

# TWEED SAND BYPASSING

MINUTES	
<b>Advisory Community Committee (ACC) Meeting</b>	
5.00 pm (Qld time) Wednesday 12 February 2020	
Venue: Kirra Hill Community and Cultural Centre	
<b>NSW and Qld Govt Project Attendees:</b>	
KB	Kim Bowra – NSW Project Director - Tweed Sand Bypassing
CR	Celine Roux – Qld Project Director - Tweed Sand Bypassing
MH	Matthew Harry – A/Project Manager for NSW and QLD Governments - Tweed Sand Bypassing
KN	Kane Nielsen – Engineer – Qld Govt – Tweed Sand Bypassing
AB	Adrian Barwick – Senior Engineer – NSW Govt - Tweed Sand Bypassing
<b>Guests:</b>	Ana Da Silva – Griffith University, Griffith Centre for Coastal Management
	Guilherme Vieira da Silva – Griffith University, Griffith Centre for Coastal Management

# TWEED SAND BYPASSING

	AGENDA
	<ol style="list-style-type: none"> <li>Welcome and apologies</li> <li>Community beach and entrance reports</li> <li>Community Comments / Questions (All)</li> <li>Project monitoring and operational overview <ul style="list-style-type: none"> <li>Sand bypassing system operations + delivery program</li> <li>Environmental monitoring</li> <li>Guest presentation - Griffith Centre for Coastal Management</li> <li>Entrance conditions, usage and survey</li> </ul> </li> <li>Projects and enhancements and Communications</li> <li>General Business</li> <li>Next meeting: AC - 13 May 2020</li> </ol>
<b>1</b>	<b>WELCOME and APOLOGIES (KB)</b>
	KB commenced the meeting with welcoming the attendees and acknowledging of the traditional owners.
<b>2</b>	<b>COMMUNITY BEACH AND ENTRANCE REPORTS (KB)</b>
	<p>2 reports were received from the Community and are summarised below:</p> <p><b>Fingal Rovers' SLSC</b></p> <p>Noted that consistent northerly conditions have provided some coverage of the previously exposed rocks at Fingal. Recent large swells and high tides have caused some further erosion of the dune in front of the surf club but not enough to prevent access and use of the beach by visitors and surf lifesaving patrols</p> <p><b>Volunteer Marine Rescue</b></p> <p>No reports of any incidents with in the bar area.</p> <p>Radio Operators have observed that vessels who go offshore through the Tweed Bar exit and enter from the centre to the north areas of the Tweed Bar.</p>
<b>3</b>	<b>COMMUNITY COMMENTS (ALL)</b>
	<p>Community members made the following comments:</p> <ul style="list-style-type: none"> <li>Little Durambah beach (located on south side of Tweed River entrance) was reported as having less upper beach than before.</li> <li>Community eager to hear feedback from TSB team on Fingal erosion.</li> </ul>

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	<ul style="list-style-type: none"> <li>• Movement of sand at Rainbow was reported as being significant.</li> <li>• Rainbow, Greenmount &amp; Coolangatta beach amenities reported to be good.</li> <li>• Kirra beach reported as still not 100%. Freshwater lagoons evident.</li> <li>• Information sought regarding the effects of recent sand placement by dredge at Fingal.</li> <li>• Fingal residents concern over beach erosion observing sand cliffs of 2m+.</li> <li>• Future plans for Fingal.</li> <li>• Support for a focus on reporting of Fingal conditions.</li> <li>• Recent conditions have resulted in surfing at Kirra being limited.</li> <li>• Snapper rock waves have been small.</li> </ul> <p>Jane Lofthouse – Tweed Shire Council update on Coastal Management Program (CMP):</p> <ul style="list-style-type: none"> <li>• Scoping study is nearing completion.</li> <li>• Stage 2 will include assessment of erosion hazards with community consultation at the end of 2020.</li> <li>• Stage 3 will be the investigation of management options.</li> <li>• Stage 4 will be development of the Management Plan by 2021.</li> <li>• Actions arising from CMP will be dependent on budget planning.</li> </ul> <p>Celine Roux – QLD Project Director</p> <ul style="list-style-type: none"> <li>• Since the last ACC (August 2019) the team have been working on the ArcGIS database to eventually be publicly available online with historical imagery.</li> </ul>
4	<b>PROJECT MONITORING AND OPERATIONAL OVERVIEW (MH)</b>
4.1	<p><b>Sand bypassing system operations + delivery program</b></p> <ul style="list-style-type: none"> <li>• Sand bypassing system operations + delivery program</li> <li>• Environmental monitoring</li> <li>• Guest presentation - Griffith Centre for Coastal Management <i>'Sediment Transport Interaction with Fingal Head'</i></li> <li>• Entrance conditions, usage and survey</li> </ul> <p><b>* Refer to presentation addendum for content of the above items *</b></p>
5	<b>PROJECT ENHANCEMENTS AND COMMUNICATIONS (MH)</b>
	<b>* Refer to presentation addendum for content of the above items *</b>
6	<b>QUESTIONS</b>
	<ul style="list-style-type: none"> <li>• Will there be dredging at Fingal again? <i>KB response:</i> Dredge deposition at Fingal will now be included for consideration in future dredging campaigns.</li> <li>• Will there be dredging this year?</li> </ul>

# TWEED SAND BYPASSING

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	<p><u>KB response:</u> 2020 dredging is dependent on survey results.</p> <ul style="list-style-type: none"><li>• The volumes of sand and the placement areas has 'killed' Kirra Reef.</li></ul> <p><u>CR response:</u> <i>Kirra Reef monitoring has been ongoing for many years and has found the reef to be recovering well following review of placement areas.</i></p>
	<p>Meeting closed at 6:40pm</p> <p>The next Advisory Committee Meeting will be held 13 May 2020.</p>



# TWEED SAND BYPASSING

## Agenda

Advisory Committee & Community meeting  
Wednesday 12 February 2020, 5:00pm to 6:30pm  
Kirra Hill Community & Cultural Centre

Chair: Kim Bowra, NSW Project Director - Tweed Sand Bypassing

1. Welcome and apologies
2. Community beach and entrance reports
3. Project monitoring and operational overview
  - Sand bypassing system operations + delivery program
  - Environmental monitoring
  - Guest presentation - Griffith Centre for Coastal Management
  - Entrance conditions, usage and survey
4. Projects and enhancements and Communications
5. Community Comments / Questions (All)
6. General Business
7. Next meeting: AC - 13 May 2020

Restoring Coastal Sand Drift - Improving Boating Access

ACC Meeting - 12 February 2020

# TWEED SAND BYPASSING

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- Project Monitoring / Operational Overview
  - Sand bypassing system operations + delivery program
  - Environmental Monitoring
  - Entrance conditions , usage and survey
  - TSB projects and enhancements
  - Communications

# **Sand Bypassing System Operations + Delivery Program**

**TWEED**SAND  
BYPASSING  
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# TWEED SAND BYPASSING

## Pumping 2019

PUMPING BY JETTY MOUNTED SYSTEM 2019				
MONTH	Vol SRE (m3)	Vol D'Bah (m3)	Total Vol (m3)	AVG (2014-2018) (m3)
JAN	24,515	0	24,515	41,176
FEB	49,143	0	49,143	42,084
MAR	26,045	0	26,045	38,370
APR	38,412	0	38,412	37,871
MAY	26,935	0	26,935	33,564
JUN	53,076	0	53,076	47,659
JUL	50,124	0	50,124	38,636
AUG	24,258	0	24,258	45,015
SEP	21,950	0	21,950	31,149
OCT	4,301	15,211	19,512	25,113
NOV	13,761	0	13,761	27,856
DEC	12,321	0	12,321	32,411
<b>TOTAL</b>	<b>344,841</b>	<b>15,211</b>	<b>360,052</b>	<b>440,904</b>

## Pumping 2020

PUMPING BY JETTY MOUNTED SYSTEM 2020				
MONTH	Vol SRE (m3)	Vol D'Bah (m3)	Total Vol (m3)	AVG (2015-2019) (m3)
JAN	17,653	0	17,653	35,097
FEB			0	46,157
MAR			0	32,473
APR			0	37,865
MAY			0	33,324
JUN			0	52,980
JUL			0	38,230
AUG			0	33,811
SEP			0	28,522
OCT			0	24,913
NOV			0	27,353
DEC			0	29,090
<b>TOTAL</b>	<b>17,653</b>	<b>0</b>	<b>17,653</b>	<b>419,814</b>

## Dredging 2019

SAND DELIVERY BY DREDGE 2019					
MONTH	Duranbah	SRE	Fingal	Bilinga	Total Vol (m3)
JAN					
FEB					
MAR					
APR					
MAY					
JUN					
JUL	28,197	38,619		15,313	82,129
AUG	7,838	15,441	31,366	14,586	69,231
SEP					
OCT					
NOV					
DEC					
<b>TOTAL</b>	<b>36,035</b>	<b>54,060</b>	<b>31,366</b>	<b>29,899</b>	<b>151,360</b>



Restoring Coastal Sand Drift - Improving Boating Access

# TWEED SAND BYPASSING



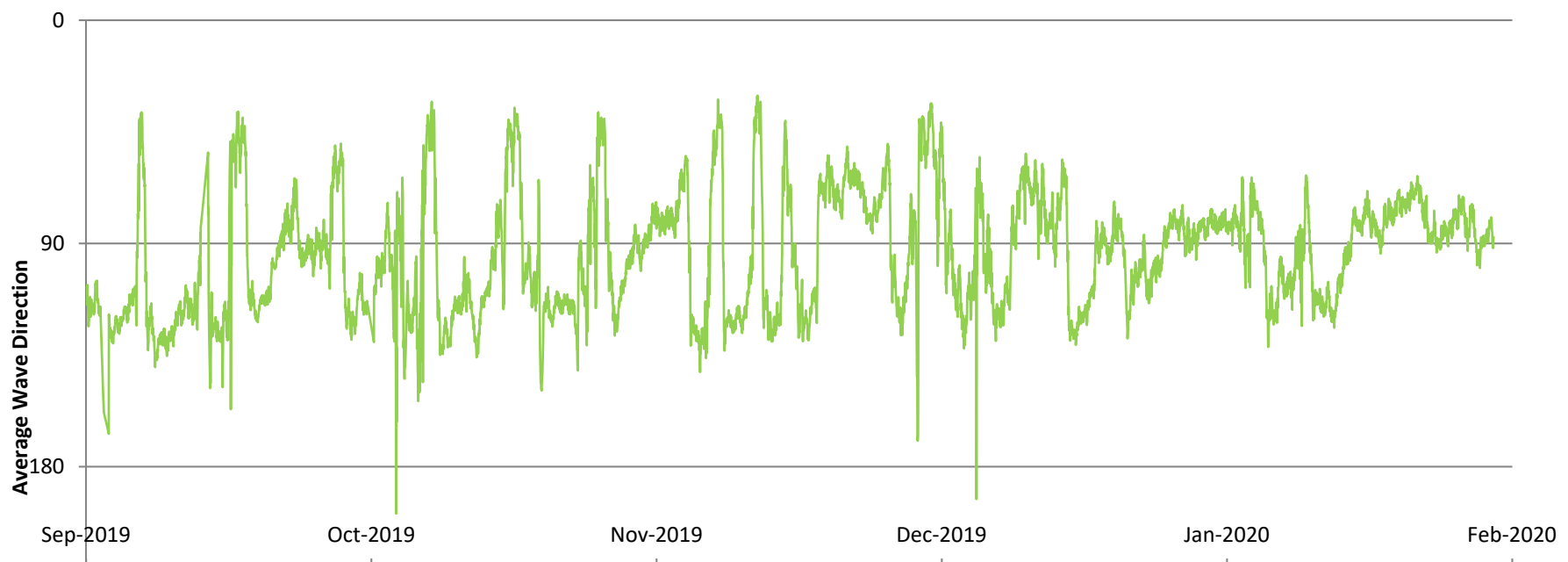
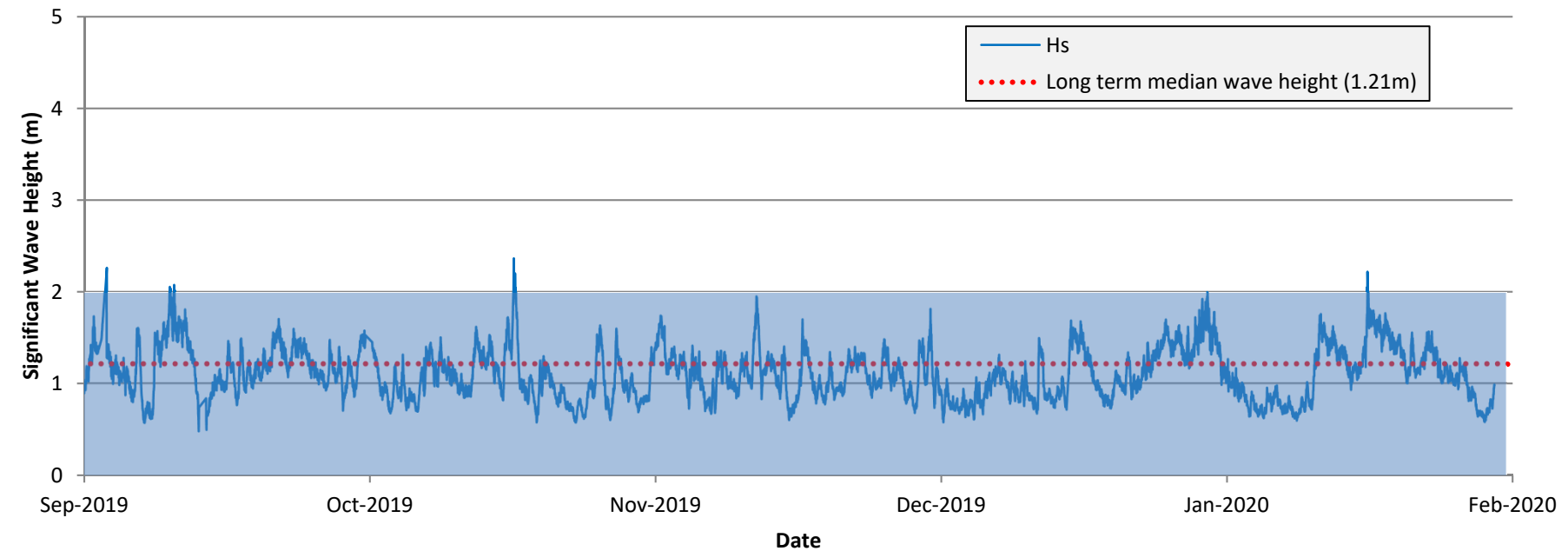
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# Environmental Monitoring

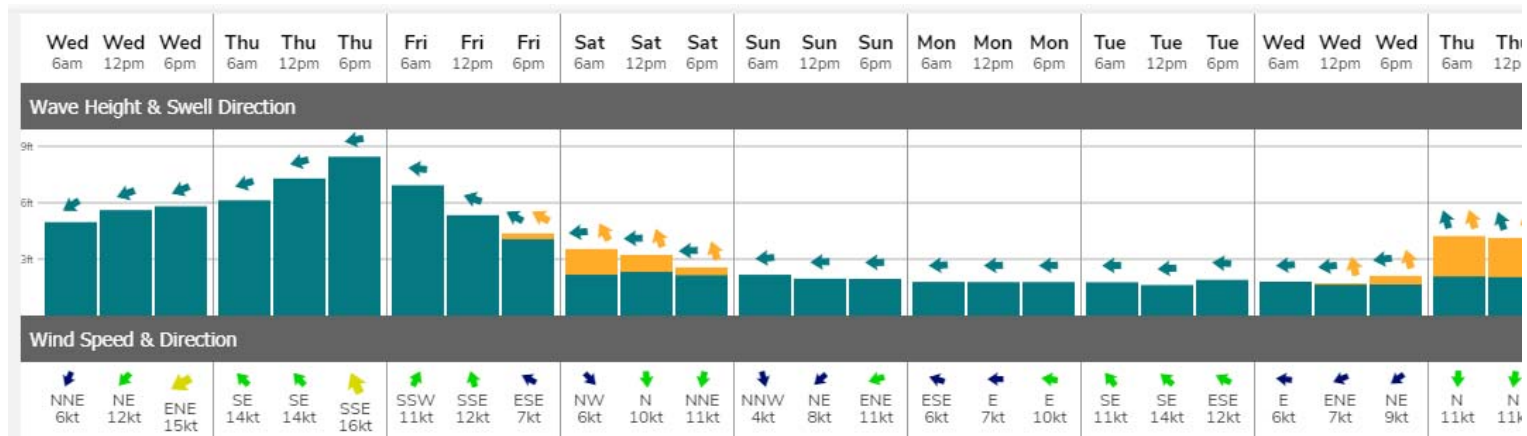
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## Wave Data – Sep 2019 to Jan 2020

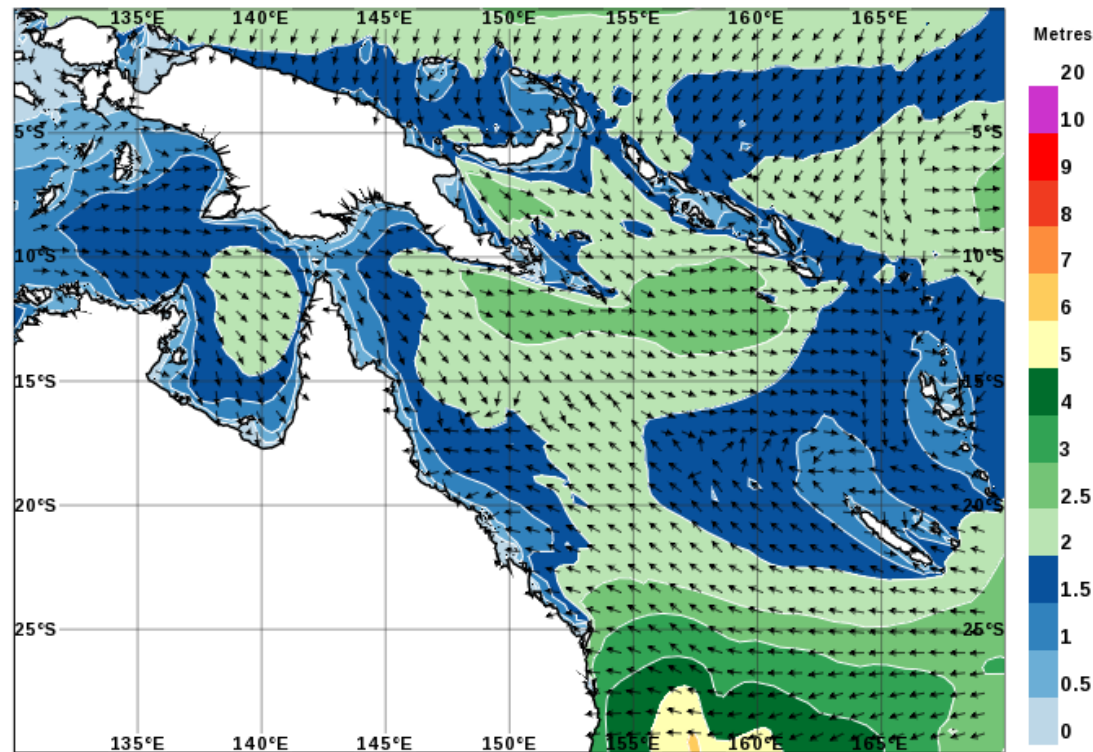


# Wave forecast



**Total Wave Height & Direction**  
Valid 00UTC Fri 14 Feb 2020

**AUSWAVE Regional**  
t+054





# TWEED SAND BYPASSING

Fingal

3 October 2019



22 June 2019



9 January 2020



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# TWEED SAND BYPASSING

## Letitia terrestrial survey

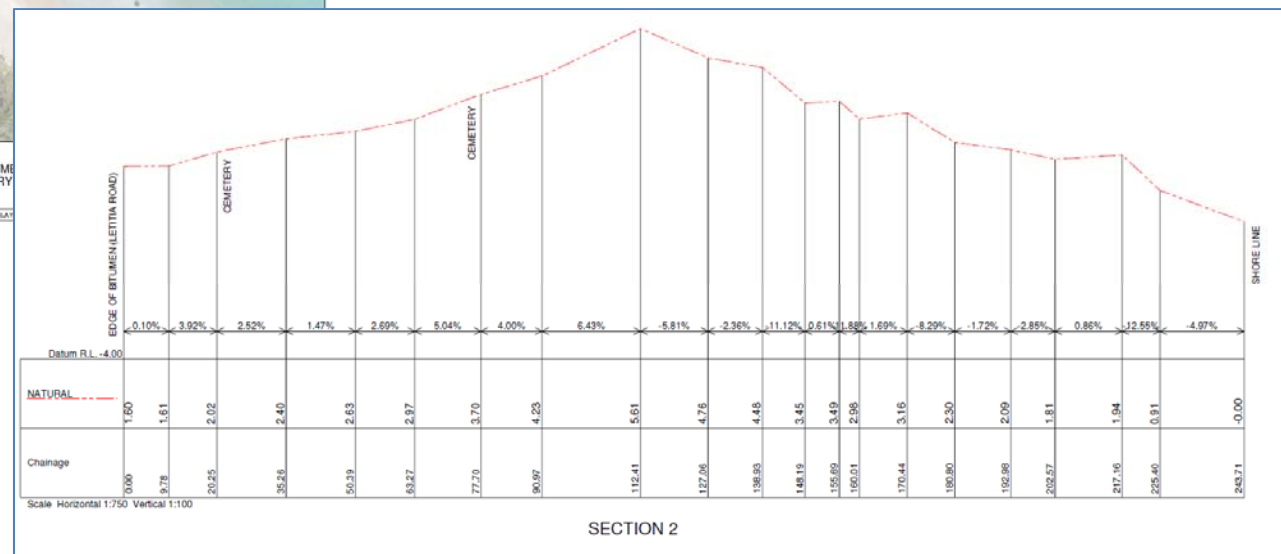
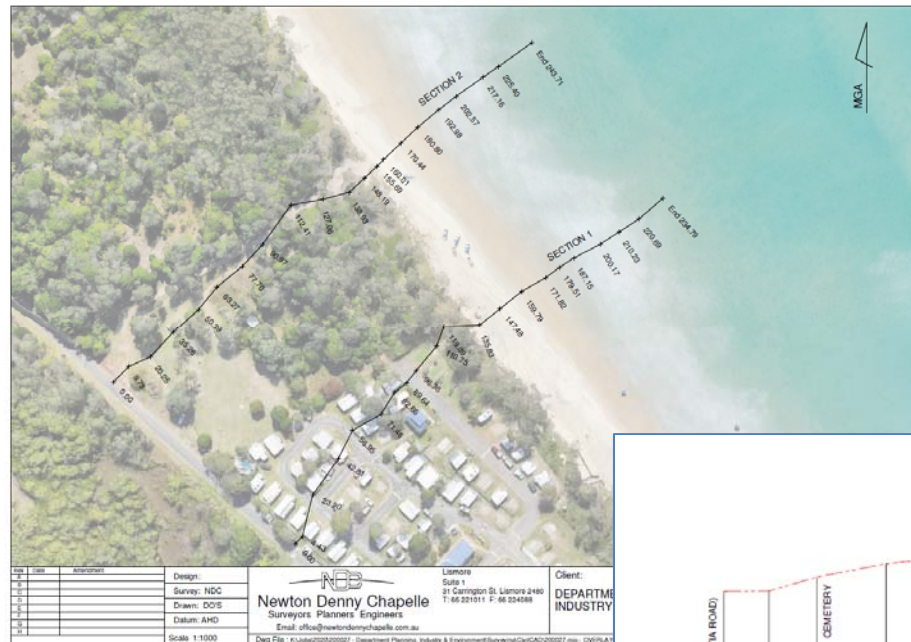


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# TWEED SAND BYPASSING

## Letitia terrestrial survey



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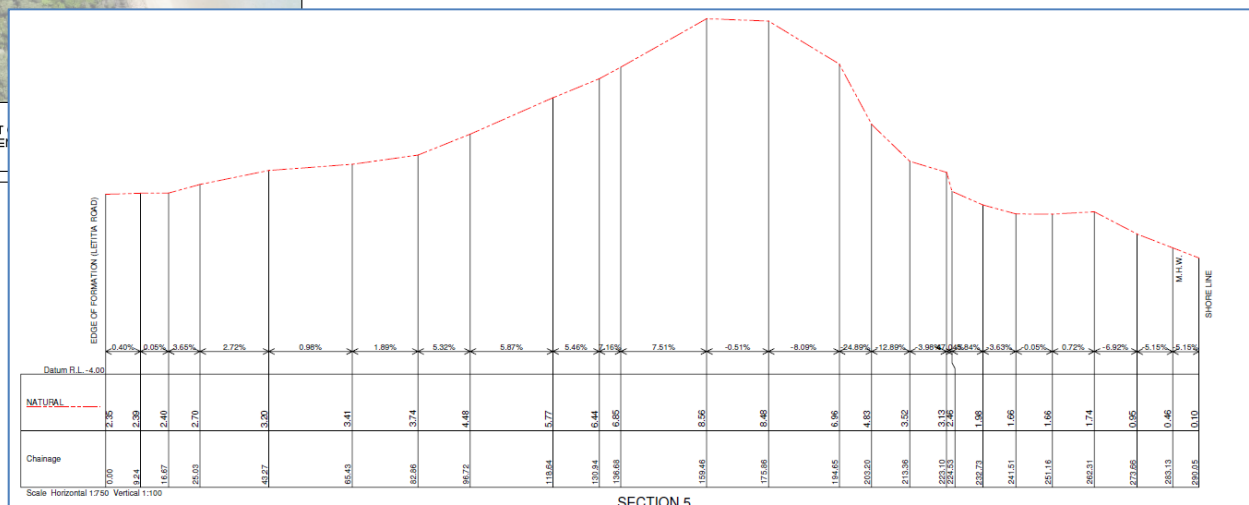
# TWEED SAND BYPASSING

## Letitia terrestrial survey



Fig. / Date	Amendment	Design:	Client:
1 / 10/2022	Revised M.C.R. notes 2.0/2.0/2.0/2.0	Design: NDC	Client: DEPARTMENT OF INDUSTRY & ENERGY
2 / 10/2022		Survey: NDC	
3 / 10/2022		Drawn: DOB	
4 / 10/2022		Datum: AHD	
5 / 10/2022		Scale: 1:1000	

**Newton Denny Chapelle**  
Surveyors Planners Engineers  
Email: office@newtondennychapelle.com.au  
Lismore  
Suite 1  
31 Carlingford St. Lismore 2480  
T: 66 221611 F: 66 224088  
Casino  
100 Bullock St. Casino 2470  
T & F: 66 628000



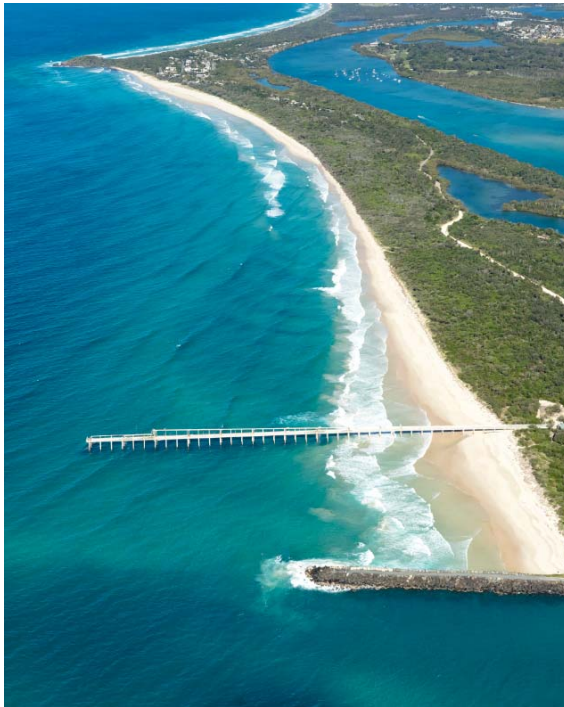
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Sediment Transport Interaction with Fingal Head

Presented by:  
Griffith Centre for Coastal Management

# TWEED SAND BYPASSING

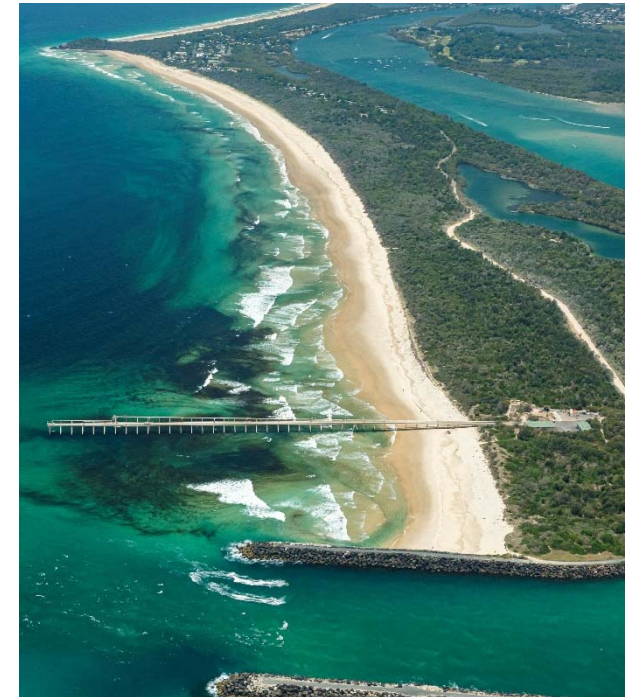
## Letitia



**22 June 2019**



**3 October 2019**



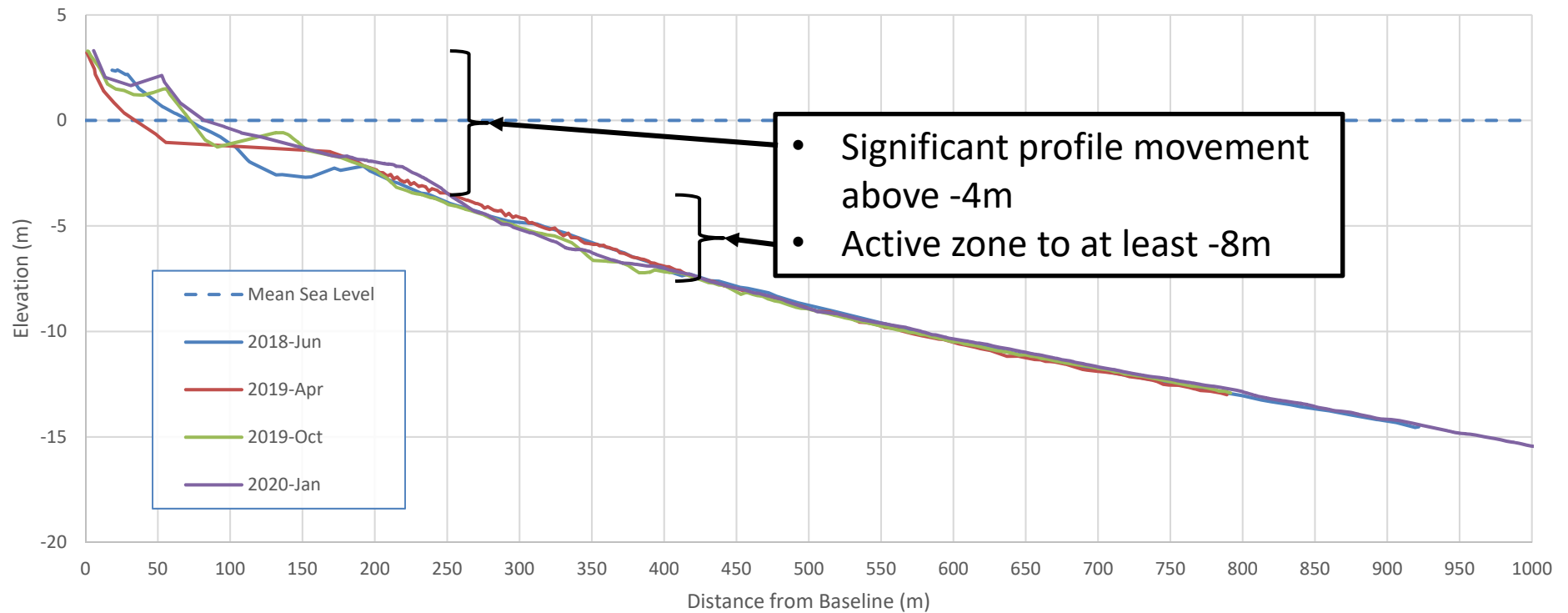
**9 January 2020**

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# TWEED SAND BYPASSING

## Letitia profile comparison



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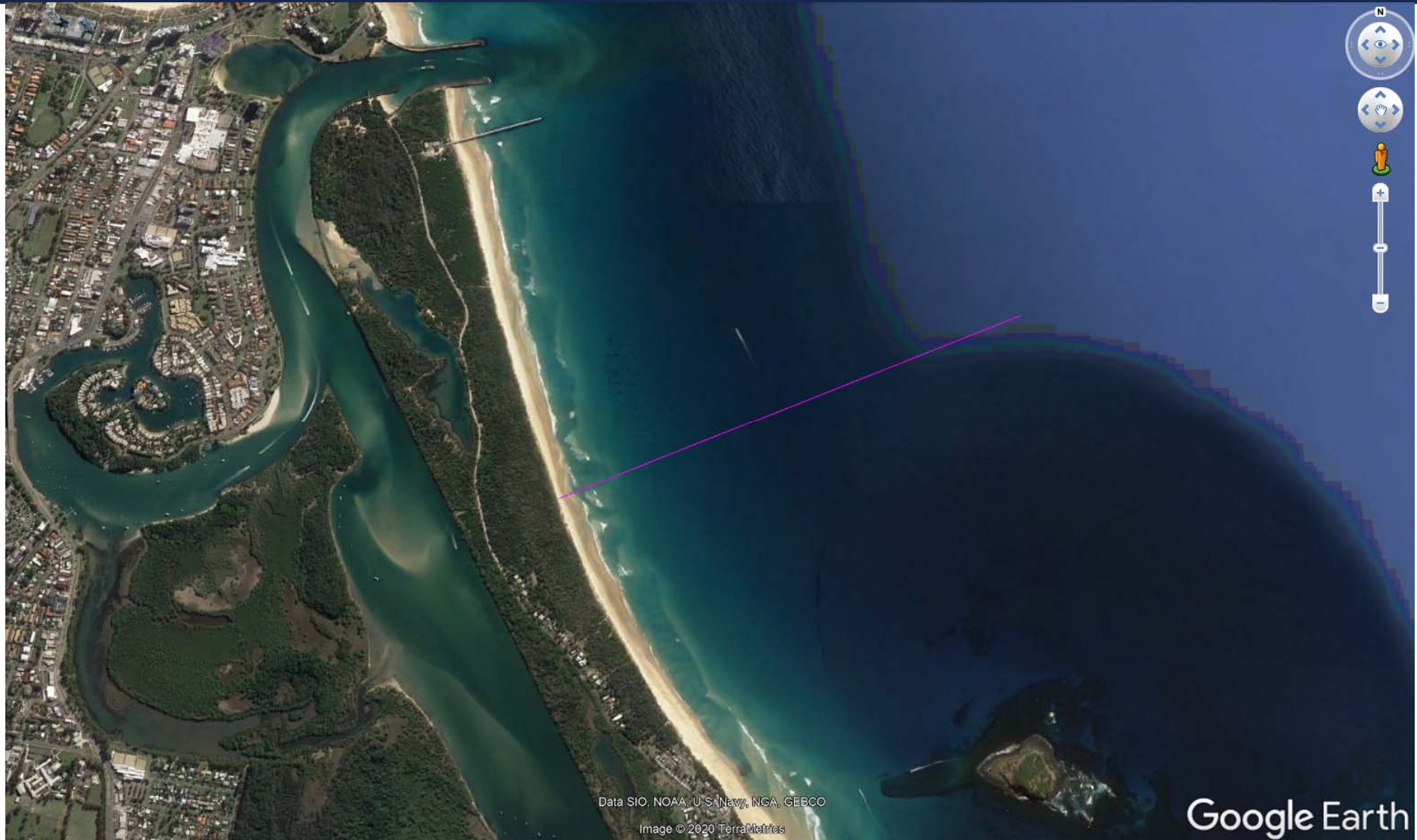
# TWEED SAND BYPASSING



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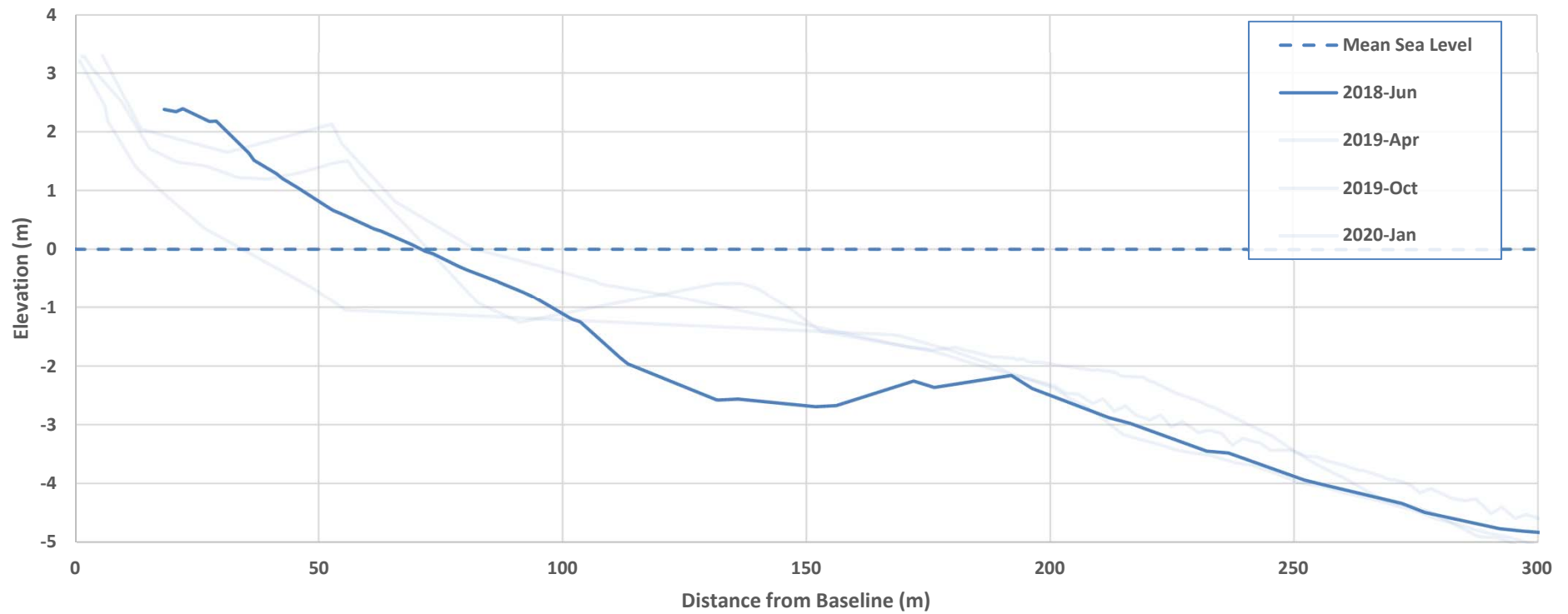
# TWEED SAND BYPASSING



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# TWEED SAND BYPASSING

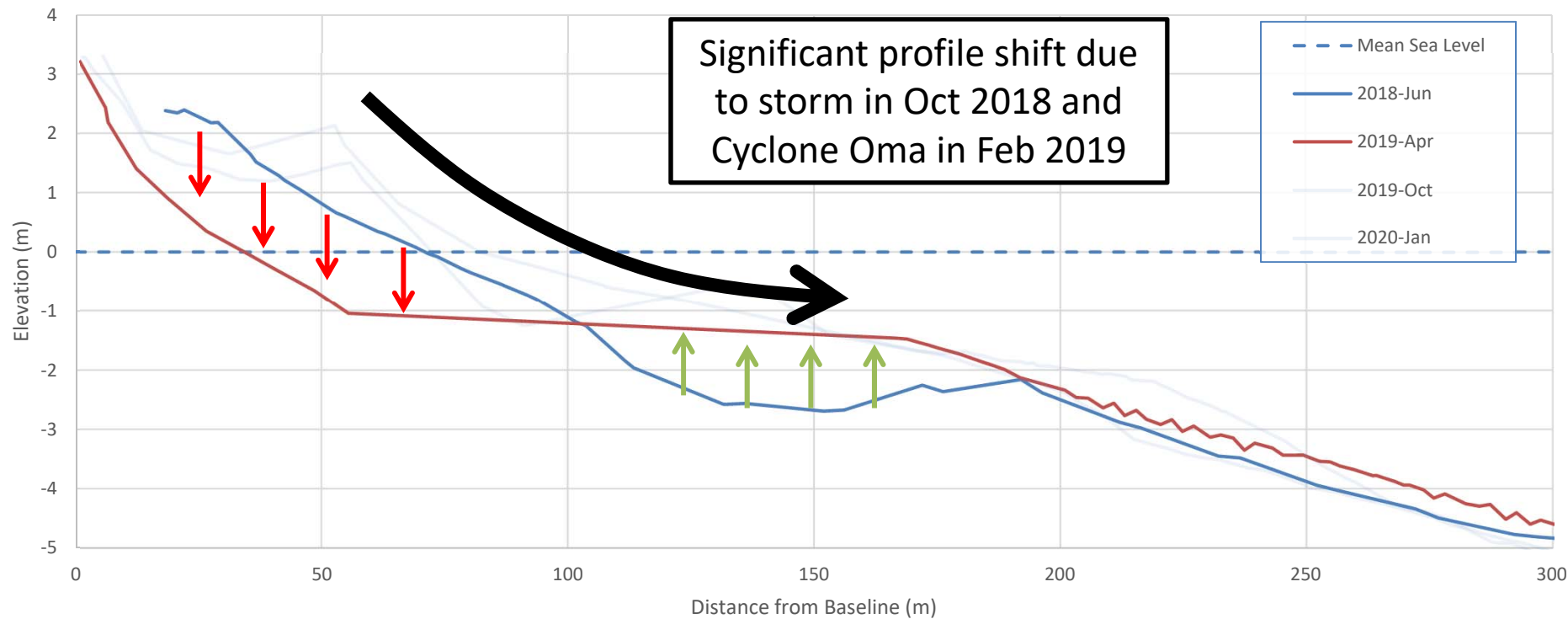
## Letitia profile comparison



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# TWEED SAND BYPASSING

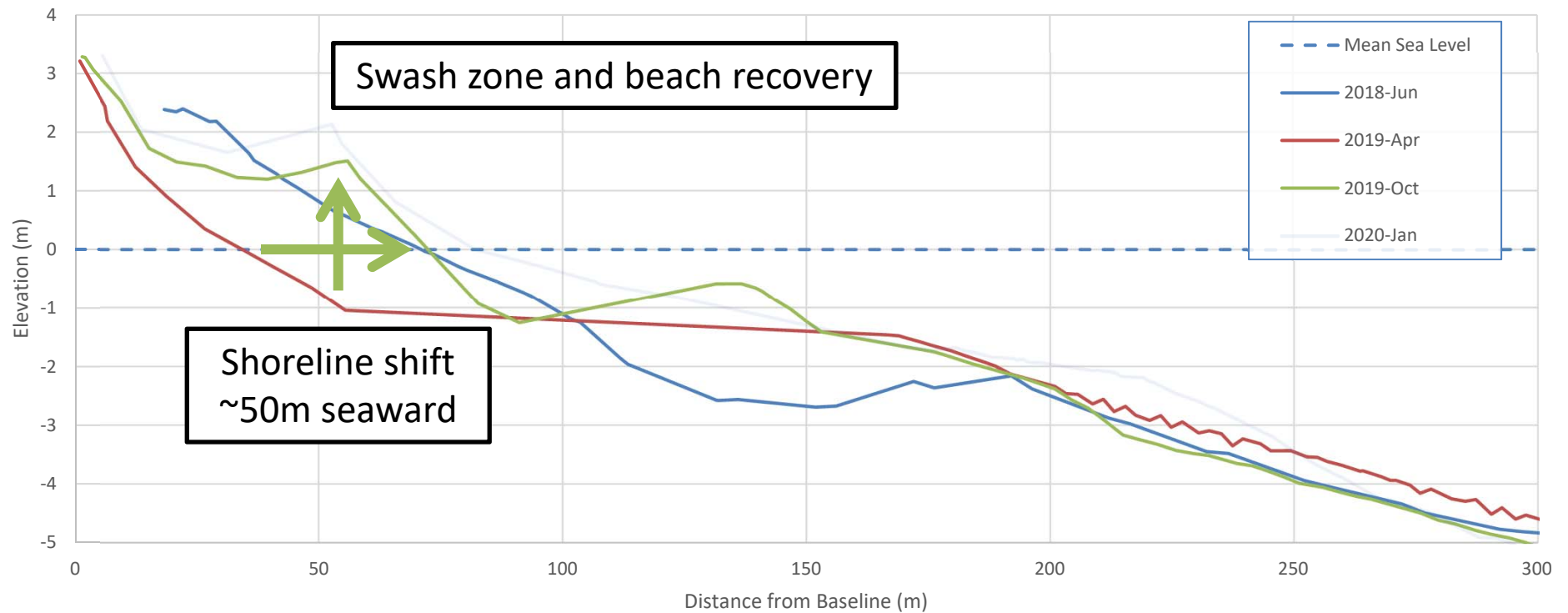
## Letitia profile comparison



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# TWEED SAND BYPASSING

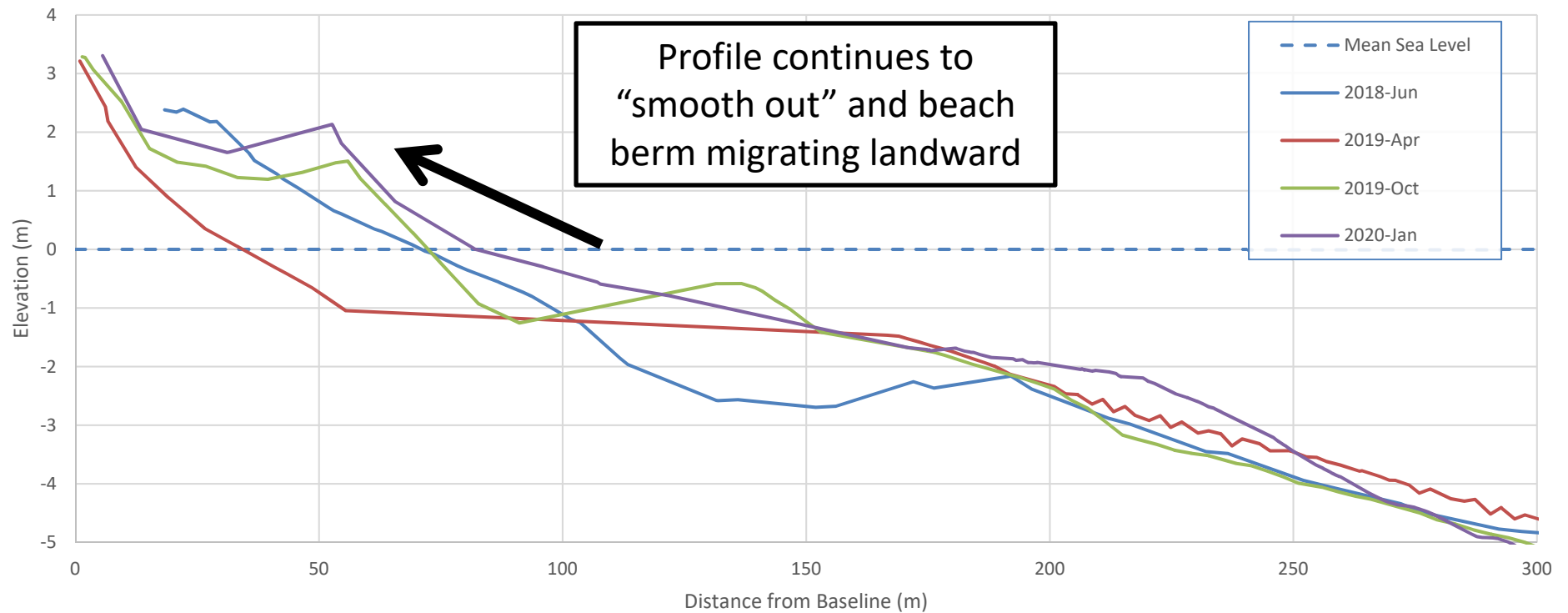
## Letitia profile comparison



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# TWEED SAND BYPASSING

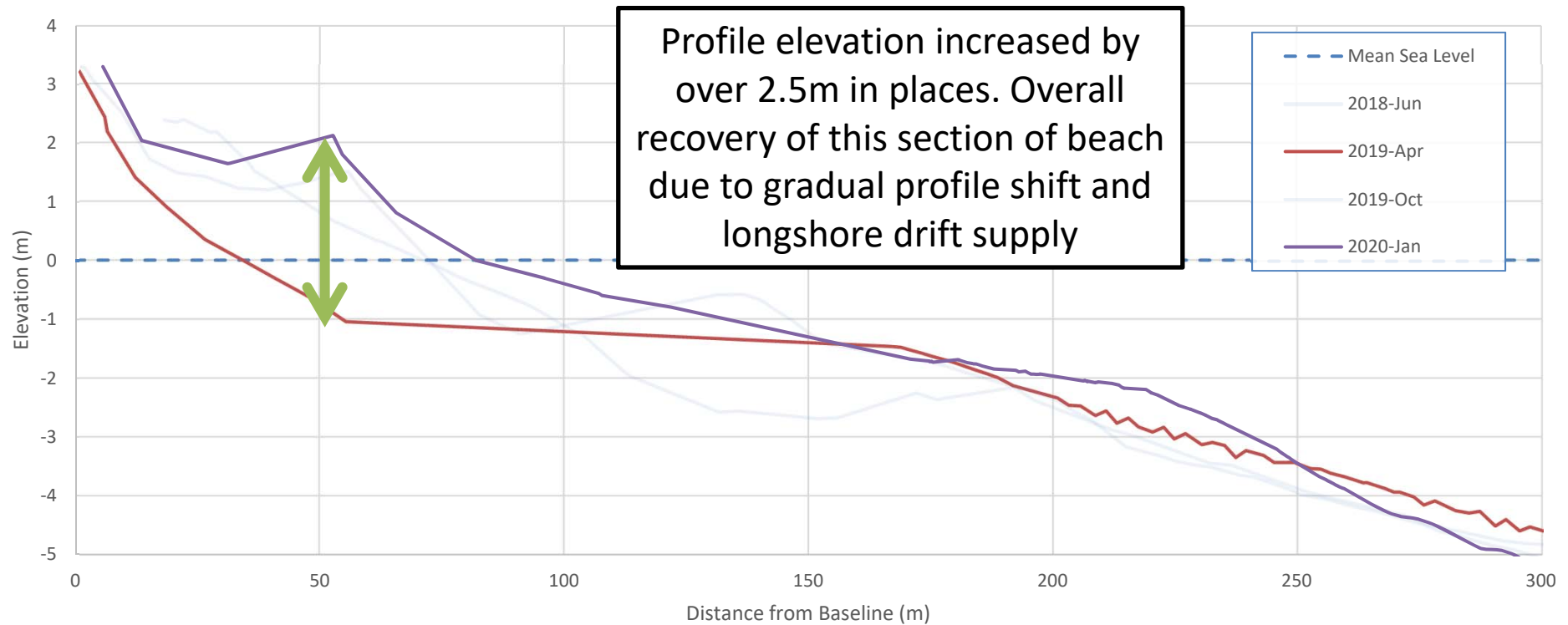
## Letitia profile comparison



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# TWEED SAND BYPASSING

## Letitia profile comparison

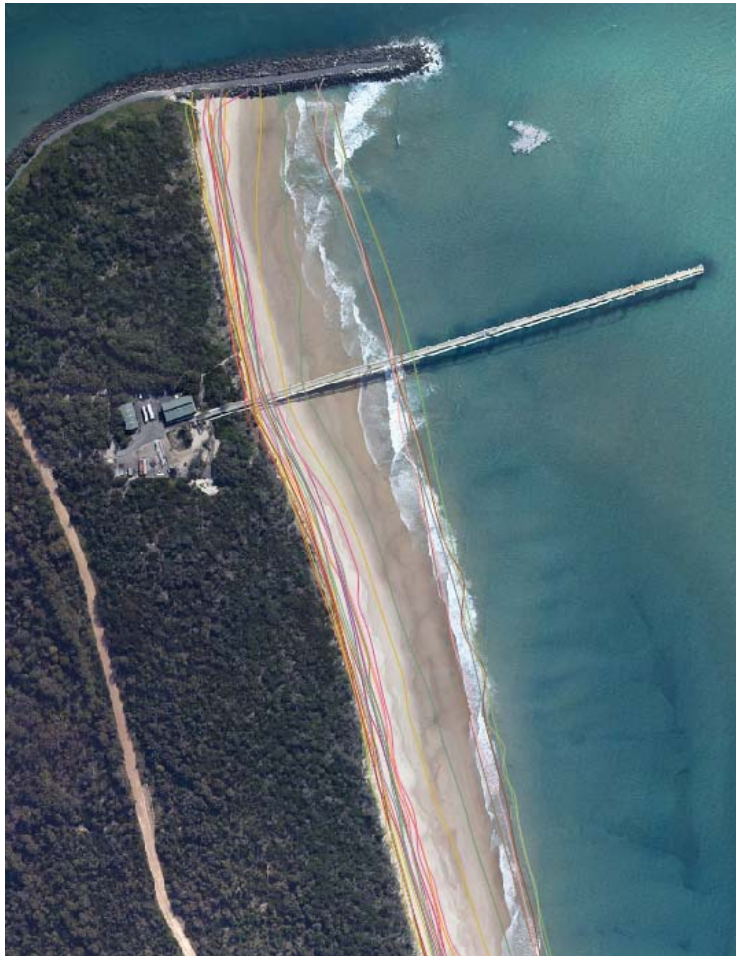


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# TWEED SAND BYPASSING

## Aerial imagery and shoreline mapping



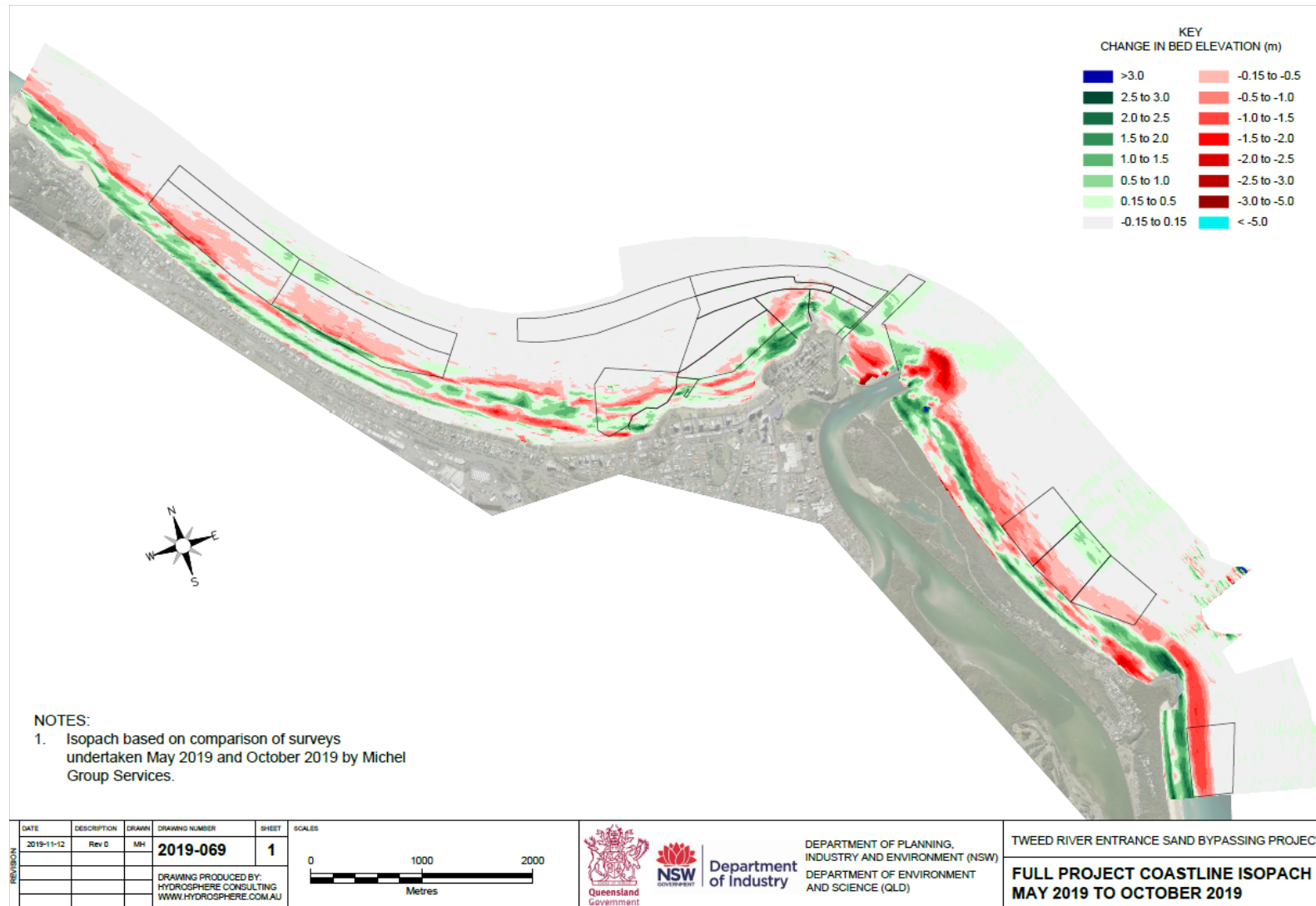
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Aerial imagery and shoreline mapping

ArcGIS tool example



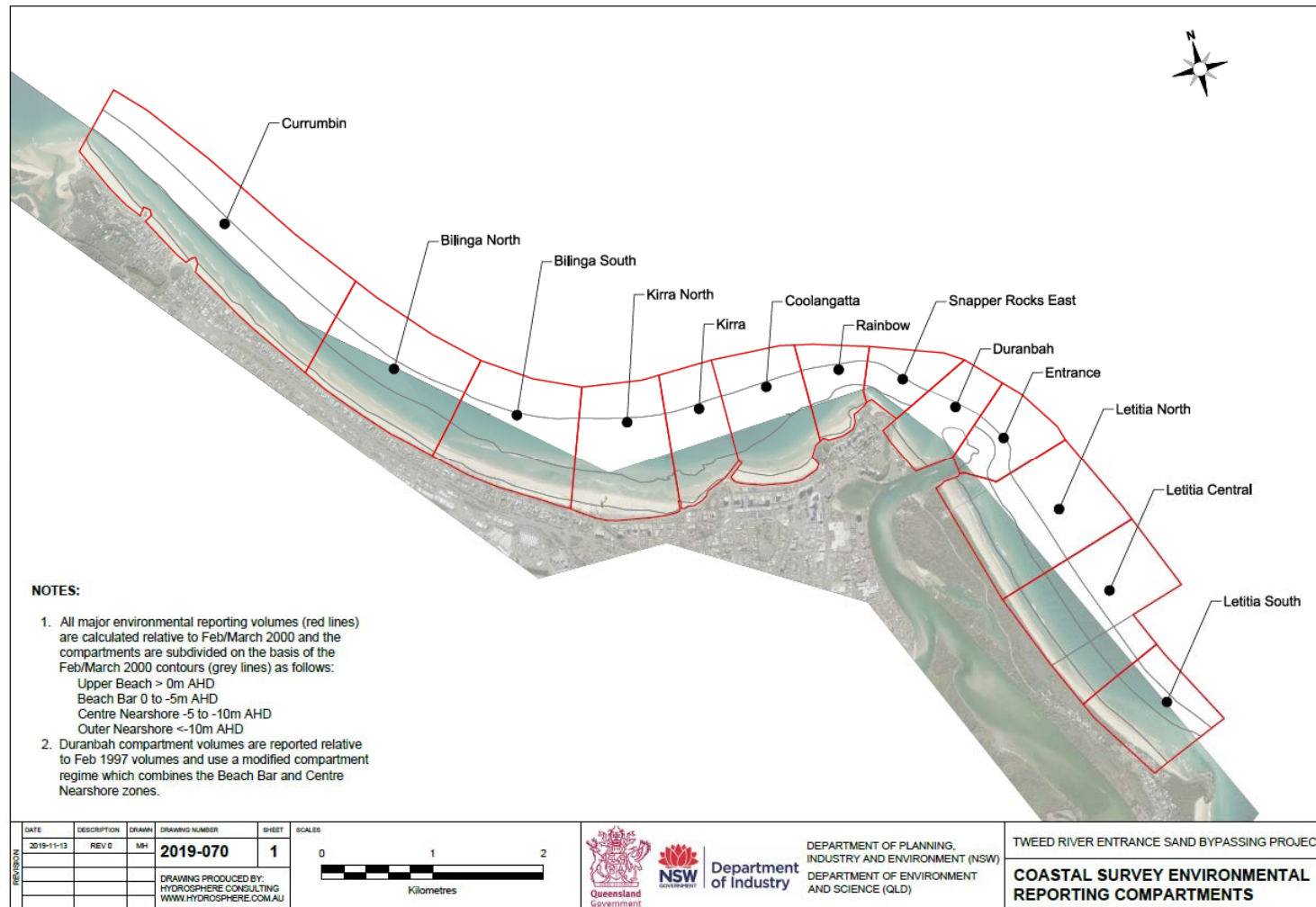
# TWEED SAND BYPASSING



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# TWEED SAND BYPASSING

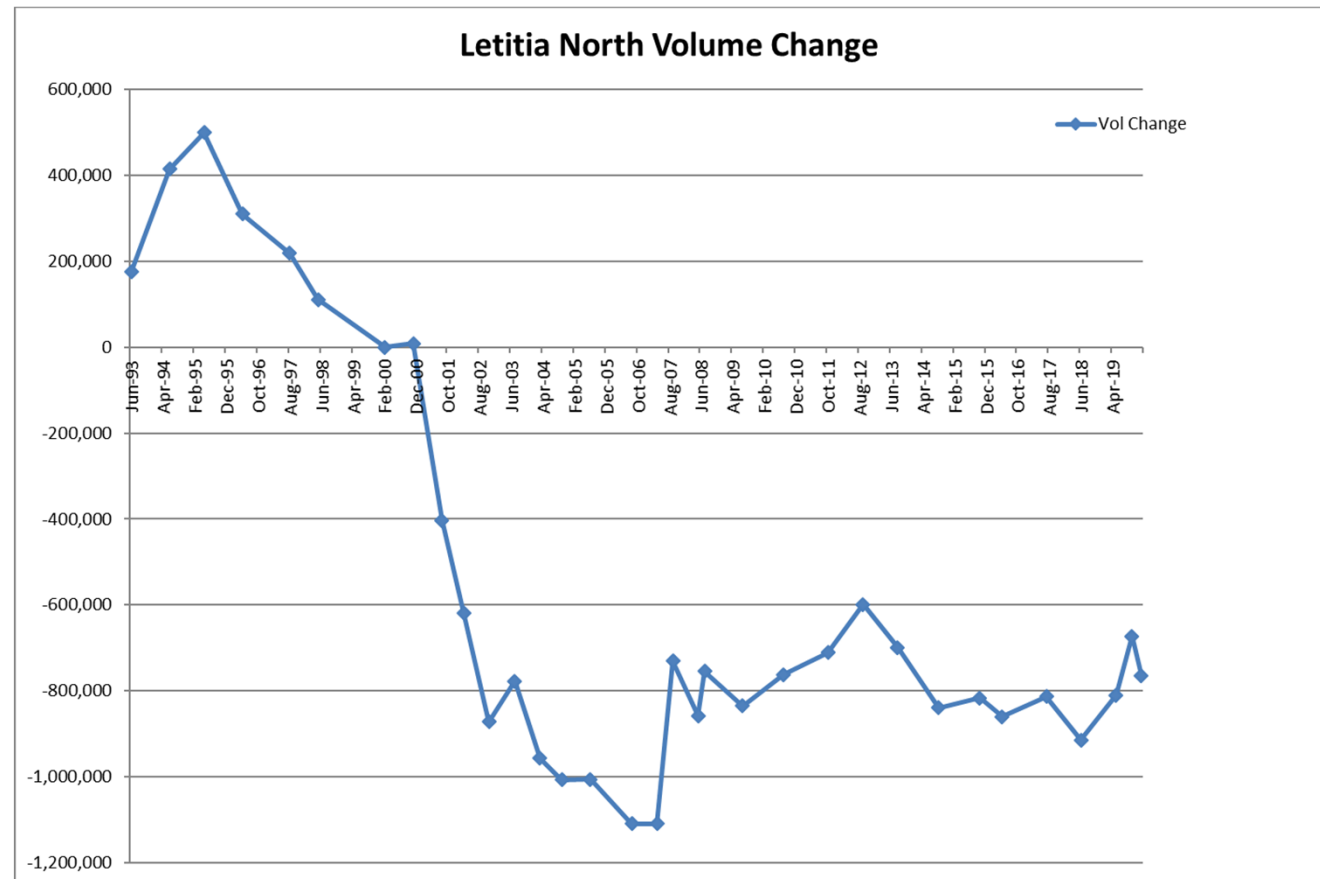
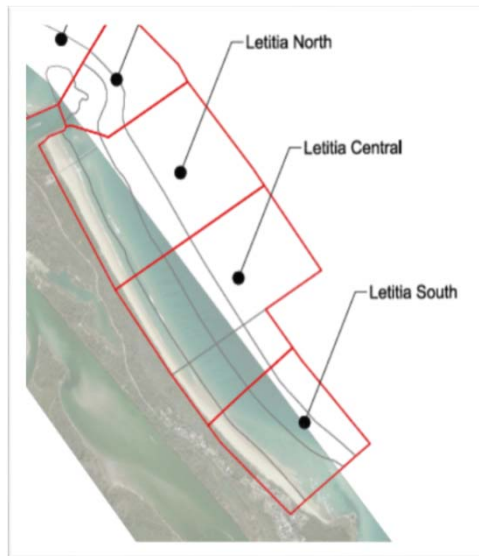
## Volume analysis



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# TWEED SAND BYPASSING

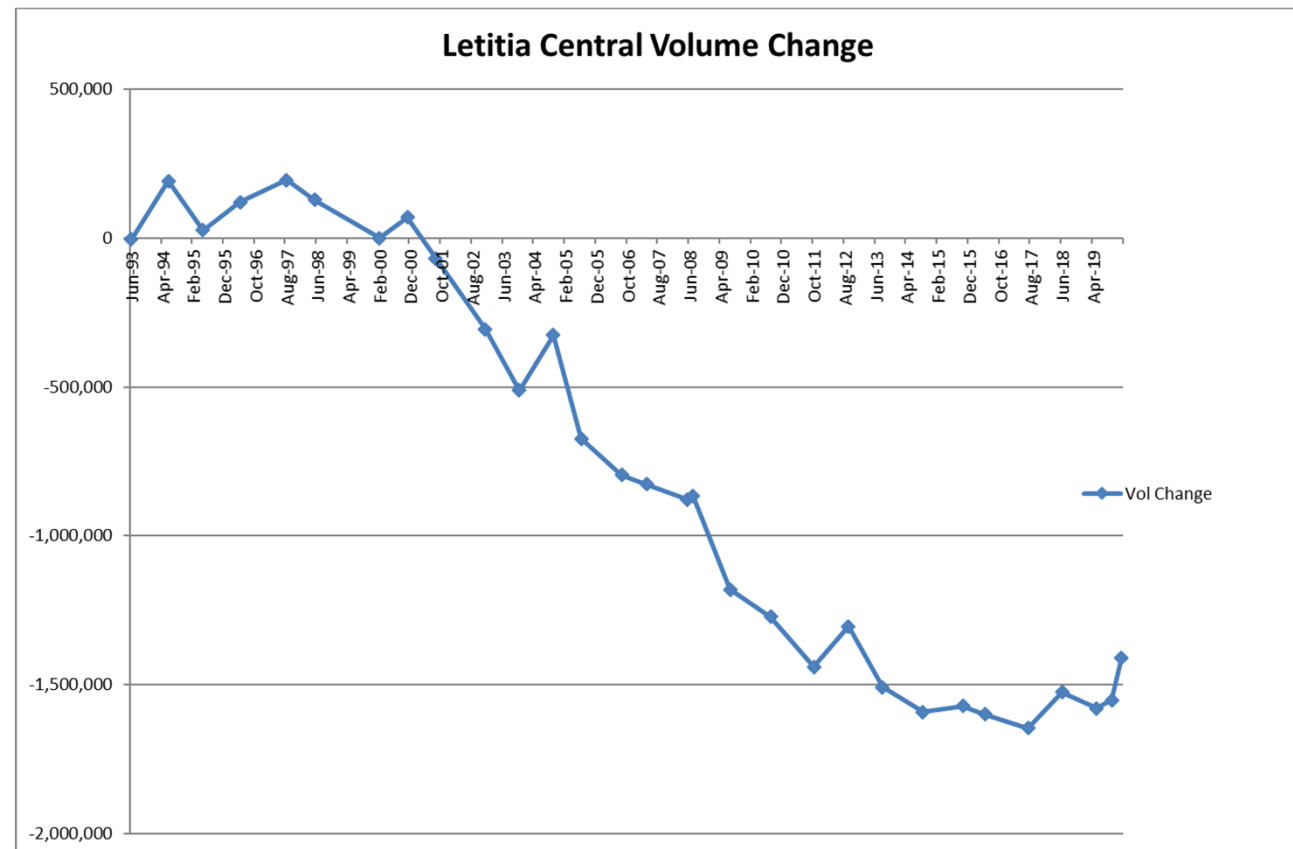
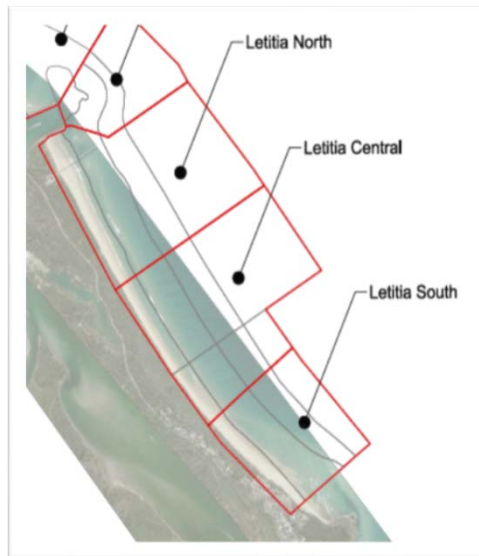
## Volume change since 2000



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# TWEED SAND BYPASSING

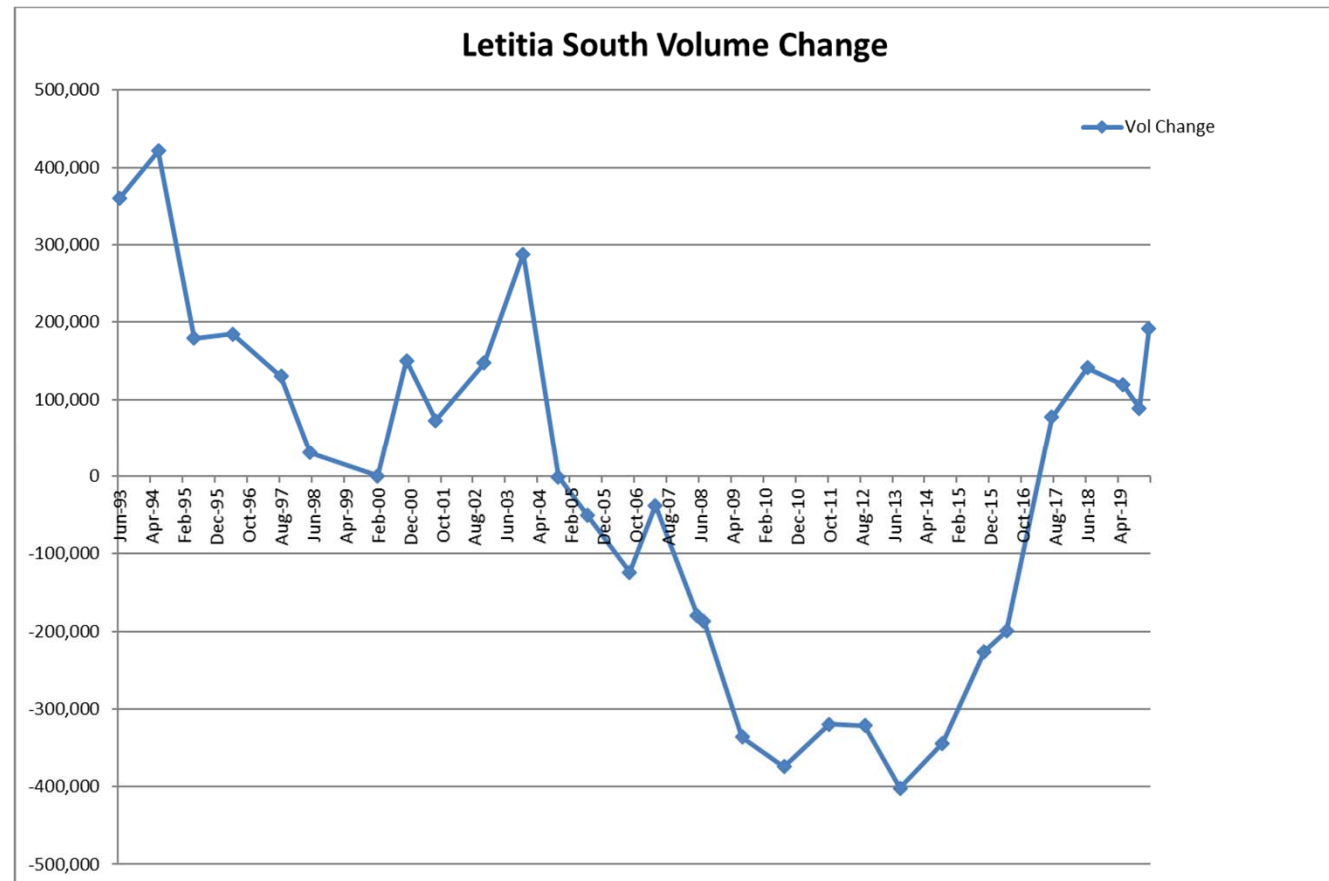
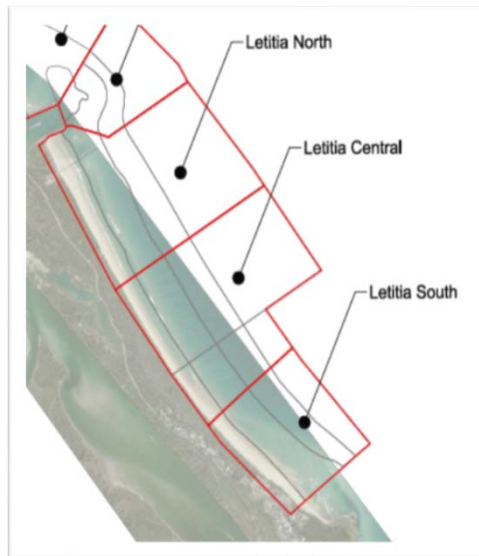
## Volume change since 2000



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# TWEED SAND BYPASSING

## Volume change since 2000



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## Letitia Beach Behavior study

### Objectives:

- Undertake a historical analysis of changes to Letitia Spit including at Fingal beach
- Determine current and future trends that can affect the Letitia coastline

### Scope:

- Review hydrographic survey data, aerial imagery, TSB sand delivery rates, longshore sediment transport rates and all relevant technical reports
- Describe the beach and shoreline changes along Letitia Spit through the 1900's to present day
- Describe recent trends and calculate rates of change to sand volume, shoreline position and general beach amenity
- Determine how Letitia coastline will respond to TSB operations and sand transport rates into future



# TWEED SAND BYPASSING

## Duranbah Beach



4 April 2019



22 June 2019



2 October 2019

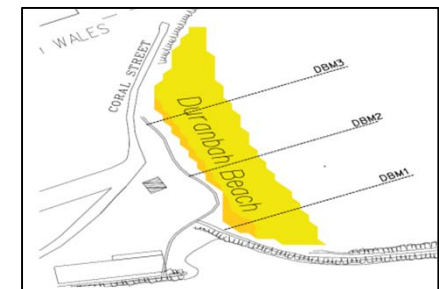
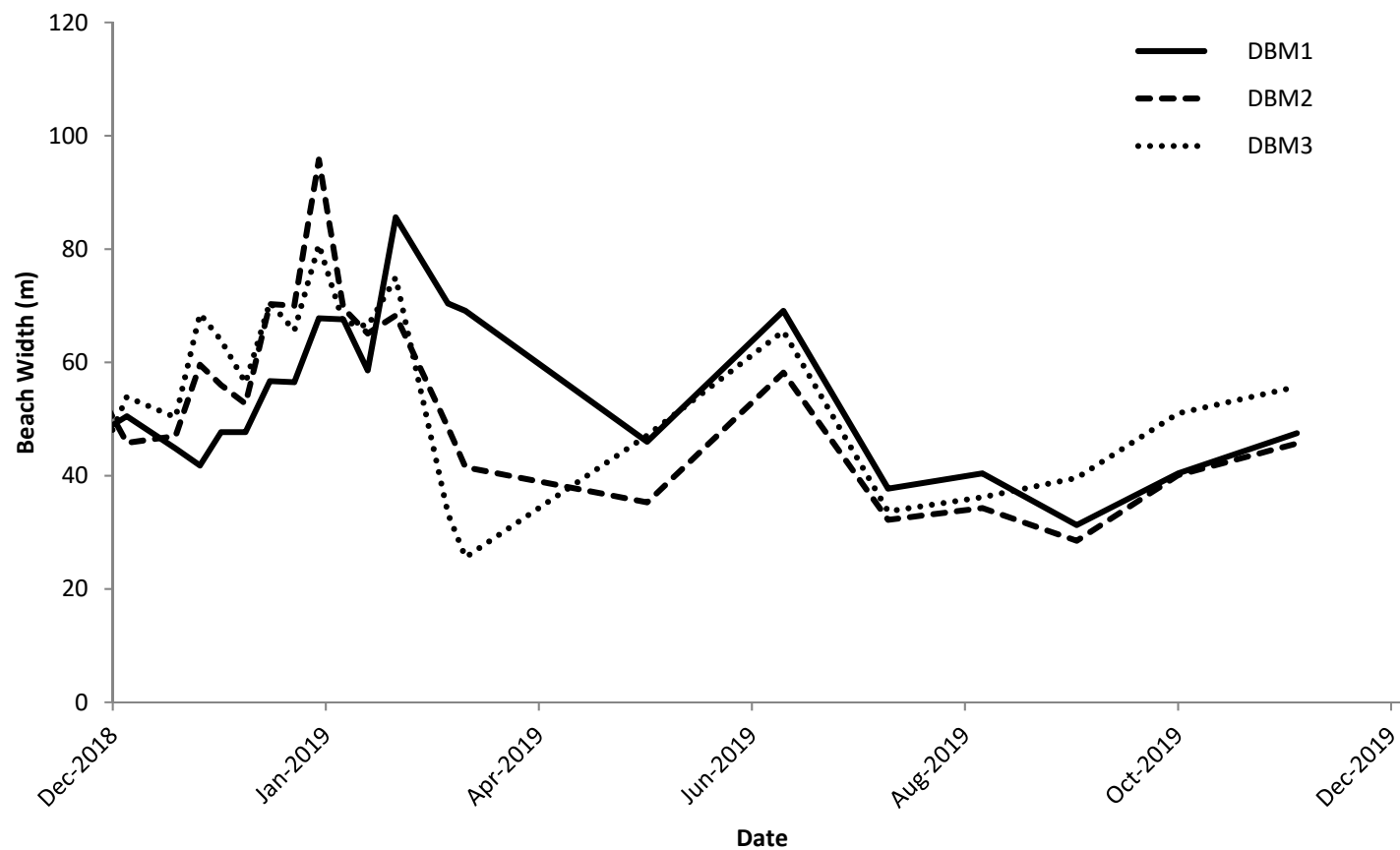


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# TWEED SAND BYPASSING

Duranbah – Beach width Dec 2018 to Dec 2019



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# TWEED SAND BYPASSING



Snapper Rocks /  
Rainbow Bay

**22 June 2019**



**2 October 2019**

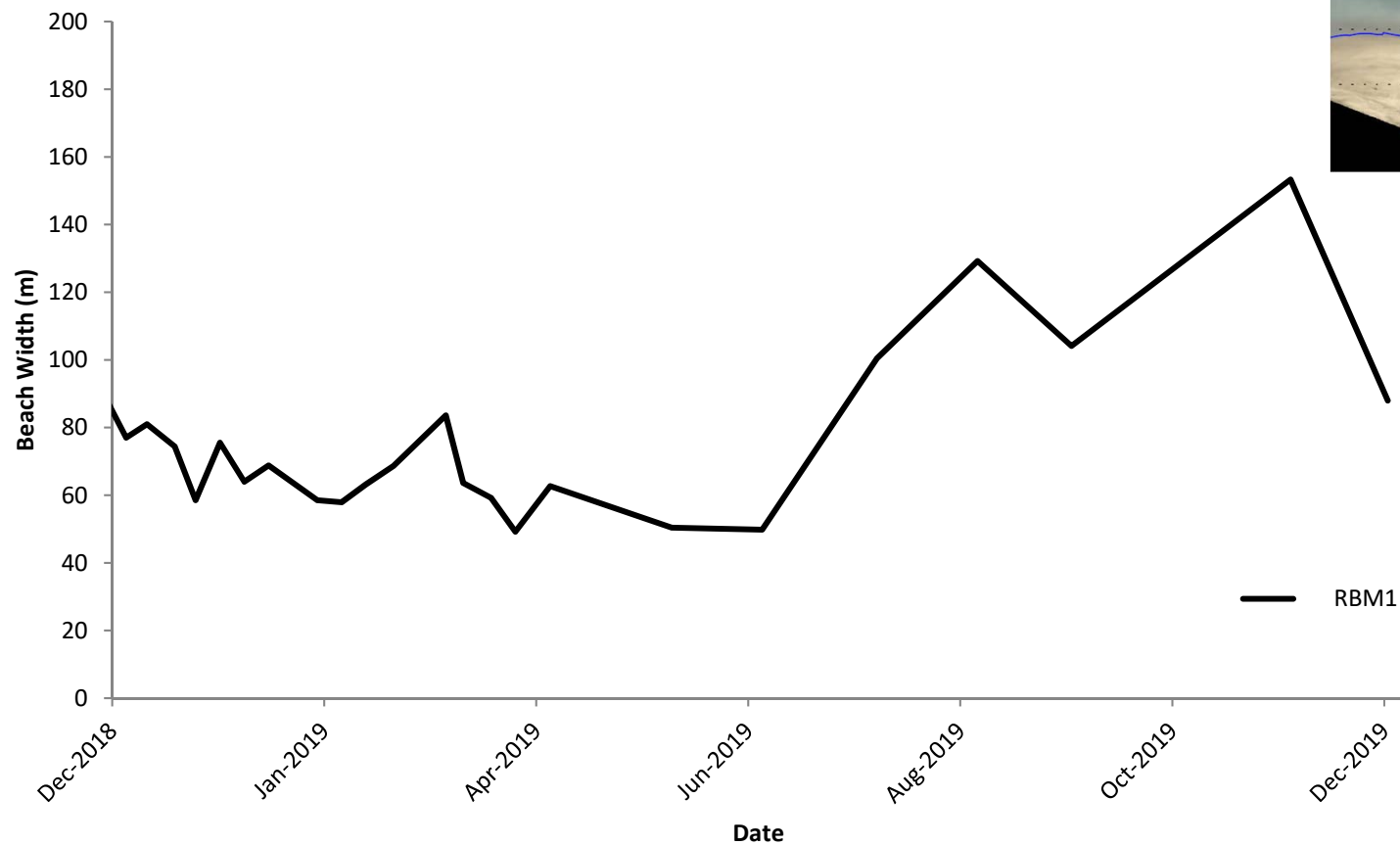


**9 January 2020**

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# TWEED SAND BYPASSING

Rainbow Bay – Beach width Dec 2018 to Dec 2019



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# TWEED SAND BYPASSING

## Coolangatta Bay



22 June 2019



2 October 2019

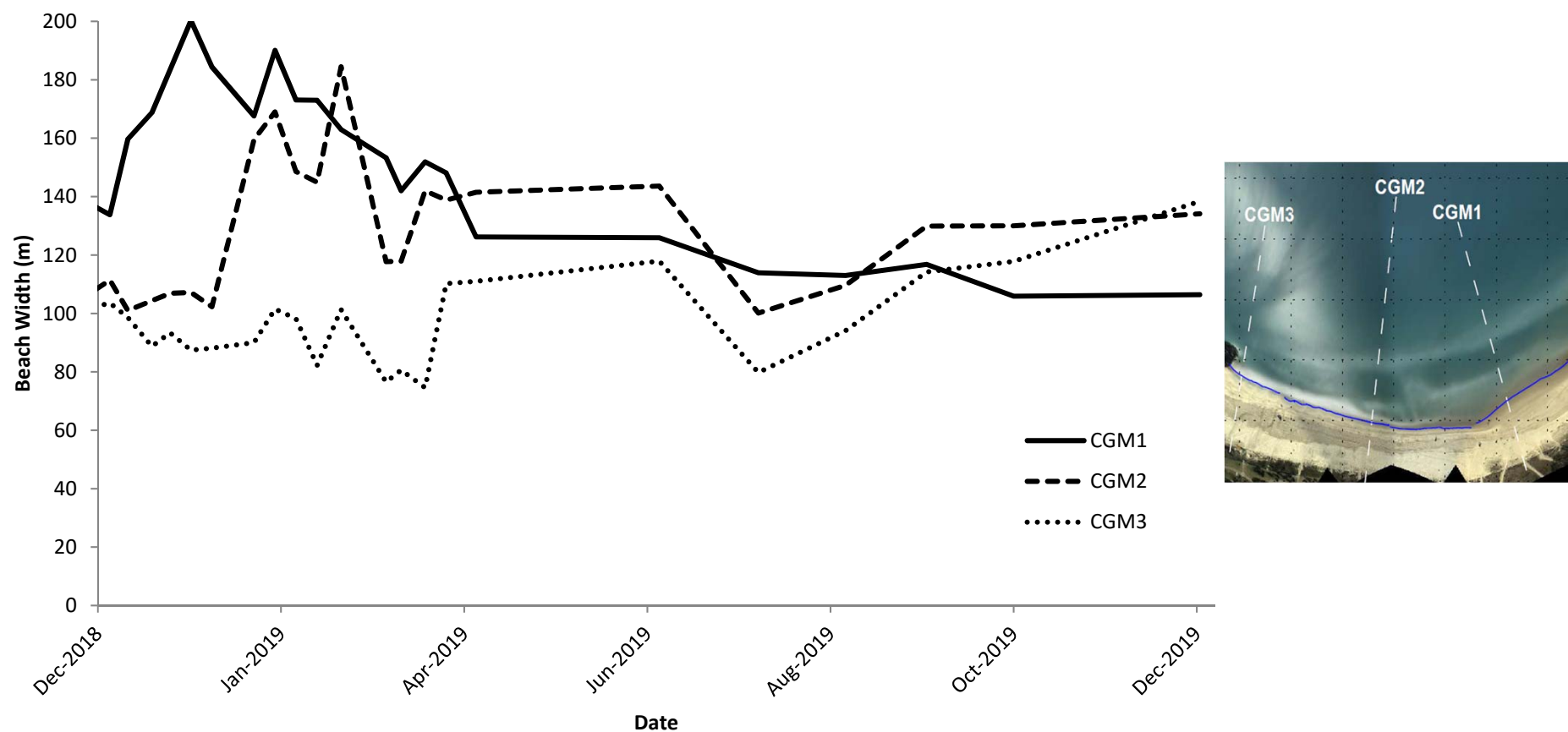


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# TWEED SAND BYPASSING

Coolangatta – Beach width Dec 2018 to Dec 2019

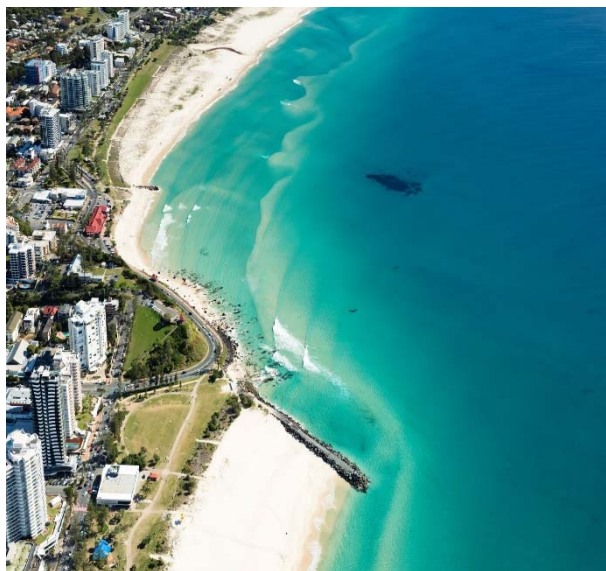


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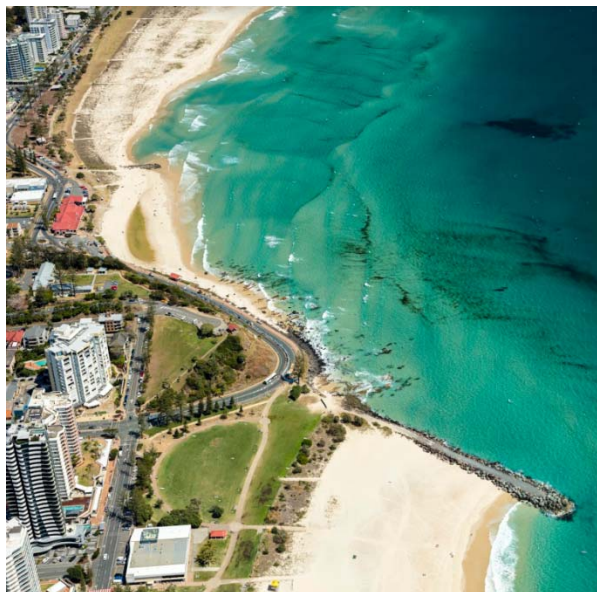


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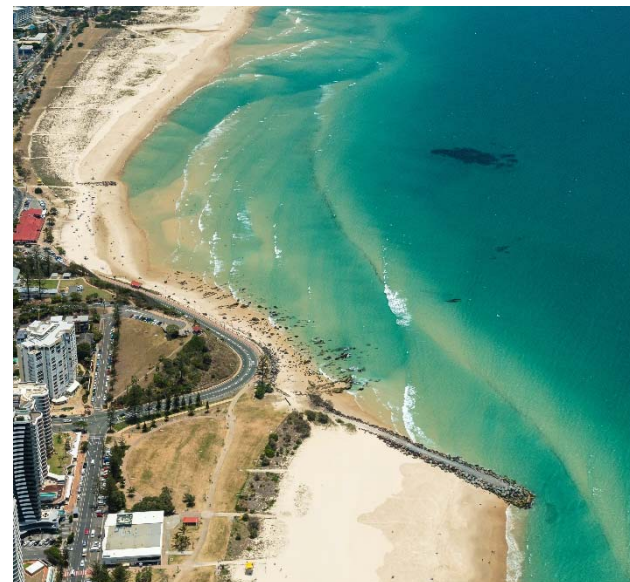
## Kirra / Nth Kirra



22 June 2019



2 October 2019

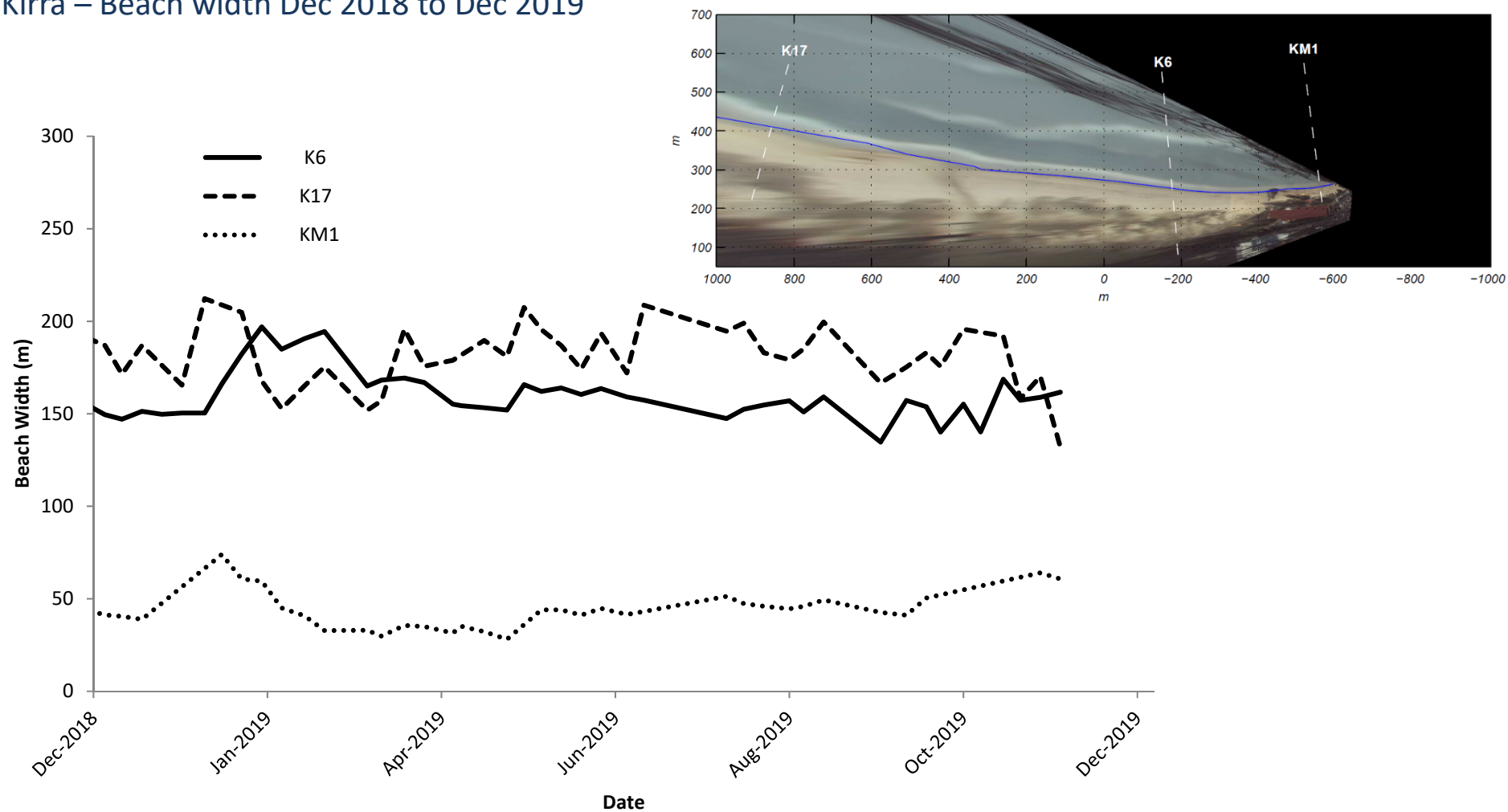


9 January 2020

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# TWEED SAND BYPASSING

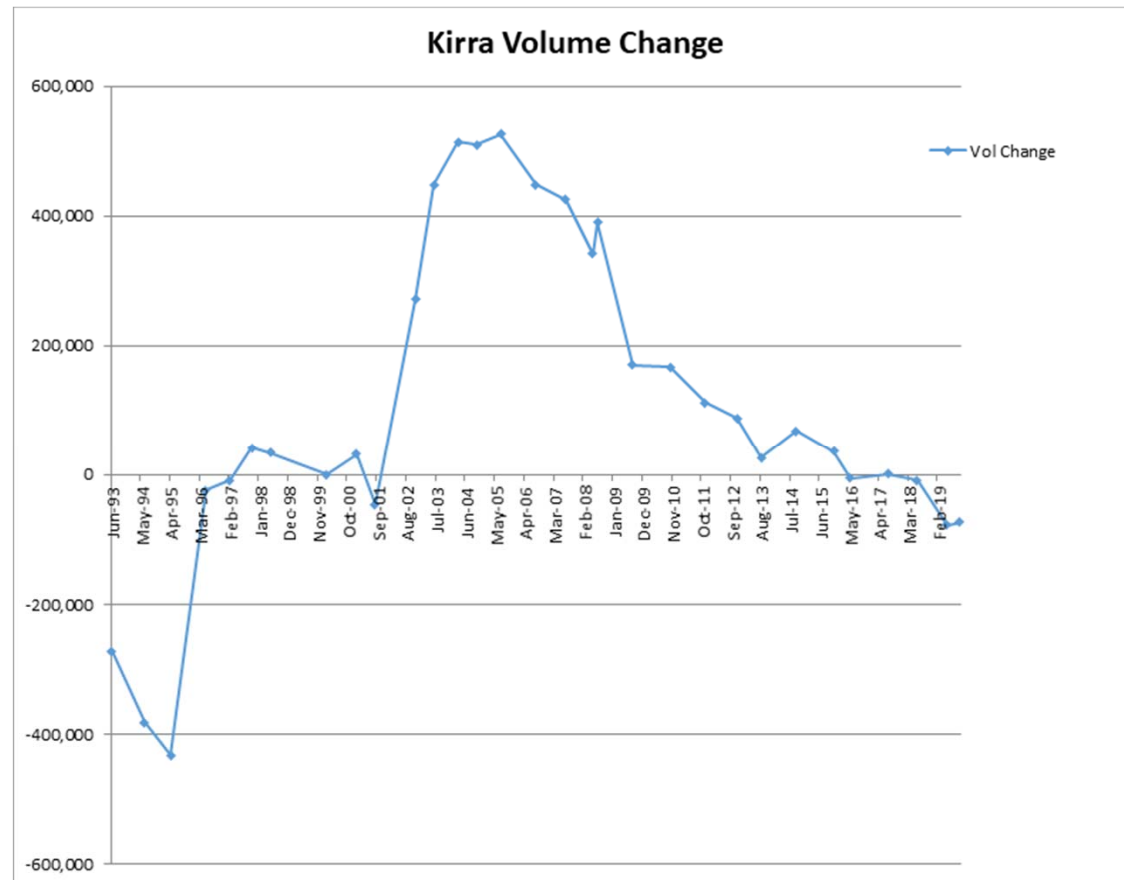
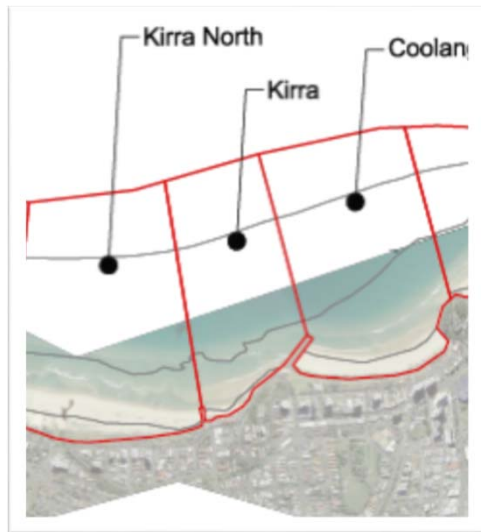
Kirra – Beach width Dec 2018 to Dec 2019



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# TWEED SAND BYPASSING

## Volume change since 2000



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9 January 2020





9 January 2020



# TWEED SAND BYPASSING

Duranbah January 2020



Photo: Coastalwatch

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## Duranbah



Photo: Coastalwatch



Photo: Richard Goldner

- Duranbah banks have been good especially in the middle section and the right off the wall.



# TWEED SAND BYPASSING

## Snapper Rocks



**Photo: Coastalwatch  
(Froggies)**



**Photo: Coastalwatch**

- Snapper through to Marley has had good banks. Hampered by predominately northerly winds and small swell.

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**Entrance conditions, usage and survey**

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9 January 2020



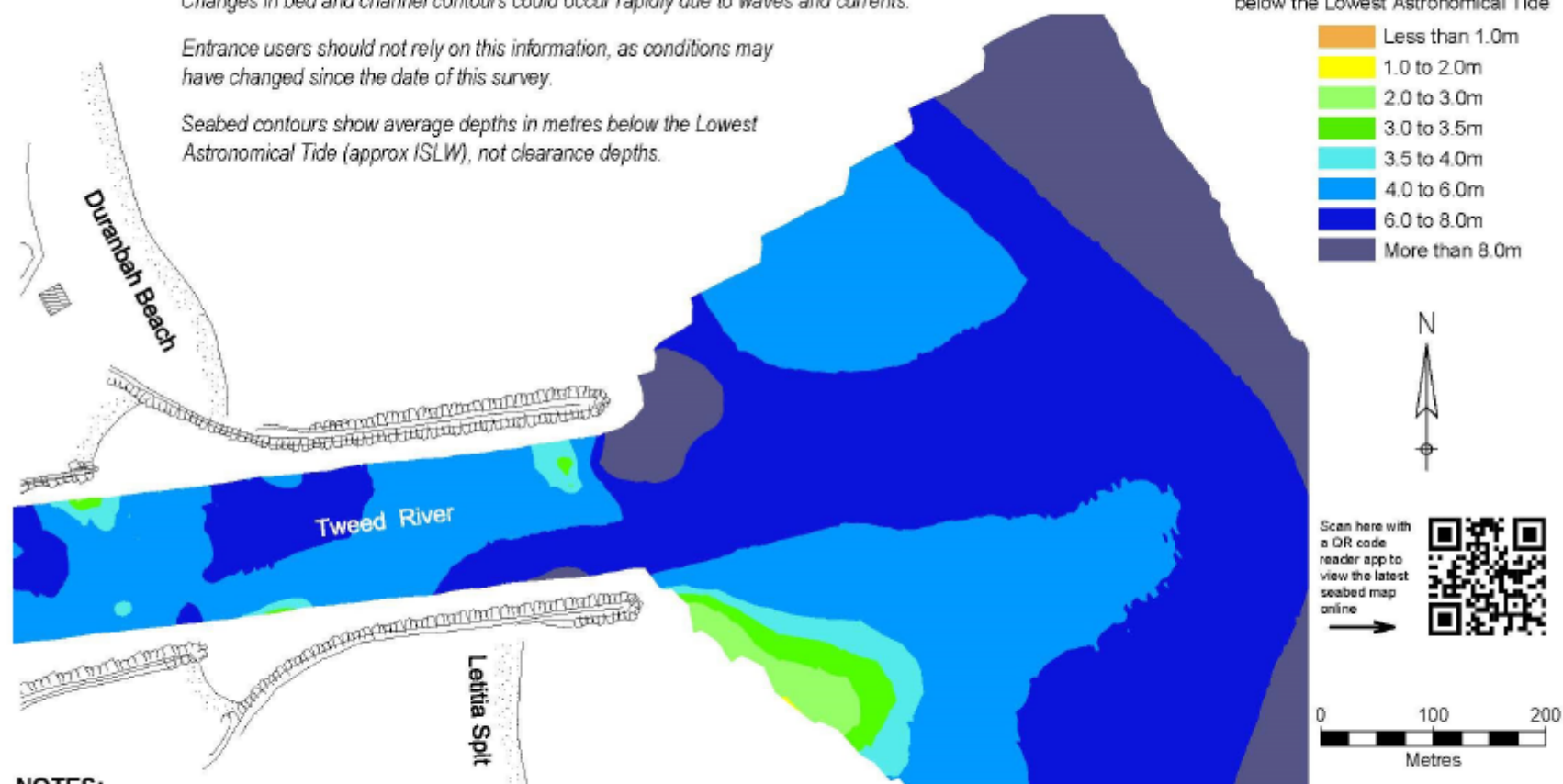
# TWEED RIVER ENTRANCE AS AT 9 JANUARY 2020

**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.*



## NOTES:

1. Survey information collected by Michel Group Services 9 January 2020.
2. Survey drawing prepared by Hydrosphere Consulting 17 January 2020.
3. Surveys are undertaken for Tweed Sand Bypassing every three months to monitor entrance seabed levels.



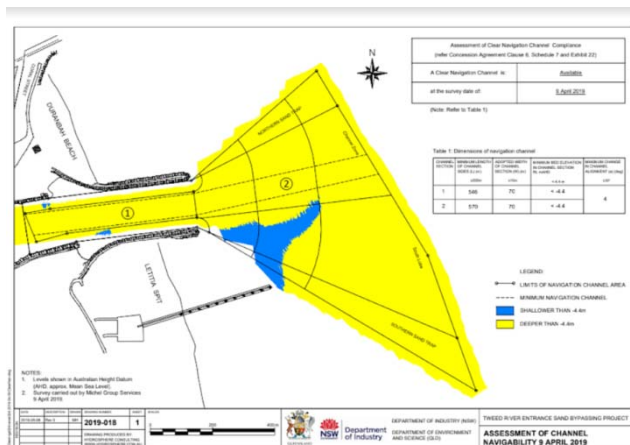
## TWEED SAND BYPASSING

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.

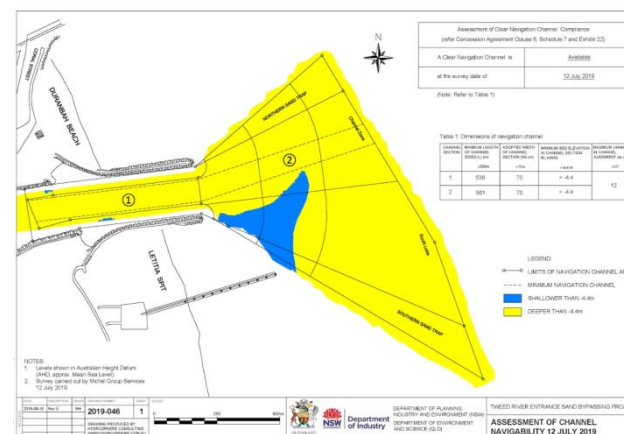


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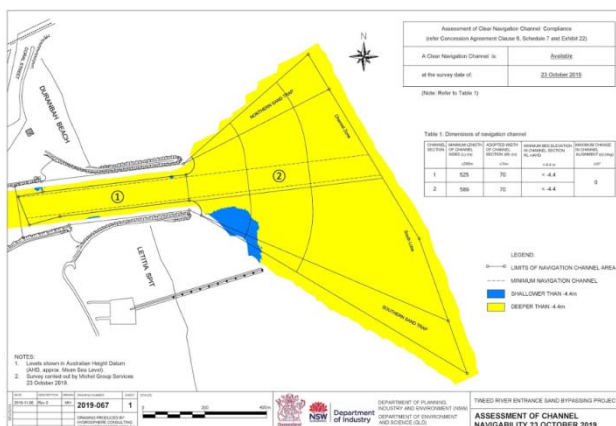
9 April 2019



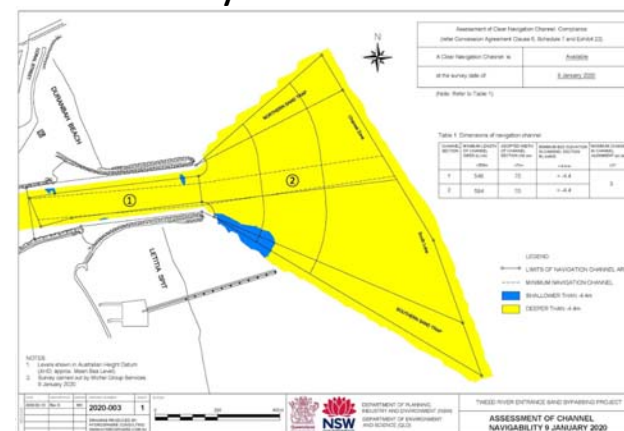
12 July 2019



23 October 2019



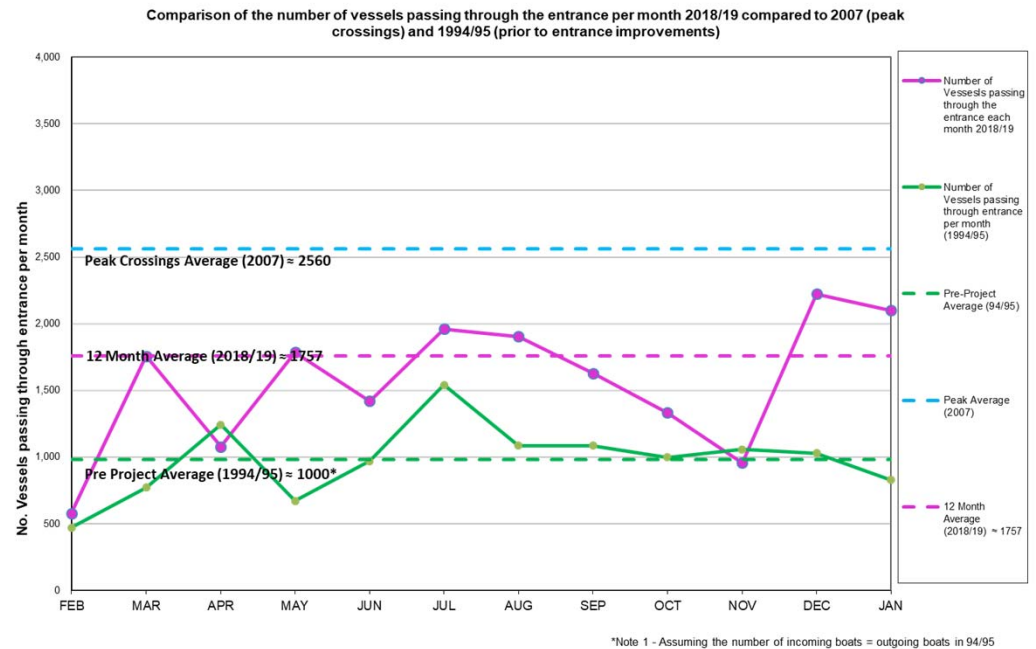
9 January 2020



Restoring Coastal Sand Drift - Improving Boating Access

## Tweed River Entrance Usage January 2020

Date January 2020	Navigation Rating					Number of Crossings
	Impassable < - - - - > Good					
	Impassable	Difficulty Encountered	Some Difficulty Encountered	Relatively Good Crossing	Good Conditions	
	1	2	3	4	5	
1						32
2						57
3						164
4						154
5						31
6						182
7						135
8						151
9						152
10						121
11						45
12						32
13						4
14						18
15						88
16						64
17						43
18						6
19						18
20						1
21						0
22						18
23						6
24						5
25						20
26						41
27						218
28						51
29						36
30						123
31						85
					Total:	2,101



# Projects and Enhancements

TWEEDSAND  
BYPASSING  
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# TWEED SAND BYPASSING

## Projects

- REF backpass by dredge – approved. Fingal utilised in August 2019.
- TSB Transition – Phase 1 investigations;
  - Asset / Infrastructure – report mostly complete
  - Financial – report mostly complete
  - Operations – report mostly complete
  - Assessment against objectives – report mostly complete
  - Social Economic Impact – report mostly complete
  - Stakeholder Engagement – on line survey due to close soon
  - Environmental Review – report mostly complete
  - Governance and Contract Framework – investigation underway
  - Phase 1 summary and Phase 2 (options) – currently out to market



# TWEED SAND BYPASSING

## Projects

- Duranbah northern access pit – a new pit over the existing pipeline in the central part of Duranbah. Will improve system flexibility and reduce amount of temporary pipe when nourishing central and northern part of beach.
- Kirra boardwalk renewal – Allowance made in the structure for a future pipeline. Works are complete.
- New hydrographic survey contract in the evaluation stage.



# Communications

TWEED SAND  
BYPASSING  
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# TWEED SAND BYPASSING

## WAYS TO PARTICIPATE

There are several ways in which you can tell us about your experience with TSB

### ONLINE SURVEY

An online survey will run from 16<sup>th</sup> December 2020 through till 16<sup>th</sup> February 2021. The survey will take 3-5 minutes to complete and can be accessed [here](#)



**CLICK TO ACCESS  
ONLINE SURVEY**

### BEACH AND BOAT RAMP INTERVIEWS

We'll be conducting face to face interviews at Duranbah, Rainbow Bay/Snapper Rocks, Coolangatta, Kennedy Drive boat ramp and Fingal boat ramp between 19<sup>th</sup> December and 6<sup>th</sup> February 2021. These interviews will be held at a range of times on both weekdays and the weekend, and we would love for you to stop by and participate. The full list of where these interviews are going to take place can be found in [this document](#)

### INSTAGRAM

Follow us on Instagram @tweedsandbypassing to see up to date information and imagery throughout the consultation period. You can also send us a message by uploading a photo of one of the project beaches (Letitia Spit to Kirra) and using the hashtag #tsbtransition.

TSB has a demonstrated commitment to harnessing the power of citizen knowledge. Your feedback is very important to us, and we really appreciate you taking the time to help us shape the future of the project.

Page last updated/reviewed: 17 Dec 2019

swellnet



## The Superbank survey

By Stu Nettle in [Swellnet Dispatch](#)

Wednesday, 29 January 2020

NEW COMMENTS

In the final years of the twentieth century the Queensland and NSW state governments finally got together to nut out a longstanding problem.

At issue were the Tweed River breakwalls built by the NSW government in 1962 without consulting the QLD government. It was Queenslanders, however, who felt the environmental fallout from the walls, namely massive downstream erosion as the sand banked up on the NSW side of the river.



Coolangatta 1962, pre-Tweed River breakwalls (Courtesy TSB)

In 1994 they hatched a plan, and seven years later in 2001 the Tweed Sand Bypassing project was switched on. The Superbank was created, Kirra was once again buried in sand, and the rest is history.

Except it's not. Engineering firm McConnell Dowell were awarded a 20 year contract to run the project and that expires in 2024. With the date approaching the agency running the joint initiative are developing a transition model for 2024 and beyond.



### Editors picks



#### Will Webber on shaping for the CT

By Stu Nettle Monday, 10 February 2020 11

"I never aimed to have a CT surfer. I never even wanted to have a team surfer!"



#### Erosion expected in upcoming easterly swell

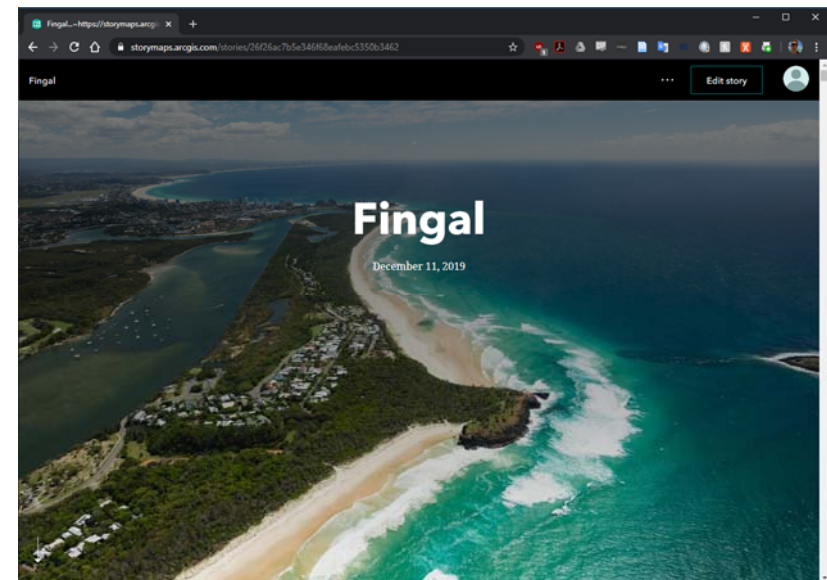
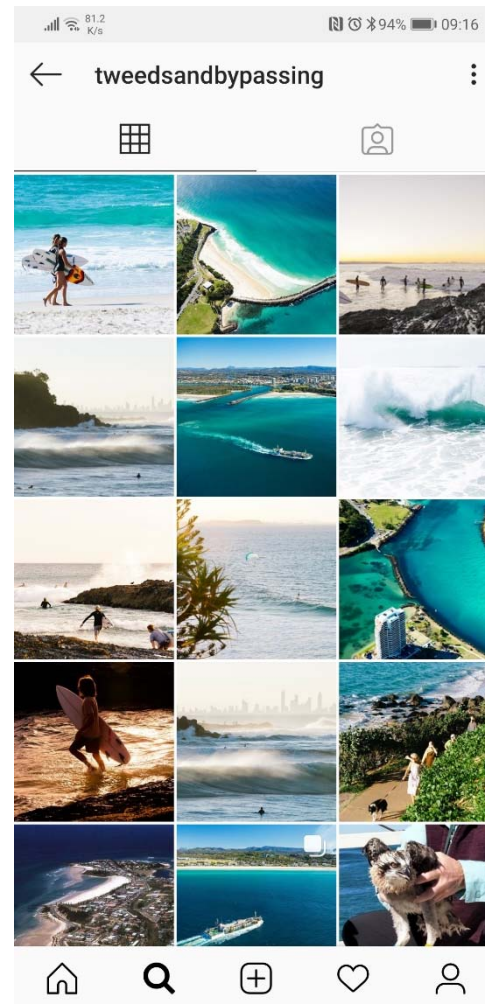
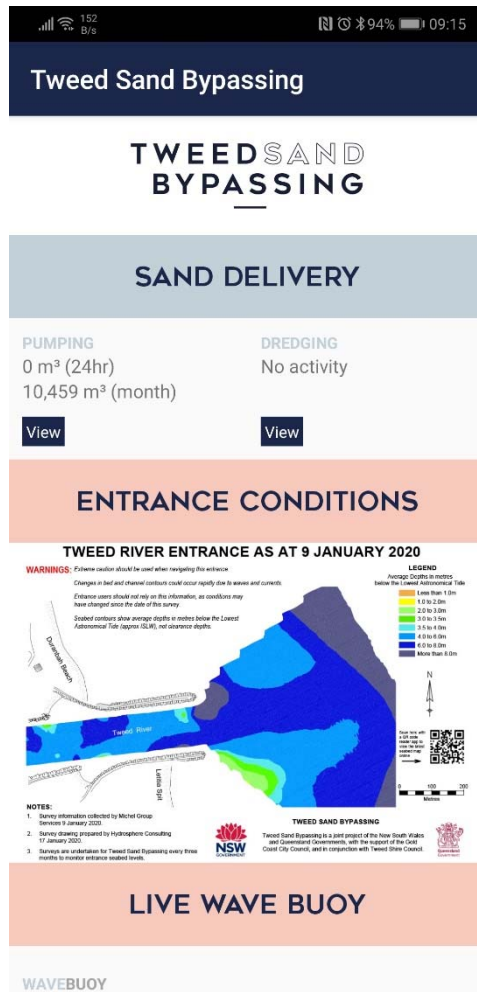
By Stu Nettle Thursday, 6 February 2020 10

It won't just be the size of the swell, but its longevity as the East Coast prepares for a week's worth of waves from the east-

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# TWEED SAND BYPASSING



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# TWEED SAND BYPASSING

## Agenda

Advisory Committee & Community meeting  
Wednesday 12 February 2020, 5:00pm to 6:30pm  
Kirra Hill Community & Cultural Centre

Chair: Kim Bowra, NSW Project Director - Tweed Sand Bypassing

1. Welcome and apologies
2. Community beach and entrance reports
3. Project monitoring and operational overview
  - Sand bypassing system operations + delivery program
  - Environmental monitoring
  - Guest presentation - Griffith Centre for Coastal Management
  - Entrance conditions, usage and survey
4. Projects and enhancements and Communications
5. Community Comments / Questions (All)
6. General Business
7. Next meeting: AC - 13 May 2020

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