wave height: 3.5 m on 26<sup>th</sup> February

Number of days on which waves were below 1.0 m at some point in the day: 5 days

Number of days on which waves were above 2.0 m at some point in the day: 7 days

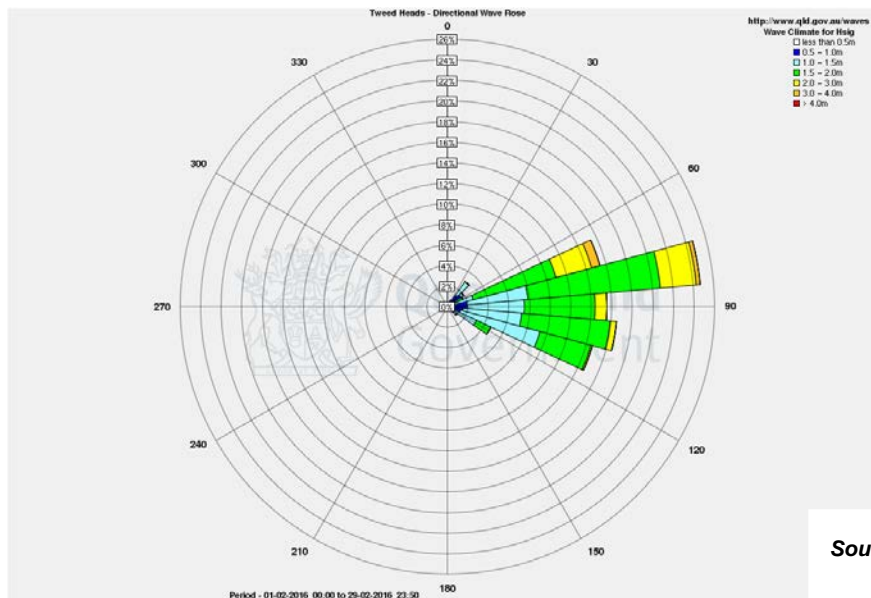
**Note:** Significant wave heights or  $H_{sig}$  is the average of the highest one third of recorded waves.

(Source: Tweed & Brisbane 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