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"I JUST HAD A SURF AT SNAPPER
WITH 200 OF MY BEST MATES"

Wayne 'Rabbit' Bartholomew AM,
TSB Advisory Committee member.

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04

Tweed Sand Bypassing

**PART C: GOVERNANCE, SOCIAL
AND ECONOMIC IMPACTS**





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GOVERNANCE

Legislation

Tweed Sand Bypassing operates under overarching pieces of legislation in both NSW and Queensland that are both published online. These legislative documents are:

- › [Tweed River Entrance Sand Bypassing Act 1995 No 55](#), NSW
- › [Tweed River Entrance Sand Bypassing Project Agreement Act 1998](#), Queensland.

Tweed Byron Local Aboriginal Land Council Lease

The permanent sand-bypassing jetty at Letitia Spit is located on Aboriginal land. This land is managed by the [Tweed Byron Local Aboriginal Land Council](#) and is leased to the NSW Government on an ongoing basis.

Project team

NSW is the coordinating state, while Queensland is the reviewing state. Both governments have a project director, who is appointed by the respective minister. The project team is made up of coastal geographers, engineers and scientists who work for both the NSW and Queensland Governments.

Working group

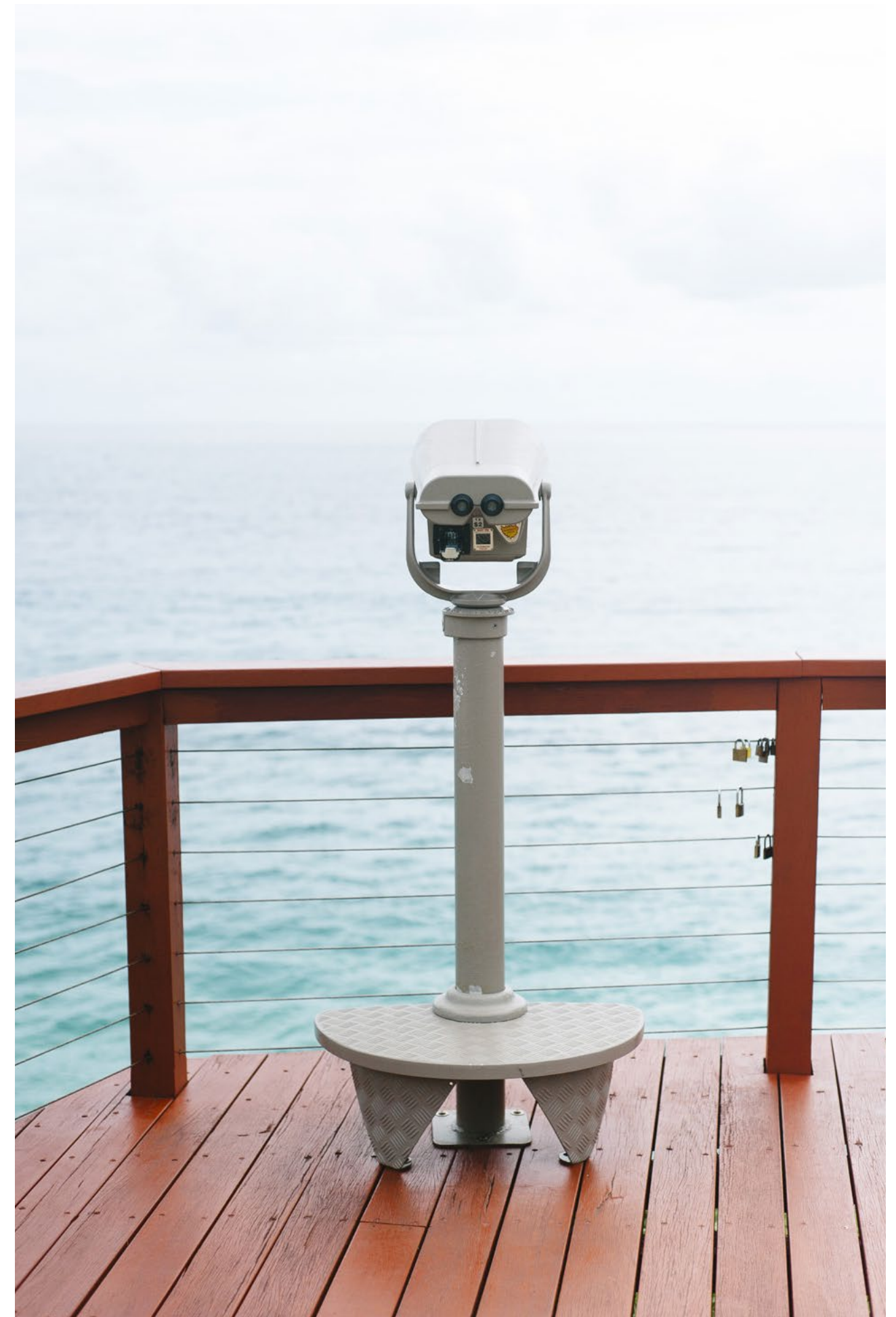
The working group is the primary driving force behind Tweed Sand Bypassing and is made up of members of the governments as well as staff from the City of Gold Coast and Tweed Shire Council. The working group is responsible for making decisions regarding project operations.

Advisory committee

The advisory committee is the primary mechanism for communications between Tweed Sand Bypassing and the community and reports to government ministers and meets four times a year. It is made up of members of the NSW and Queensland governments, City of Gold Coast, Tweed Shire Council and community representative. The community representatives represent a wide range of stakeholder interests, such as surfing, business, local community groups and commercial fishing. Two of the annual meetings are community advisory committees, held in a public space and members of the community are welcome to attend.

Tweed River Entrance Sand Bypassing Company

Tweed River Entrance Sand Bypassing Company (TRESBCo – a subsidiary of McConnell Dowell Constructions) is responsible for the operation and maintenance of the sand bypassing system. This arrangement is detailed in the Concession Agreement (CA) made in 1999 between TRESBCo and the Governments. The CA expires in 2024.



ECONOMIC, SOCIAL AND CULTURAL IMPACTS

Economic impact

Surfing and general beach recreation bring huge benefits to the local economy. When people travel to specific beaches and surf breaks, they may stay overnight, spend money on food and petrol and buy from surf shops. This is all money spent in the local economy because the surfer was attracted by the coast.

A cost-benefit analysis completed in 1998 showed that every \$1 spent on beach protection at the Gold Coast resulted in a \$60 return from tourism. There is an economic benefit in looking after the beaches and providing natural beach amenity.

“If the River has been dredged, and conditions are good, it means we can go about making a living and contributing to the area, along with the tourism operators and commercial yachts.”

Jenny O’Connell,
Secretary of the Tweed Heads
& Coolangatta, Professional
Fisherman’s Association

“As Warren Young [City of Gold Coast’s Chief Lifeguard] says, the beach is the story. You take away that beach and you haven’t got a story. And when we’ve lost the beach it’s usually been catastrophic for the tourism industry and all the local traders and employers immediately, and the effects can last a very long time.”

Peter Turner,
TSB Advisory Committee member.

CASE STUDY

ECONOMIC REVIEW OF TWEED SAND BYPASSING

In 2019, Tweed Sand Bypassing completed a study to estimate the economic impacts of the project. The economic value of activities was estimated using a range of data sources including the Australian Bureau of Statistics, Tourism Research Australia, NSW Department of Primary Industries, and Maritime Safety Queensland.

The study estimated that in 2019 approximately \$228 million of economic

value was related to a navigable Tweed River entrance and beach and surf amenity of the Tweed Sand Bypassing Project Area.

Of this \$228 million, approximately \$205 million was attributed to beach and surf recreation by visitors. The figure below shows an approximate distribution of economic value for beaches, surf breaks, and the Tweed River entrance, in the vicinity of the sand bypassing system.

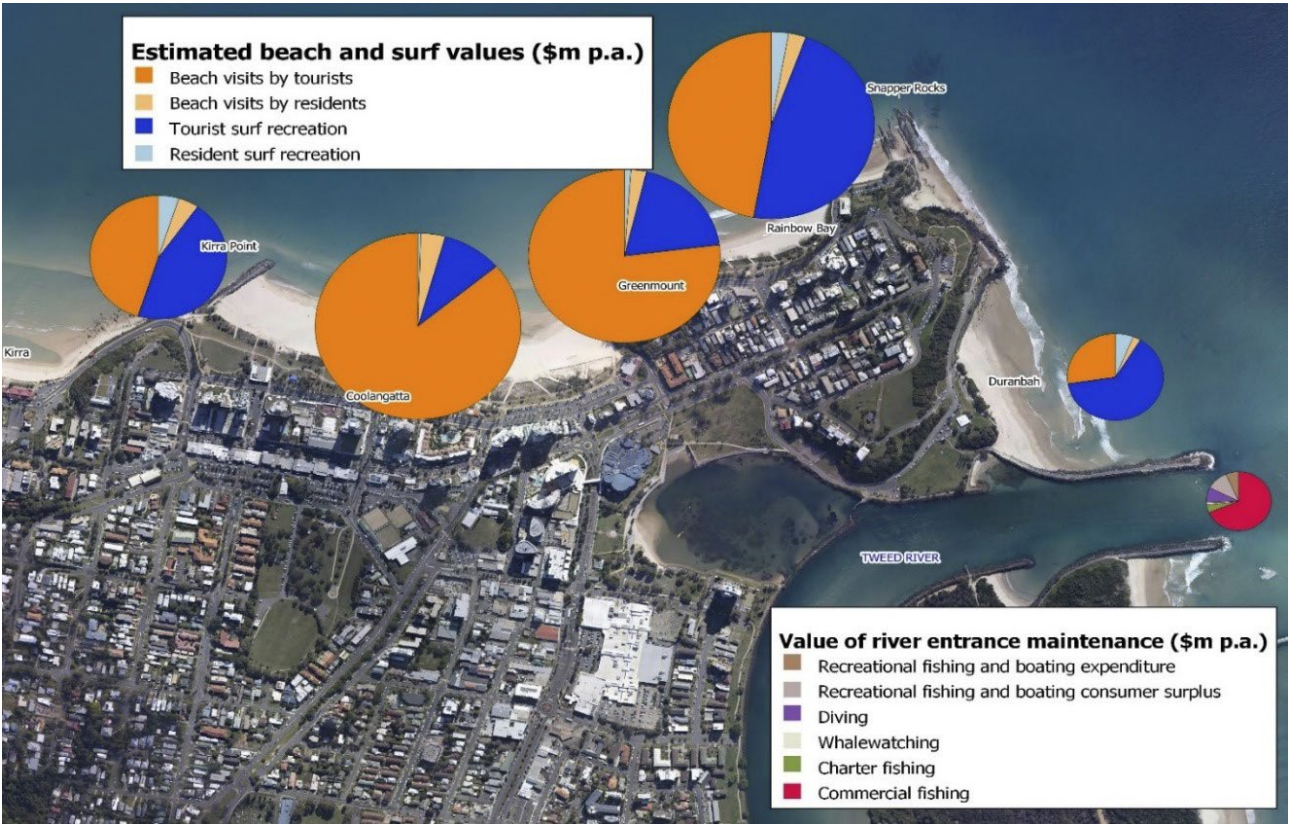


Figure 1: Example of distribution of economic values in the study area. Source: Bond University,



Cultural ecosystem benefits

The Tweed Sand Bypassing project area is one of outstanding natural beauty. As a result, this environment provides large unquantifiable benefits to human wellbeing through experiences and interactions with nature. These experiences positively affect human physical, mental and emotional wellbeing. Some specific cultural ecosystem benefits for the TSB area include recreation, sense of place, connection to nature and the ability to socialise.

Cultural ecosystem benefits are subjective and different sites will evoke different intangible emotions for each and every person. It’s important to understand these concepts as they are at the heart of the deep emotional connection and response that members of the community have had, and continue to have, in response to Tweed Sand Bypassing.

CASE STUDY

BEACH VALUE STATEMENTS

In 2020 community members were asked to participate in an online survey about the Tweed Sand Bypassing project area beaches. People were asked to respond to six value statements and rank how strongly they relate to each – with 5 being *strongly value*, and 1 being *don’t value at all*. The table below shows the percentage of respondents who

gave a 5 (strongly value) to a statement. From this it can be seen that the people surveyed find protection of beaches for future generations and providing recreation opportunities and an important place for catching up with family and friends most important.

% OF RESPONDENTS WHO STRONGLY VALUE	VALUE STATEMENTS
91%	Even if I don’t use or benefit from the beaches and their surrounds, it’s important to protect them for future generations to experience.
84%	The beaches and their surrounds provide recreational opportunities, and are places where I can get together with friends and family.
73%	The beaches and their surrounds provide wildlife, birds, aquatic life, plants and other organisms.
60%	The beaches and their surrounds represent my home and the community I’m part of.
58%	The beaches and their surrounds provide scenery that inspires me in artistic and thoughtful ways.
56%	The beaches and their surrounds are sacred, religious or are spiritually special to me, and/or make me feel better physically or mentally.

Stakeholder Engagement

Tweed Sand Bypassing has a wide range of **stakeholders** who each have a certain priority for the management of the coastline depending on their specific interests. Examples of these stakeholders include local residents, recreational fishermen, tourism operators, businesses, swimmers and surfers. Managing and balancing the interests of a wide range of stakeholders is a very difficult process and not all stakeholders are generally satisfied at any one time.

Stakeholder engagement is a very important part of Tweed Sand Bypassing. It is carried out continuously with the advisory committee and at specific significant stages of Tweed Sand Bypassing.

In 2020 Tweed Sand Bypassing conducted a significant stakeholder engagement project.

The aim of the project was to determine the community's thoughts and feelings about Tweed Sand Bypassing. This was so TSB could evaluate how the community viewed the project and the benefits it provided, when planning for what will happen when the agreement between the Governments and the operator expires.

The stakeholder engagement included informal interviews with community members at various project beaches and boat ramps, and an online survey.

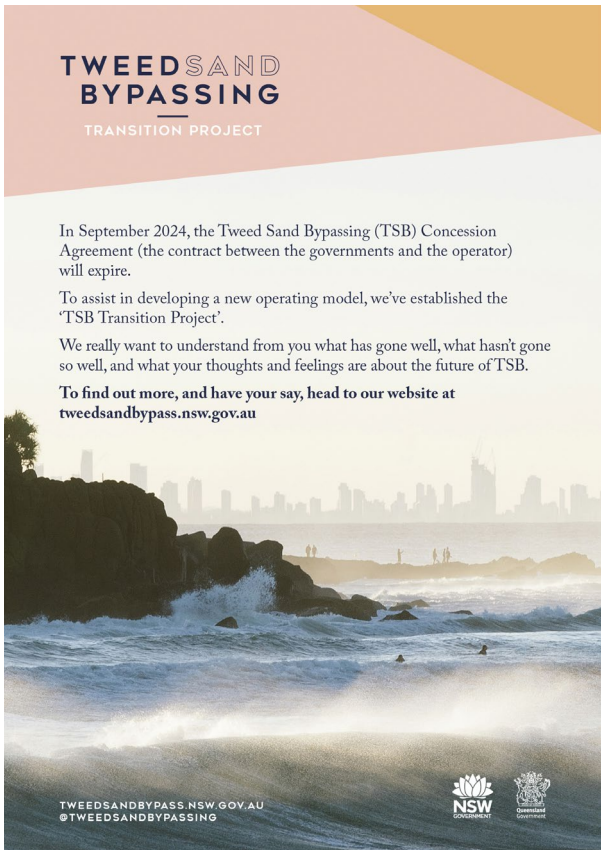
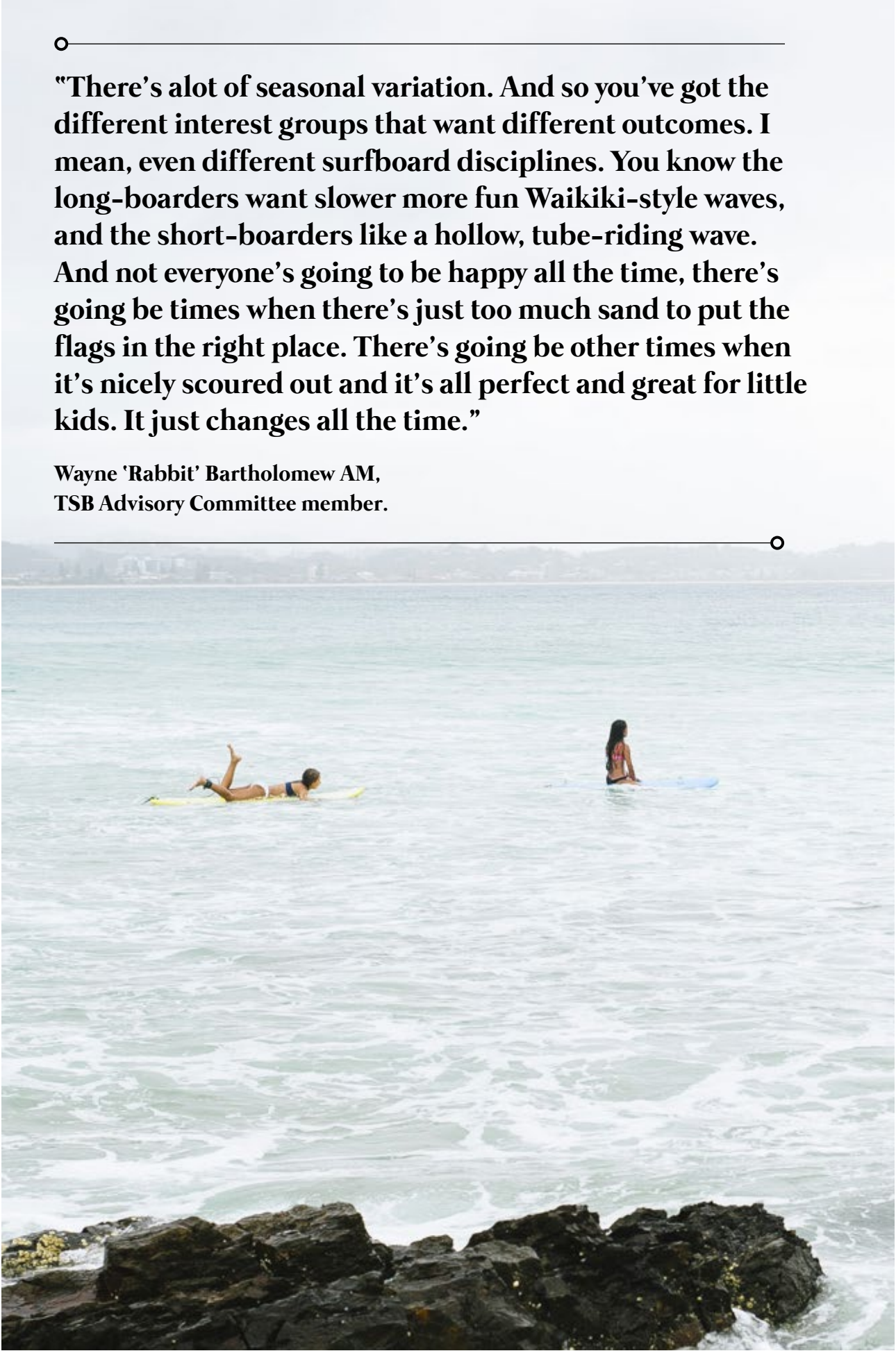


Figure 2: Flyer that was produced for a significant stakeholder engagement project that was carried out from December 2019 to February 2020.



“There’s alot of seasonal variation. And so you’ve got the different interest groups that want different outcomes. I mean, even different surfboard disciplines. You know the long-boarders want slower more fun Waikiki-style waves, and the short-boarders like a hollow, tube-riding wave. And not everyone’s going to be happy all the time, there’s going be times when there’s just too much sand to put the flags in the right place. There’s going be other times when it’s nicely scoured out and it’s all perfect and great for little kids. It just changes all the time.”

Wayne 'Rabbit' Bartholomew AM,
TSB Advisory Committee member.

COMMUNICATIONS

Since its early stages TSB has attracted broad community attention and involvement due to the cultural and economic benefits that the area provides. Recent *communication strategies* have included creating a visual identity through branding, promotional

magazine *Sand*, Instagram account, smart phone application with daily updates on operations and coastal conditions, and a booth at the World Surfing League professional surfing event.

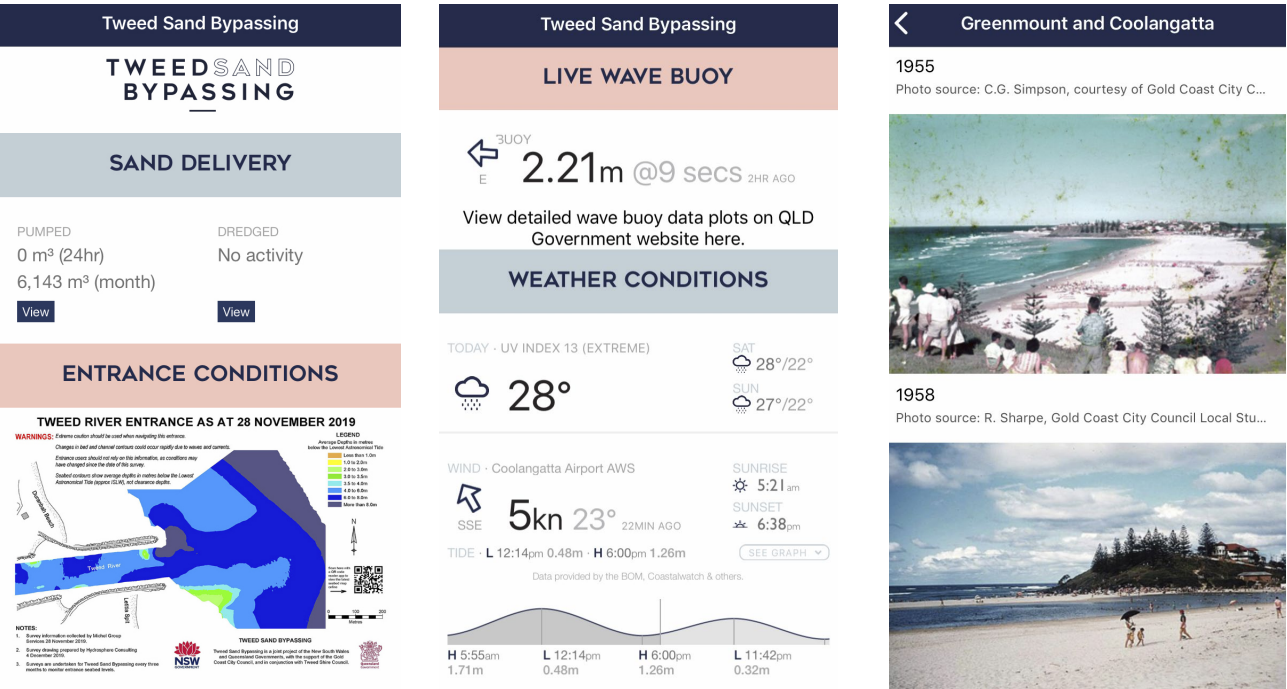


Figure 3a: Tweed Sand Bypassing smart phone application

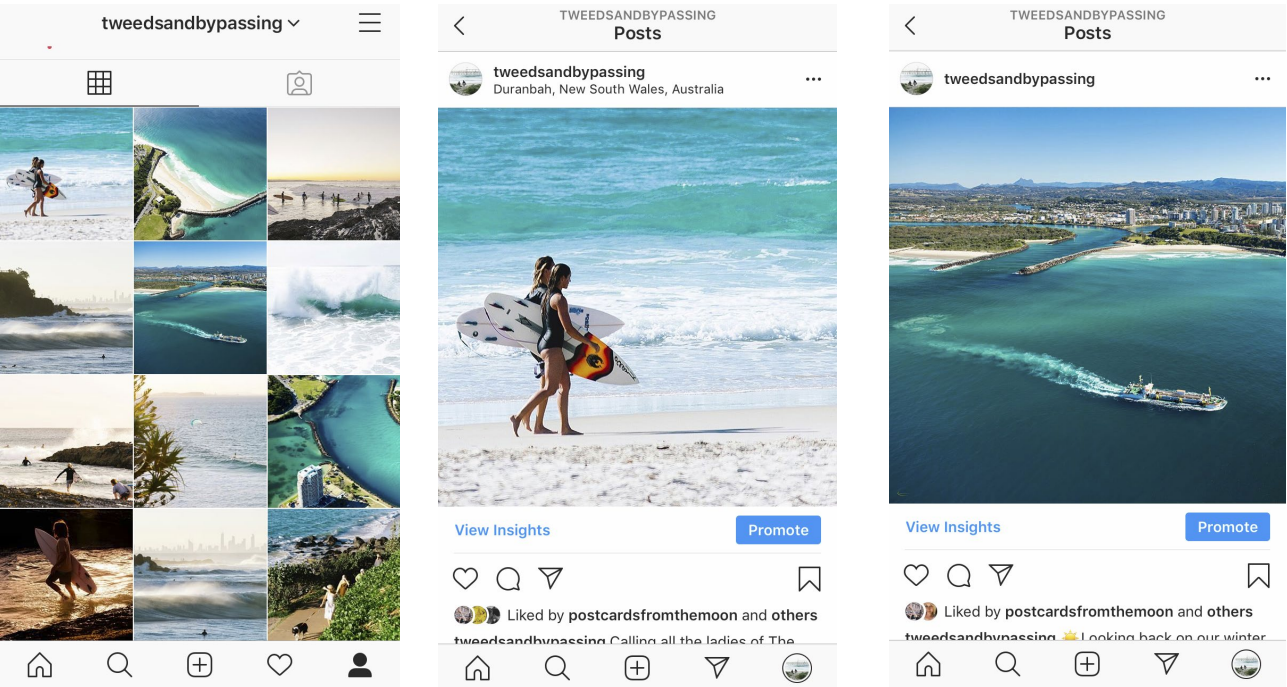


Figure 3b: Tweed Sand Bypassing Instagram account

“In the early days the communication wasn’t so great — there wasn’t enough education on how the natural sand flow works and then how this was implemented to actually one: keeping the bar open, and [two] how the bypass worked and what the objectives were. I don’t think this was well communicated. It meant that people had to work it out for themselves — and then you’re going to come up with your own theories and these became embedded and entrenched views, and once they are entrenched the negativity is hard to budge, and it lingers for years and years.”

Wayne 'Rabbit' Bartholomew AM,
TSB Advisory Committee member.



sand

TWEEDSAND BYPASSING



Figure 4: Excerpts from Sand, published by Tweed Sand Bypassing

Understanding sand

Sand, or the movement of it, is perhaps the main reason why 85% of the Australian population lives within 50 km of the sea.

There are many natural elements that make coastal living so attractive – but it is sand that keeps things interesting.

It is sand that moves with the break of each wave, the sweep of each tide and the fury of each storm.

It is sand that is moulded into castles, shaped into surfing banks, and creates beaches that allow for relaxing time spent with loved ones.

Sand is integral to our coastal lifestyle, to our identity and relationships; it changes the landscape with the ebb and flow of our lives.

Tweed Sand Bypassing has been part of the unique coastal story of Tweed Heads and Coolangatta for nearly 20 years.

Recognised around the world, the project was created for two towns in two different states whose very identity, economy and culture depends on sand.

Sand is constantly moving; the way in which it moves is impossible to accurately predict, and the preferred configuration of sand to form beaches and sandbanks is wildly debated.

At the heart of Tweed Sand Bypassing is a desire to understand these challenges and to manage the movement of sand to enhance our coastal lifestyle.

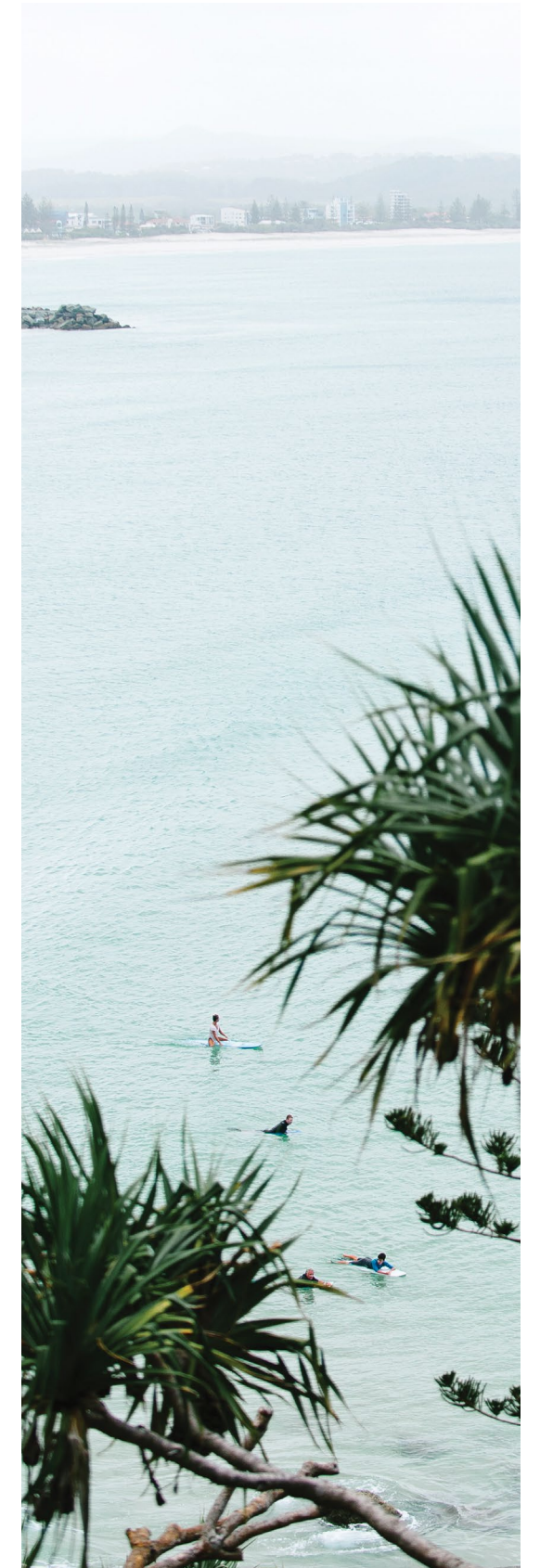


Figure 4: Excerpts from Sand, published by Tweed Sand Bypassing

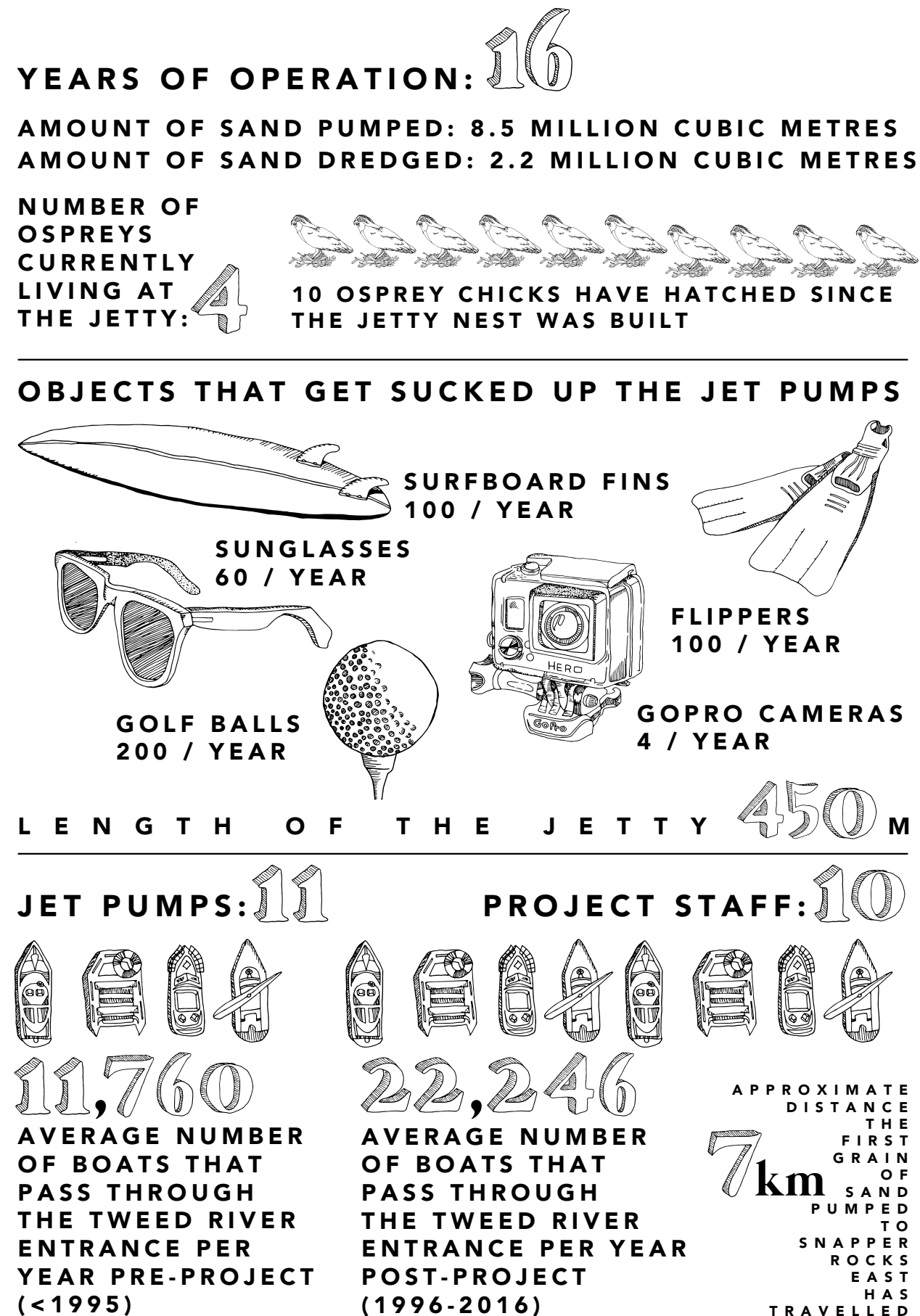


Figure 4: Excerpts from Sand, published by Tweed Sand Bypassing



Crossing the bar

FOR COMMERCIAL FISHERMEN, THE TWEED RIVER ENTRANCE BAR CAN BE MORE THAN JUST AN INCONVENIENCE – IT HAS A DIRECT IMPACT ON IF THEY CAN OR CAN'T GO TO WORK THAT DAY.

Jenny O'Connell is a second-generation commercial fisher. Her dad fished in the Iluka area all his life, and now she's married to John Pile, a current member of Tweed Sand Bypassing's community advisory committee. Together they ran a commercial fishing trawler out of the Tweed River marina, until John retired in 2010.

Jenny stays involved in the industry as Secretary of the Tweed Heads & Coolangatta Professional Fisherman's Association.

The rhythm of commercial fishing can depend on not only the condition of the Tweed entrance bar and the weather, but also the type of vessel.

"If you have a larger boat, and can store the catch on board,

it means you don't have to burn diesel getting in and out of the Tweed Entrance so often," she explains. "Larger boats can be out for 21 days and there is less risk because you don't need to cross the bar so often."

But some have to go out and back in each day, making the bar conditions an even greater factor.

"It doesn't matter how big your boat is. When you're on the bar and there's a lot of sand on it, boats can get damaged," said Jenny.

"If the river has been dredged, and conditions are good, it means we can go about making a living and contributing to the area, along with the tourism operators and commercial yachts."

Figure 4: Excerpts from Sand, published by Tweed Sand Bypassing



STUDENT ACTIVITIES

KN	KNOW
UN	UNDERSTAND
AP	APPLY
AN	ANALYSE
EV	EVALUATE
CR	CREATE

1. Explain the difference between a survey and an interview. **AN**
2. Create a 3-column table. Record the economic, social and environmental benefits of restoring the natural movement of sand north of the Tweed River and maintaining a navigable river entrance. **UN** **AP** **AN**
3. Refer to [Sand magazine](#) on the TSB website. Examine the cartoon on page 35 to identify as many stakeholders as you can. **AP**
4. Why do you think the TSB e-zine was called SAND? **AN**
5. Refer to the excerpts from SAND on pages 148–151.
List 5 new facts you learned. **KN**
6. An example of community consultation can be seen in the article '[Have your say on the future of the Superbank](#)' January 2020. Suggest a reason why consulting with the surfing community is very important in 2020.
7. Write a statement that summarises the main consequence of poor communication in the early days of TSB (Page 147). **UN**
8. If you were a resident of Tweed - Gold Coast area what community consultation and communication methods used by TSB would engage with? Give reasons for your choice. **AP** **EV**

CONCLUDING ACTIVITIES

KN	KNOW
UN	UNDERSTAND
AP	APPLY
AN	ANALYSE
EV	EVALUATE
CR	CREATE

Choose 1 or more options.

1. Plan a community information and consultation event such as a festival or a trade fair. The topic is Tweed Sand Bypassing Beyond 2024. (Or Tweed Sand Bypassing: the future).
The plan will clearly set out:
 - › purpose and aims
 - › strategies to provide educational information
 - › strategies to consult with stakeholders
 - › opportunities for questions and input
 - › a program of events and list of guest speakers
 - › advertising campaigns with date and location.
2. Produce a digital magazine about TSB using *Sand* (the TSB Magazine) as a model. Delegate roles within your team e.g. writer, photographer, graphics maker, editor. Work together to acquire, process and communicate geographic information.
The aim of the resource is to present information clearly and visually to cover the key learning ideas in an engaging way. Original infographics, simple maps, diagrams and photographs should be incorporated as appropriate.
The resource is for Year 10 students in New Zealand studying coastal management in Australia and using Tweed Sand Bypassing as a case study.
3. Create a week of Instagram or blog posts. The entries must include comments, photographs and/or videos and factual data relevant to the TSB Project or coastal erosion on the Tweed/Gold Coast. Create a digital presentation to communicate your findings, such as a StoryMap.

KEY LEARNING

- › There are environmental, social and economic benefits associated with restoring sand back into the natural sand transportation system.
- › Consulting with stakeholders and communicating geographic information in various forms is an important part of Tweed Sand Bypassing.



FURTHER READING

[Tweed Sand Bypassing website](#)

[Tweed Sand Bypassing project video](#)

[Tweed Sand Bypassing Sand magazine](#)

[Tweed Sand Bypassing smart phone application](#)

[Tweed Sand Bypassing Instagram](#)

[2012 Tweed Sand Bypassing Schools Package](#)

[Tweed Sand Bypassing ARGUS images: Digital images of the project beaches are updated hourly](#)

[Coastalwatch: The real story behind sand pumping in the Tweed](#)

[Coastalwatch: Have your say on the future of the Superbank](#)

[Coast Adapt: Tweed River Entrance Sand Bypassing Project](#)

[Surf Line: The mechanics of Snapper Rocks](#)

[Surfer Today: The Superbank: a joint venture between Man and Nature](#)

[Magic Seaweed: The birth of the Superbank and the death of Kirra](#)

[Sea Breeze: Wind and weather forecasts Southeast Queensland](#)

[ABC: Gold Coast's success married to tourism in good times and bad](#)

[Griffith University Video: A river of sand. Longshore drift on the Gold Coast](#)

[City of Gold Coast Video: Our Coast – Celebrating 50 Years of Coastal Management](#)

[City of Gold Coast: Coastal management](#)

[Destination Gold Coast: Media release](#)

