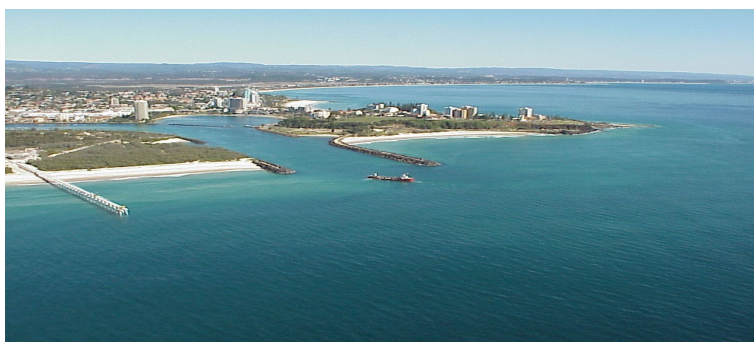


Tweed River Entrance Sand Bypassing Project

Letitia Spit to Kirra



Monthly Environmental Monitoring Summary

JANUARY 2009

Department of Lands 




**Queensland
Government**
Environmental
Protection Agency

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1. EXECUTIVE SUMMARY

This report provides a summary of environmental monitoring undertaken by the TRESBP in January 2009.

- The number of vessels that passed through the entrance in January 2009 was about 50% higher than the 2002-2008 average number of crossings for the month of January.
- Surf quality in January was average to good, with wave conditions varying in direction and clean-ness. Waves and moderate seas occurring about once a week.
- Tide data for January 2009 is currently being analysed. Results will be presented in the project's February 2009 Monthly Environmental Monitoring Summary. Data for December 2008 indicated there has been no significant impact of the project on Tweed River tides.
- The estimated amount of sand moving north towards the Tweed River Entrance by natural processes was close to the January average.

2. INTRODUCTION

This document provides a summary of sand quantities delivered by the project, as well as surf, beach, river, entrance and weather conditions for the southern Gold Coast Beaches, Duranbah and the Tweed River Entrance for ongoing monitoring purposes.

Information has been sourced from TRESBP monitoring programs, GCCC, QEPA, the Bureau of Meteorology, Surfing Australia, media coverage, Coastalwatch.com.au and Swellnet.com.au.

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3. SAND PUMPING & DREDGING ACTIVITIES

Sand Delivery for January 2009

	PUMPED		JAN 2009 TOTAL DELIVERY
Location	Snapper Rocks East	Duranbah	
Amount (m³)	35,488 m ³	0 m ³	35,488 m ³

Total Sand Delivery This Year (January 2009)

	PUMPED	DREDGED	2009 TOTAL DELIVERY
Amount (m³)	35,488 m ³	0 m ³	35,488 m ³

Total Sand Delivery Last Year (January to December 2008)

	PUMPED	DREDGED	2008 TOTAL DELIVERY
Amount (m³)	585,809 m ³	198,979 m ³	784,788 m ³

Total Stage 2 Delivery to Date (May 2000 to January 2009)

	PUMPED	DREDGED	TOTAL DELIVERY STAGE 2
Amount (m³)	5,041,385 m ³	*1,979,755 m ³	*7,021,140 m ³


* Nb. Does not include 22,870 m³ of dredged sand delivered to Palm Beach from June to September 2005.

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4. TWEED RIVER ENTRANCE CONDITIONS

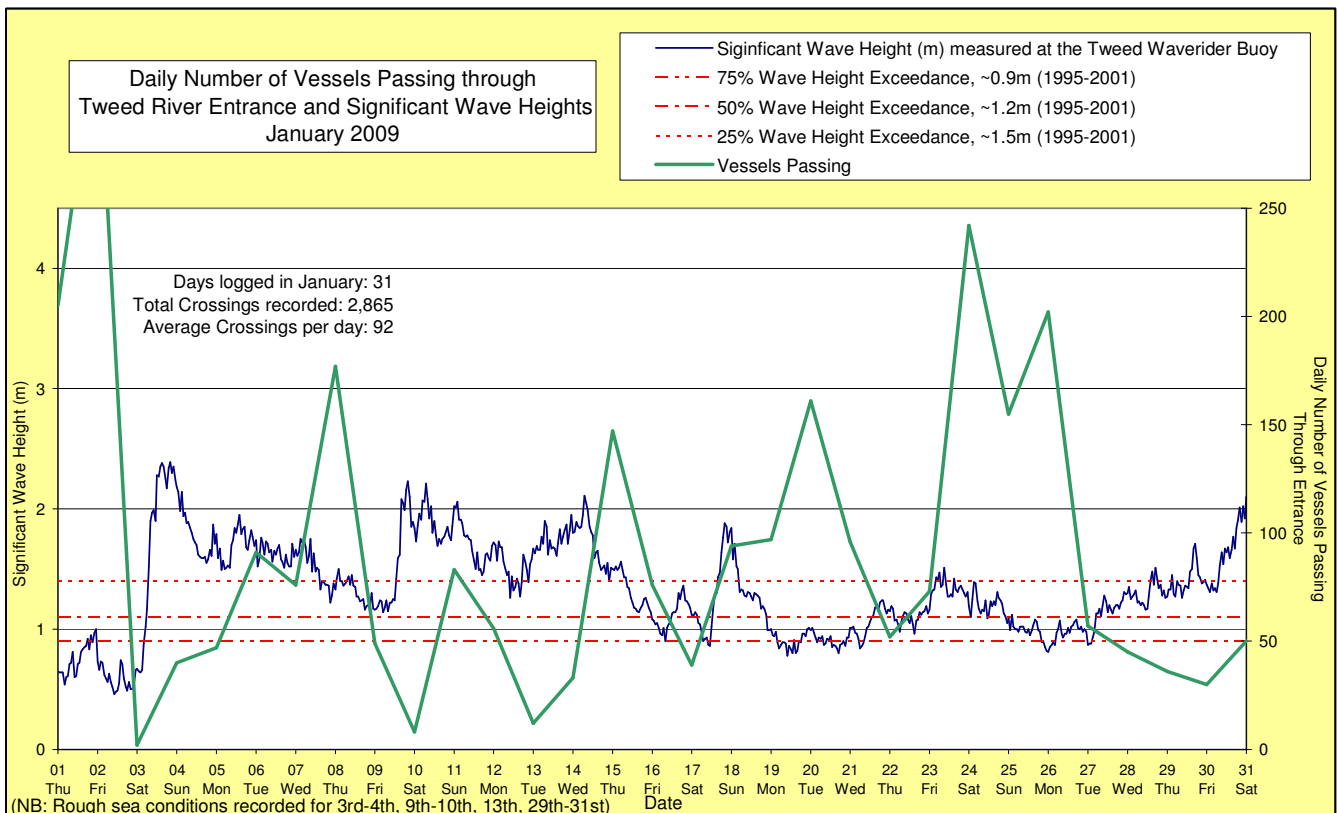
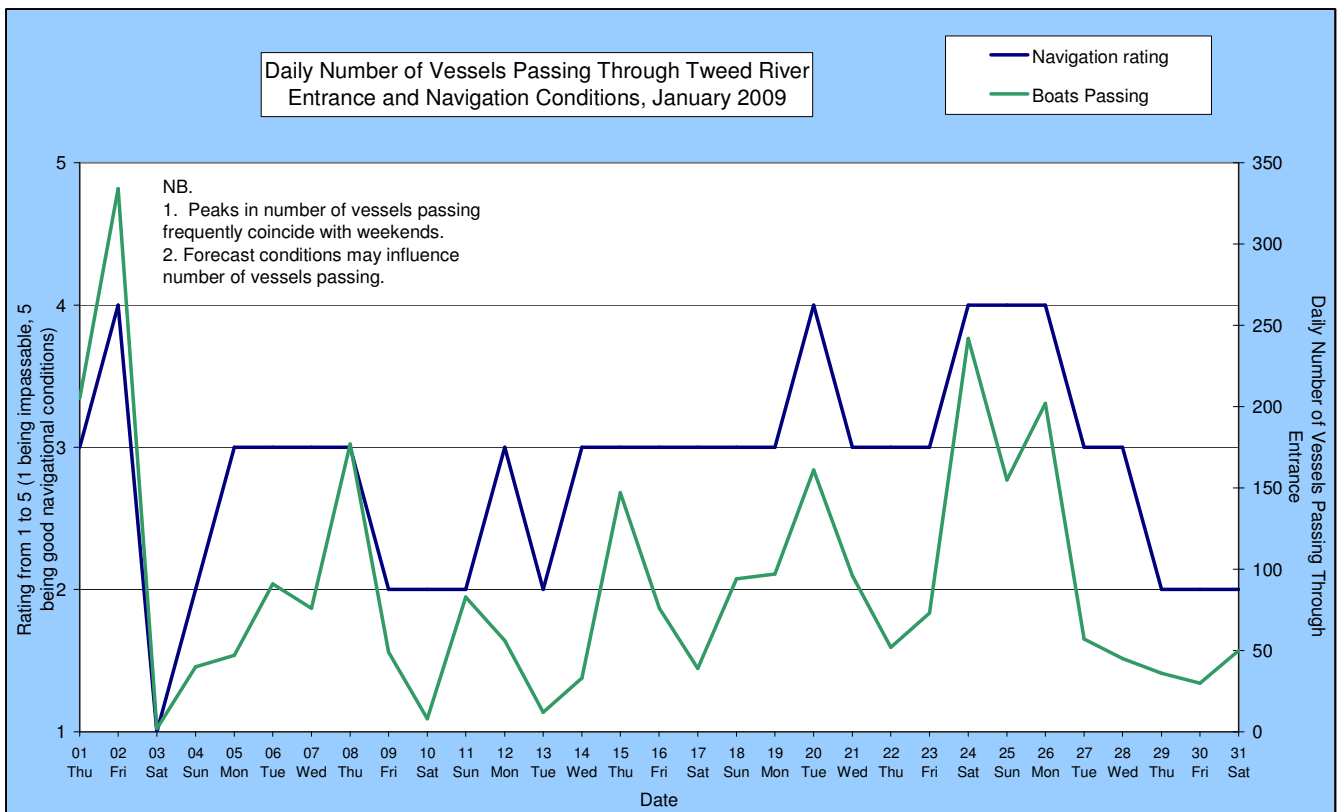
VOLUNTEER MARINE RESCUE REPORTS

Volunteer Marine Rescue Pt Danger has been monitoring entrance conditions on behalf of TRESBP since 20 January 2002. Monitoring results for January 2009 are presented below.

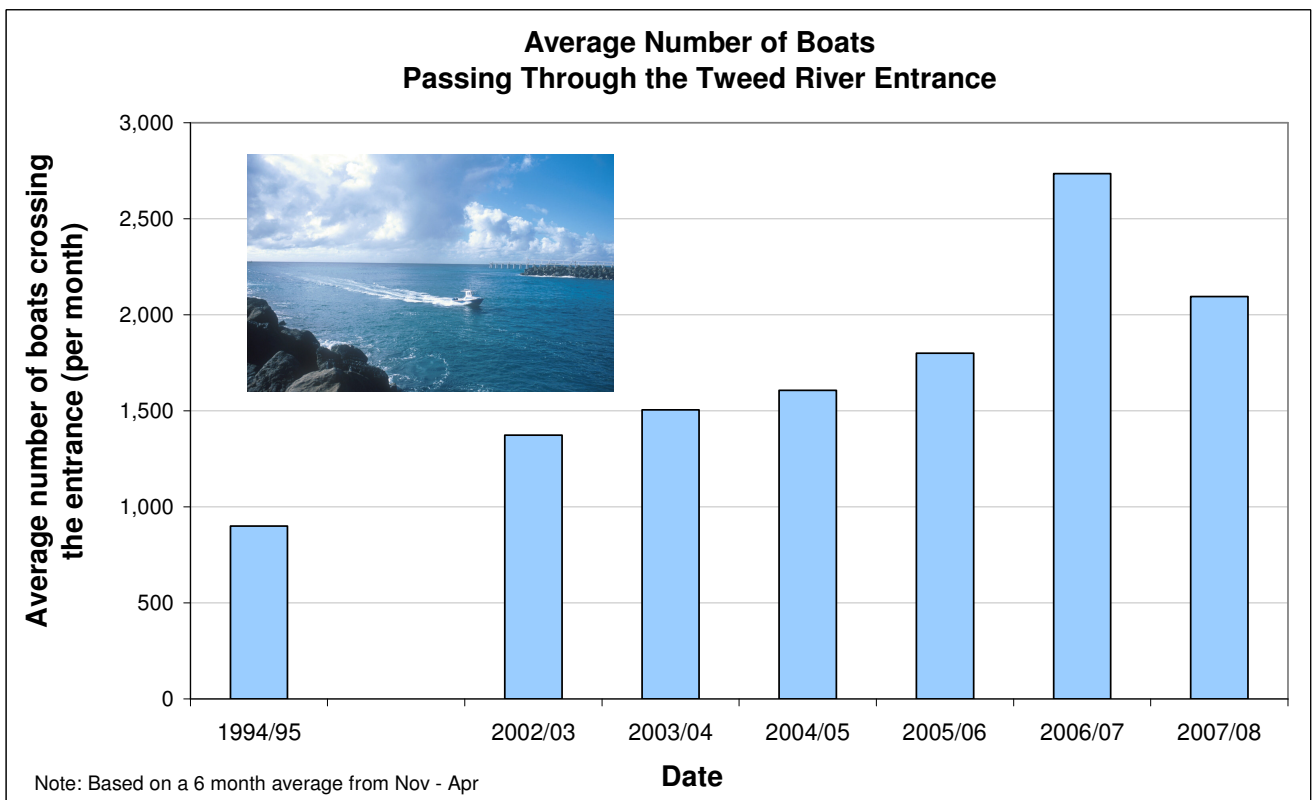
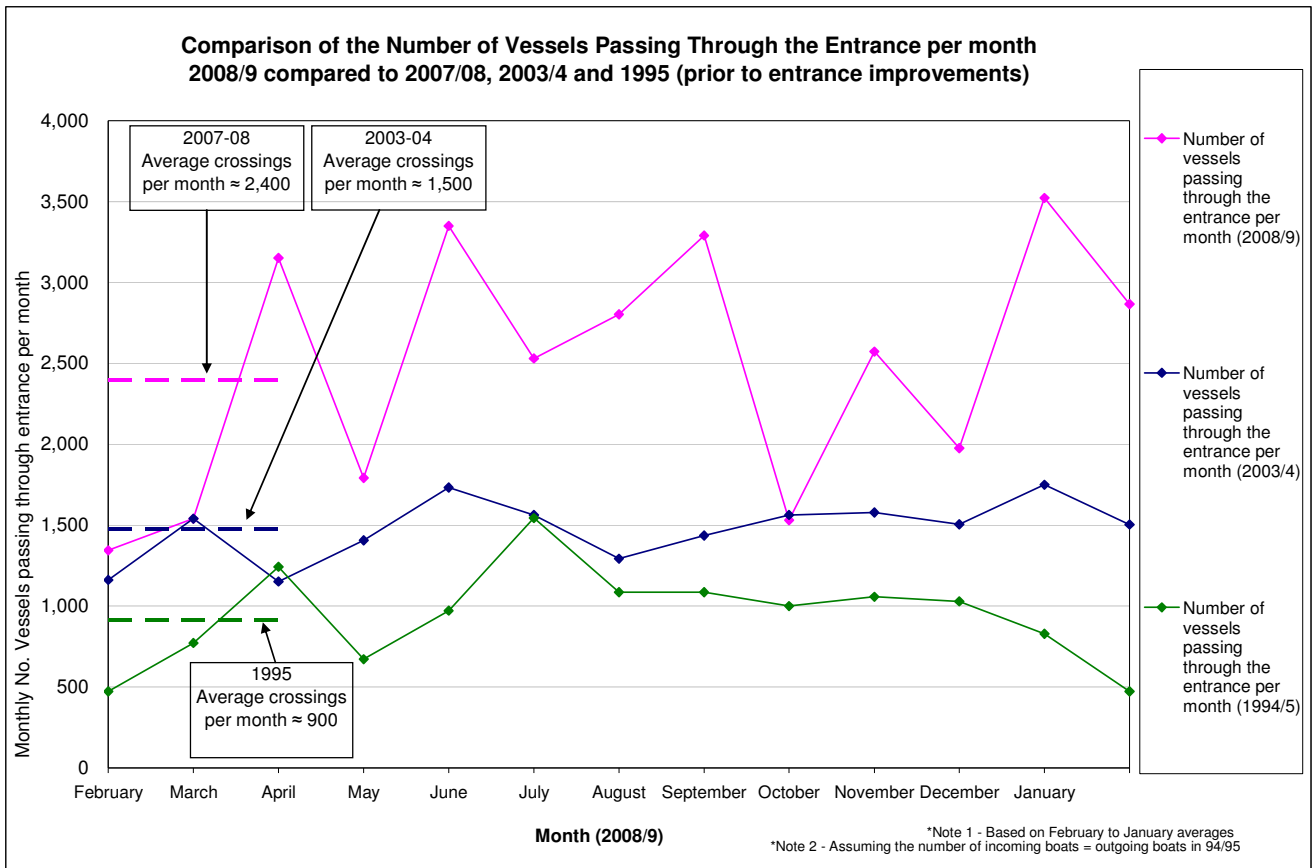
 Weekends and public holidays

Date	Entrance Conditions	Navigation Rating Impassable-----Good					Number of Boats
		Impassable	Difficulty Encountered	Some Difficulty Encountered	Relatively Good Crossing	Good Conditions	
1	Moderate 20 Kt						205
2	Moderate 19 Kt						334
3	Rough 25 Kt						2
4	Rough 25 Kt						40
5	Moderate 17 Kt						47
6	Moderate 19 Kt						91
7	Moderate 15 Kt						76
8	Moderate 15 Kt						177
9	Rough 33 Kt						49
10	Rough 30 Kt						8
11	Rough 20 Kt						83
12	Moderate 15 Kt						56
13	Rough 19 Kt						12
14	Moderate 17 Kt						33
15	Moderate 15 Kt						147
16	Moderate 25 Kt						76
17	Moderate 24 Kt						39
18	Moderate 15 Kt						94
19	Moderate 15 Kt						97
20	Moderate 14 Kt						161
21	Moderate 16 Kt						96
22	Moderate 18 Kt						52
23	Moderate 16 Kt						73
24	Moderate 14 Kt						242
25	Moderate 10 Kt						155
26	Moderate 14 Kt						202
27	Moderate 18 Kt						57
28	Moderate 13 Kt						45
29	Rough 18 Kt						36
30	Rough 21 Kt						30
31	Rough 20 Kt						50
TOTAL							2,865

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5. SURFING CONDITIONS

Dominant swell condition: 1.0 - 2.0 m from SE to NE

Moderate sea events: 3rd - 4th January (waves reaching 2.39 m), 9th - 11th January (2.23 m), 14th January (2.04 m) and 31st January (2.1 m)

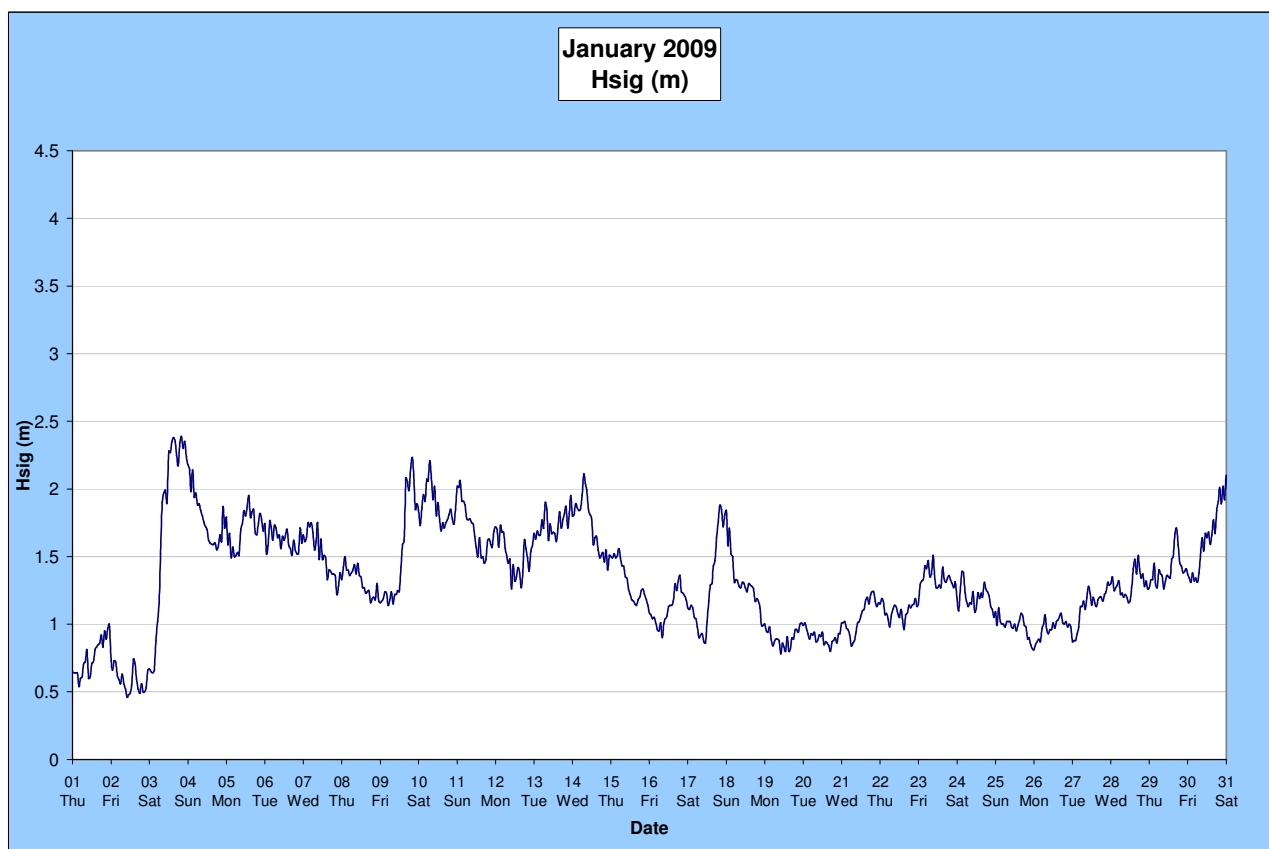
Monthly minimum significant wave height: 0.46 m on 2nd January

Monthly maximum significant wave height: 2.39 on 3rd January

Number of days with waves below 1.0 m: 13 days

Number of days with waves above 2.0 m: 8 days

(Source: Tweed & Brisbane Waverider Buoy; BoM)



A link to data recorded by the Tweed Waverider Buoy is available at
<http://www.epa.qld.gov.au/projects/waves/site.cgi?siteid=28&noback=4>

SURF QUALITY OVERVIEW

The following surf quality overview is based on daily surf reports from Coastalwatch, Swellnet, Bureau of Meteorology, volunteer observations on site by Brian Mason and observations on site by project team members.

Date	Surfing Conditions
1-2 Jan	Very small waves, light ENE winds.
3 Jan	Strong winds with swell building.
4-7 Jan	Good surf, but reported to be a bit uneven. Point breaks recommended as best surfing spots.
8-10 Jan	Strong NNE winds, messy waves of average size.
11-13 Jan	Good surf, clean waves of average size.

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Date	Surfing Conditions
14 Jan	Strong winds, messy waves.
15 Jan	Good surfing conditions, waves of average size.
16-18 Jan	Strong winds, blown out surfing conditions.
19-22 Jan	Smaller waves, clean conditions. Good small-wave surf.
23-25 Jan	NE winds, small, messy waves.
26-28 Jan	Good surf, small, clean waves.
29-30 Jan	Small, messy waves.
31 Jan	Good surf. Clean average-size waves. Point breaks recommended as best surfing spots.

SURF & SURF LIFE SAVING AND OTHER EVENTS

Events in January 2008

Jim Beam Surf Tag, 4 January, Duranbah
WBC Branch Surf Lifesaving HP Tour 8-11 January, Gold Coast
SLSA State Performance Camp, 12-14 January, Gold Coast
SLSQ Under 8-Under 10 Carnival, 31 January, Kirra
Rip Curl MP Classic, 31 January-1 February, Gold Coast

Upcoming events in February 2008

Rip Curl Teams Kirra Challenge, 19-22 February, Kirra Point
Quiksilver and Roxy Pro Trials, 27 February, Gold Coast
Quiksilver and Roxy Pro, 28 February-11 March, Gold Coast

Source: Surfing Australia & Surf Life Saving Queensland

6. MEDIA COVERAGE

Gold Coast Bulletin, 5 January, "Head in the sand"

"Sand pumping has caused the loss of the famous Kirra break and the community is nervous about trusting the bureaucrat's promises that it will return in due course."

Gold Coast Bulletin, 5 January, "Making their Point"

"Kirra Point, once the bustling home of surfing, fell victim to the Tweed sand bypass system that was established in 2001 to replenish sand on to Gold Coast beaches."

Gold Coast Bulletin, 5 January, "Surf's up after months of mediocre swell"

"Surfers lined the breaks from Snapper to Kirra Point, even though the Superbank was far from pumping."

Gold Coast Bulletin, 6 January, "Mind your manners, Snapper surfers urged"

"Fin chops, collisions and surfers dropping in on each other were commonplace as spectators surveyed the chaos of a decent swell during the peak holiday season."

Gold Coast Bulletin, 7 January, "Surfers roll in for swell summer sets"

"Senior lifeguard Michael Chan said east and southeasterly winds, combined with increasing swell, made for great surfing conditions. "This is the first swell we've had in months," he said. "In fact it's the first decent swell of summer.""

ABC News, 7 January, "Forecaster tips big cyclone season for Qld"

"Long-range weather forecaster Hayden Walker has predicted three cyclones for Queensland over the next three months. He believes a cyclone as destructive as Cyclone Larry, which hit the state's far north in 2006, will batter the state this month, followed by storm events in February and March."

Tweed Daily News, 8 January, "Big plans for Australia Day"

"Meanwhile, Kirra surfers will paddle out at the once world-class surf break and form a map of Australia in the ocean as a protest of the sand pumping, which has turned the beach into a desert and killed the waves."

Gold Coast Bulletin, 10 January, "Rescues, rips aplenty as beaches closed"

"Gold Coast lifesavers had a hellish day on the beaches on Saturday performing a series of rescues as king tides and big seas caused havoc for swimmers and forced the closure of a number of beaches."

Courier Mail, 12 January, "A taste of the tides of change to come to beaches"

"Offshore waves to 5.5 m and king tides pounded the Sunshine and Gold coasts yesterday, causing minor erosion and giving residents a taste of what might come."

ABC News, 12 January, "Biggest king tide in 18 years hits east coast"

"[CSIRO's Dr Kathleen McInnes said] "In 50 year's time, when we get that much global sea level rise occurring anyway, this is the sort of thing we might be experiencing every two weeks.""

Gold Coast Bulletin, 12 January, "Surfers rescued as tides fuel rips"

"Lifesavers rescued more than 11 people from the surf across Gold Coast beaches yesterday as high tides hit the southeast. More than 6 people were given first-aid, including two with possible spinal injuries and one with severe shock."

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Gold Coast Bulletin, 13 January, "Stephanie Gilmore rides king waves"

"For somewhere like Snapper it wasn't very good because there was too much water on the sandbank and it wasn't creating such big waves," [World Champion surfer Stephanie Gilmore] said. "It was good for Duranbah though because it kind of filled in the holes. When I get home, Duranbah is one of my favourite waves to surf."

Tweed Daily News, 13 January, "Swell time with big tide"

"Fingal beach was almost stripped of sand when the tide was at its highest, about mid-morning."

Gold Coast Bulletin, 19 January, "Kirra Point draws offshore aid"

"The organisation that helped save an important surf spot in California (International Surfrider Foundation) is set to throw its weight behind the "Bring Back Kirra" campaign."

Tweed Daily News, 19 January, "Kirra surf drive"

"The Surfrider Foundation has taken the Bring Back Kirra campaign international by declaring it a major priority for 2009."

Gold Coast Bulletin, 19 January, "Bureaucrats killing our attractions"

"...Kirra Point, a longtime mecca for surfers that drew people here in the tens of thousands over the years and as a result injected millions of dollars into the local economy, has been allowed to drown in millions of tonnes of sand."

Tweed Daily News, 20 January, "Mapping out Kirra keg protest"

"The Australia Day paddle out has received overwhelming support from the professional surfers such as 2007 ASP world champ and Kirra Surfrider club life member Mick Fanning who will speak on the day, as well as surfing legends Michael Peterson and Wayne Dean. Other top pros expected to take part in the paddle include Stephanie Gilmore, Bede Durbidge, Joel Parkinson, Josh Kerr and Mark Occhilupo."

Swellnet website, 21 January, "Australia Day paddle out at Kirra Point"

"Hundreds of paddlers will attempt to create the Map of Australia out in the water to focus on the loss of the famous Kirra Point, considered to be one of the best in the world until it was wiped out by the NSW Government's Tweed Sand Bypass pumping operation."

News.com.au, 21 January, "Pro surfers join protest over dying Kirra Point break"

"A 2001 sand pumping operation put in place by the NSW and Queensland governments has dumped millions of cubic metres of immovable sand at Kirra. But the plan, originally designed to guard against erosion has backfired. Kirra's epic waves have since dwindled and a nearby marine reef has been destroyed."

Gold Coast Mail, 21 January, "Qld surfers to protest over Kirra's lost waves"

"The break was considered to be one of the best in the world until an agreement to replenish Gold Coast beaches by pumping sand around the mouth of the Tweed River dumped millions of cubic metres of sand along Queensland southernmost beaches from 2002."

Coastalwatch website, 22 January, "Australia Day '09 Paddle out at Kirra"

"...Mick Fanning will speak on the day, as well as local surfing legends Michael Peterson and Wayne Dean, Kirra Pioneer John Standing, Griffith Centre for Coastal Management's Neal Lazarow and Surfrider Foundation marine biologist Bob Moffat...Politicians such as Ian Cohen (NSWMP Greens), Jann Stucky (Liberal MP for Currumbin), Michael Riordan (Labor Candidate for Currumbin), Christine Robbins (GCCC Southern Councillor) and Katie Milne (Tweed Greens Councillor) will address the public."

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Gold Coast Bulletin, 22 January, "Song sung blue for Kirra"

"According to Kirra Surf Life Saving Club general manager Sheldon Steele, the club has lost a massive amount of trade since the sand settled in, "We are just one small business among about 15 along Kirra and we have lost \$1.2 million since the start of the 'great southern desert' out the front," he said."

Surfrider Foundation Website, 23 January, "Bring back Kirra Point"

"Apart from Kirra Point losing its famous barrelling double keg section and the deepest tube rides on the Gold Coast, the reefs that created the Kirra Point wave namely the inside reef Butterbox and the Miles Street outside reef were also buried with an oversupply of sand completely wrecking the marine habitat once popular with divers and fishermen."

Gold Coast Bulletin, 26 January, "Surfers want Kirra back on map"

"Hundreds of surfers will create a map of the country at the Australia Day paddle-out in an attempt to draw attention to the loss of the break, wiped out by the Tweed sand by-pass pumping operation in 2002"

Gold Coast Bulletin, 26 January, "Thousands turn out to save Kirra Point"

"More than 1,500 surfers have turned out for an Australia Day paddle-out at Kirra Point today in a massive show of support for restoring the famous surf break."

Sydney Morning Herald, 26 January, "Perfect wave puts Rabbit in headlights"

"...Kirra's beaches and breaks have been wrecked by what has been described as a 'man-made flood of sand' aimed originally at stabilising the nearby Tweed River mouth."

Tweed Daily News, 26 January, "Danger in shifting sands at Fingal"

"At least 50m [of sand] has been taken," [Fingal resident] Mr Fonmosa said. He said pandanus, eucalypts and sheoaks that the local dune care group had planted were among the trees falling victim to the encroaching waterline. "It looks like a graveyard, there are dead trees everywhere."

SBS World News, 26 January, "Surfers protest demise of Qld's Kirra"

"The paddlers, including pro surfers Mick Fanning and Joel Parkinson, are using Australia Day to shed some light on their cause, forming a 100m wide map of the nation metres from the shore. They say the once iconic Kirra break has been destroyed by a joint NSW and Qld state government project which was originally designed to maintain the beach."

Gold Coast Bulletin, 27 January, "Kirra paddlers make a point"

"Kirra Point has not broken as it should since 2002, one year after the start of the Tweed sand bypass pumping operation, which transfers sand from Fingal beach to Point Danger. Millions of cubic metres of sand has clogged Kirra Point, with the area now resembling a desert."

Courier Mail, 27 January, "Surfing legends hit the waves to save Kirra Beach"

"Originally designed to stop Kirra beach eroding, it has done the reverse – dumping more than 10 million cubic metres of sand and creating what the locals consider the "Great Southern Desert". Protesters believe Kirra's once world-famous barrels have disappeared, along with a nearby coral reef which has been literally buried."

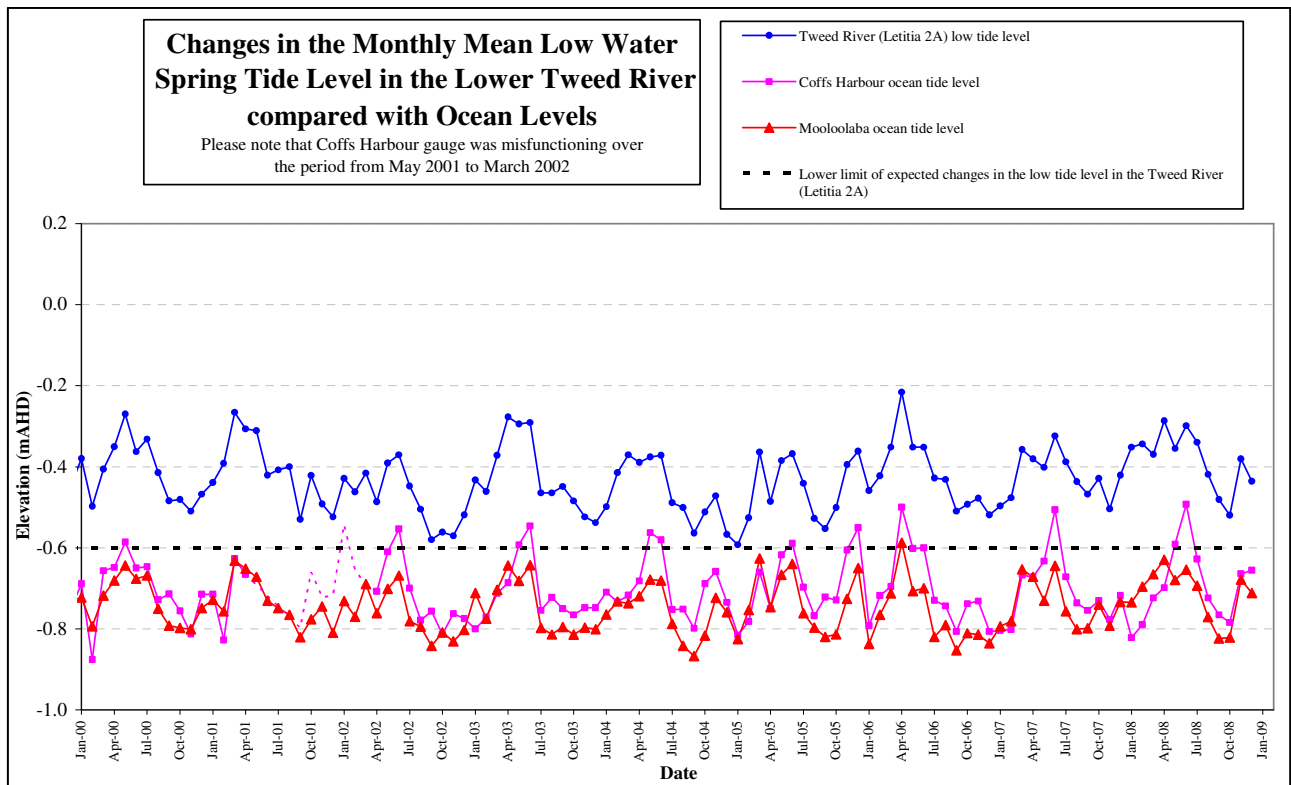
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7. TWEED LOWER ESTUARY TIDE CONDITIONS

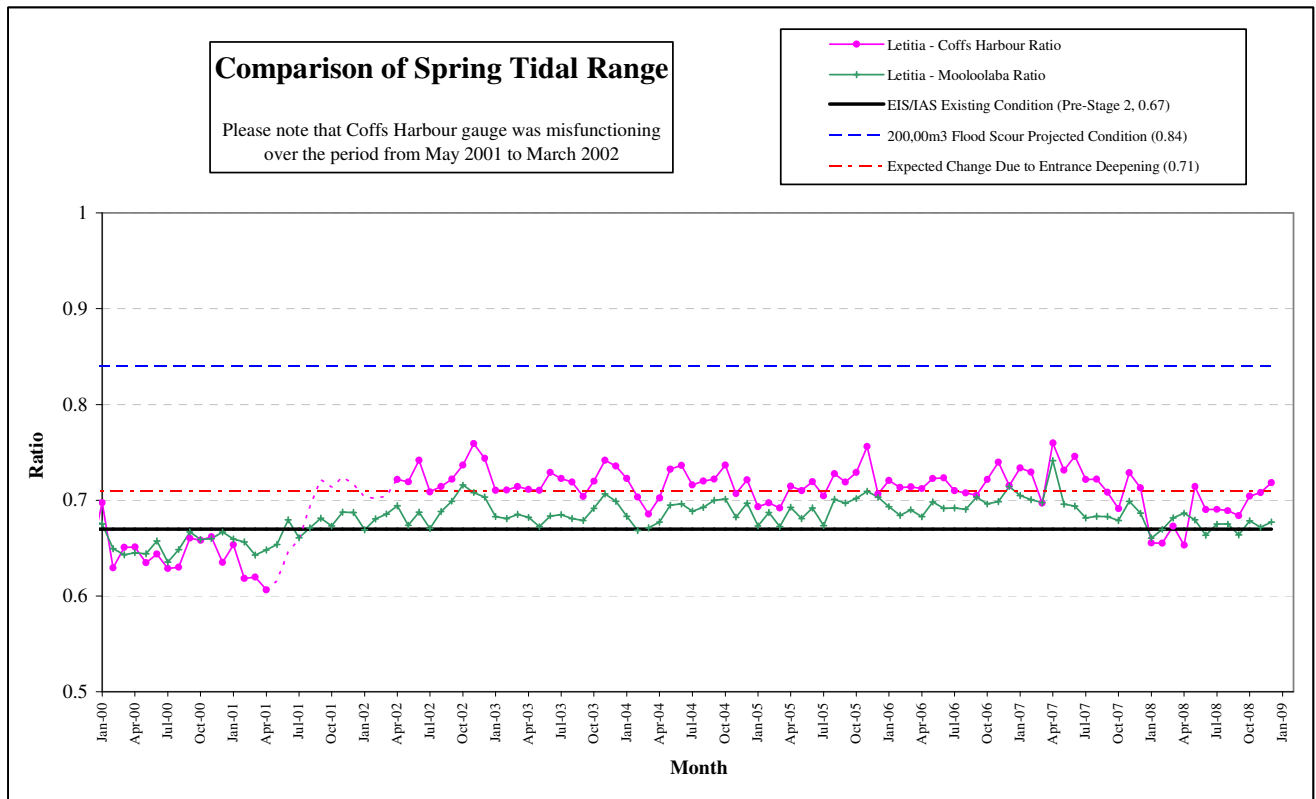
Tweed River tide data for January 2009 is currently being analysed. Results will be presented in the project's February 2009 Environmental Monitoring Summary.

Tweed River December 2008 Mean Low Water Spring (MLWS) tide level: -0.436 m AHD

Letitia 2A tide data for December 2008 mirrored the Mooloolaba ocean tidal trends indicating that the TRESBP had not had a significant impact on the Lower Tweed River tidal range.



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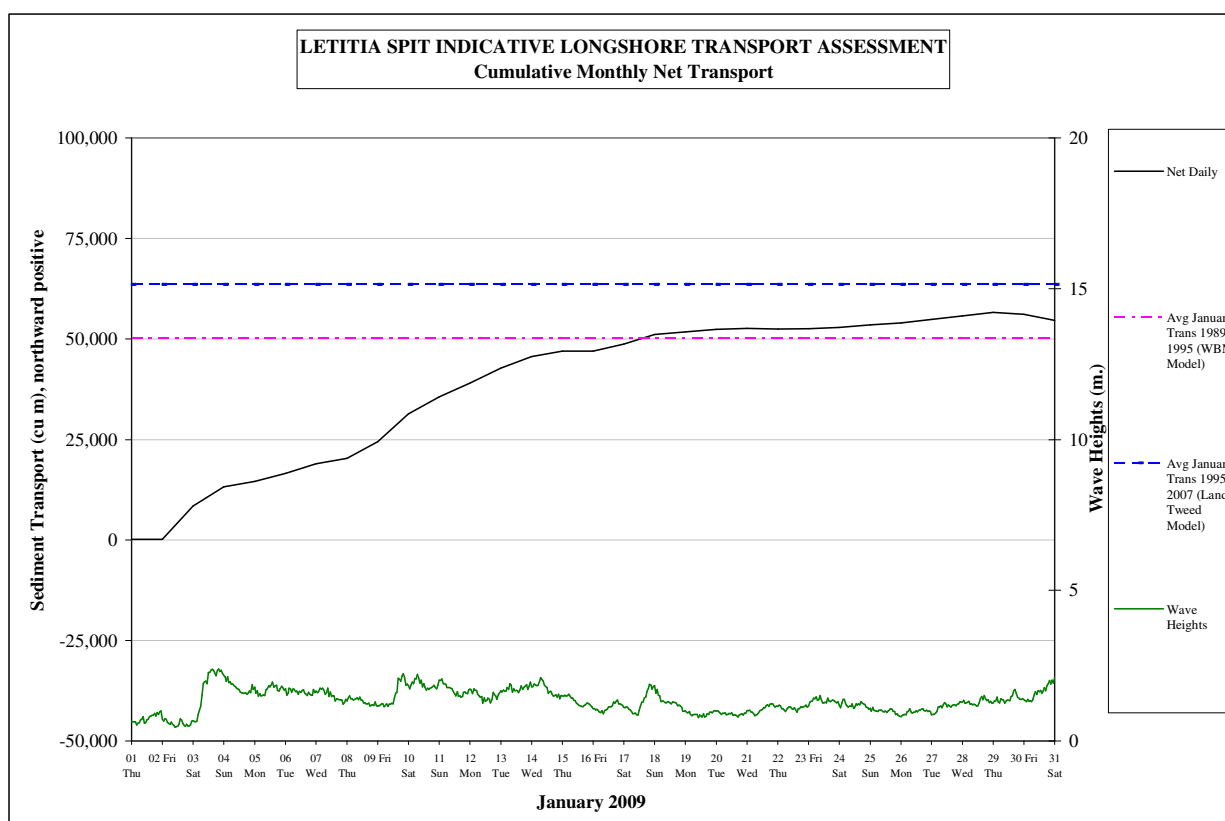
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8. INDICATIVE LONGSHORE TRANSPORT

The longshore sand transport information presented in the graph overleaf is based on a simplified sediment transport model and should only be used as an indicator of the actual sand transport quantities for the month.

January 2009 estimated natural sand transport (moving N towards Tweed entrance): 55,000 m³.

This result is close to the average sand transport for the month of January.



9. ARGUS COASTAL IMAGING

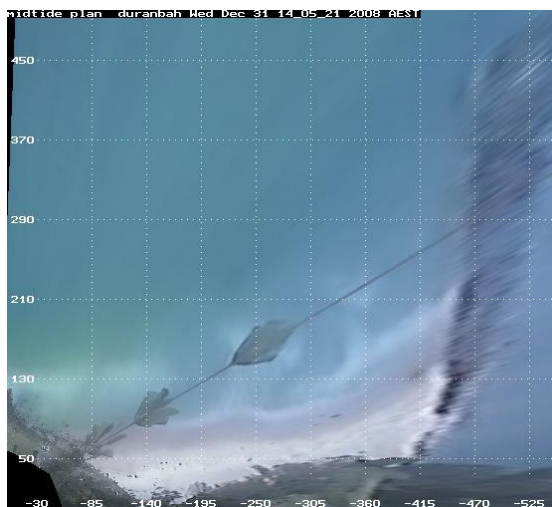
UNSW monitors Duranbah Beach to North Kirra Beach for the project using an ARGUS coastal imaging system. Hourly and archived images are available on the internet at the following address:

<http://www.wrl.unsw.edu.au/coastalimaging/public/tweed/index.html>

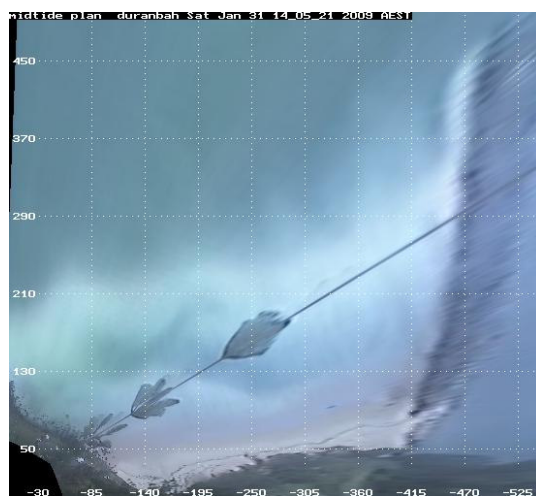
Merged and rectified images taken at mid tide for each of the locations are shown below.

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DURANBAH BEACH

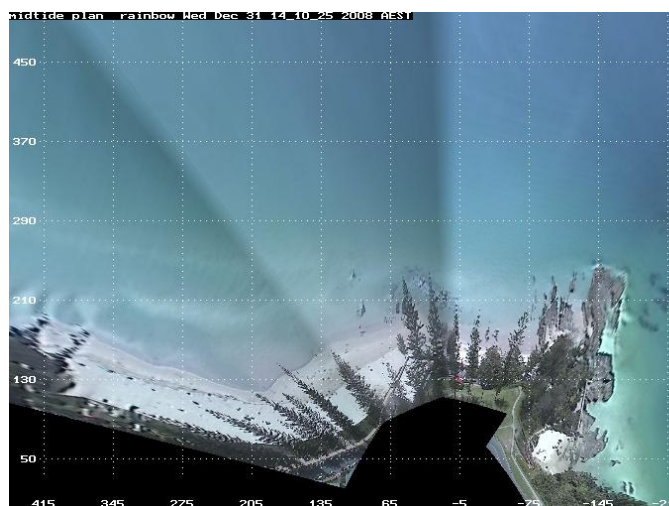


31 December 2008

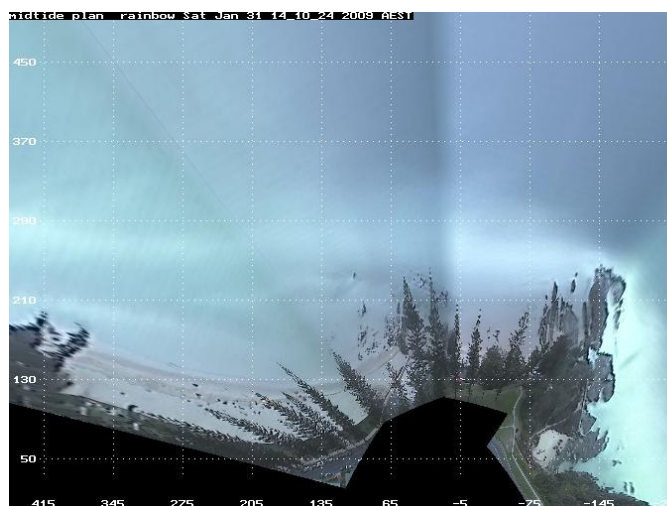


31 January 2009

RAINBOW BAY

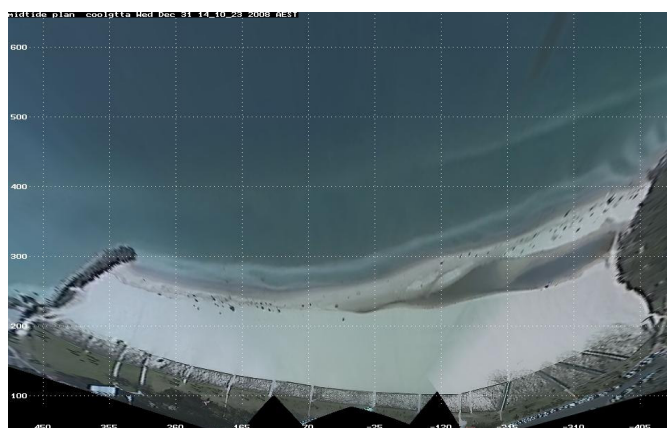


31 December 2008

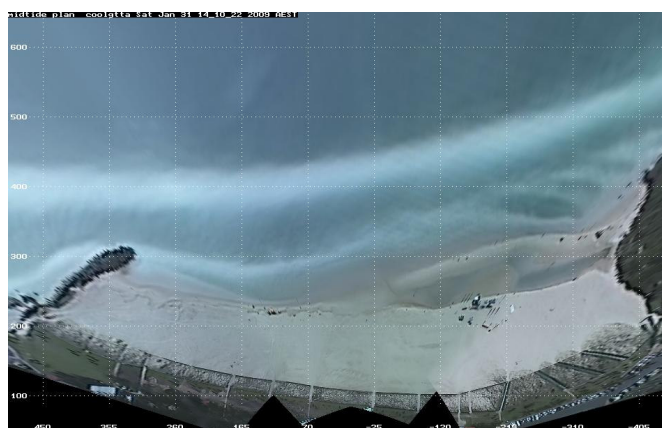


31 January 2009

COOLANGATTA - GREENMOUNT



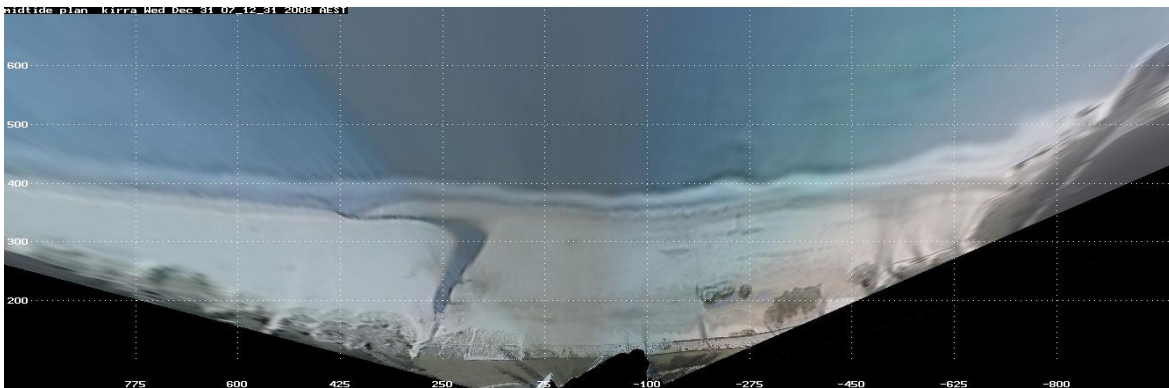
31 December 2008



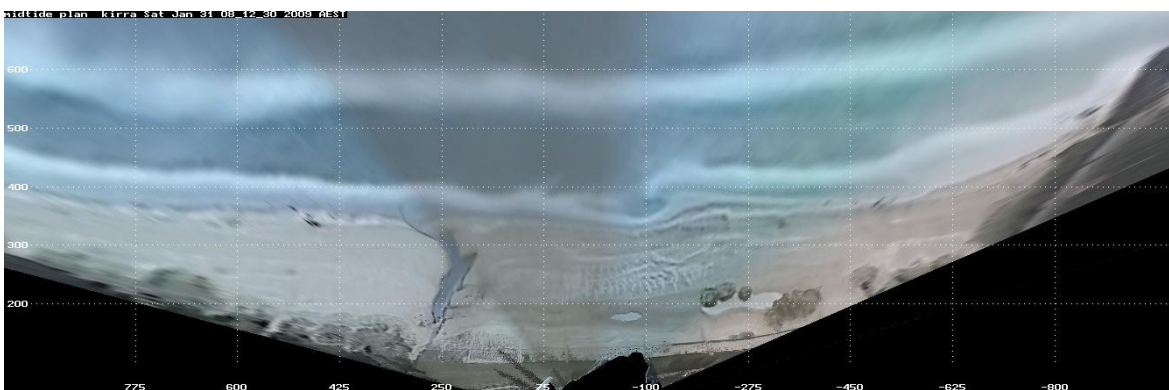
31 January 2009

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NORTH KIRRA – KIRRA



31 Dec
2008



31 Jan
2009

9. CONTACT

For more information regarding the Tweed River Entrance Sand Bypassing Project please refer to the following web addresses:

www.tweedsandbypass.nsw.gov.au

www.epa.qld.gov.au/sandbypass/

www.wrl.unsw.edu.au/coastalimaging/public/tweed/index.html

For all enquires regarding this report, please contact the Project Manager for the Governments:

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