Engagement outcomes summary report

Phase 2: Wamberal Beach terminal protection and sand nourishment consultation

Central Coast Council

November 2021

Mara Consulting

People | Place | Purpose

Creating vibrant communities through powerful conversations

Project Name	
Location	Wamberal Beach
Project Number	2138
Client	Central Coast Council
Mara Consulting Document	

Mara Consulting Pty Ltd	
ACN: 168 093 918 ABN: 13 168 093 91	PO Box 167 Stockton NSW 2295 E: mara@maraconsulting.com.au W: maraconsulting.com.au P: 02 4965 4317

Revisions	Date of issue	Details	Author	Approved
001	24/09/2021	Draft	BM	SH
002	12/11/2021	Final	BM	KL
003				
004				
005				

Mara Consulting

Consultation + Urban Design

Creating vibrant communities through powerful conversations

Confidentiality

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the above circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. This Engagement Outcomes Report has been written for an internal audience and is recommended for this purpose only.

Contents

List of Tables

Introduction

Council has been progressing its approach to coastal management through the preparation and implementation of the Gosford Beaches Coastal Zone Management Plan (CZMP). Council initiated a Wamberal coastal engineering study to progress with seawall investigations, as per several CZMP actions.

In consideration of the broader community interest in the seawall investigations for Wamberal Beach, Central Coast Council (CCC) developed a multi-phased approach to engaging with the community.

Phase 1 consultation which occurred in 2020 delivered a range of opportunities for the community to get involved and let Council know how they use the beach and what they value about it, this feedback, as well as technical reports prepared by expert engineers were used to inform the development of five seawall concept options for Wamberal Beach.

Between 29 July and 10 September 2021, CCC conducted phase 2 consultation for the Wamberal Beach Terminal Protection and Sand Nourishment investigation and concept designs (the Project). CCC engaged Mara Consulting Pty Ltd (Mara) to deliver stakeholder engagement services for the Project, which together with a range of digital engagement tools included a series of online information sessions with both directly impacted residents and the broader Central Coast community to consider the concept design options and view the technical reports.

The phase 2 consultation focused on allowing the community to provide feedback on 5 concept design options for a seawall at Wamberal Beach. This report provides the outcomes of this consultation.

A survey and interactive concept options were developed to assist in:

- understanding the levels of support for the look, feel and functionality of each of the concept designs
- identifying and aligning the community values for Wamberal Beach to inform the decision-making around a preferred seawall design for Wamberal Beach.

Great care was given to the program of engagement, which considered how to undertake meaningful and genuine conversations that built trust and allowed for the current public health orders to be adhered to. Conducting consultation in a way that provided a safe, socially distanced and accessible way for the majority of people to contribute was a key focus. This meant using online platforms to gather feedback where participants were able to provide feedback in their own time and space.

The engagement activities were open online for 6 weeks in order to provide participants time to digest technical reports, scientific studies, new information and provide a response. Due to the technical nature of the reports, online information sessions were offered to allow these information rich documents to be analysed, summarised and presented followed by a Q&A session.

It was anticipated that participants would visit the website multiple times before engaging in one of the activities. This is reflective in the website statistics, which included 2566 total visits to the site, with 1399 unique users. This means on average each person that looked at the site approximately 1.8 times.

Engagement approach

Objectives of consultation

The purpose of the phase 2 consultation for the Wamberal Beach Terminal Protection and Sand Nourishment Investigation and Concept Design project was to:

- Identify key stakeholders for the Project and their respective requirements.
- Support a robust planning process through effective communication and engagement techniques.
- Proactively inform stakeholders about the Project with accurate and adequate information on the project and opportunities to provide feedback.
- Promptly respond to and address public enquiries.
- Keep Council informed of upcoming activities, and any issues arising from consultation with external stakeholders during the Project.
- Minimise risks to the Project.
- Deliver engagement opportunities that encouraged participation, was innovative, adaptive, and sustainable.
- Make the four technical reports available and provide opportunities for the community to understand them, the reports included the:
    - Stage 1 Literature Review - to take stock of what is known and identify any information gaps.
    - Stage 2 Coastal Protection Assessment - to determine sand movement, beach behaviour and impacts/opportunities around public access and amenity.
    - Stage 3 Concept Design Options - for a terminal protection structure (seawall) and sand nourishment, and potential seawall alignment.
    - Stage 4 Sand Nourishment Investigation - to help maintain public beach amenity.

The communication and engagement activities for the Project were to inform, consult and involve, which reflects the International Association of Public Participation (IAP2) principles of engagement. The IAP2 spectrum of engagement aims to provide a values-based framework to effectively engage with stakeholders.

Communication and engagement approach and principles

Mara, on behalf of CCC, engaged with the Wamberal and broader Central Coast community to understand the value of Wamberal Beach to the community and seek feedback around the concept design options available for a long-term solution.

Consultation included:

- **Project introduction** – Online information sessions and information on the CCC Your Voice Our Coast (YVOC) website introduced the phase 2 consultation and presented 5 concept seawall designs. Questions and high level comment on the draft options were invited. Council's internal Coastal Management Team, consulting engineers (Manly Hydraulics Laboratory & UNSW Water Research Laboratory) and a Wamberal Beach Taskforce representative from the Department of Planning, Industry and Environment (DPIE) were involved in delivering information to the community.

- **A focus on design** –The feedback sought from the community focused on the look-and-feel of the options being presented (ie. what people like and do not like) through a values survey and Social PinPoint interactive layout of the 5 concept designs where community members were able to pin a comment to each of the concept renders. The 5 concept designs included:
  - Option 1: Rock Buffer with basalt
  - Option 2: Rock Buffer with sandstone
  - Option 3: Vertical Wall with rock toe
  - Option 4: Vertical Wall without rock toe
  - Option 5: Tiered Wall with promenade

Information collected during the consultation for phase 2 will inform CCC's decision-making on Wamberal Beach coastal erosion management solutions.

Engagement methods

How were people engaged?

The phase 2 consultation gathered feedback from a diverse range of people, property owners, beach users, special interest groups including Wamberal Beach Save our Sand Campaign (SOS) and the Wamberal Beach Protection Association, Wamberal residents the general Central Coast community.

The Your Voice Our Coast webpage was created for the Project and acted as the main way for people to source information and access links to participate. The engagement program was primarily delivered through:

- an online survey
- a Social PinPoint (SPP) page where participants were able to drop comments on the 5 concept design renders and
- a series of eight community information sessions with detailed Q&A.

During the six-week consultation period, there were more than 2,560 visits to the YVOC site, with participation from more than 1,974 people across all activities, including 1,399 unique users to the YVOC site, survey respondents, SPP comments and attendance at the online information sessions.

The consultation activities were carried out in stages as described below.

Table 1: Engagement methodology

Activities	Intended outcome
Stage 1: Introduce the engagement project and build a shared understanding of the complexity of the Project, opportunities and constraints. This phase also explains the negotiables and non-negotiables.	
• Launch engagement: – Project information for targeted circulation to key stakeholders via email – Social media posts – Letterbox drop flyer to residents of Ocean View Dr – Your Voice, Our Coast webpage including: • Link to the 4 completed technical studies and concept design renders • Detailed FAQs • Link to digital survey and Social PinPoint page • Link to register for updates • Link to register for an online information session • Provide project email address, staff contact and phone number for project and engagement enquiries.	**INFORM** • Introduce the Project to the community and interested stakeholders • Establish channels of communication – how to get involved • Opportunity to sign up for regular updates or register to attend an online information session
Stage 2: Engagement activities to invite feedback on the options	
8 x Online Information Sessions Hosted by the project team which includes CCC representatives, consulting engineers (MHL, UNSW Water Research Lab) and Taskforce representative (DPIE)	**INFORM** • An information session provided to introduce the project, share information about site opportunities, constraints and coastal processes, and provide an opportunity for stakeholders to ask questions • Establish communication channels • Provide an update on the project • Identify issues and concerns • Advise of additional ways to participate

Activities	Intended outcome
Social PinPoint (SPP) online interactive engagement platform containing project information, opportunity to leave comment and/or complete an online survey	**INFORM & CONSULT** • Update on the project • Gather feedback on preferred concept design options • Clarify issues

Please note: Due to public health orders Council were unable to host the many face to face opportunities for engagement that had been flagged in the outcomes of phase 1 consultation held in 2020.

Who was engaged?

A range of participants were encouraged to participate. A number of communication activities promoted the consultation. Groups, individuals and those who had registered for project updates were contacted either to directly participate or encourage their network to get involved. These included:

- Wamberal residents
- Central Coast residents
- Wamberal property owners including Ocean View Drive
- Wamberal businesses
- Not for profit organisations eg. Wamberal Beach Surf Lifesaving Club
- Online organised groups eg. SOS (Save our Sands Facebook group)

Demographic data from survey and online information sessions was used to assess and assure that there was representation of a diversity of age groups. The main groups to participate in the online survey were those aged between 55-70 (67) and 45-54 (53), however consultation also attracted 32 participants under the age of 35 and 29 over the age of 70.

How were people engaged?

Campaign summary

- YVOC project website
- Online digital survey
- Social PinPoint - feedback on concept design renders
- Online information session with Q&A
- Telephone conversations
- Direct emails
- FAQ's
- Letterbox drop of project flier to residents of Ocean View Drive, Wamberal
- Social media posts

Engagement outcomes

Please note that this phase 2 Engagement Outcomes Report is to be read in alongside the phase 2 Data Report, a separate document that provides greater detail and analysis of all data collected during consultation.

Survey

The digital (online) survey questions allowed for an understanding of the community value of Wamberal Beach and comments about the five concept options for the Wamberal Beach Terminal Protection Structure. It is notable that:

- There were high levels of survey completion, with a total of 286 surveys completed during the six-week consultation period.
- Of those who participated, 114 said they identified as a Wamberal Beach resident, 24 resided in Terrigal and 54 resided in the Central Coast LGA with over 80 per cent of respondents completing all questions.
- Fewer respondents were from Sydney suburbs (21) who identified as owning property or a holiday home in the suburb of Wamberal.
- More men completed the survey than women (129 vs 93).
- A total of 9 respondents were First Nations people.
- The highest proportion of participants were aged between 55 and 70 years.

The majority of respondents indicated that the **reason for their interest in Wamberal Beach** was because they were a resident of the area (58%) followed by residents that were impacted by coastal erosion (29%). Few respondents indicated that they were a commercial property owner (1%) or representative of an interest group (1%). Other responses included beach front property owners, holiday home owners and rate payers (6%).

Many respondents lived adjacent to Wamberal Beach (24%), less than 1km of Wamberal Beach (21%) or lived in an adjacent suburb (17%). Few respondents lived outside the Central Coast LGA (9%). When asked how respondents found out about the survey, a frequent response was social media (31%) followed by the Central Coast Council website (30%). Few respondents found out about the survey from news media (7%), information sourced from local advocacy groups (3%) or flyer in letterbox (0.4%).

Value and visitation

When asked **what they valued most about the beach**, many respondents agreed it was the recreation opportunities that the beach environment provides including surfing, swimming, walking/running, walking the dog or relaxation (95). This was followed by 73 respondents who indicated that it was the long, wide

stretch of beach and the open space that they valued most. The third most popular response was the value of nature, the natural beachfront and the natural environment (60).

The **most popular reason for visiting the beach** was for leisure purposes ie. walking/running (77%) followed by swimming (50%) and picnic/sitting with family or friends (36%). Most people visit the beach with family (73%) or friends (34%). The most important thing when visiting the beach from a list of given options was connecting with nature (32%) followed by the option to enjoy a wide range of recreational uses (27%).

Many respondents reported **frequency of visits the beach** as every day (28%) followed by 4-6 times per week (16%) and a few times a month (16%). When asked later in the survey about visitation if the preferred seawall option allowed for community amenity (ie. a promenade), a majority said they would not visit (40%) followed by others suggesting they would visit every day (17%) or very rarely visit (13%).

Solution framing

The numbers in brackets provided in the below paragraphs indicate the level of agreement using the Likert Scale. The Likert Scale rating is used to measure the amount of value placed on each of the design elements presented. A number of 3 or greater than 3 suggests overall agreement with the statement.

When thinking about outcomes for Wamberal Beach, a majority of respondents agreed that the preferred design needs to visually blend into the surrounding environment (4.5), followed by protection of buildings and public lands from coastal hazards (3.52). A total of 76 per cent strongly disagreed that the design (look) of the preferred seawall was *not* important and a further 80 per cent strongly disagreed that maintaining levels of sand on the beach as part of the long term solution was *not* important.

Respondents agreed that:

- A solution that has a low environmental impact and no beach encroachment is most important (3.85)
- The preferred seawall design with the least possible encroachment on the existing beach is important (3.69). Others agree that it doesn't matter if the seawall encroaches a little, as long as adjoining properties are protected from future beach erosion (3.24)
- Easy access to the beach is an important feature in seawall design (3.41)
- Privacy of beachside property owners should be considered when choosing a preferred seawall design for Wamberal Beach (3.24)

Survey respondents were asked to rank elements from 1-10 where 1 is most important and 10 is least important. When ranking 1-10 the importance of considerations in designing a long term solution, respondents ranked 'lowest environmental impact' (rank 1), 'minimal visual impact' (2) and 'least beach footprint' (3) as the most important. This was followed by 'highest protection for properties' (4) and 'most durable' (5) with **cost considerations** being ranked 7 ('cost to build') & 8 ('cost to maintain') in a listing rank of 10 items.

Additionally, respondents suggested that regular sand nourishment campaigns to maintain beach amenity would be important for the long term solution and that long term seawall durability is most important in selecting a preferred seawall design over all other costs (ie. cost of construction, cost of maintenance)

It is clear from the survey responses that the long term solution for Wamberal Beach needs to:

- Allow for all current recreation opportunities
- Maintain the long, wide open space that the beach currently provides
- Maintain the natural beachfront and the natural environment as much as possible
- Blend in with the surrounding environment
- Protect buildings and public lands from coastal hazards
- Maintain levels of sand on the beach with regular sand nourishment campaigns
- Have a low environmental and a low visual impact with least possible encroachment (footprint) on the existing beach
- Durability of the design is more important than cost of construction and maintenance
- Provide access to the beach as part of seawall design
- Consider the privacy of beachfront property owners.

Responsibility

The numbers in brackets provided in the below paragraphs indicate the level of agreement using the Likert Scale. The Likert Scale rating is used to measure the amount of agreement for each of the design elements presented. A number 3 or greater suggests overall agreement with the statement. A number less than 3 indicates overall disagreement with the statement.

When asked who was responsible for the **construction of a seawall** at Wamberal Beach to provide protection from coastal hazard threats:

- Many respondents agreed that it should be State Government (3.39) or a collaborative effort between directly affected property owners and all levels of government (3.34).
- The least supported statement was that responsibility for construction lies with directly affected property owners and Central Coast Council (2.67).

When asked who respondents thought should be responsible for **seawall maintenance**, respondents agreed that it should be a collaborative effort between all levels of government (3.64), followed by State Government (3.33). The least supported statement was that maintenance was the responsibility of directly affected property owners (2.65).

When asked who respondents thought should be responsible for the cost of **sand nourishment**, respondents agreed that it should be a collaborative effort between all levels of government (3.82), followed by State Government (3.48). The least supported statement was for directly affected property owners to be responsible for the cost of sand nourishment (2.38).

It is clear from the survey responses that respondents agree that:

- construction of a seawall should be the responsibility of State Government or a collaborative effort between affected property owners and all levels of government, and
- maintenance of a seawall (including sand nourishment) should be the collaborative responsibility of all levels of government.

Information and knowledge

Respondents were asked where they go to **access information** about the current state of Wamberal Beach (ie. to understand coastal hazard threats and the ongoing management of Wamberal Beach) with:

- 46 per cent indicating they always source information from Central Coast Council (3.89)
- 44 per cent saying they always source their information from expert coastal engineers and university research groups (3.72)
- 36 per cent suggesting they always source their information from State and Federal Government organisations (3.58).

Respondents least sourced information about the management of Wamberal Beach from social media (2.34).

When respondents were asked to indicate if they would **like any additional information** about a set of listed topics:

- 27 per cent said they would like to know more about the actions they can take to reduce their own risk in regards to coastal hazards.
- 27 per cent did not feel they needed any more information about anything in relation to coastal hazards and coastal management. That said, some respondents went on to ask questions such as why a wall is the only option being considered and why planned retreat is not an option and stating that a seawall is unsuitable in this location.
- 21 per cent wanted to know more about who the key players were in coastal management (ie. who is responsible).

During the consultation, Council provided extensive information about the seawall options through direct communications via email and phone, as well as inviting community questions and discussion about the seawall options during the online information sessions. Information was also provided through a detailed list of FAQ's and access to full technical and scientific reports on the Your Voice Our Coast website. Despite efforts of Council and expert coastal engineers to inform and engage the community, the community still had misconceptions about a solution for the site, highlighted by requests for a planned retreat and questions around why seawall options were the only options being considered. This has flagged the need for further community education about why a seawall solution is the most effective option for this location.

Additional comments or questions

A total of 162 respondents left additional comments or questions when completing the survey. These responses have been coded to group similar sentiments and are shown in the table below. Some respondents gave both supportive and unsupportive comments in their entry. For a full unedited verbatim list of responses to this survey question, please refer to the **Data Report** at **Appendix A**.

Table 2: Coded survey comments

Comment	N
Answered	162
Skipped	124
Supportive	
Seawall support (in general)	29
Concept designs do not show how outcomes would look in reality/sand would cover structures most of the time (all except promenade)	10
A seawall is to protect the beach for all of the community, not just beachfront property owners (also to protect Council assets)	12
Support for Options 1 or 2 (rock buffer)	8
Support for Option 5 (promenade)	6
Seawalls causing loss of sand from the beach is incorrect	2
Current beach hazard and materials need to be removed	1
Unsupportive	
No/do not build a seawall	33
Buy back properties/planned retreat/retreat	25
Please explore other options/no other options but seawall provided/more negotiation and consultation required	16
Leave as is/protect dune system/leave natural, sand will return	15
Homeowners must accept risk/their responsibility	12
Seawalls strip sand from the beach/none of the options effective/sighting Australian and International examples of seawalls	10
Need to work out a funding model/people need to see this to assist decision making	6
All seawall options are too expensive	5
Seawall options need to be considered alongside sand nourishment/CBA	4
Environmental studies required before decision is made/questions around seawalls, flooding and lagoon erosion	4
Limitations on access for beachfront property owners will not be supported/beach access from private property to the beach needs to be maintained	4
All seawall options ugly/unsightly/unattractive	3
Hybrid solution required – different solutions for different parts of the beach	2
Council is responsible/approved DA's	2
Definitely no promenade	1
Beachfront property owners should not have to pay construction costs	1

Comment	N
Build an artificial reef	1
Inform real estate agents of coastal risks	1

Of the 68 supportive comments, respondents agreed a seawall was a good idea and Council should just 'get on with it'. Others highlighted that the design renders did not show how the beach would look in reality following construction of Options 1-4 as sand would cover the structures most of the year (outside of large storm events). Those supportive of a seawall also said it would 'protect the beach for all of the community' including important community assets, not just for the benefit of beachfront property owners.

Of the 145 unsupportive comments, the community did not want a seawall constructed and strongly urged the buy-back of the worst affected beach front properties and a restoration of the natural dune system. Others were highly concerned that a seawall in this location will 'strip sand from the beach' and cause a 'narrowing of sand' which would impact on recreation opportunities and the environment. Others said that the seawall options were 'unsightly' and others suggested that all seawall options were 'too expensive'.

Additional comments and questions in opposition raise a few key points of community need (ie. information the community have indicated they need to know before making an informed choice about which option they prefer) being:

- To understand a funding model before decisions are made as to what type of seawall will be constructed. This is especially true for impacted property owners who are considering that they may be asked to contribute to the cost of construction, and if so, what that looks like and how will costs be distributed.
- To consider all seawall options alongside the cost of sand nourishment requirements and the outcomes of the Cost Benefit Analysis (CBA) for all suggested seawall options for the site.
- The acknowledgement and consideration of environmental concerns ie. risks of flooding and lagoon erosion.

It is clear from these concerns that the community needs to be reminded that this phase 2 consultation (concept design phase) is part of a broader staged approach to finding a solution for coastal erosion threats at Wamberal Beach and that additional phases will include:

- The completion of a detailed cost benefit analysis (CBA) on each of the options
- Finer detail about access to the beach from public and private property and environmental impacts that will be considered in the next detailed design phase (phase 3)
- Consultation around possible future funding models during a future project phase.

Social PinPoint

The five concept design options were made available on Social PinPoint where comments and suggestions were encouraged to stimulate discussion and expression of preferences. During the six-week consultation period a total of 267 feedback pins were placed on the concept design renders and a total of 1,047 reactions were made.

Some of the commentary received on the interactive concept designs included:

- comments on planned retreat being a more suitable option
- suggestions to create an offshore reef to address the erosion issues being faced at Wamberal Beach
- concern over sand loss.

Other comments related to wanting to understand the process and local impact of a seawall.

Comments that received the most reactions on each of the concept renders are detailed below. For a full unedited verbatim list of comments left on Social PinPoint please refer to **Data Report** at **Appendix A**. In interpreting results from Social PinPoint there is a focus on the number of reactions each comment received. Individual comments were either given a thumbs up or a thumbs down reaction from other community members.

Wamberal Beach- existing environment

In the interactive presentation of concept options on Social PinPoint, an image of Wamberal Beach as it currently looks was available. This image attracted 70 comments.

These comments included:

- support for leaving the beach in its natural state ('as is') due to concerns about sand being stripped from the beach if a seawall is constructed on site
- support for maintaining the natural look and feel of the beach environment
- discussion around the natural sand movement and potential for doing nothing
- the suggestion that the only option is planned retreat as the visual impact of the proposed seawalls would be highly unsatisfactory
- concern that the current state of the beach is a 'dump' and the area was unsafe.

Table 3: Supportive and unsupportive comments for the existing environment at Wamberal Beach

Wamberal Beach - existing environment	N	
Something I like	33	
Something I don't like	3	
Make a comment	34	
Top 3 responses – Something I like	👍	👎
It is a well-established pattern that when a sea wall is created it leads to further erosion of the sand located in front of it. Why let the interests of these 60 or so properties outweigh the interests of almost 20,000 people living in Terrigal and Wamberal.	17	1
Keeping the natural gentle slope of the beach and dune is the only way to maintain that critical piece of beachfront as it has been for thousands of years. This is the only solution that will guarantee the thousands of visitors and local members of the community continued access to this section of the beach. Any other solution will eventually erode the sand completely devastating the environment and community alike.	15	1
Should be left as is and houses removed. They should not of (sic) been built in the first place. With the houses gone the dunes will look after the beach and other properties.	11	1
Top response – Something I don't like	👍	👎
Status quo is a dump … damaged foreshore, unsafe areas and property in disrepair.	4	0
Top 4 responses – Make a comment	👍	👎
The top left looks best!!! [existing beach] The Wamberal Community do not want a seawall!! Please listen. I would prefer our beach not look like the attached photo!! It's disgusting.	13	1
Each of the five options talk about the ability to reflect wave energy when they should be looking to disperse wave energy as the sand does naturally already except for where private land owners have built too close to the wave zone creating 'cliffs' that cause waves to reflect and drag sand away.	12	0
Make sure we don't enter into a contract to pay for sand from Westconnex. It is not compatible sand with Wamberal. We would end up paying to take their waste when they should be paying us to take their waste. Tipping fees would be $200 a tonne for Westconnex. Instead, our Administrator can enter into a contract to pay for their waste and the residents get no say on the contract.	9	0
There is plenty of sand in the sea, it will restore naturally. Property Owners should be given the option to protect their property at their cost. Most of the restoration work is	9	4

Wamberal Beach - existing environment	N	
not on Council owned land. The legalities of the Council doing work on private land is an issue with any Council intervention. The best engineering solution is buried sand bags, stabilised with concrete and allowing the sand to naturally restore.		

Option 1: Rock Buffer with basalt

There were 3 supportive comments and 24 unsupportive comments left on a render image of Option 1. An additional 15 comments were also made. The supportive comments received NIL reactions.

Again, there was great concern about a seawall causing loss of sand from the beach and the dangers a rock buffer would pose to swimmers, surfer, families and members of the SLSC visiting the beach. Again, there were calls for Council to buy back affected properties and restore the natural dune system. People also did not like a rock buffer as it would ruin the aesthetic of the beach.

Table 4: Supportive and unsupportive comments for Option 1.

Option 1: Rock Buffer with basalt	N	
Something I like	3	
Something I don't like	24	
Make a comment	15	
Top response – Something I like		
Responses attracted NIL reactions.	0	0
Top 4 responses – Something I don't like		
The impact to the beach will be that of a breakwall with the waves reflecting off the large stones. This process erodes the sand which will eventually result in the loss of the beach completely. If this was to occur it would devastate the local community and visitors alike. Adding to this is the inherent danger a rockwall will pose to both surfers and swimmers if they are swept onto the rocks. Wamberal Surf Club will also lose access to this section of the beach placing lives in danger.	12	2
All photos are misrepresented of the current conditions. Look at what the wall and rock remediation has done to both Terrigal Beach and parts of Wamberal beach atm. These are not the only options and want to see the raw data from the initial community consultation. Walls ruin beaches and removes the sand. The only community members that want this is the 60 odd residents that have houses along the beach. On many cases those residents fought against Council to have their houses constructed closer.	10	2
By far the worst option. Ruins aesthetic of the beach and it's appeal.	7	0
This option and the two tiered walls are by far the ugliest and ruin the	7	0

Option 1: Rock Buffer with basalt	N	
aesthetic of the beach.		
Top 3 responses – Make a comment	👍	👎
The only worthy option is not listed, so this CCC process is flawed. The only acceptable option is the protection of the beach through the restoration of natural incipient and primary dunes/processes which are undermined by about 12 large homes that are unviable, perched too close to the beach, undermining the capacity of the beach to maintain a healthy sand budget. Where is the dune rehab plan? Negotiate and selectively relocate unviable homes. Don't push private externalities onto the public.	19	2
All these options show a seawall with a beach. This is very misleading and biases the survey. The only realistic pictures would show a wall with no sand.	5	0
This illustration does not represent the real world height difference between the beach and the residence backyards. the current drop is 5-10 in parts. This looks like 2m at most. Is sand being imported to build up the height of the beach?	5	0

Option 2: Rock Buffer with sandstone

There were 9 supportive comments and 16 unsupportive comments left on a render image of Option 2. An additional 8 comments were also made.

In support of the sandstone rock buffer, it was highlighted that the rocks would be buried by sand and will provide stability to the dune system. Unsupportive comments are highly similar to those expressed for Option 1.

Table 5: Supportive and unsupportive comments for Option 2.

Option 2: Rock Buffer with sandstone	N	
Something I like	9	
Something I don't like	16	
Make a comment	8	
Top response – Something I like	👍	👎
The 2 rock-wall solutions look the best. The wall will be buried by sand and they will provide stability to the dune which will protect the beach for everyone.	2	1
Top 3 responses – Something I don't like	👍	👎
The impact to the beach will be that of a breakwall with the waves reflecting off the large stones. This process erodes the sand which will eventually result in the loss of the beach completely. If this was to occur it would devastate the local community	8	1

Option 2: Rock Buffer with sandstone	N	
and visitors alike. Adding to this is the inherent danger a rockwall will pose to both surfers and swimmers if they are swept onto the rocks. Wamberal Surf Club will also lose access to this section of the beach placing lives in danger.		
This is a farce. The pictures convey the idea that these revetments will maintain the beach berm and cusps, whereas it is highly likely the beach will shrink within a few years, eventually disappearing. Also, none of the revetment options call out the fact that a revetment in one section of beach will transfer wave energy to adjacent beach areas, spreading the problem. Council is bankrupt. I request an interview with the relevant CCC decision-makers. This process is run by engineers.	6	0
How will the natural fore dune be able to rebuild with this option. This also creates a hard barrier that will most likely erode the beach to a very narrowand unusable strip of sand as has happened at Terrigal.	5	0
Top response – Make a comment	👍	👎
All photos are misrepresented of the current conditions. Look at what the wall and rock remediation has done to both Terrigal Beach and parts of Wamberal Beach atm. These are not the only options and want to see the raw data from the initial community consultation. Walls ruin beaches and removes the sand. The only community members that want this is the 60 odd residents that have houses along the beach. On many cases those residents fought against Council to have their houses constructed closer.	6	0

Option 3: Vertical Wall with rock toe

There were 0 supportive comments and 17 unsupportive comments left on a render image of Option 3. An additional 6 comments were also made.

Unsupportive comments are highly similar to those expressed for Options 1 and 2 in regards to perceived sand loss from the beach, a call for a planned retreat and a return of the natural dune system.

There were also concerns about graffiti and the wall looking like a 'prison wall'; being 'ugly' and a 'waste of money'.

Table 6: Supportive and unsupportive comments for Option 3.

Option 3: Vertical Wall with rock toe	N	
Something I like	0	
Something I don't like	17	
Make a comment	6	
Top response – Something I like	👍	👎
NIL responses received NIL reactions.	0	0
Top 4 responses – Something I don't like	👍	👎
The reflection of waves from the wall will result in the loss of the beach completely. Benefitting only a small few the impacts would devastate the many thousands of locals and visitors alike who use this beach. Adding to this is the inherent danger a wall will pose to both surfers and swimmers if they are swept into it. Wamberal Surf Club will also lose access to this section of the beach placing lives in danger as only limited equipment can be quickly brought to the scene of any rescue.	18	0
Ugly, waste of money.	12	0
Destroys the beach and the animal/marine life habitats.	11	0
This is looks very, very ugly, how long until it is covered in graffiti. If you like the sensation of walking alongside a prison wall then this might work. Apart from that the sand will most likely be washed away as has happened at Terrigal. Removing the foredune to build a wall seems very environmentally destructive.	10	0
Top response – Make a comment	👍	👎
Definitely not, our sand will be lost	2	1

Option 4: Vertical Wall without rock toe

There were 0 supportive comments and 22 unsupportive comments left on a render image of Option 4. An additional 2 comments were also made.

Unsupportive comments are highly similar to those expressed for Options 1, 2 and 3 regarding perceived sand loss from the beach, a call for a planned retreat and a return of the natural dune system. There was also a wish to maintain the natural beauty of the site and restore ecosystems with concerns about the environmental effects of a rock wall on the lagoon.

Table 7: Supportive and unsupportive comments for Option 4.

Option 4 – Vertical Wall without rock toe	N	
Something I like	0	
Something I don't like	22	
Make a comment	2	
Top response – Something I like	👍	👎
NIL responses received NIL reactions.	0	0
Top 3 responses – Something I don't like	👍	👎
This option would most likely result in the eventual total loss of sand on the beach. It is has no regard whatsoever for trying to maintain natural beauty or ecosystems at all. It looks like a prison yard wall.	13	2
Seawalls don't absorb the waves energy, they just deflect it. In an event of an ECL where all of the sand is removed from in front of the seawall, much of the force of the waves energy is moved to the ends of the seawall. In this case Terrigal and Wamberal Lagoons. Wamberal Nature Reserve, (National Park), on one end... hundreds of homes surrounding Terrigal Lagoon on the other. Pure madness.	12	0
The reflection of waves from the wall will result in the loss of the beach completely. Benefitting only a small few the impacts would devastate the many thousands of locals and visitors alike who use this beach. Adding to this is the inherent danger a wall will pose to both surfers and swimmers if they are swept into it. Wamberal Surf Club will also lose access to this section of the beach placing lives in danger as only limited equipment can be quickly brought to the scene of any rescue.	9	0
Top response – Make a comment	👍	👎
All the vertical seawall options I do not agree with. The sand will be lost and the beach ruined to protect a dozen houses.	7	0

Option 5: Tiered Wall with promenade

There were 15 supportive comments and 29 unsupportive comments left on a render image of Option 5. An additional 16 comments were also made.

Reactions for each of the comments was the most divided when compared to comments left on the other 4 concept design options. Unsupportive comments are highly similar to those expressed for Options 1, 2, 3 and 4 regarding perceived sand loss from the beach, a call for a planned retreat and a return of the natural dune system.

Responses indicate that some believe this is the 'best option' out of the 5 concept design options presented, agreeing it would benefit both the property owners and the community. Others agreed it is a welcomed 'community asset' and will contribute to a healthy lifestyle for both able bodied people, the elderly and those with a disability. Supporters suggested that it would provide a valuable link to Terrigal, Spoon Bay and the lagoons which would allow them to walk, ride and scoot between the two locations.

Others did not like the idea of linking a promenade to Terrigal, some agreeing it would look like a 'skatepark' with the addition of concrete and removal of the natural environment. Others agreed that the cost benefit analysis (CBA) must consider the loss of value to homes and loss of revenue to local businesses caused by the 'wilful destruction of this major recreation and tourism' asset.

Table 8: Supportive and unsupportive comments for Option 5.

Option 5 – Tiered Wall with promenade	**N**	
Something I like	15	
Something I don't like	29	
Make a comment	16	
Top 4 response – Something I like	👍	👎
I think option 5 adds to the environment in addition to the value of a seawall. It would improve access to the beach for people of all ages and mobility. It would be a tourist attraction for the area.	8	9
Great idea! Myself and many members of the community have always discussed how a promenade was needed. Seen effective on the Gold Coast. Makes sense to build something that'll last!	6	13
Best of the 5 options by far. Either this, or no sea wall the preferred options. The rest are neither here nor there.	6	6
Great for running and walking without worrying about cars and roads! The public should get something out of this!	6	4
Top 5 responses – Something I don't like	👍	👎
Private access to the beach should be removed entirely. Equitable, public access should be provided at existing public access routes.	10	1
The reflection of waves from the wall will result in the loss of the beach completely. Benefitting only a small few the impacts would devastate the many thousands of locals and visitors alike who use this beach. Adding to this is the inherent danger a wall will pose to both surfers and swimmers if they are swept into it. Wamberal Surf Club will also lose access to this section of the beach placing lives in danger as only limited equipment can be quickly brought to the scene of any rescue.	9	0

Option 5 – Tiered Wall with promenade	N	
After a few years of storm surges, it will be goodbye beach. This photo presents the lie that the beach berm and incipient dunes will not be undermined by the wall. They will. Many other homes on the right side of the photo are not at risk. Start again. Hands off our beach.	8	2
The CBA must consider the loss of value to our (Central Coast ratepayers) homes and loss of revenue to our businesses caused by the wilful destruction of this major piece of recreational and tourism infrastructure. The overall effect on the Central Coast economy will be significant and unjustifiable to save 60 houses on clearly unsuitable land. Not to mention the major social, environmental and economic benefit of returning land back to the public use.	8	2
Where is the natural environment, it looks like a skate park.	8	1
Top 3 responses – Make a comment	👍	👎
I like the idea of Option 5 as it is the only one that has a promenade. The cost would be worth it, so the beach would have easy access from Terrigal to Wamberal for all ages and disabilities to enjoy and use, like they do now with the new Terrigal boardwalk. This could be like a continuation of this would benefit both businesses and tourists, as well as achieving better accessibility for residents. It would open up the whole of our area, whilst also protecting beach front homes.	7	6
I like this option as it provides public benefit particularly for families with young children, the elderly and disabled who would be able to enjoy a walk along a beachside promenade other than Terrigal.	5	8
A terrible option. Just as Terrigal Beach has disappeared with their wall that is what will happen here. Leave Wamberal as a natural beach. We don't need it to be an extension of Terrigal, nor do we need the disastrous impacts of a sea wall.	3	1

Online Information Sessions

Eight information sessions were conducted across a two week period during August with morning, midday and late afternoon timeslots scheduled. The sessions were hosted online using Zoom due to the COVID-19 public health orders. Each session consisted of a presentation followed by Q&A.

The sessions were attended by CCC's Coastal Management Team, Manly Hydraulics Laboratory, UNSW Water Research Laboratory and DPIE to provide an expert response to questions and input into discussion. The sessions were attended by 22 participants. Participants were encouraged to submit questions during the registration process. These questions were addressed during the information session following the presentation. Open discussion was also encouraged if time permitted. For a full unedited verbatim list of pre-submitted questions for each of the online information sessions, please refer to the **Data Report** at **Appendix B**. The information sessions provided an opportunity for the project team to

provide more detailed information and for the community to gain a better understanding of the project and ask questions.

The main questions submitted upon registration and asked during the information session are collectively summarised below:

- Why a seawall is the only option being considered for Wamberal Beach?
- Who pays for the seawall? What are some of the likely funding models?
- Why the idea of a planned retreat has not been explored further?
- Who pays for sand nourishment?
- Concern that seawalls cause loss of sand from the beach.
- Who is responsible if, what has been modelled in the science using decades of data, is different to what occurs in reality?
- Are the seawall designs adaptable to climate change?

Other questions asked about what would be further discussed and considered during a detailed design phase (phase 3) once the look and feel of a preferred seawall has been chosen, such as:

- Environmental impacts and mitigation measures
- Access to the beach from both public reserves and carparks, and private beachside residences
- The extent to which the seawall will become buried with sand nourishment and/or natural sand accumulation on the beach
- Restoration of disturbed dune systems following construction.

Phone calls and emails

Those who did not have access to the internet to complete the digital survey, comment on Social PinPoint or attend an online information session had the option of making contact with the Project team via phone and email.

A total of 4 phone conversations took place and approx. 10 emails were received about the Project during the six-week consultation period.

Main topics of discussion included:

- Opposition to a seawall at Wamberal Beach
- Concerns a seawall will increase erosion
- Concerns regarding private beach access
- Why a planned retreat had not been considered.

Creating vibrant communities through powerful conversations