

City of Greater Geraldton Coastal Planning Community Survey Report January 2018





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Coastal Planning Community Survey Report January 2018

Background

The City of Greater Geraldton is facing the adverse impacts of coastal erosion which is expected to increase due to the effects of sea level rise and climate change. The City recently completed a suite of Coastal Inundation and Processes Allowances Studies for the coastal zone between Cape Burney and Drummond Cove, which indicate that portions of the coastline are at risk from inundation and erosion over a 100-year planning timeframe. The City has since adopted the State Planning Policy 2.6 – State Coastal Planning Policy (SPP2.6) sea level rise estimate of 0.9m over the 100 year planning timeframe. The three completed studies are available on the City's website at <u>www.cgg.wa.gov.au</u> and include:

- Cape Burney to Greys Beach Inundation and Coastal Processes Allowances Study;
- Point Moore Inundation and Coastal Processes Allowances Study; and
- Town Beach to Drummond Cove Inundation and Coastal Processes Allowances Study.

In accordance with SPP2.6, areas at risk of being affected by coastal hazards require a Coastal Hazard Risk Management and Adaptation Plan (CHRMAP). CHRMAPs are developed with the assistance of stakeholders and the broader community via a community engagement process.

Project Purpose

The purpose of CHRMAP is to utilize both the technical projections in the Coastal Inundation and Processes Allowances Studies and local knowledge to identify key assets and risks, and then use strategic planning, coastal engineering and economic modelling to identify adaptation pathways.

Engaging with the Community

The City and the Project consultant team developed and implemented a community and stakeholder engagement strategy in accordance with SPP2.6 requirements, which included the Coastal Planning Community Survey followed by two Coastal Planning Workshops. The Coastal Planning Community Workshops Final Report is available on the City's website <u>www.cgg.wa.gov.au</u>

Engagement Promotion

The City undertook extensive promotion of the Coastal Planning Community Survey:

- More than 350 letters of invitation mailed, emailed or hand delivered to project stakeholders including:
 - Utility/infrastructure providers;
 - Federal Government agencies;
 - o State Government departments and agencies;
 - o Regional agencies and authorities;
 - Local organisations and agencies;
 - Education and training providers;
 - Culture/art institutions;
 - Local and State Government politicians;
 - Community/sporting groups;
 - Local property developers;
 - Landowners/businesses/residents with houses, buildings or other infrastructure located on the ocean side of coastal roads;
 - o Commercial/industry/businesses located at the Port and Fisherman's Wharf; and

- \circ $\,$ Community members who had previously engaged with the City on coastal related issues.
- Flyers hand delivered to residents/homeowners residing on the ocean side of coastal roads;
- Posters displayed at various venues across the City;
- Numerous City of Greater Geraldton Facebook posts and targeted social media advertising campaigns;
- Newspaper advertising;
- Everything Geraldton online advertising;
- City website consultation page and CHRMAP page;
- Various media releases; and
- Face-to-face invitations extended by City staff members.

Community Coastal Planning Survey

The Community Coastal Planning Survey was conducted from 2-23 October 2017. The objectives of the survey were to:

- 1. Identify assets the community values at risk from coastal erosion and inundation;
- 2. Gain a better understanding of how the community values assets which are potentially at risk; and
- 3. Gain an understanding of how the community rates the consequences of erosion and inundation on these assets.

Survey respondents were asked to identify up to six coastal assets, which were later classified into one or more of 12 coastal compartments, located between Cape Burney in the south and Drummond Cove in the north. They were also asked to state why the asset was significant or important to them, what the assets were used for and to classify assets as either physical/economic, natural or social/cultural. Respondents were then asked to identify the consequence erosion or inundation would have on the asset (using a scale ranging from insignificant to catastrophic), and to explain why they chose that

particular consequence. Finally, survey respondents were asked to nominate their most valued asset and explain why it was so important.

Members of the community had the option of completing the survey via an online survey portal or in a hard copy format. Copies of the survey were available at the Civic Centre and Geraldton Regional Library.

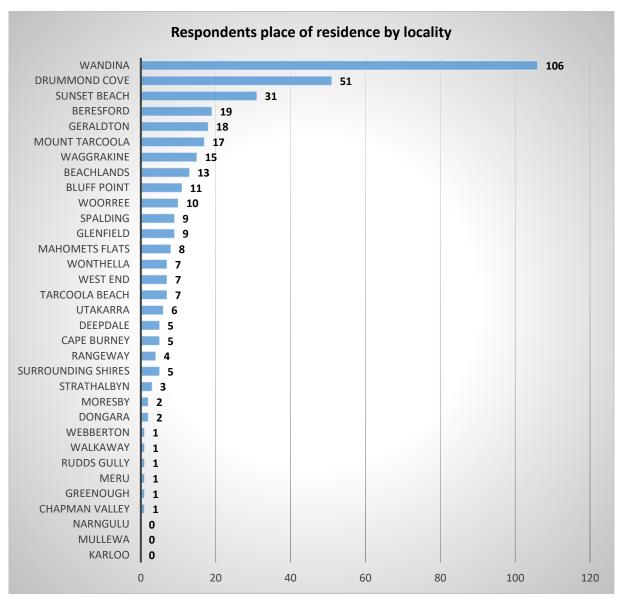
Survey Results

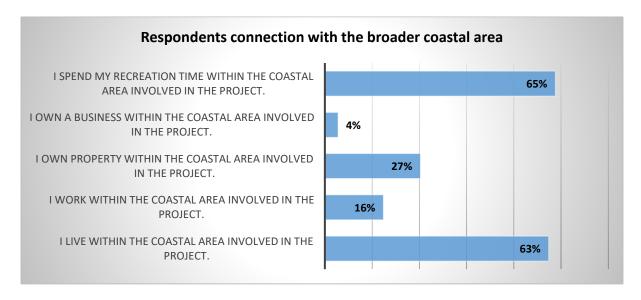
The City received 376 responses to the Coastal Planning Community Survey.

Of these, more than 99% of respondents said they lived within the City region. The majority, or 63%, said they lived within the coastal area, the majority, or 64%, said they recreated within the coastal area and 31% said they owned a property or business within the coastal area.



The following tables indicate respondent's place of residency live and what their connection is to the broader coastal area.

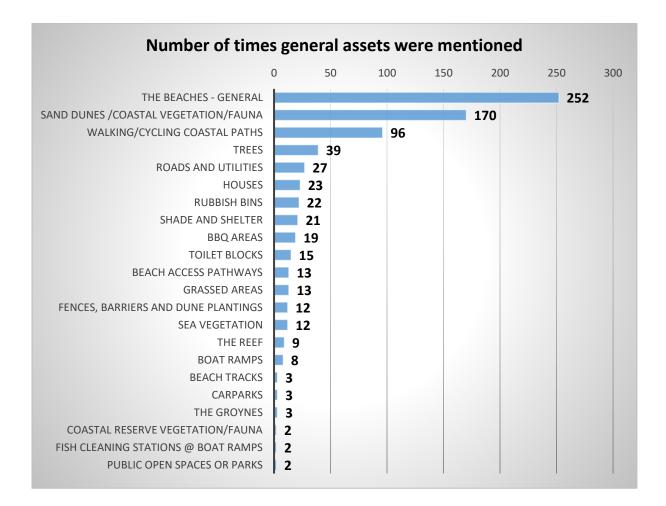




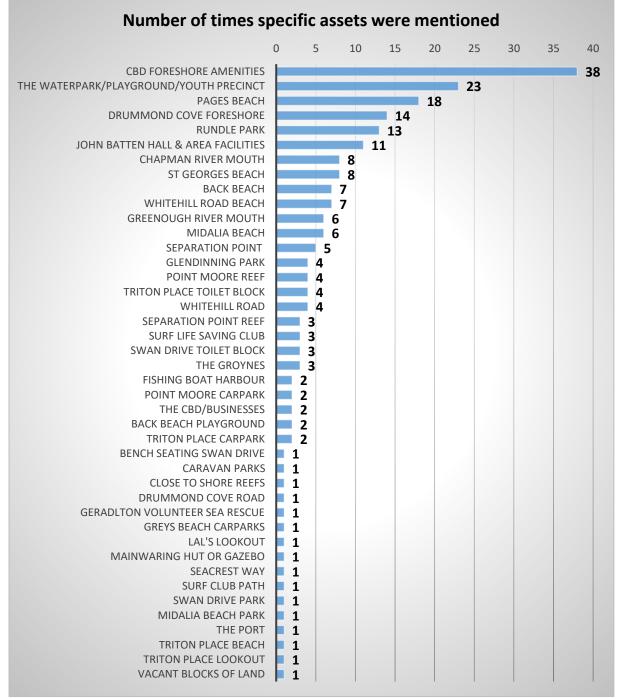
Identifying Coastal Assets

The first survey objective was for respondents to identify assets at risk from coastal erosion or inundation. A large majority, 84% or 302 respondents, said they could identify coastal assets that were of significance or of importance to them. Although 981 assets were identified in the survey, many of the same assets were mentioned by respondents more than once leaving a total of 67 coastal assets identified. The most commonly mentioned assets (identified more than 90 times) were the beaches, sand dunes including their flora and fauna, and coastal walking/cycling paths.

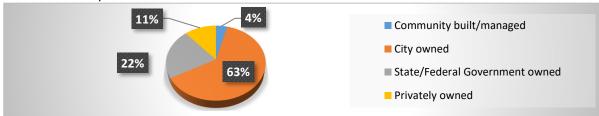
All assets identified in the survey could be separated into three groups. The first group relates to general assets where no specific location was mentioned. For example, respondents mentioned beaches 252 times, without specifying a particular beach or trees were mentioned 39 times without providing details of trees in a particular location. In total, 22 general assets were identified in the survey. These are identified in the bar chart below.



The second group relates to specific assets. These were assets identified at a specific location. For example Foreshore amenities, which include food businesses, the Foreshore Promenade, toilets, showers, shade shelters and barbeques, was mentioned and 38 times or the Foreshore Waterpark, playground and Youth Precinct was mentioned 23 times. In total, 42 specific assets were identified in the survey. These are identified in the bar chart below.



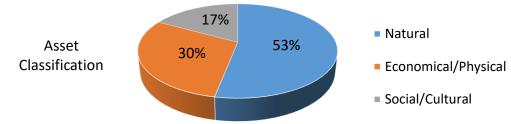
The third group relates to asset ownership. The assets most commonly mentioned are those owned by the City, which include roads, boat ramps, shade shelters, toilet blocks, etc... This was followed by State or Federal Government owned assets such as utilities, the lighthouse, the Port, beaches etc... and then privately owned assets such as homes and businesses. The least identified assets at risk are those the community built/manages/leases and referred to clubhouses, halls, etc... The graph below shows ownership of assets.



Classifying Coastal Assets

Part of identifying coastal assets involved classifying them into one of five categories: natural, economic, physical, social and cultural. The functions, service and values an asset has will depend on the category in which it is classified. For example, beaches classified as a natural asset provide habitat for flora and fauna, support biodiversity and are a natural erosion and inundation barrier. When classified as a social or cultural asset, beaches provide a place for sports and recreation and are a popular socialising space.

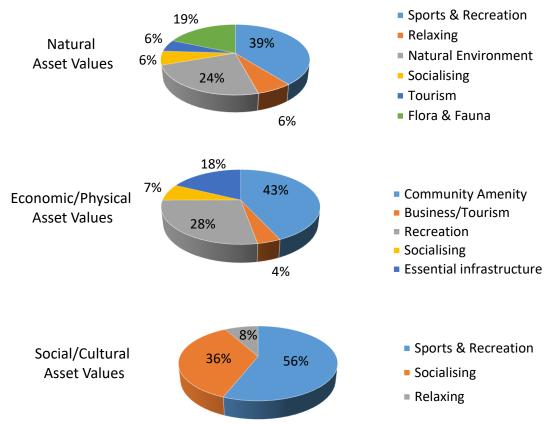
Of the 981 assets mentioned in the survey, 527 were classified as natural, 297 as economical/physical and 169 and social/cultural.



Valuing Assets

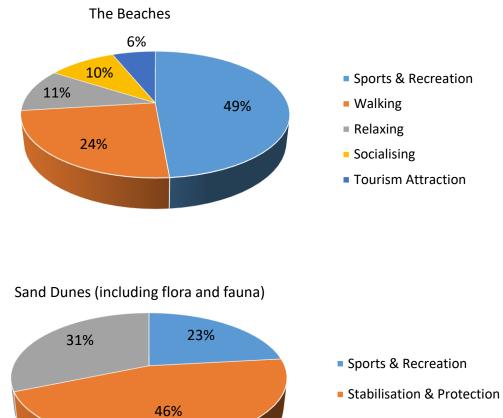
The second objective of the survey was to gain a better understanding of how the community values assets at risk from coastal erosion and inundation. One method of determining the value of an asset is to examine how it is utilised. The survey asked respondents to state what the asset(s) they mentioned were used for, or what its function was. With some assets, their function was clear such as trees provide shade or houses are places where people live. With others, such as the beach or CBD Foreshore amenities, a variety of functions and uses were mentioned.





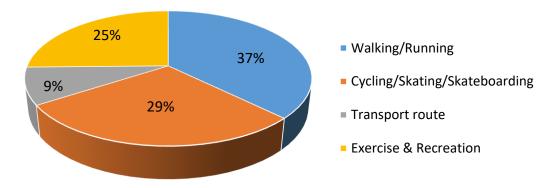
Function or Value of Most Commonly Mentioned Assets

Reviewing the three most commonly mentioned assets: beaches, sand dunes (including their flora and fauna) and coastal walking/cycling paths the following graphs show what respondents said these assets were used for or what their particular function was.

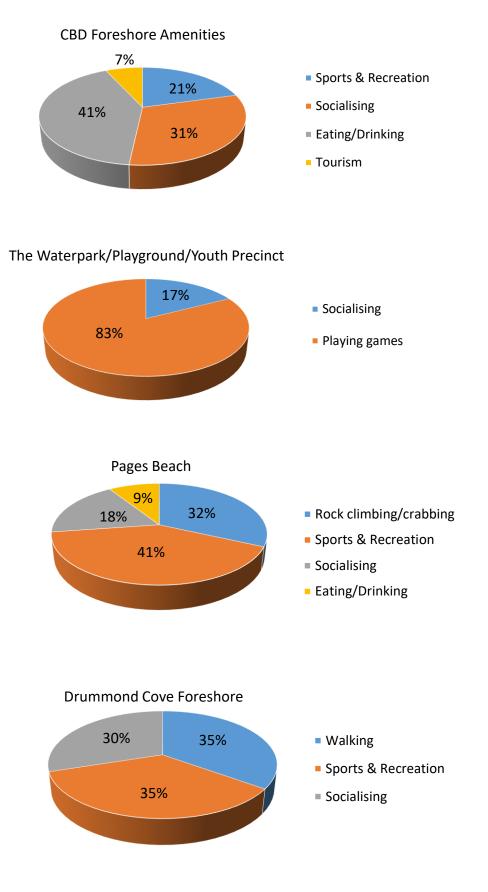


Natural Habitat

Walking/Cycling Coastal Paths



Reviewing the top most commonly mentioned specific assets: CBD Foreshore Amenities, the Waterpark/playground/Youth Precinct, Pages Beach and Drummond Cove Foreshore, the following graphs show what respondents said these assets were used for or what their particular function was.



Assessing Risk of Inundation and Erosion

The third objective of the survey was to gain an understanding of how the community rates the consequences of erosion and inundation on the assets they identified as important. To assist respondents, a Consequence Scale Table was presented (see below). Respondents were asked to rate the consequence (insignificant, minor, moderate, major or catastrophic) that inundation and/or erosion would have on the identified asset.

| Consequence | Physical/Economic Impact | Environmental Impact | Social /Cultural Impact |
|---------------|---|--|---|
| Insignificant | Permanent loss or damage < \$20k | Negligible to no loss of flora and fauna | Minimal short term inconvenience <5% of community affected |
| Minor | Permanent loss or damage \$20k - \$200k | Short term loss of flora and fauna - strong recovery | Small to medium disruption to func- tion <10% of community affected |
| Moderate | Permanent loss or damage \$200k - \$2 million | Medium term loss of flora and fauna - recovery likely | Minor long term or major short term loss of function <25% of com- munity affected |
| Major | Permanent loss or damage \$2 - \$5 million | Long-term loss of flora and fauna limited chance of recovery | Medium term or permanent loss of function <50% of community affect ed |
| Catastrophic | Permanent loss or damage >\$5 million | Permanent loss of flora and fau- na - will not recover | Long term or permanent loss of function >75% of community affect ed |

Consequence Scale Table used in in the Community Coastal Planning Survey.

The following table provides a general overview of the consequences erosion and inundation would have on assets identified in the survey.

| Consequence | Impacted Assets |
|---------------|--|
| Catastrophic | Houses, properties, beaches, boat ramps and the lighthouse. |
| Major | Community infrastructure, roads & utilities, public open spaces, caravan parks, sand dunes & vegetation, CBD businesses and beach amenities. |
| Moderate | Cycle/foot paths, beach access, river mouths, toilet blocks, shade shelters, carparks, Foreshore amenities, clubhouses and community halls. |
| Minor | Groynes, benches, BBQs, trees, sea vegetation and vacant blocks of land. |
| Insignificant | Playgrounds, seating, parks, rubbish bins and breakwaters. |

Calculating the Overall Consequences of Erosion and Inundation

In order to calculate the overall consequence of erosion or inundation the five consequences were given values from one to five.

| Consequence | Value |
|---------------|-------|
| Catastrophic | 1 |
| Major | 2 |
| Moderate | 3 |
| Minor | 4 |
| Insignificant | 5 |

The consequence of erosion or inundation for a particular asset was calculated by averaging the corresponding values listed for a particular asset.

Survey Results Tables

The results of the three survey objectives are presented in the following tables. All assets, both general and specific, identified in the survey have been listed within one or more of the 12 corresponding coastal compartments.

Within each table, there are a number of columns which include:

- Asset name and reason(s) why it is important;
- Number of times the asset was mentioned in the survey;
- Asset classification (economic/physical, social/cultural or natural);
- Number of times it was classified as such;
- Averaged consequence of inundation score for each asset classification;
- Averaged consequence of erosion score for each asset classification; and
- Number of times an asset was prioritised.

A thick black border indicates the highest priority asset for that compartment.



| Drummond Cove Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general | | Economical/Physical | 4 | 2 | 2 | |
| Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 31 | Natural | 27 | 2 | 2 | 18 |
| Sand dunes/coastal vegetation/fauna Why is it important: Infrastructure protection, natural habitat, recreation, tourism | 19 | Natural | 19 | 2 | 3 | 9 |
| Drummond Cove Foreshore | | Economical/Physical | 3 | 2 | 2 | |
| Why is it important: socialising, wellness, recreation | 14 | Social/Cultural | 3 | 2 | 2 | 7 |
| | | Natural | 8 | 2 | 2 | |
| John Batten Hall and area facilities | 11 | Economical/Physical | 6 | 3 | 2 | 1 |
| Why is it important: socialising, events, recreation | | Social/Cultural | 4 | 2 | 2 | |
| | | Natural | 1 | 2 | 2 | |
| Whitehill Road beach | 7 | Economical/Physical | 4 | 2 | 1 | 2 |
| Why is it important: recreation, connectivity | / | Natural | 3 | 1 | 1 | 2 |
| Shade and shelter | 5 | Economical/Physical | 3 | 3 | 4 | 0 |
| Why is it important: socialising, protection, wellness | J | Social/Cultural | 2 | 2 | 2 | 0 |
| Whitehill Road | 4 | Economical/Physical | 3 | 2 | 2 | 3 |
| Why is it important: connectivity | + | Social/Cultural | 1 | 2 | 3 | 5 |
| Trees Why is it important: shade, wellness | 4 | Natural | 4 | 3 | 4 | 1 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 5 | Economical/Physical | 5 | 2 | 1 | 4 |
| Toilet block Why is it important: public amenity | 3 | Economical/Physical | 3 | 4 | 3 | 0 |

| Drummond Cove continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Beach access pathways Why is it important: enables sport and recreation | 3 | Economical/Physical | 3 | 2 | 2 | 1 |
| Roads and utilities Why is it important: connectivity, amenity | 3 | Economical/Physical | 3 | 3 | 3 | 0 |
| Boat ramp Why is it important: sports and recreation | 3 | Economical/Physical | 3 | 3 | 1 | 0 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Public open spaces or parks | 2 | Economical/Physical | 1 | 2 | 2 | 0 |
| Why is it important: socialising, recreation | 2 | Social/Cultural | 1 | 5 | 5 | 0 |
| BBQ areas | 2 | Economical/Physical | 1 | 2 | 2 | 0 |
| Why is it important: socialising | 2 | Social/Cultural | 1 | 4 | 4 | 0 |
| Fish cleaning stations at boat ramps Why is it important: sport and recreation | 1 | Economical/Physical | 1 | 0 | 0 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach tracks Why is it important: enables beach access, lifestyle | 1 | Natural | 1 | 3 | 3 | 0 |
| Vacant blocks of land Why is it important: community | 1 | Economical/Physical | 1 | 1 | 4 | 0 |
| Carparks Why is it important: ease of access | 1 | Economical/Physical | 1 | 1 | 1 | 0 |
| Drummond Cove Road Why is it important: access | 1 | Social/Cultural | 2 | 1 | 1 | 0 |
| Seacrest Way Why is it important: access | 1 | Economical/Physical | 1 | 1 | 1 | 0 |

| Drummond Cove continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |
| Close to shore reefs Why is it important: recreation | 1 | Natural | 1 | 1 | 5 | 0 |
| Grassed areas Why is it important: recreation | 1 | Economical/Physical | 1 | 2 | 2 | 0 |

| Glenfield Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general Why is it important: natural habitat, tourism, sports, | 20 | Economical/Physical | 1 | 3 | 3 | 16 |
| recreation, socialising, wellness, tourism | 20 | Natural | 19 | 2 | 2 | 16 |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 14 | Natural | 14 | 2 | 3 | 7 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |

| Glenfield continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| Sunset Beach Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general | | Economical/Physical | 1 | 3 | 3 | |
| Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 27 - | Natural | 26 | 2 | 2 | 18 |
| Sand dunes/coastal vegetation/fauna Why is it important: Infrastructure protection, natural habitat, recreation, tourism | 18 | Natural | 18 | 2 | 3 | 9 |
| Walking/cycling coastal paths | | Economical/Physical | 4 | 3 | 2 | г |
| Why is it important: recreation, sport, socialising | 11 | Social/Cultural | 7 | 3 | 3 | 5 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 8 | Economical/Physical | 8 | 2 | 2 | 5 |
| Chapman River mouth Why is it important: biodiversity, recreation, natural habitat | 8 | Natural | 8 | 3 | 3 | 3 |
| Trees | | Economical/Physical | 1 | 1 | 1 | 1 |
| Why is it important: shade, wellness | 5 | Natural | 4 | 3 | 4 | 1 |
| Triton Place toilet block | 4 | Economical/Physical | 3 | 2 | 3 | 0 |
| Why is it important: public amenity | 4 | Social/Cultural | 1 | 1 | 1 | U |

| Sunset Beach continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|--|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Swan Drive Toilet block Why is it important: public amenity | 3 | Economical/Physical | 3 | 4 | 4 | 1 |
| BBQ areas Why is it important: socialising | 3 | Economical/Physical Social/Cultural | 2 1 | 2 4 | 2 4 | 0 |
| Grassed areas Why is it important: recreation | 3 | Economical/Physical | 3 | 2 | 2 | 0 |
| Triton Place carpark Why is it important: tourism, infrastructure protection | 2 | Social/Cultural | 2 | 2 | 2 | 1 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 2 | Economical/Physical | 2 | 2 | 2 | 0 |
| Beach access pathways | 2 | Economical/Physical | 1 | 3 | 3 | 1 |
| Why is it important: enables sport and recreation | 2 | Social/Cultural | 1 | 2 | 1 | Ţ |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |
| Swan Drive Park Why is it important: socialising, recreation | 1 | Economical/Physical | 1 | 2 | 3 | 1 |
| Triton Place beach Why is it important: socialising, recreation | 1 | Natural | 1 | 2 | 2 | 0 |
| Triton Place lookout Why is it important: relaxing | 1 | Social/Cultural | 1 | 1 | 1 | 0 |
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| Sunset Beach continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Bench seating Swan Drive Why is it important: wellness, socialising | 1 | Social/Cultural | 1 | 5 | 4 | 0 |
| Sunset Beach Caravan Park Why is it important: tourism, recreation | 1 | Economical/Physical | 1 | 2 | 2 | 0 |

| Bluff Point Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | | Economical/Physical | 1 | 3 | 2 | |
| | 25 | Social/Cultural | 4 | 2 | 2 | 16 |
| | | Natural | 20 | 5 | 2 | |
| Walking/cycling coastal paths | | Economical/Physical | 5 | 3 | 3 | |
| Why is it important: Recreation, sport, socialising | 17 | Social/Cultural | 10 | 2 | 2 | 7 |
| | | Natural | 2 | 3 | 3 | |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 15 | Natural | 15 | 2 | 3 | 8 |
| Rundle Park | | Economical/Physical | 1 | 5 | 5 | 3 |
| Why is it important: recreation, sports, socialising | 13 | Social/Cultural | 10 | 2 | 3 | |
| | | Natural | 2 | 3 | 3 | |
| St Georges Beach | | Economical/Physical | 1 | 3 | 2 | |
| Why is it important: recreation, socialising, leisure | 8 | Social/Cultural | 4 | 2 | 1 | 2 |
| | | Natural | 3 | 2 | 2 | |
| Trees Why is it important: shade, wellness | 4 | Natural | 4 | 3 | 4 | 1 |

| Bluff Point continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Shade and shelter | 3 | Economical/Physical | 2 | 4 | 4 | 0 |
| Why is it important: socialising, protection, wellness | 5 | Social/Cultural | 1 | 2 | 2 | 0 |
| Boat ramp | 3 | Economical/Physical | 2 | 2 | 1 | 0 |
| Why is it important: sports and recreation | 5 | Social/Cultural | 1 | 1 | 4 | 0 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| BBQ areas | 2 | Economical/Physical | 1 | 2 | 2 | 4 |
| Why is it important: socialising | 2 | Social/Cultural | 1 | 4 | 4 | 1 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 1 | 2 | 3 | 0 |
| Toilet block Why is it important: public amenity | 2 | Economical/Physical | 2 | 4 | 4 | 1 |
| Grassed areas | | Economical/Physical | 1 | 2 | 2 | |
| Why is it important: recreation | 2 | Social/Cultural | 1 | 2 | 2 | 1 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| Beresford Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general | | Economical/Physical | 2 | 2 | 3 | |
| Why is it important: natural habitat, tourism, sports, | 20 | Social/Cultural | 1 | 2 | 1 | 15 |
| recreation, socialising, wellness, tourism | | Natural | 17 | 3 | 2 | |
| Walking/cycling coastal paths | 20 | Economical/Physical | 10 | 3 | 3 | 10 |
| Why is it important: recreation, sport, socialising | 20 | Social/Cultural | 10 | 3 | 2 | 10 |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 11 | Natural | 11 | 2 | 3 | 8 |
| Midalia's Beach Why is it important: recreation, socialising, wellness | 6 | Economical/Physical | 1 | 5 | 5 | 0 |
| | | Social/Cultural | 1 | 3 | 3 | |
| | | Natural | 4 | 2 | 2 | |
| Shade and shelter | 3 | Economical/Physical | 2 | 4 | 4 | 0 |
| Why is it important: socialising, protection, wellness | 5 | Social/Cultural | 1 | 2 | 2 | 0 |
| Trees Why is it important: shade, wellness | 3 | Natural | 3 | 3 | 4 | 1 |
| BBQ areas | 2 | Economical/Physical | 1 | 2 | 2 | 0 |
| Why is it important: socialising | 3 | Social/Cultural | 2 | 3 | 3 | 0 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 3 | 3 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |

| Beresford continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The park Why is it important: socialising, recreation | 1 | Social/Cultural | 1 | 5 | 5 | 0 |
| Grassed areas Why is it important: recreation | 1 | Social/Cultural | 1 | 2 | 2 | 0 |
| The groynes Why is it important: recreation | 1 | Natural | 1 | 4 | 4 | 0 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| Geraldton Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| CBD Foreshore amenities Why is it important: recreation, tourism, socialising, sports, employment, commercial activities | | Economical/Physical | 16 | 3 | 3 | |
| | 38 | Social/Cultural | 21 | 3 | 3 | 12 |
| | | Natural | 1 | 3 | 3 | |
| The beaches - general | 28 | Economical/Physical | 2 | 3 | 3 | 19 |
| Why is it important: natural habitat, tourism, sports, | | Social/Cultural | 8 | 2 | 2 | |
| recreation, socialising, wellness, tourism | | Natural | 18 | 2 | 2 | |
| The Waterpark/playground/youth precinct <i>Why is it important: socialising, recreation, sports</i> | | Economical/Physical | 5 | 3 | 2 | |
| | 23 | Social/Cultural | 18 | 3 | 3 | 5 |

| Geraldton continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Walking/cycling coastal paths | 13 | Economical/Physical | 5 | 3 | 3 | G |
| Why is it important: recreation, sport, socialising | 13 | Social/Cultural | 8 | 3 | 3 | 6 |
| Trees Why is it important: shade, wellness | 6 | Natural | 6 | 3 | 3 | 2 |
| BBQ areas | 4 | Economical/Physical | 2 | 4 | 1 | 0 |
| Why is it important: socialising | 4 | Social/Cultural | 2 | 3 | 4 | 0 |
| Toilet block Why is it important: public amenity | 3 | Economical/Physical | 3 | 3 | 4 | 1 |
| Shade and shelter | | Economical/Physical | 2 | 4 | 4 | <u> </u> |
| Why is it important: socialising, protection, wellness | 3 | Social/Cultural | 1 | 3 | 3 | 0 |
| The groynes Why is it important: recreation | 2 | Natural | 2 | 5 | 5 | 0 |
| The CBD businesses Why is it important: commerce, employment, recreation | 2 | Economical/Physical | 2 | 2 | 2 | 2 |
| Coastal reserve vegetation and fauna Why is it important: natural habitat, retains beach | 2 | Natural | 2 | 2 | 3 | 3 |
| Grassed areas | | Economical/Physical | 1 | 2 | 2 | |
| Why is it important: recreation | 2 | Social/Cultural | 1 | 2 | 2 | 0 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Fishing Boat Harbour Why is it important: commerce, industry, employment | 2 | Economical/Physical | 2 | 2 | 1 | 1 |
| Boat ramp Why is it important: sports and recreation | 2 | Economical/Physical | 2 | 1 | 2 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |

| Geraldton continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Fish cleaning stations at boat ramps Why is it important: sport and recreation | 1 | Economical/Physical | 1 | 0 | 0 | 0 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |
| The Port Why is it important: commerce, industry, employment | 1 | Economical/Physical | 1 | 3 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| West End (Point Moore) Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general | | Economical/Physical | 3 | 3 | 2 | |
| Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 26 | Natural | 23 | 3 | 3 | 16 |
| Pages Beach | 18 | Economical/Physical | 2 | 3 | 2 | 3 |
| Why is it important: recreation, socialising, natural | | Social/Cultural | 3 | 3 | 3 | |
| habitat, tourism | | Natural | 13 | 3 | 3 | |
| The Lighthouse historic, tourism, landmark, vital marine safety | 10 | Economical/Physical | 17 | 2 | 4 | 2 |
| infrastructure | 18 | Social/Cultural | 1 | 1 | 2 | 3 |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 17 | Natural | 17 | 2 | 3 | 9 |

| West End (Point Moore) continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Walking/cycling coastal paths | 11 | Economical/Physical | 3 | 3 | 4 | 5 |
| Why is it important: recreation, sport, socialising | 11 | Social/Cultural | 8 | 3 | 2 | 5 |
| Trees Why is it important: shade, wellness | 4 | Natural | 4 | 2 | 4 | 1 |
| Point Moore reef | | Social/Cultural | 1 | 2 | 1 | 1 |
| Why is it important: marine habitat, recreation, sports | 4 | Natural | 3 | 2 | 3 | 1 |
| Homes/cottages at Point Moore Why is it important: place of residence, socialising, wellness, investment, lifestyle | 3 | Economical/Physical | 3 | 2 | 1 | 2 |
| BBQ areas | 2 | Economical/Physical | 1 | 2 | 2 | |
| Why is it important: socialising | 3 | Social/Cultural | 2 | 4 | 4 | 1 |
| Toilet block Why is it important: public amenity | 2 | Economical/Physical | 2 | 4 | 4 | 1 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 2 | Economical/Physical | 2 | 3 | 3 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |
| Point Moore carpark | 2 | Economical/Physical | 1 | 3 | 4 | 2 |
| Why is it important: ease of access | 2 | Social/Cultural | 1 | 4 | 4 | 2 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |
| Beach tracks Why is it important: enables beach access, lifestyle | 1 | Natural | 1 | 3 | 4 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| West End (Point Moore) continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Geraldton Volunteer Sea Rescue Why is it important: community service | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Grassed areas Why is it important: recreation | 1 | Economical/Physical | 1 | 2 | 2 | 0 |

| Beachlands Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|--|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 14 | Natural | 14 | 3 | 2 | 13 |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 12 | Natural | 12 | 2 | 3 | 6 |
| Walking/cycling coastal paths Why is it important: recreation, sport, socialising | 9 | Economical/Physical Social/Cultural | 3 | 3 | 4 | 4 |
| Separation Point Why is it important: recreation, marine habitat, sports, socialising, wellness | 5 | Natural | 5 | 3 | 2 | 1 |
| Separation Point reef Why is it important: marine habitat, recreation | 3 | Natural | 3 | 4 | 4 | 1 |
| Roads and utilities Why is it important: connectivity, amenity | 3 | Economical/Physical | 3 | 2 | 3 | 0 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |

| Beachlands continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |
| Greys Beach carparks Why is it important: ease of access | 1 | Economical/Physical | 1 | 1 | 1 | 1 |
| Houses Why is it important: Place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |

| Mahomets Flats Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Sand dunes /coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 15 | Natural | 15 | 2 | 3 | 6 |
| The beaches - general Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 13 | Natural | 13 | 3 | 2 | 13 |
| Walking/cycling coastal paths | o | Economical/Physical | 3 | 3 | 4 | Λ |
| Why is it important: recreation, sport, socialising | 8 | Social/Cultural | 5 | 3 | 2 | 4 |
| Back Beach | 7 | Economical/Physical | 1 | 2 | 4 | 1 |
| Why is it important: access, recreation, sports | / | Natural | 6 | 4 | 2 | L |

| Mahomets Flats continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|--|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Trees Why is it important: shade, wellness | 4 | Natural | 4 | 2 | 3 | 2 |
| Surf Life Saving Club Why is it important: socialising, recreation, community safety | 3 | Economical/Physical | 3 | 3 | 2 | 1 |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Toilet Block Why is it important: public amenity | 2 | Economical/Physical | 2 | 4 | 4 | 1 |
| Shade shelters Why is it important: socialising, protection, wellness | 2 | Economical/Physical | 2 | 3 | 3 | 0 |
| The playground Why is it important: recreation, socialising | 2 | Economical/Physical Social/Cultural | 1 | 5 5 | 5 5 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |
| Surf club path Why is it important: beach access, community safety | 1 | Social/Cultural | 1 | 3 | 3 | 1 |
| Mainwaring Hut or gazebo Why is it important: the view, wellness | 1 | Economical/Physical | 1 | 2 | 0 | 0 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |

| Mahomets Flats continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |
| Grassed areas Why is it important: recreation | 1 | Economical/Physical | 1 | 2 | 2 | 0 |

| Tarcoola Beach Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 16 | Natural | 16 | 1 | 3 | 16 |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 15 | Natural | 15 | 2 | 3 | 7 |
| Walking/cycling coastal paths | 7 | Economical/Physical | 2 | 5 | 4 | 4 |
| Why is it important: recreation, sport, socialising | / | Social/Cultural | 5 | 2 | 2 | 4 |
| Trees Why is it important: shade, wellness | 4 | Natural | 4 | 3 | 4 | 1 |
| Glendinning Park | Λ | Economical/Physical | 1 | 5 | 5 | 0 |
| Why is it important: socialising, recreation | 4 | Social/Cultural | 3 | 4 | 4 | U |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |

| Tarcoola Beach continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Shade and shelter Why is it important: socialising, protection, wellness | 2 | Economical/Physical | 2 | 4 | 4 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |
| Grassed areas Why is it important: recreation | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Carpark Why is it important: ease of access | 1 | Economical/Physical | 1 | 5 | 5 | 1 |

| Southgate Dunes Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 22 | Economical/Physical | 1 | 1 | 2 | 14 |
| | | Social/Cultural | 1 | 1 | 1 | |
| | | Natural | 20 | 2 | 3 | |

| Southgate Dunes continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|--|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 16 | Natural | 16 | 2 | 2 | 8 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 2 | 2 | 3 | 0 |
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |

| Cape Burney Assets | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| The beaches - general Why is it important: natural habitat, tourism, sports, recreation, socialising, wellness, tourism | 16 | Natural | 16 | 2 | 2 | 14 |
| Sand dunes/coastal vegetation/fauna Why is it important: infrastructure protection, natural habitat, recreation, tourism | 12 | Natural | 12 | 2 | 3 | 6 |
| Greenough River mouth | 6 | Economical/Physical | 1 | 3 | 3 | 2 |
| Why is it important: recreation, socialising, sports | 0 | Natural | 5 | 3 | 3 | 2 |
| Trees Why is it important: shade, wellness | 5 | Natural | 5 | 3 | 4 | 1 |
| Toilet block Why is it important: public amenity | 3 | Economical/Physical | 3 | 4 | 4 | 1 |

| Cape Burney continued | No. of mentions | Asset Classification | No. of times classified | Average Inundation Score | Average Erosion Score | No. times prioritised |
|---|--------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--------------------------|
| Shade and shelter | 3 | Economical/Physical | 2 | 4 | 4 | 0 |
| Why is it important: socialising, protection, wellness | 5 | Social/Cultural | 1 | 2 | 5 | U |
| Rubbish bins Why is it important: cleanliness | 2 | Economical/Physical | 2 | 5 | 5 | 0 |
| BBQ areas | 2 | Economical/Physical | 1 | 2 | 2 | 0 |
| Why is it important: socialising | 2 | Social/Cultural | 1 | 4 | 4 | 0 |
| Roads and utilities Why is it important: connectivity, amenity | 2 | Economical/Physical | 1 | 2 | 3 | 0 |
| Fences, barriers and dune plantings Why is it important: retains beach and dunes | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| Beach access pathways Why is it important: enables sport and recreation | 1 | Economical/Physical | 1 | 3 | 3 | 1 |
| Grassed areas Why is it important: recreation | 1 | Economical/Physical | 1 | 2 | 2 | 0 |
| The reef Why is it important: marine habitat | 1 | Natural | 1 | 2 | 3 | 0 |
| Sea vegetation Why is it important: recreation, marine habitat | 1 | Natural | 1 | 1 | 4 | 0 |
| Houses Why is it important: place of residence, socialising, wellness, investment, lifestyle | 1 | Economical/Physical | 1 | 3 | 2 | 1 |
| Lal's Lookout Why is it important: wellness, the views | 1 | Economical/Physical | 1 | 4 | 1 | 0 |
| Carparks Why is it important: ease of access | 1 | Economical/Physical | 1 | 3 | 4 | 1 |
| Beach Tracks Why is it important: enables beach access, lifestyle | 1 | Natural | 1 | 3 | 4 | 0 |