

TWEED SAND BYPASSING

MEETING DETAILS	
Meeting Title:	Tweed Sand Bypass Advisory Committee (AC)
Meeting No.:	04-2023
Date / Time:	5:00pm (EST) 15 November 2023
Location:	Tweed Sand Bypass Office
Attendees:	Peter Turner – Qld AC Member Bruce Lee – Proxy for Qld AC member Wayne Bartholomew Jane Lofthouse – NSW LGA AC Member Tony Johansson – NSW Project Director (Chair) Kim Bowra – Project Manager Celine Roux – Qld Project Director (via MS Teams) Adrian Barwick – NSW team member Joshua Taylor - NSW State AC member
Absent / Apologies:	Councillor Gail O'Neill – QLD LGA AC Member Larry Woodland - Proxy for NSW AC member Robert Alexander Darren Hulm - NSW AC member Wayne Bartholomew – Qld AC member Linda Rijkenberg – Qld State AC member
Meeting notes prepared by:	J. Taylor
File Path:	M.07.01

AGENDA				
Item	Description	Start	Finish	Duration
1	Introduction and AC updates.	5.00	5.05	5 mins
2	AC member and community reports	5.05	5.15	10 mins
3	Project monitoring and operational overview <ul style="list-style-type: none"> • TSB operations • Environmental Monitoring / beach observations • Entrance conditions, usage and survey • TSB projects and enhancements • Communications 	5.15	6.00	45 mins
4	Committee Comments / General Business (All)	6.00	6.30	30 mins

TWEED SAND BYPASSING

MEETING MINUTES	
Item:	Description
1.	<p><u>Introductions and AC updates</u></p> <p>KB informed the group that Adrian Barwick's membership as NSW State AC Member has come to an end after two years in the role. KB acknowledged AB's contribution as an AC member.</p> <p>The process is underway to appoint the following people to vacant AC positions:</p> <ul style="list-style-type: none"> • Darren Hulm - NSW AC member • Joshua Taylor - NSW State AC member
2.	<p><u>Advisory Committee member and community reports</u></p> <p>Jane Lofthouse – NSW LGA AC Member</p> <ul style="list-style-type: none"> • Works on the Tweed Coast Coastal Management Plan is currently being carried out by TSC. The CMP is currently at the hazard study stage. • TSB can be given the opportunity to review the Tweed Coast hazard study when available. <p>Bruce Lee – proxy for Qld AC member Wayne Bartholomew</p> <ul style="list-style-type: none"> • The last few months have seen good surf amenity at Duranbah. • There has also been good surf from Point Danger to Frog Beach • Coolangatta points are in good shape producing good surf. • There is a lot of sand at Rainbow Bay due to recent ocean conditions. Lifeguards are managing swimming areas at low tide. Swimming at high tide is okay. • Conditions at Kirra beach have been great for swimming. <p>Peter Turner – Qld AC member</p> <ul style="list-style-type: none"> • There has been good surf at Snapper Rocks and Rainbow Bay. Equally good but different at Duranbah. Surf has been very popular. • Northeast winds have been observed which is typical for this time of year. • Usually by February / March offshore winds will be more prevalent. • Lots of sand on beaches, which is far better than not enough. • A member of Friends of Rainbow Bay has been in contact with PT. PT is providing information where possible. • Coolangatta Gold surf carnival was held recently. • PT advised the coastal situation is much better than used to be before the TSB project. In the past there has been no beach. Economically this is not a good outcome and sand is an important link in that chain. • There has been some curiosity amongst the public about why the recent dredge campaign deposited sand to Surf St, Bilinga. Once they have been informed about innovative sand placement designs people are very appreciative. • It is well accepted by the community that the TSB project is not all about navigation but the team actively looks to improve amenity. • PT advised that northerly winds impact not just surf but diving and boating, which shows in lower-than-average recoded boating numbers.

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MEETING MINUTES

Item:	Description
	<ul style="list-style-type: none"> In the past, trawlers would avoid returning through the entrance on an ebb tide. Now they utilise the entrance in a wider variety of conditions. <p>Councillor Gail O'Neill – QLD LGA AC Member (relayed by Adrian Barwick)</p> <ul style="list-style-type: none"> The Rainbow Bay petition, the review by Council staff and endorsement of the review by Council was discussed. All AC members present agreed with the Council endorsed review. The bank stabilisation project at Kirra Hill is underway. There has been some retreat of the shoreline position at Kirra adjacent to the SLSC. <p>Chris @ Ocean Dive report (read by AB)</p> <ul style="list-style-type: none"> Since the last run of the dredge the bar has been quite good, there seems to be a distinct channel at the moment probably the best it's been in 10 years. <p>VMR (read by AB)</p> <ul style="list-style-type: none"> August, September and October proved to be a fairly quiet couple of months in the radio room at Point Danger. Wave size was generally relatively good for bar crossings, but the windy weather was the main contributor to the months being less busy. Point Danger logged on Bar Trips were down by a considerable amount compared to the previous months. The Radio operators responded to six incidents during October all of which achieved a successful result with no injuries or property damage. With the deeper water on the bar and river mouth after sand dredging, crossing is now relatively safe. The weather conditions during the months of September and particularly October really tested the patience of those in the radio room, with little to do on some days. In fact there were a couple of days where no boats were recorded on Seahawk, or observed crossing the bar. These types of months won't last, and as we draw closer to the Christmas holidays we can expect to become increasingly busy.
3.	<p><u>Project monitoring and operational overview</u></p> <p>Presentation attached.</p>
4.	<p><u>Committee Comments / General Business</u></p> <ul style="list-style-type: none"> The condition of Letitia Rd (access to TSB jetty compound) was discussed. TSB are seeking endorsement from Tweed Byron Local Aboriginal Land Council to approach TSC to request road is added to a road sealing program. This is after a number of safety and access issues have been reported by the TSB operator and observed by TSB team.
	Meeting end: 7:40pm
	Next meeting: February 2024 (TBC)

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Advisory Committee Meeting

15 November 2023

Project monitoring and operational overview

- Pumping operations
- Environmental Monitoring / beach observations
- Entrance conditions, usage and survey
- TSB projects and enhancements
- Communications

TWEED SAND BYPASSING

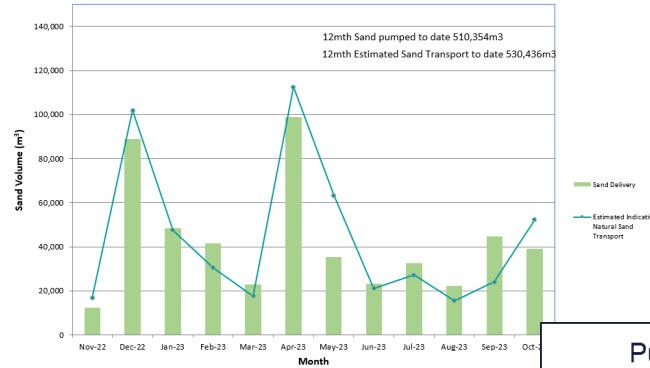
PUMPING BY JETTY MOUNTED SYSTEM 2023

MONTH	Vol SRE (m3)	Vol D'Bah (m3)	Total Vol (m3)	5 Yr AVG (m3)
JAN	48,339	0	48,339	32,712
FEB	41,601	0	41,601	45,401
MAR	22,898	0	22,898	38,229
APR	98,757	0	98,757	34,569
MAY	35,478	0	35,478	49,844
JUN	23,324	0	23,324	38,920
JUL	32,493	0	32,493	42,051
AUG	22,418	0	22,418	27,248
SEP	44,687	0	44,687	31,027
OCT	39,147	0	39,147	34,389
NOV			0	19,699
DEC			0	41,258
TOTAL	409,142	0	409,142	435,347

5 yr (2018-22) Avg Vol Jan to Oct = 374,390m3

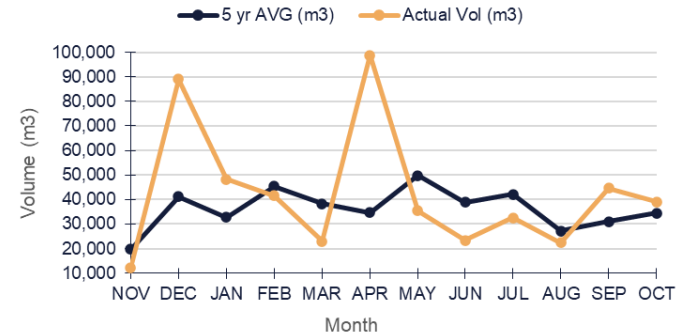
Act Vol Jan to Oct = 409,142m3

Comparison of Monthly Pumping vs Estimated Sand Transport



Pumping operations 2023

Pumped Sand Delivery by Month - 2022/23

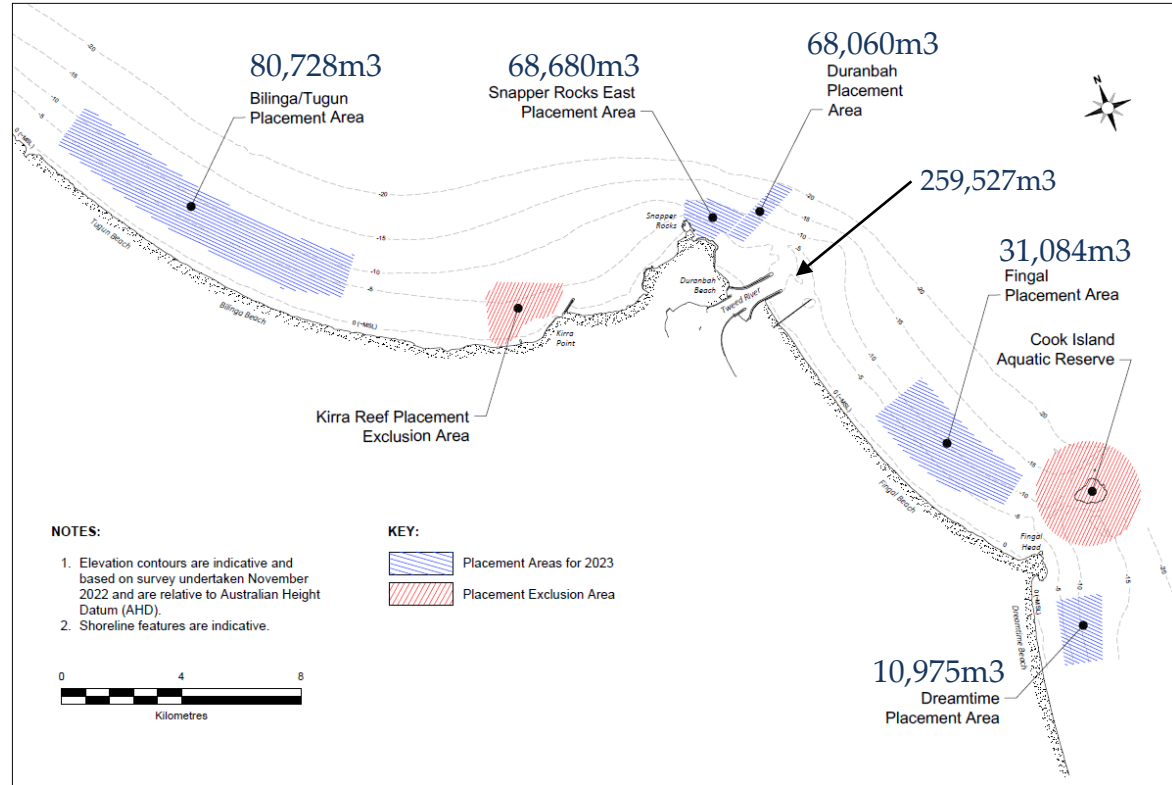


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2023 Dredging

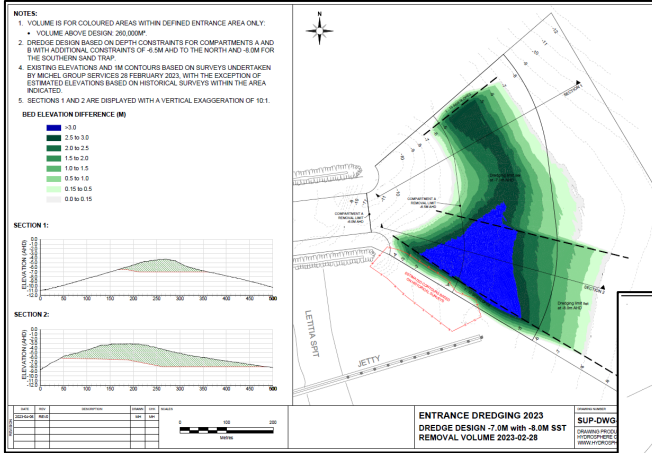
SAND DELIVERY BY DREDGE 2023

MONTH	Duranbah	SRE	Fingal	Dreamtime	Bilinga	Total Vol (m3)
JAN						0
FEB						0
MAR						0
APR						0
MAY	55,936					55,936
JUN	12,124	59,722	31,084		40,898	143,828
JUL						0
AUG						0
SEP		8,958		10,739	30,807	50,504
OCT				236	9,023	9,259
NOV						0
DEC						0
TOTAL	68,060	68,680	31,084	10,975	80,728	259,527



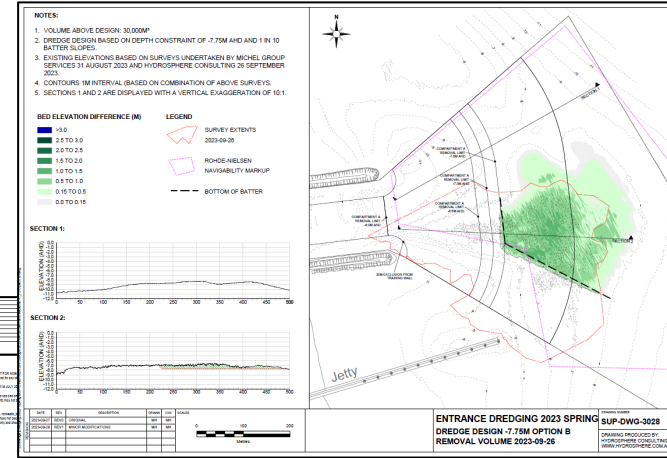
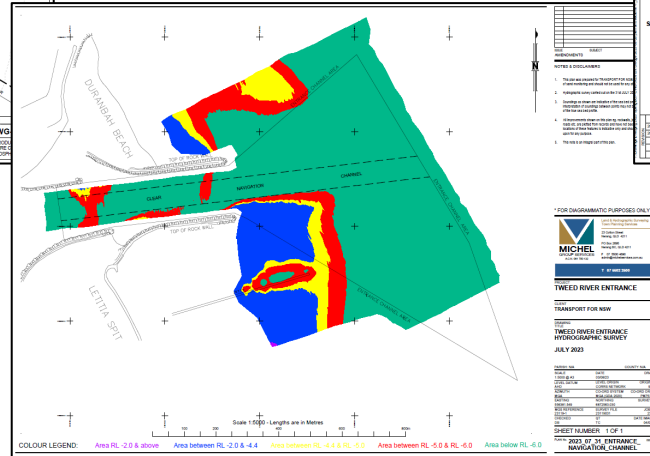
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2023 Dredge Removal



260,000m³ total
removal planned

199,764m³ removed –
May / June



60,000m³ planned,
59,763m³ removed
in Sept/Oct

TWEED SAND BYPASSING

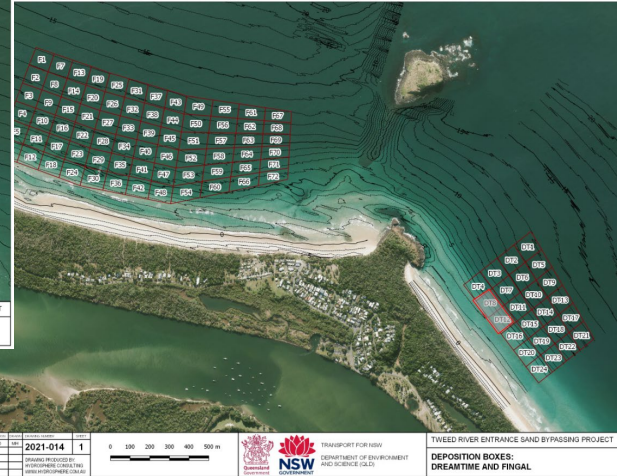
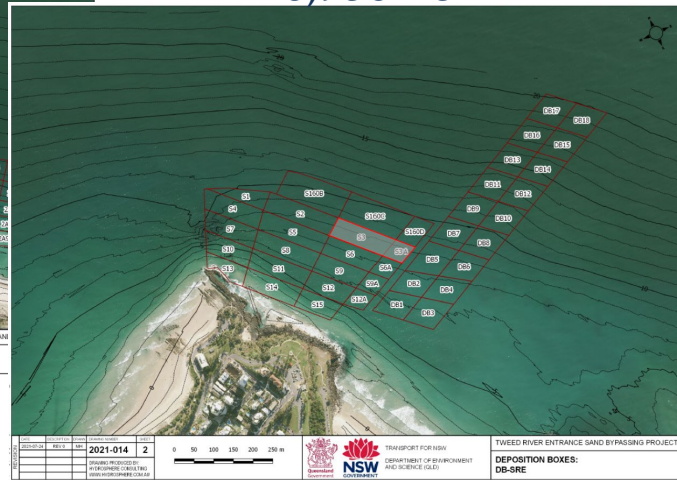
2023 Dredge Placement

Snapper Rocks
8,958m³

Dreamtime
10,975m³



Bilinga
39,830m³



FILL VOLUME ALLOCATION

CONTINENT	VOLUME (M ³)
A	40000
B	20000
C	10000
D	5000
E	2500
F	1250
G	625
H	312.5
I	156.25
J	78.125
TOTAL	80000

NOTES:

1. FILL VOLUME 40,000 M³.
2. CONTOURS ARE RELATIVE TO AHD AND ARE BASED ON SURVEY UNDERTAKEN BY MOORE CONSULT SERVICES PT LTD.
3. FILL TO 1M ELEVATION CONTOURS DEFINED BY EXIST AS BATTER SLOPE AT ASSIGNED SETTLEMENT Slope OF 1 IN 30 EXCEPT RAMPAGE EDGE WHICH IS 1 IN 10 UNLESS OTHERWISE APPLICABLE.
4. POINT COORDINATES SHOWN ARE CALCULATED.

FILL DEPTHS (M)

- > 3.0
- 2.5 to 3.0
- 2.0 to 2.5
- 1.5 to 2.0
- 1.0 to 1.5
- 0.5 to 1.0
- 0.1 to 0.5
- 0.1 to 0.5

POINT COORDINATES (GDA2020)

Point	Easting	Northing
A	500139	6080205
B	500147	6080106
C	500096	6080151
D	500124	6080106
E	500106	6080047
F	500092	6080009
G	500138	6080099
H	500192	6080023
I	500094	6080074
J	500087	6080046
K	500091	6080035

Entrance Dredging 2023 Spring

Distance

Elevation

1% BATTER SLOPE

1% SETTLEMENT

19 AUG 2023

Maximum Fill Level

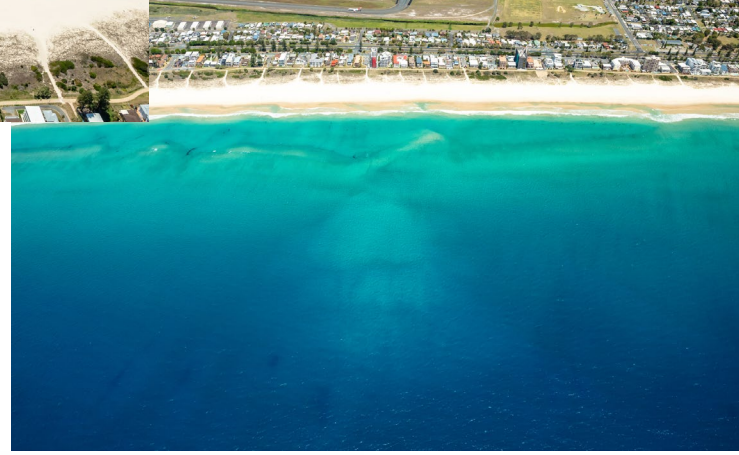
Entrance Dredging 2023 Spring

SUP-DWP-3025

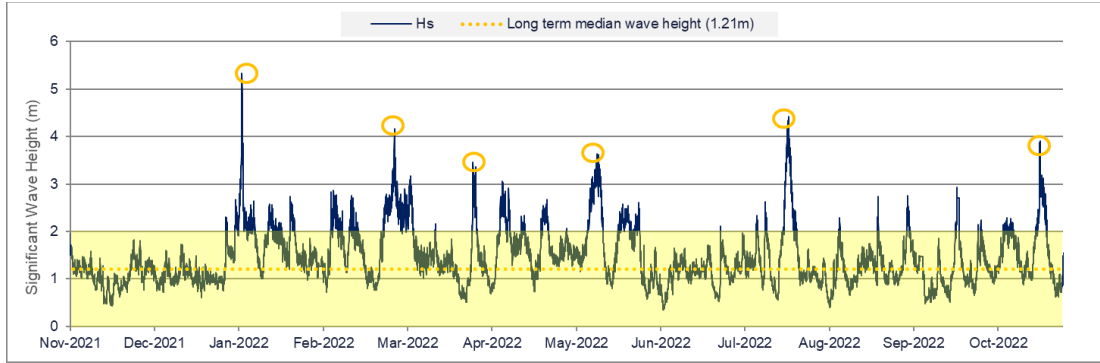


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2023 Dredge placement – Bilinga



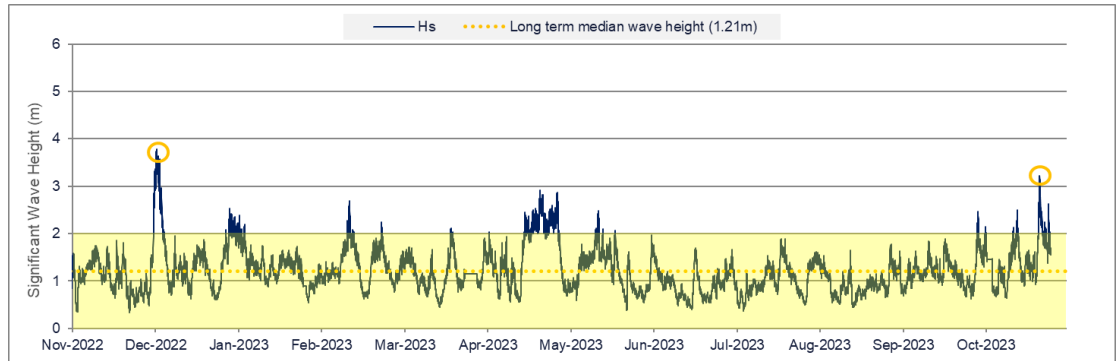
Environmental Monitoring / beach observations



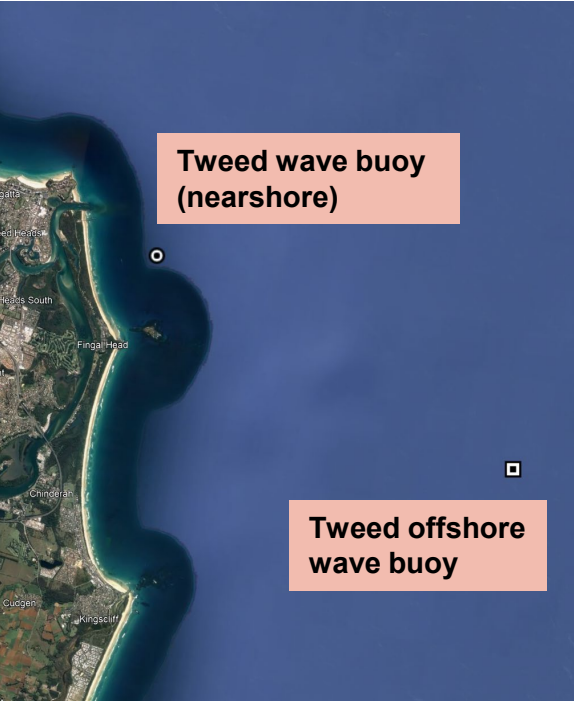
2021-22
Estimated
transport 690,000
m³

2022-23
Estimated transport
530,000 m³

Overall, it has been a relatively
low energy period even
considering the record high
transport rates in April

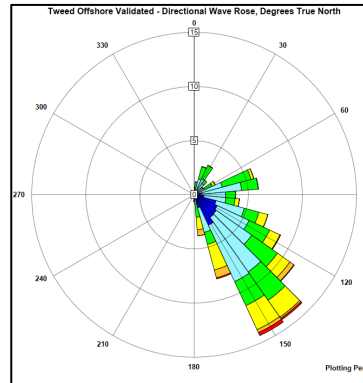


Environmental Monitoring / beach observations

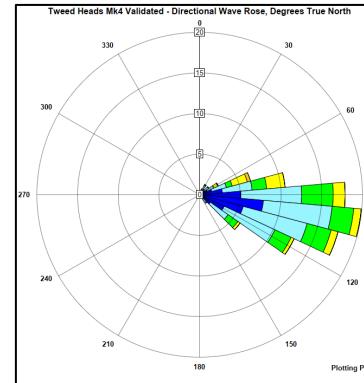


**Tweed wave buoy
(nearshore)**

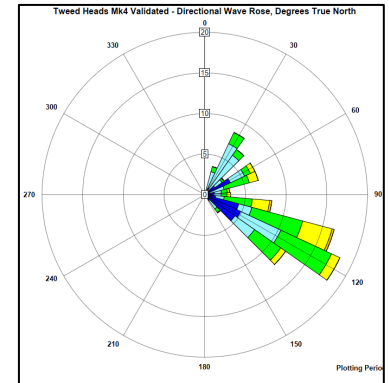
**Tweed offshore
wave buoy**



2023 Aug – 2023 Oct
Offshore



2022 Aug – 2022 Oct



2023 Aug – 2023 Oct



Recent conditions

August - Ongoing mild conditions ensured that no significant changes to the beaches were observed. Sand in the swash zone migrated slowly around Greenmount headland however Rainbow Bay remained relatively wide

September – All beaches held up well under mild northerly conditions. Note that the majority of dredging for the year was complete by the end of September and resulted in consistently favourable conditions for boat users

October - October saw variable conditions throughout the month with SE and NE swell directions and moderate wave heights. The sediment transport rate was also relatively high compared to the October average. The NE conditions moved sand from out from the Rainbow Bay beach compartment, around Greenmount, and through to Coolangatta beach which is now relatively wide



Greenmount 1st August



Greenmount 30th August



Duranbah 30th September



Fingal 13th September



Rainbow Bay 21st October



Rainbow Bay 1st November

TWEED SAND BYPASSING



19 January 2022



10 August 2023

Fingal



11 April 2023



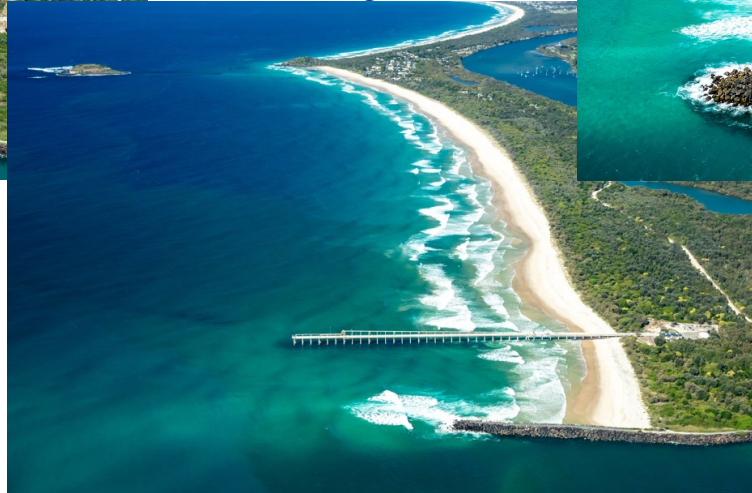
11 October 2023

TWEED SAND BYPASSING



11 April 2023

Letitia



10 August 2023



11 October 2023

TWEEDSAND BYPASSING



11 April 2023

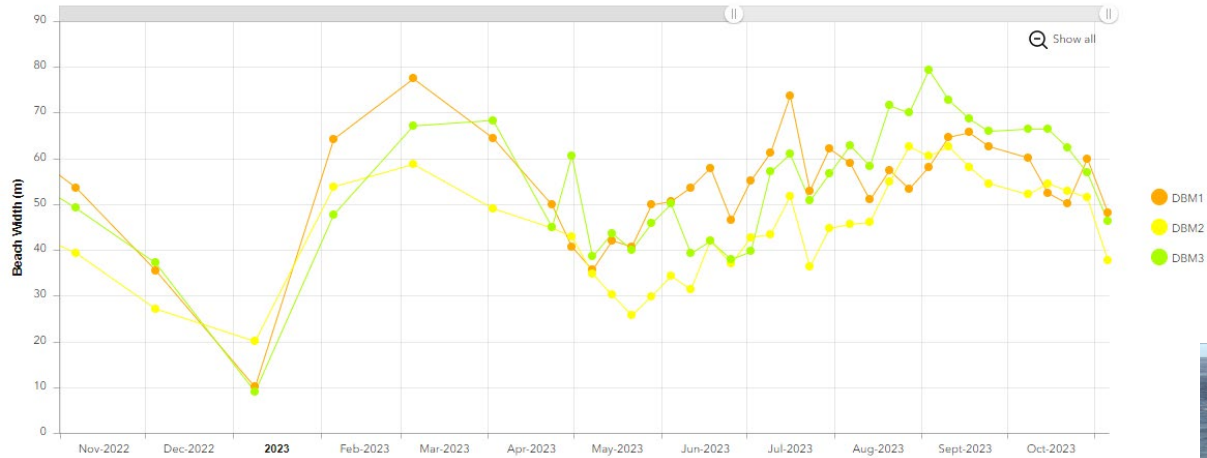
Duranbah Beach

10 August 2023

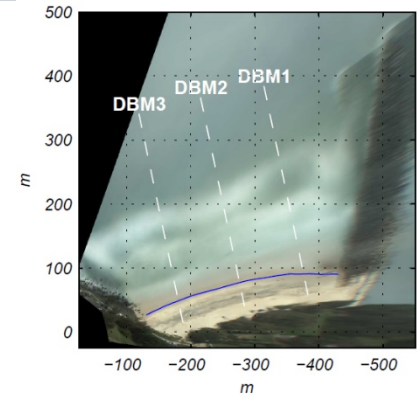


11 October 2023

TWEED SAND BYPASSING



Duranbah Beach



TWEED SAND BYPASSING



11 April 2023

Snapper Rocks
Rainbow Bay

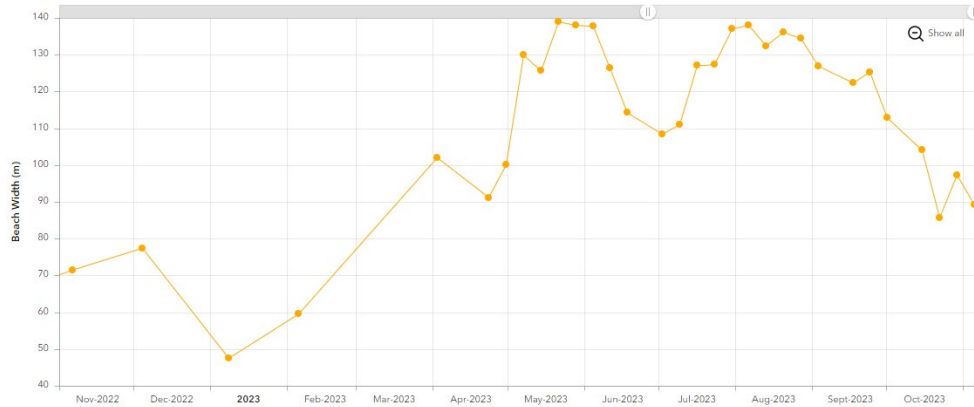


11 October 2023

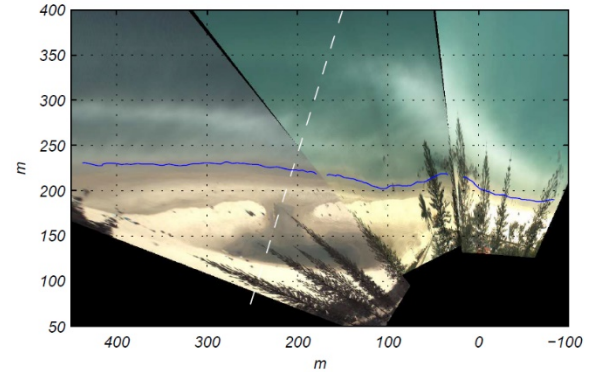


10 August 2023

TWEED SAND BYPASSING



Rainbow Bay



TWEED SAND BYPASSING

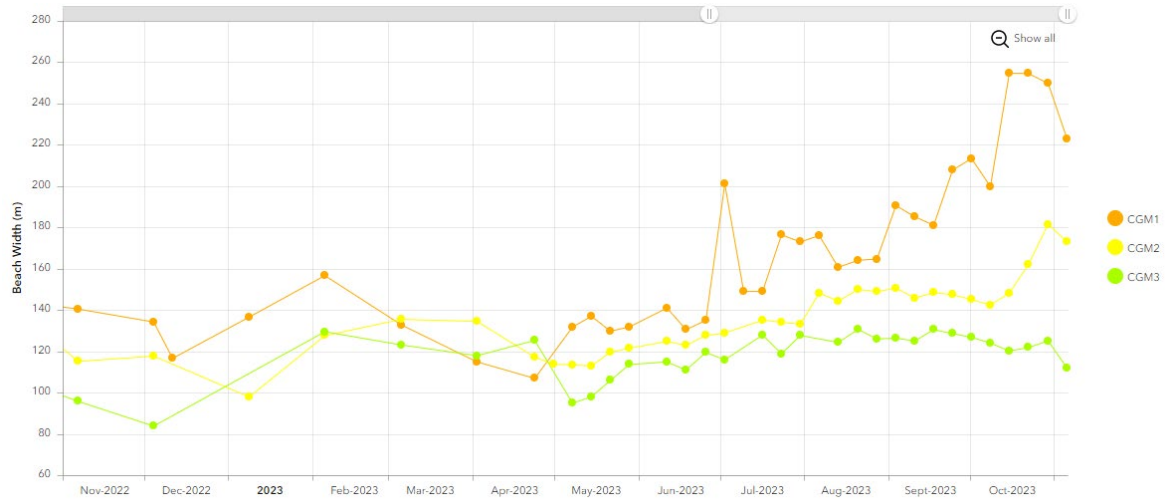
Coolangatta

11 April 2023

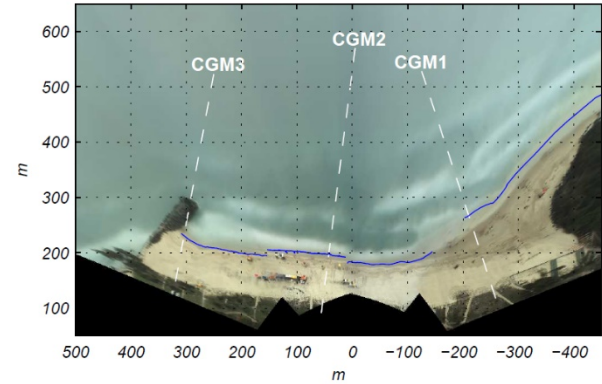
10 August 2023

11 October 2023

TWEED SAND BYPASSING



Coolangatta





TWEED SAND BYPASSING



11 April 2023

Kirra

10 August 2023

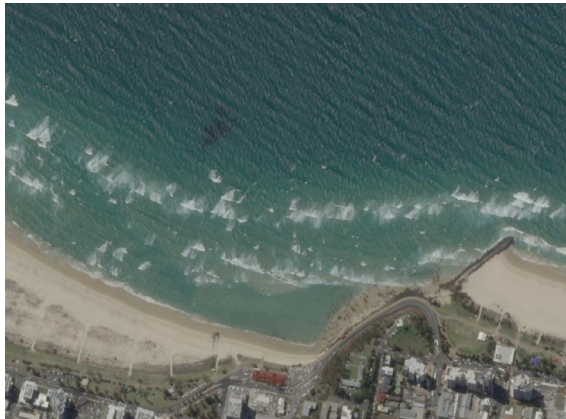


11 October 2023

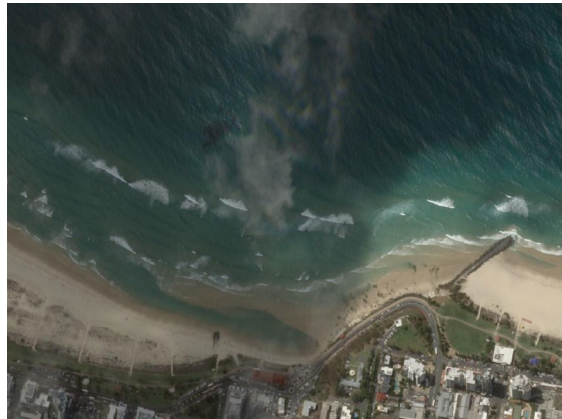




TWEED SAND BYPASSING



16 October 2023



11 November 2023



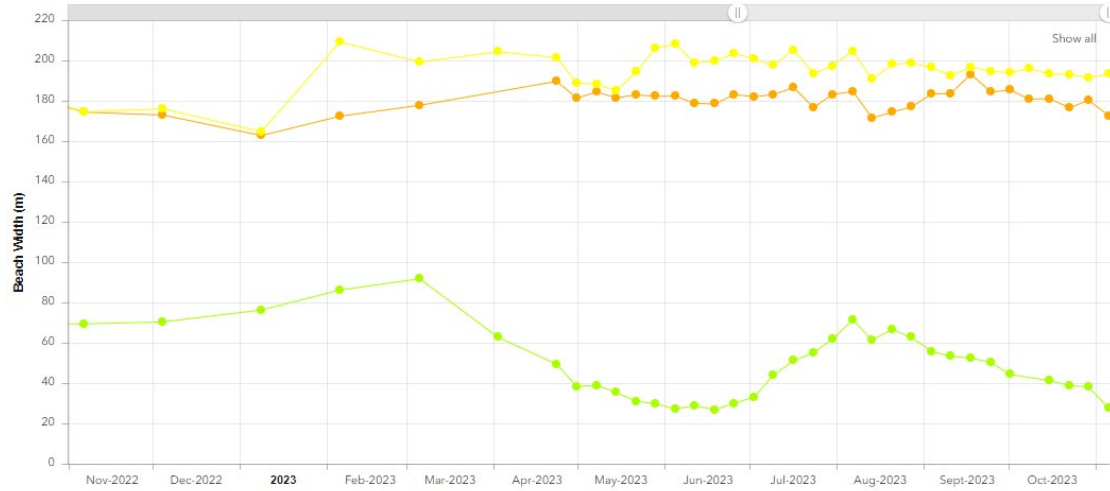
Kirra

Key observations:

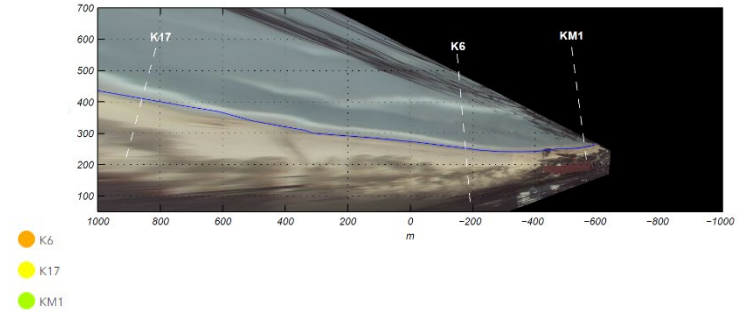
- Beach profile has migrated shoreward leading to a reduced upper beach width but also a closer nearshore shoal
- Conditions in late October have resulted in additional sand movement around Kirra groyne
- Lagoon like formation at Kirra is providing for favourable swimming amenity



TWEED SAND BYPASSING



Kirra



TWEED SAND BYPASSING



11 April 2023



10 August 2023



11 October 2023

Bilinga

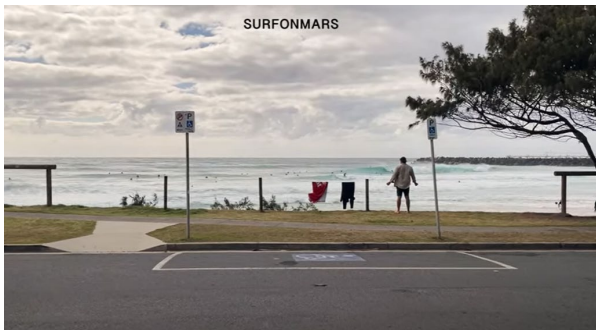
TWEED SAND BYPASSING



11 October 2023

TWEED SAND BYPASSING

Surf Conditions



TWEED SAND BYPASSING

Surf Conditions



Andrew Shield



Andrew Shield

17 September 2023– Duranbah

TWEED SAND BYPASSING

Surf Conditions

Snapper Rocks – 29 October 2023



Rainbow – 28 October 2023

TWEED SAND BYPASSING

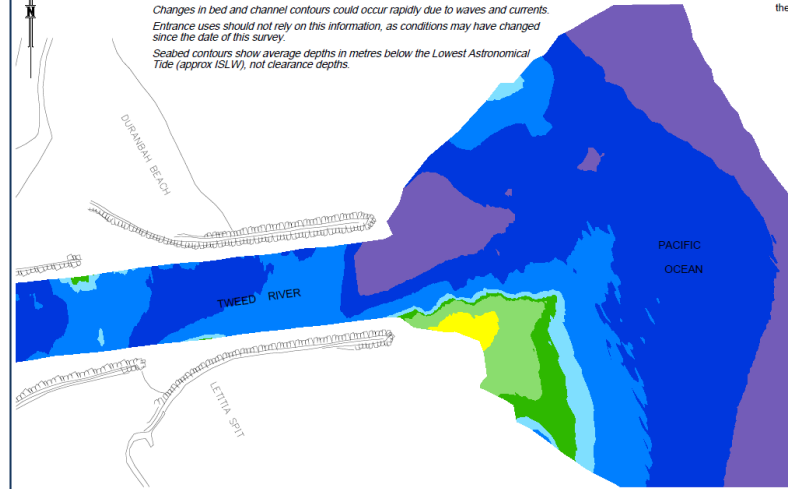
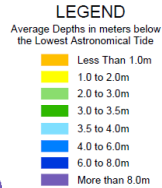
Entrance conditions, usage and survey



TWEED SAND BYPASSING

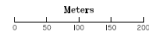
TWEED RIVER ENTRANCE AS AT 26th JUNE 2023

WARNINGS: Extreme caution should be used when navigating this entrance.
Changes in bed and channel contours could occur rapidly due to waves and currents.
Entrance uses should not rely on this information, as conditions may have changed since the date of this survey.
Seabed contours show average depths in metres below the Lowest Astronomical Tide (approx ISLW), not clearance depths.



TWEED SAND BYPASSING

Tweed Sand bypassing is a joint project of the New South Wales and Queensland Governments, with the support of the Gold Coast City Council, and in conjunction with Tweed Shire Council.

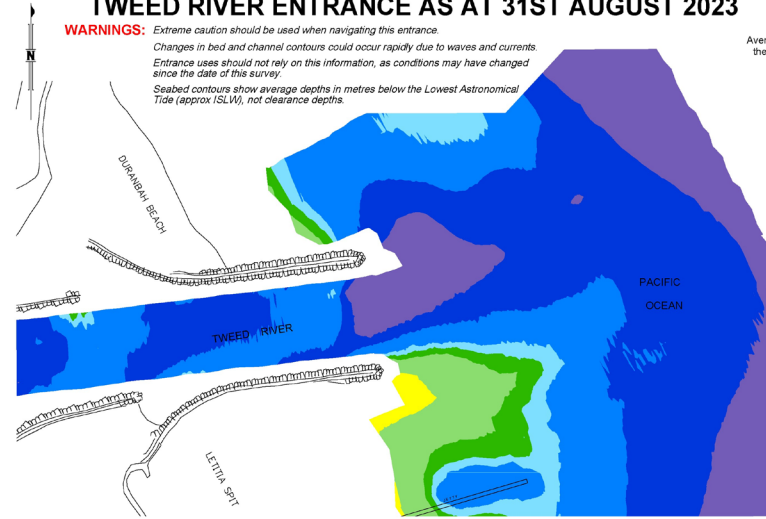
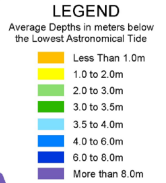


NOTES:

1. Survey information collected by Michel Group Services on 26th JUNE 2023.
2. This plan prepared by Michel Group Services on 3rd JULY 2023
3. Surveys are undertaken for Tweed Sand Bypassing every three months to monitor entrance seabed levels.

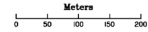
TWEED RIVER ENTRANCE AS AT 31st AUGUST 2023

WARNINGS: Extreme caution should be used when navigating this entrance.
Changes in bed and channel contours could occur rapidly due to waves and currents.
Entrance uses should not rely on this information, as conditions may have changed since the date of this survey.
Seabed contours show average depths in metres below the Lowest Astronomical Tide (approx ISLW), not clearance depths.



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NOTES:

1. Survey information collected by Michel Group Services on 30th & 31st AUGUST 2023
2. This plan prepared by Michel Group Services on 6th SEPTEMBER 2023
3. Surveys are undertaken for Tweed Sand Bypassing every three months to monitor entrance seabed levels.



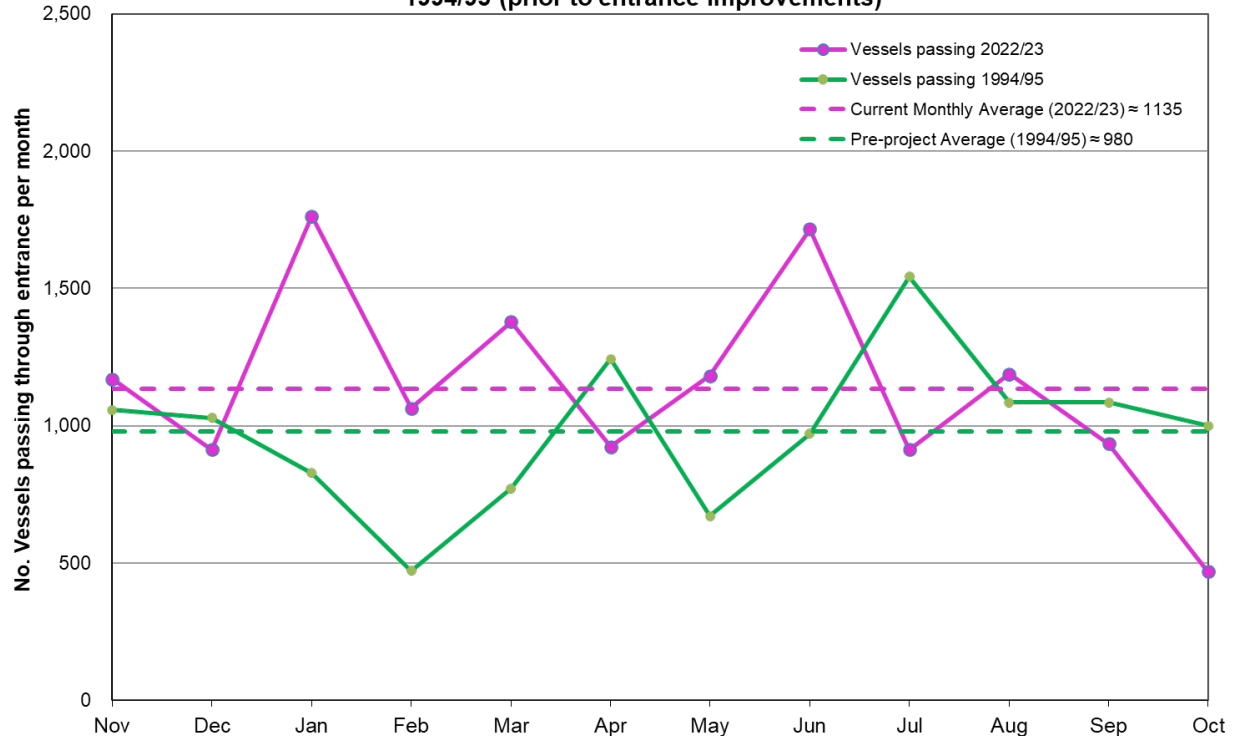
Transport
for NSW



Entrance usage

- 2023 vessel passing numbers are above average due to periods of calmer weather
- Entrance conditions in recent months have been good, however unfavourable winds have resulted in lower-than-expected vessel passing numbers

Comparison of vessels passing through the entrance per month in 2022/23 compared to 1994/95 (prior to entrance improvements)





TWEED SAND BYPASSING

Projects and enhancements

TSB Transition

Continued drafting of Management System. ICT preparations (SCADA and network). Intergovernmental Agreement for Management, Operations, Maintenance and repair of TSB. Property matters and asset handover. Operations Manager recruitment.

Low Pressure Pump Station
deck upgrade

Replacement of timber deck with steel support structure and GRP deck.

Environmental Audit

Environmental Audit of TSB environmental Management System to commence in November.

Kirra Amenity Study

Draft report to be completed early December 2023.

Long Term Average Report

Scope preparation underway.

Pipeline Survey

Survey completed of existing pipeline and infrastructure.



TWEED SAND BYPASSING

Communications and engagement

New Annual Report produced for Contract Year 22

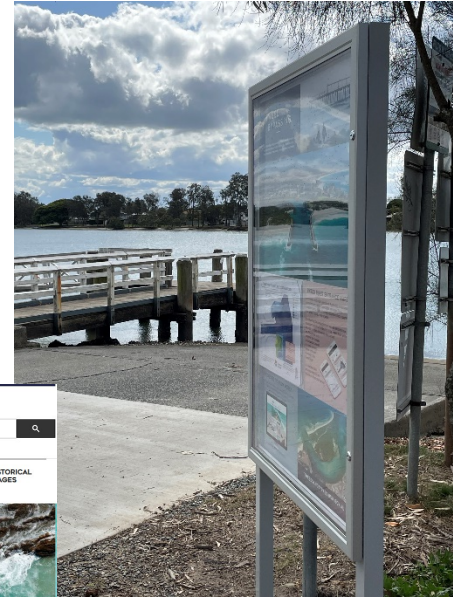
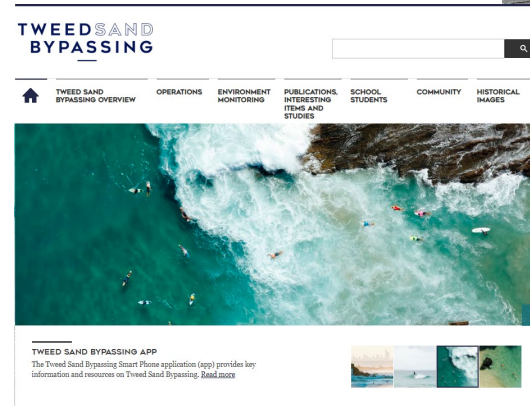
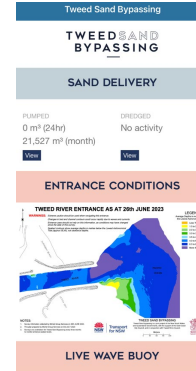
Dredging Instagram, App and website updates

Jetty Tours – Merrimac Highschool and Booningyah Junior Rangers

Channel 7 Gold Coast News – Rainbow Bay conditions

Proposed new sign at Tweed marina

Presentation of a paper at the Australasian Coasts and Ports conference – Sunshine Coast 15-18 August 2023



TWEED SAND BYPASSING

Thank you

- TSB is a joint coastal management initiative of the New South Wales and Queensland State Governments
- Please provide any feedback to the TSB Project Office email tresbp.projectoffice.group@transport.nsw.gov.au