

# TWEED SAND BYPASSING

MEETING DETAILS	
<b>Meeting Title:</b>	Tweed Sand Bypass Advisory Committee (AC)
<b>Meeting No.:</b>	04-2022
<b>Date / Time:</b>	5:00pm (Qld) 16 November 2022
<b>Location:</b>	Kirra Hill Community Centre
<b>Attendees:</b>	Kane Nielsen – A/QLD AC Member Anthony Johansson – NSW AC Member Adrian Barwick – NSW AC Member John Ede – NSW AC Member Wayne Bartholomew – Qld AC member Peter Turner – Qld AC Member Kim Bowra Bruce Harper Bruce Lee
<b>Absent / Apologies:</b>	Apologies: Jane Lofthouse – NSW AC Member Councillor Gail O'Neill – QLD AC Member
<b>Minutes Prepared By:</b>	A. Barwick
<b>WBS:</b>	M.07

AGENDA				
Item	Description	Start	Finish	Duration
1	Welcome and apologies			
2	Community beach and entrance reports / AC member reports			
3	Project monitoring and operational overview <ul style="list-style-type: none"> <li>Sand bypassing system operations + delivery program</li> <li>Environmental monitoring</li> <li>Entrance conditions, usage and survey</li> <li>Projects and enhancements</li> <li>Communications</li> </ul>			
4	Committee Comments / Questions (All)			

# TWEED SAND BYPASSING

MEETING MINUTES	
Item:	Description
1.	Introductions and AC updates
2.	<p>Advisory Committee member reports:</p> <p>Wayne Bartholomew</p> <ul style="list-style-type: none"> <li>- Generally, a good October for surfing.</li> <li>- Haven't experienced the typical spring northerlies yet.</li> <li>- La Nina generally means good waves</li> <li>- Duranbah is generally quite good; Snapper has a small hole behind the rock and Rainbow Bay has good quality banks.</li> </ul> <p>Peter Turner</p> <ul style="list-style-type: none"> <li>- Generally good / consistent conditions at Duranbah, Snapper, Rainbow and Greenmount</li> <li>- Coolangatta creek outlet has been diverted toward the south (via machines)</li> <li>- Entrance – Navigation almost always possible, generally better than it was before TSB, questioned what the dredge vessel was doing (didn't seem to be dredging)</li> </ul> <p>John Ede</p> <ul style="list-style-type: none"> <li>- Trawlers are bottoming out</li> <li>- Only a matter of time before governments are sued</li> <li>- Witnessed sand being placed off point danger</li> <li>- Questioned what the dredge actually did</li> </ul> <p>Bruce Lee</p> <ul style="list-style-type: none"> <li>- Swimming at Rainbow Bay is generally good</li> <li>- SLSC signage recognises that Rainbow is a shared zone for swimming and surfing</li> <li>- Acknowledged the tweed bar is dangerous</li> <li>- Observed that north to south drift of sand from point danger back to the entrance would likely be minor compared to the predominant south to north movement of sand.</li> </ul>
3.	Project overview presentation attached.
	Meeting end: 18:30
	Next meeting: 15 February 2023

# TWEED SAND BYPASSING

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## ADVISORY COMMITTEE MEETING

16 November 2022

## PROJECT MONITORING AND OPERATIONAL OVERVIEW

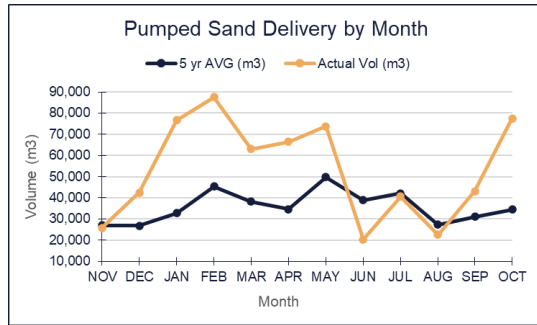
- Pumping operations
- Environmental Monitoring / beach observations
- Entrance conditions, usage and survey
- TSB projects and enhancements
- Communications





# TWEED SAND BYPASSING

## PUMPING OPERATIONS 2022

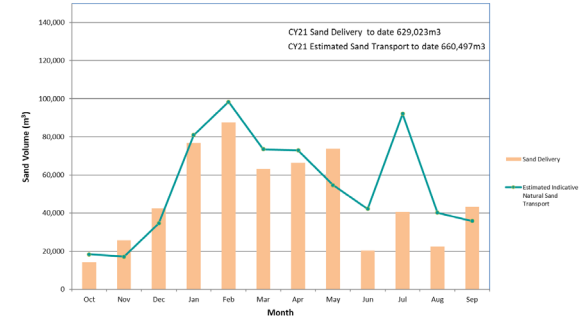


5 yr Avg Vol - Nov to Oct = 428,175m³  
 Act Vol - Nov'21 to Oct '22 = 639,720m³

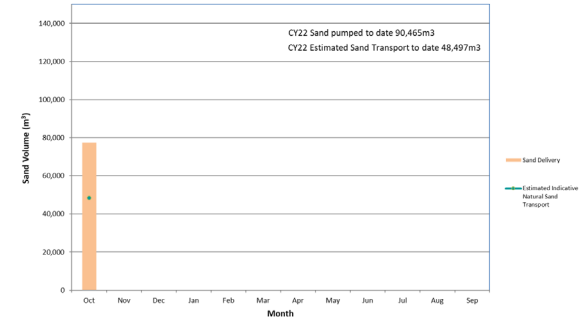
PUMPING BY JETTY MOUNTED SYSTEM 2022				
MONTH	Vol SRE (m³)	Vol D'Bah (m³)	Total Vol (m³)	5 Yr AVG (m³)
JAN	76,670	0	76,670	32,712
FEB	56,018	31,502	87,520	45,401
MAR	63,092	0	63,092	38,229
APR	66,392	0	66,392	34,569
MAY	73,797	0	73,797	49,844
JUN	20,317	0	20,317	38,920
JUL	29,130	11,445	40,575	42,051
AUG	22,517	0	22,517	27,248
SEP	42,505	681	43,186	31,027
OCT	77,432	0	77,432	34,389
NOV			0	26,921
DEC			0	26,864
<b>TOTAL</b>	<b>527,870</b>	<b>43,628</b>	<b>571,498</b>	<b>428,175</b>

January, February and October monthly pumping records

CY21 : October 2021 to September 2022  
 Comparison of Monthly Pumping vs Estimated Sand Transport



CY22 : October 2022 to September 2023  
 Comparison of Monthly Pumping vs Estimated Sand Transport



Modelled vs actual

# FROGGIES / SNAPPER EVOLUTION - AUGUST TO SEPTEMBER

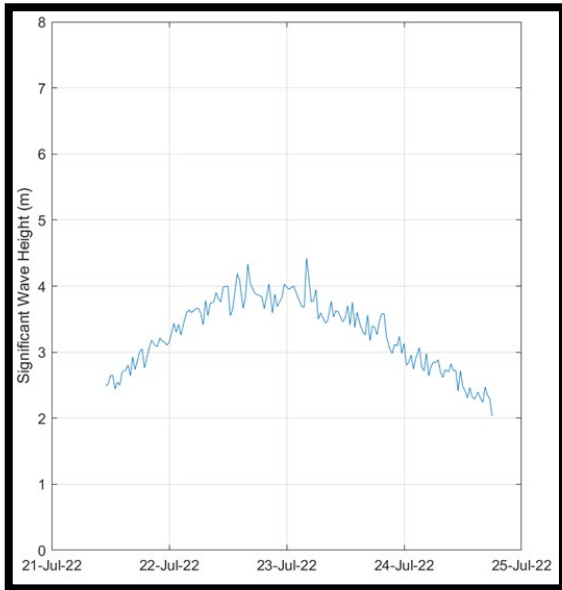
Note:

23 July, Hs = 4.4m

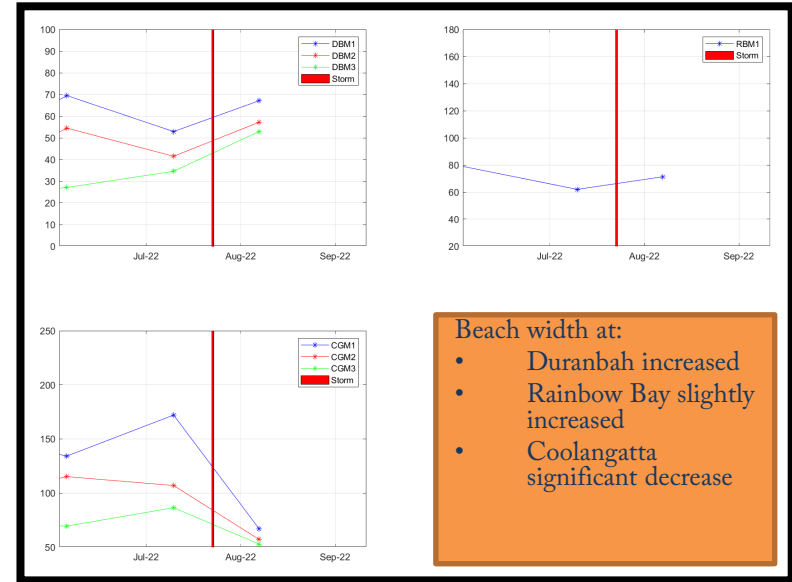
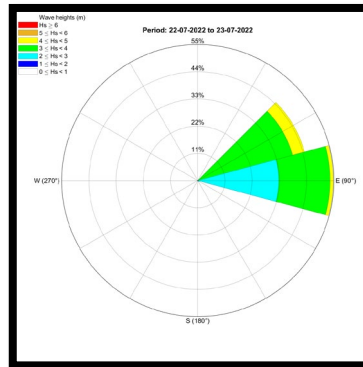
23 October, Hs = 3.9m



## ANALYSIS OF LOVERS ROCK PLACEMENT DURING LARGE SWELL



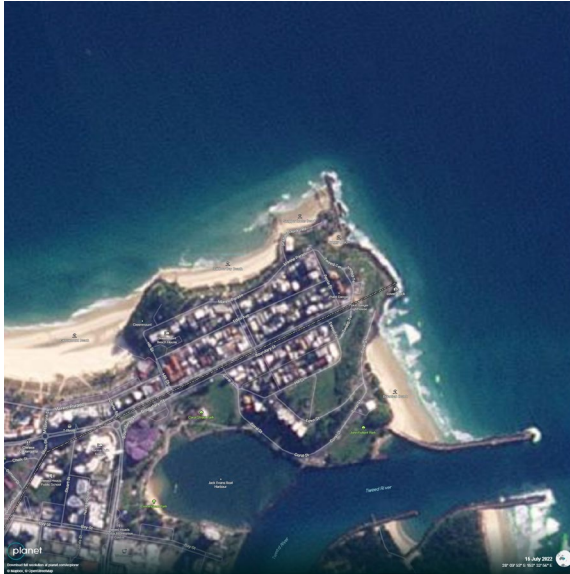
21.07.22 to 25.07.22 =  
11,445 m<sup>3</sup> pumped to lovers  
with missed day on 24<sup>th</sup> due  
to slurry pump issue



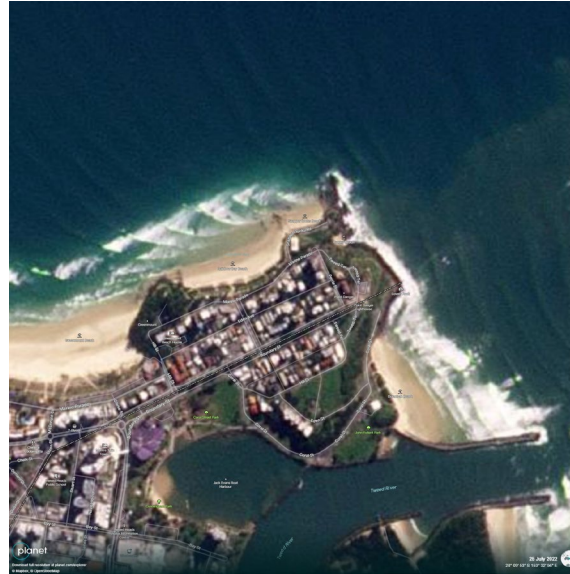
# TWEED SAND BYPASSING

15,517 m<sup>3</sup> pumped to SRE +  
11,445 m<sup>3</sup> pumped to lovers  
between 15 Jul and 10 Aug

15<sup>th</sup> July 2022



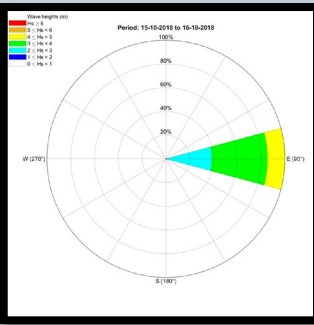
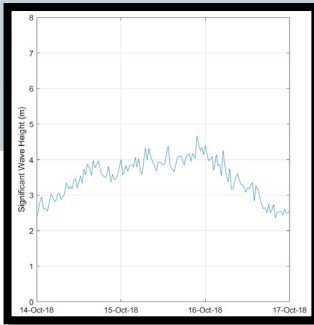
25<sup>th</sup> July 2022



10<sup>th</sup> August 2022



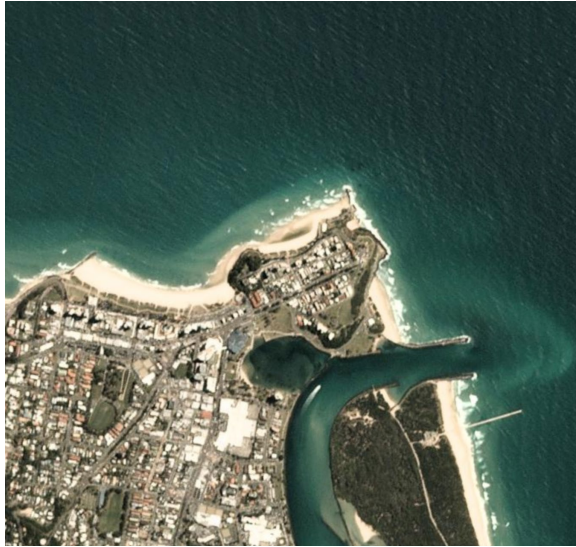




# TWEED SAND BYPASSING

41,230 m<sup>3</sup> pumped to SRE between  
9 Oct 2018 and 14 Nov 2018

9<sup>th</sup> Oct 2018



23<sup>rd</sup> Oct 2018



14<sup>th</sup> Nov 2018



Restoring Coastal Sand Drift - Improving Boating Access

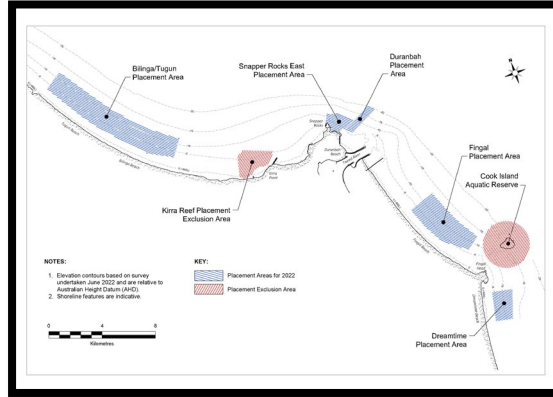
# TWEED SAND BYPASSING

## 2022 DREDGING

27 August to 6 November

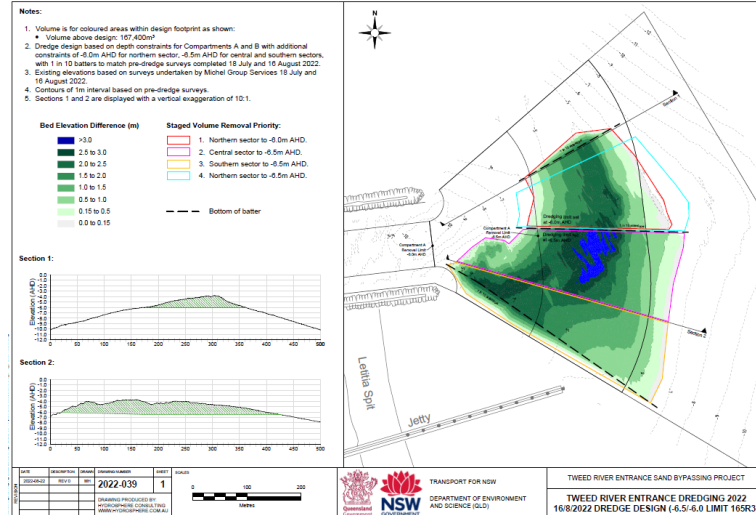
SAND DELIVERY BY DREDGE 2022

MONTH	Duranbah	SRE	Fingal	Dreamtime	Billinga	Total Vol (m3)
JAN						
FEB						
MAR						
APR						
MAY						
JUN						
JUL						
AUG	7,548			8,626		16,174
SEP	5,963	30,397				36,360
OCT	10,256	2,777				13,033
NOV	6,832					6,832
DEC						
<b>TOTAL</b>	<b>30,599</b>	<b>33,174</b>	<b>0</b>	<b>8,626</b>	<b>0</b>	<b>72,399</b>



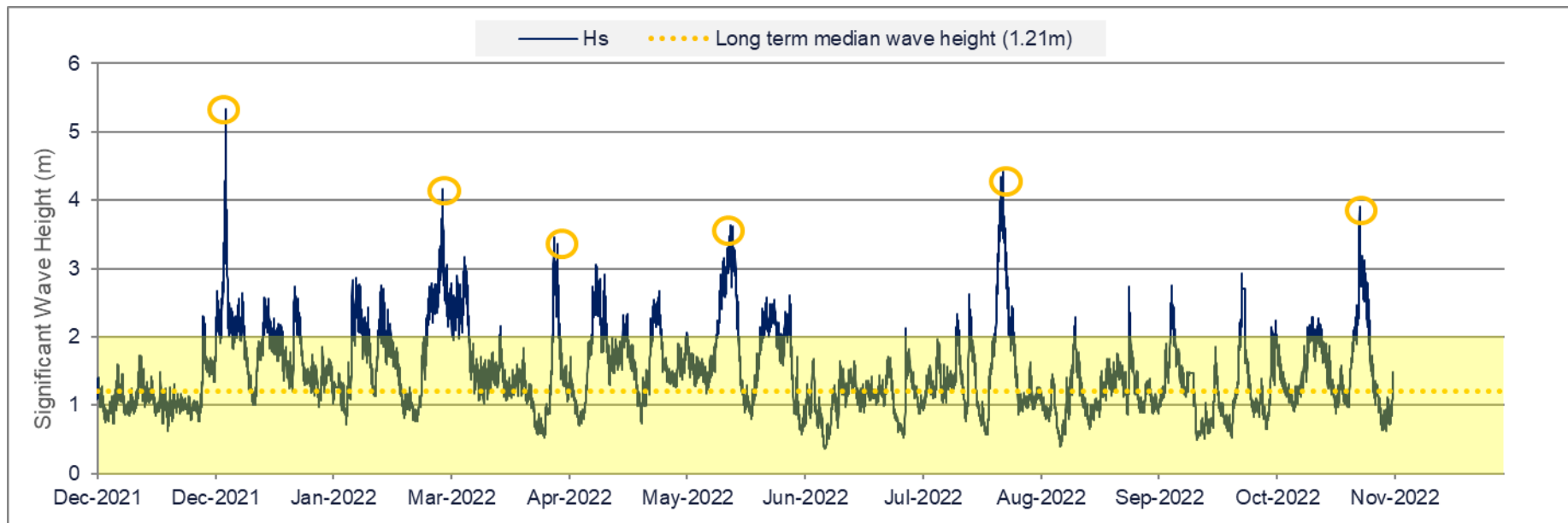
## 2023 DREDGING

April – remainder of design planned for completion





## ENVIRONMENTAL MONITORING / BEACH OBSERVATIONS

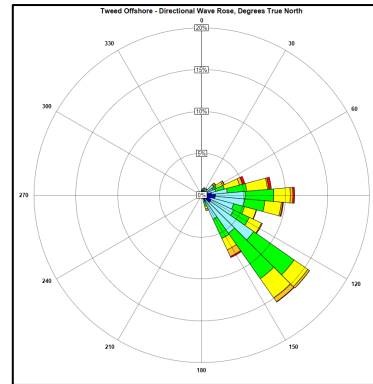


## ENVIRONMENTAL MONITORING / BEACH OBSERVATIONS

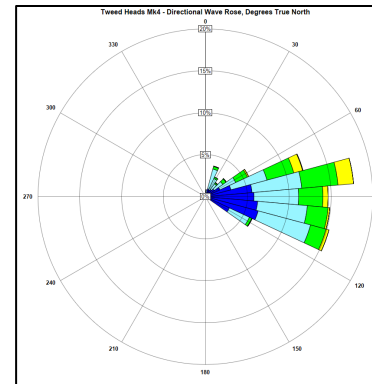


**Tweed wave buoy  
(nearshore)**

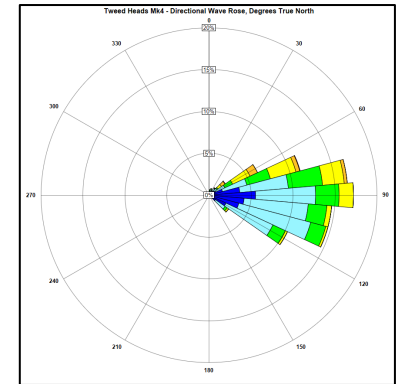
**Tweed offshore  
wave buoy**



2022 May - 2022 Oct  
Offshore



2021 May - 2021 Oct



2022 May - 2022 Oct

## RECENT CONDITIONS

**August** - Following the swell of late July, Snapper Rocks bank quality deteriorated due to deeper conditions behind and around Snapper Rocks. August saw a rebuilding of the sand pathway

**September** – Two relatively minor swell events for the month (ESE and NE). Beaches north of Greenmount headland and Kirra groyne were wider at low tide compared to the month before due to sand supply

**October** - Duranbah beach held up well following the Coral sea low swell event. Some recession along north facing beaches was evident



Kirra beach low tide



Coolangatta beach low tide



Duranbah pre storm event



Duranbah post storm event

# TWEED SAND BYPASSING



1 February 2022



19 April 2022



15 October 2022

7 July 2022



## FINGAL



# TWEED SAND BYPASSING



19 April 2022

7 July 2022



15 October 2022



LETITIA

# TWEEDSAND BYPASSING



19 April 2022

## DURANBAH BEACH

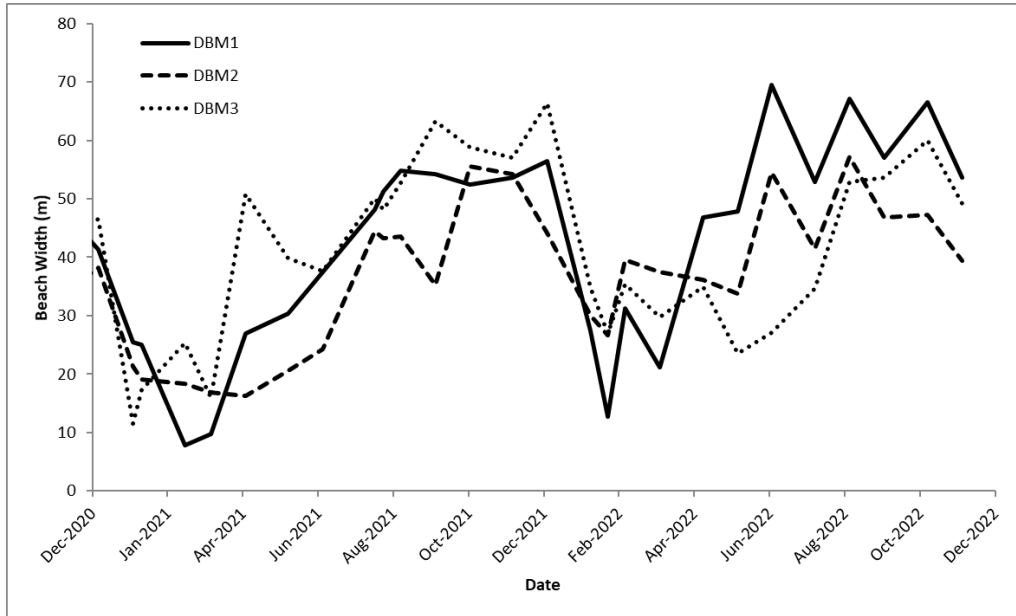
7 July 2022



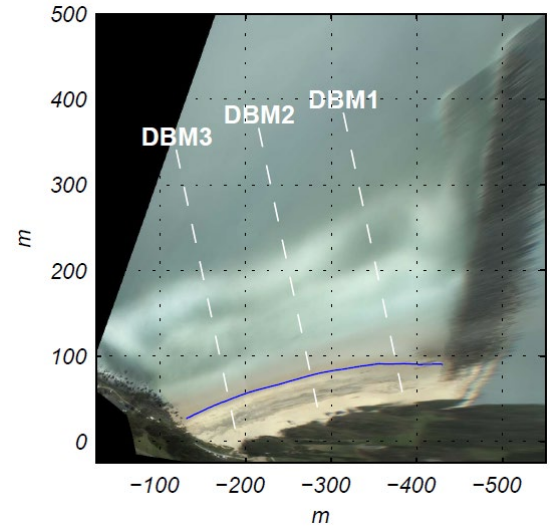
15 October 2022



# TWEED SAND BYPASSING



## DURANBAH - BEACH WIDTH DATA



# TWEED SAND BYPASSING

19 April 2022

## SNAPPER ROCKS RAINBOW BAY

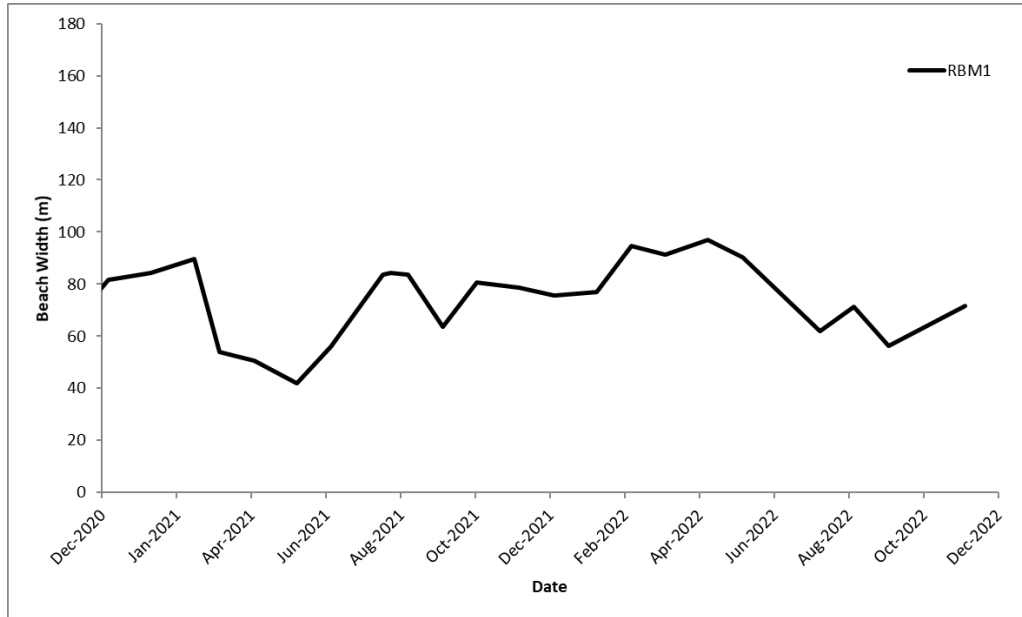


7 July 2022

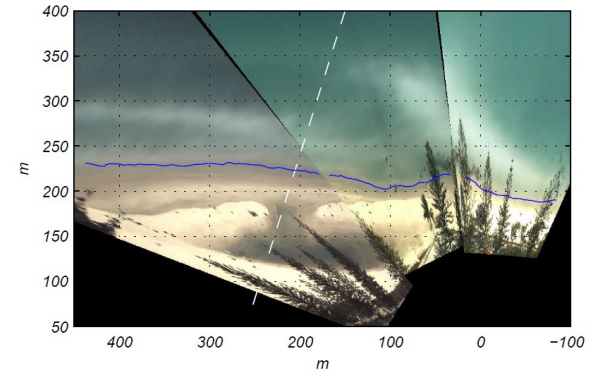


15 October 2022

# TWEED SAND BYPASSING



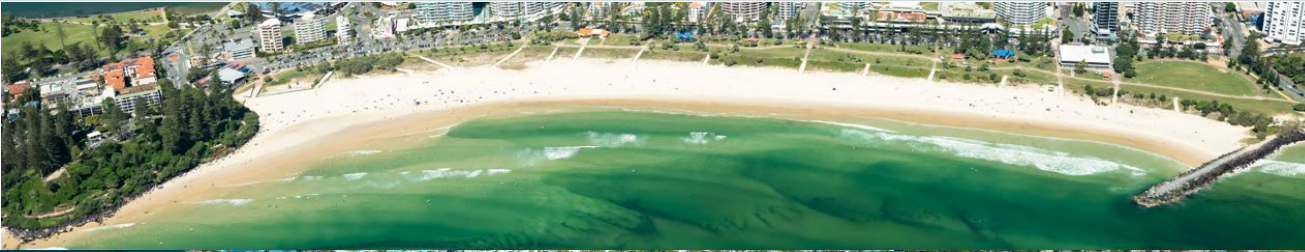
RAINBOW BAY - BEACH WIDTH DATA





# TWEED SAND BYPASSING

## COOLANGATTA



19 April 2022

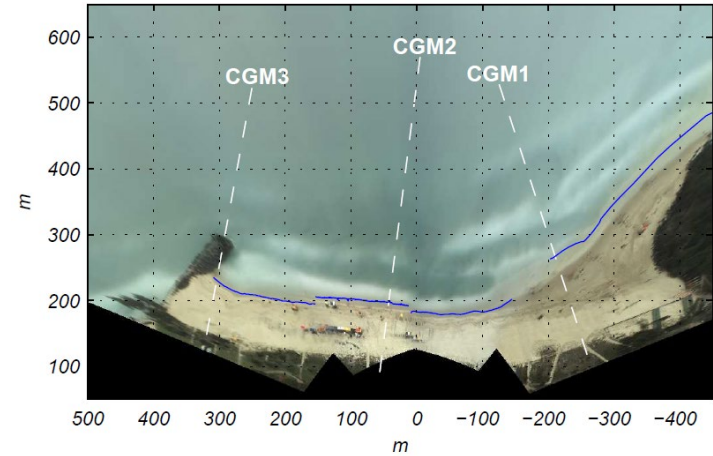
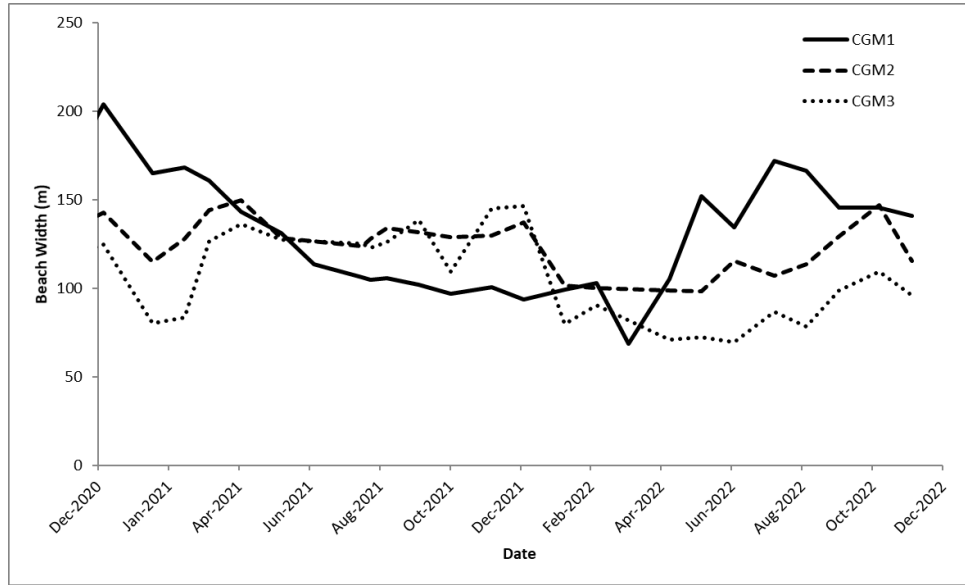


7 July 2022



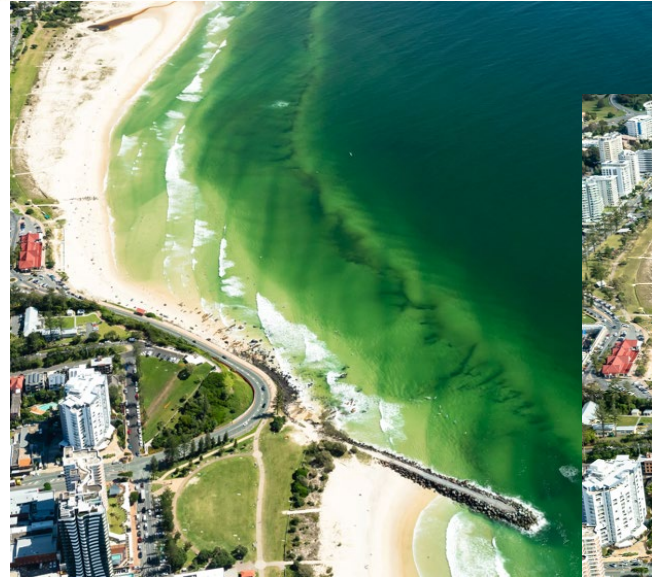
15 October 2022

# TWEED SAND BYPASSING



## COOLANGATTA-BEACH WIDTH DATA

# TWEED SAND BYPASSING



19 April 2022

KIRRA



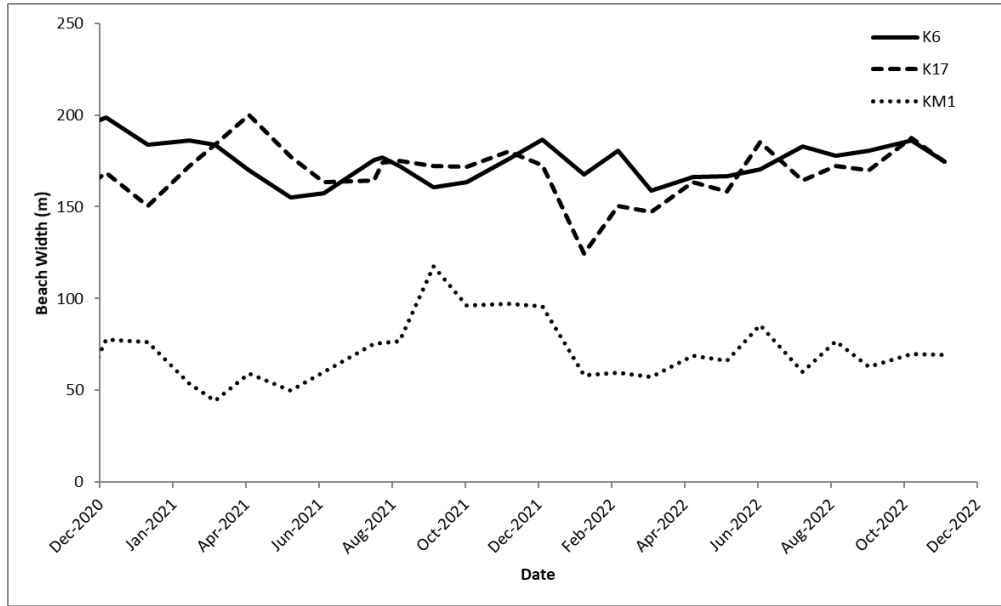
7 July 2022

15 October 2022

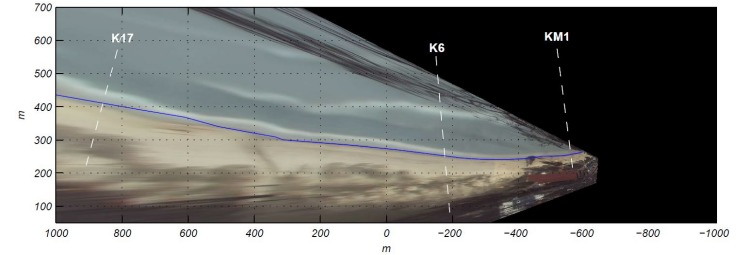




# TWEED SAND BYPASSING



## KIRRA- BEACH WIDTH DATA



# TWEED SAND BYPASSING



19 April 2022

7 July 2022



15 October 2022



## BILINGA

# TWEED SAND BYPASSING



15 October 2022



# TWEED SAND BYPASSING

## SURF CONDITIONS

11 October 2022– Snapper Rocks



2 October 2022 – Duranbah



# TWEED SAND BYPASSING



Snapper Rocks - 13 October 2022



Duranbah - September 2022



Kirra Barrels in July - Bombing East Coast Low - Part 1

## SURF CONDITIONS



Duranbah - 8 September 2022

# TWEED SAND BYPASSING

## ENTRANCE CONDITIONS, USAGE AND SURVEY



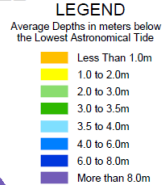


# TWEED SAND BYPASSING

## TWEED RIVER ENTRANCE AS AT 2nd NOVEMBER 2022

**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 users 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.



### WARNING

**DREDGING OF TWEED RIVER ENTRANCE IN PROGRESS DURING NOVEMBER 2022.**

FOR MORE INFORMATION VISIT  
[WWW.TWEEDSANDBYPASS.NSW.GOV.AU](http://WWW.TWEEDSANDBYPASS.NSW.GOV.AU)

### NOTES:

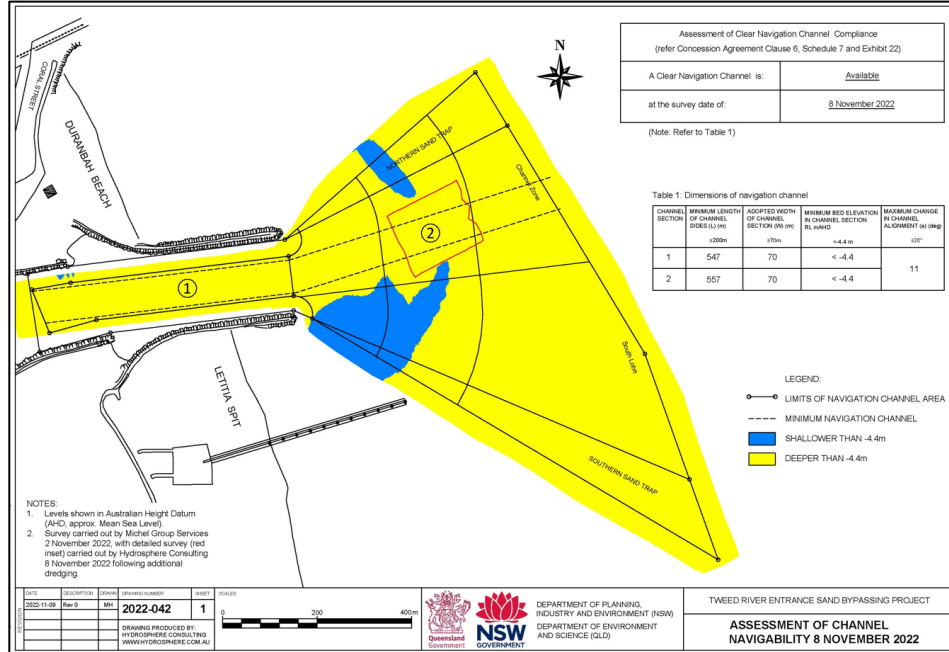
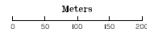
1. Survey information collected by Michel Group Services on 2nd NOVEMBER 2022.
2. This plan prepared by Michel Group Services on 4th NOVEMBER 2022
3. Surveys are undertaken for Tweed Sand Bypassing every three months to monitor entrance seabed levels.



Transport  
for NSW

### TWEED SAND BYPASSING

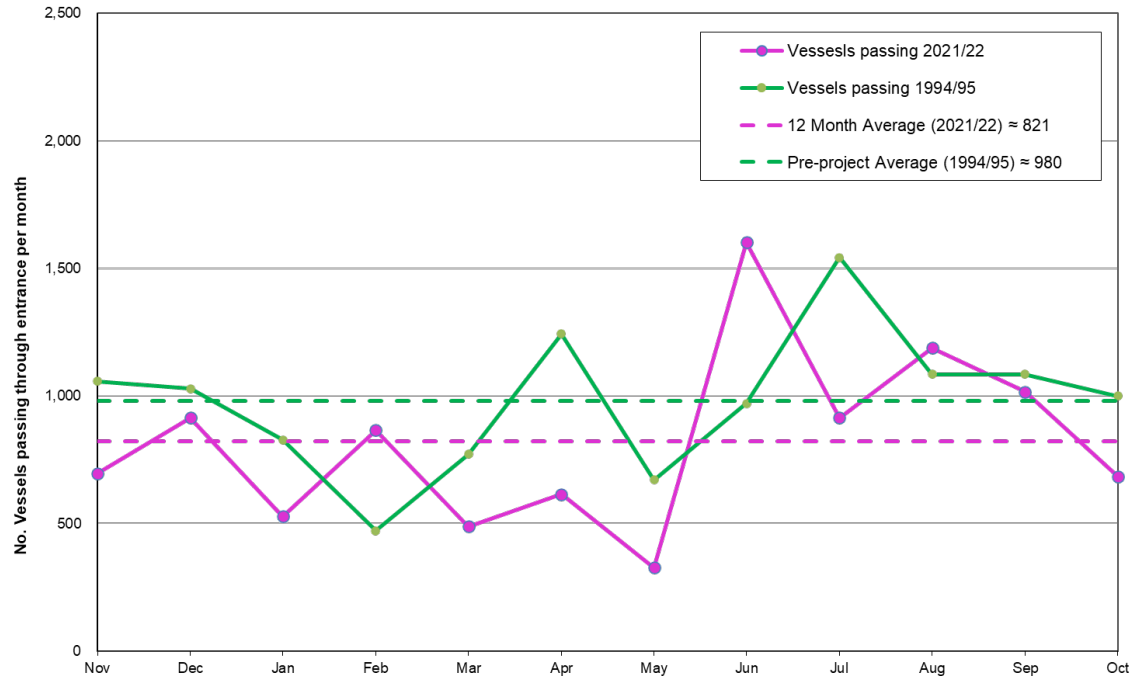
Tweed Sand bypassing is a joint project of the New South Wales and Queensland Governments, with the support of the Gold Coast City Council, and in conjunction with Tweed Shire Council.



## ENTRANCE USAGE

- Generally vessel passing numbers have been variable and highly dependant on conditions.
- On average over the past 12 months numbers have been just under the pre-project average.

Comparison of vessels passing through the entrance per month in 2021/22 compared to 1994/95 (prior to entrance improvements)





## PROJECTS AND ENHANCEMENTS

### TSB Transition

Draft Strategy prepared (2024-2029), drafting of plans, procedures, and specifications, ICT preparations, legal instruments, property matters and asset handover.

### Kirra pipeline detailed design

Detailed design being revised to improve visual amenity.

### Asset Condition Assessment

Comprehensive condition assessment complete. Asset generally in good operating condition. Some corrosion management issues to be addressed.

### Kirra Amenity Study

Assessment of Kirra Amenity including surf amenity and future predictions.

### Cathodic Protection Investigation

Investigation planned to determine whether improvements can be made to the cathodic protection system.

## COMMUNICATIONS AND ENGAGEMENT

School Group excursions to jetty using TSB schools package

TSB Instagram post for Duranbah pumping placement

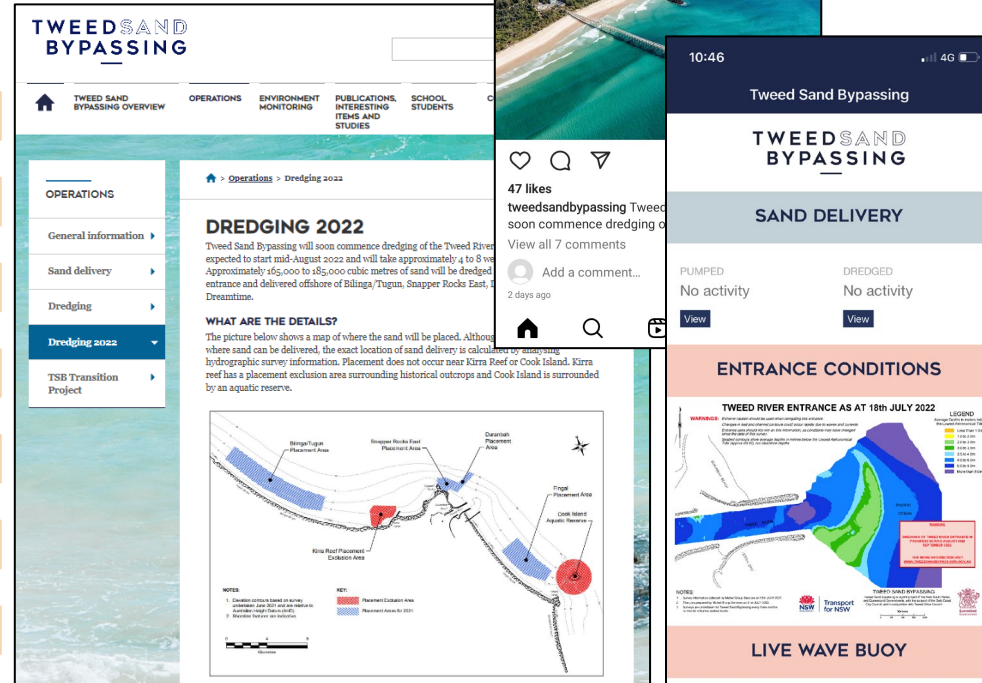
TSB Instagram posts for 2022 dredging

TSB app updates with volumes, locations and entrance maps

TSB website updated with a dedicated 2022 dredging webpage

Surfing Australia TV series “Rivals” featured TSB

Work underway on presentation to community focus groups



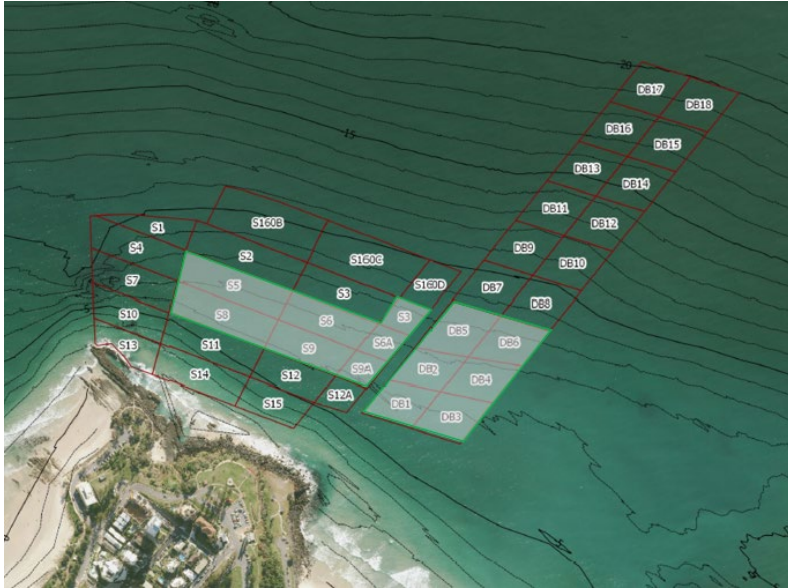
# TWEED SAND BYPASSING

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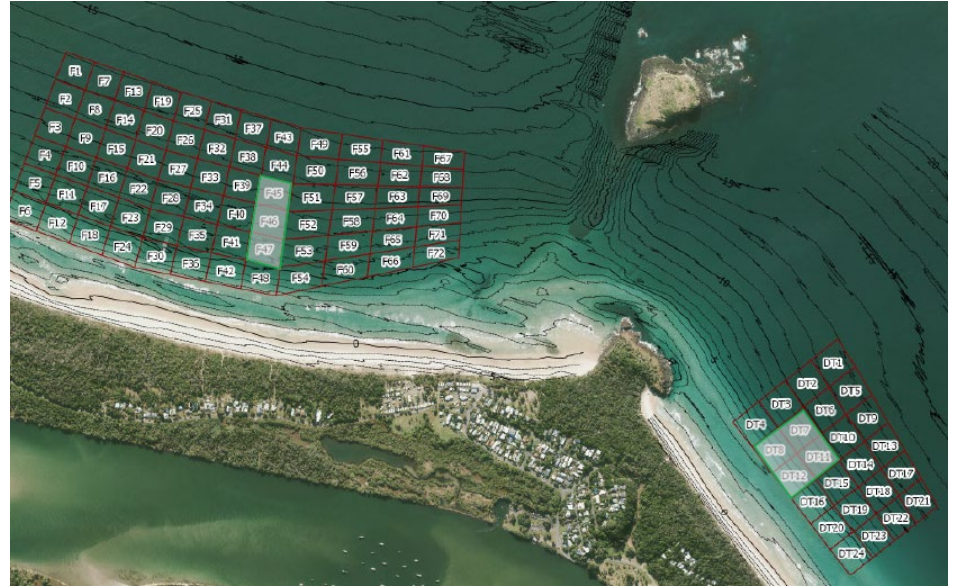
## THANK YOU

- 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](mailto:tresbp.projectoffice.group@transport.nsw.gov.au)

## 2022 DREDGE PREPARATION



33,174m<sup>3</sup> placed at Snapper Rocks and  
30,599m<sup>3</sup> placed at Duranbah



8,626m<sup>3</sup> placed at Dreamtime