



Adapting to **Coastal Change**

Community Values Survey Summary Report



AECOM



Community Values Survey Summary Report

Adapting to Coastal Change in Townsville Community Values Survey

Client: Townsville City Council

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Executive Summary

Townsville City Council commissioned AECOM Australia Pty Ltd to undertake communication and engagement associated with the Adapting to Coastal Change in Townsville project. The project is being delivered in partnership with Queensland Government, and is administered under the QCoast2100 Program. Townsville City Council is one of 28 council's undertaking similar projects.

As part of the Adapting to Coastal Change in Townsville project, Council is developing a long-term strategy for the city of Townsville, to prepare for and manage changes brought by storm tide, sea level rise and coastal erosion. The Adapting to Coastal Change in Townsville Community Values Survey (survey) was available for completion from Monday 24 September to Friday 26 October 2018.

Survey Purpose

The survey sought to better understand the lived values and coastal values of the Townsville community, and the level of concern the Townsville community has about coastal hazards (storm tide, sea level rise and coastal erosion). The survey also sought to identify any differences in the lived and coastal values between groups in the community.

Lived values are the factors experienced by individuals (in isolation or as part of a group) in their everyday lives that contribute to quality of life, such as education and employment opportunities, recreation and social activities, and environmental and lifestyle factors. Coastal values include the economic, social, cultural and environmental matters that individuals (in isolation or as part of a group) attribute to coastal areas.

The survey asked respondents a series of questions about their lived and coastal values, in order to obtain a statistically representative (95% confidence level) understanding of the Townsville population.

Survey Responses

The survey received 537 responses, comprising:

- 300 random telephone survey responses
- 210 online survey responses
- 27 hard copy survey responses.

A target phone sample size of 300 respondents was recommended as the minimum sample size, to ensure the total data obtained was statistically representative of the broader population. Data was also obtained via online and hard copy surveys, increasing the overall confidence and precision level achieved. Based on the total responses received, the survey was able to achieve a level of precision of $\pm 4.25\%$, at a 95% confidence level.

Survey Findings

The survey included 19 questions, divided into four sections:

1. Living in Townsville
2. Coastal Townsville
3. Coastal values
4. Getting to know you

The survey asked respondents a series of questions about their lived and coastal values. In particular, the survey sought to understand:

- What lived values the community perceive as important reasons for living in Townsville and maintaining their Townsville lifestyle;
- How often the community visit key coastal locations in Townsville and what activities they do in those coastal locations;
- The community's level of concern about coastal change (from storm tide, sea level rise and coastal erosion); and

- How prepared the community is to respond to natural disasters.

Responses and key findings are outlined in Section 6.0 Summary of Findings. In summary, the survey found that:

- Respondents consider lifestyle, employment and educational opportunities as the three most important reasons for living in Townsville. Respondents consider retirement opportunities and opportunities to start or run a business as the least important reasons for living in Townsville;
- Safety and the natural environment (river, beach, bushlands etc.) are very important lived values to the Townsville lifestyle, followed closely by open spaces (street trees, footpaths, parks etc.), access to education and recreation (i.e. fishing, The Strand, Pallarenda, Riverway, Magnetic Island). Survey results indicate that respondents consider the Townsville nightlife (bars, dining, cinema, live music) and the local business network as the two least important aspects of the Townsville lifestyle.
- The results indicate that the majority of respondents visit The Strand, Townsville CBD and Pallarenda once every three months or more. Townsville's CBD is most visited on a daily basis, which is likely because it is the central business and employment district. The survey data highlights that more than half of the respondents never visit Toolakea Beach, Cungulla, Toomulla Beach or Saunders Beach, whilst approximately one third of the respondents visit these beaches one to three times per year.
- More than half of the respondents walk and/or jog, and visit local shops, on a daily or weekly basis in Townsville's coastal areas. Approximately one third of respondents visit the local beach, the local park, or dine out in Townsville's coastal areas, on a daily or weekly basis. More than half of those who responded have never cycled or visited a dog park in Townsville's coastal areas.
- Respondents value the Townsville coastline due to its scenic amenity, as well as the ability to exercise or walk on the beachfront, or do other beach activities (picnic, swimming). Respondents highlighted that they least value the Townsville coastline for water activities (boating, outriggering) and fishing.
- Respondents are very concerned about at-risk coastal values, including impacts on coastal vegetation and habitats, beaches for recreational use, public infrastructure and local business and tourism. Approximately one third of respondents are not concerned about community facilities (e.g. surf or sailing clubs) and private property being impacted by coastal hazards.
- Respondents were most concerned about permanent loss of private and public land due to coastal erosion from a cyclone and sea level rise. Respondents are not concerned about some gradual erosion on public and private land, as long as there is no impact on buildings or infrastructure.
- The majority of respondents feel that the Townsville community is well prepared or somewhat prepared to respond to natural disasters.

Within the respondents, a number of sub-groups expressed lived or coastal values that were different to the overall values identified above. These included:

- Youth (under 24 years)
 - Youth respondents placed increased importance on social and leisure values and pursuits, including nightlife (bars, dining, cinema, live music), water activities and fishing.
- Place attached (tenure >8 years)
 - Place attached respondents have lived in Townsville for longer than 8 years. Respondents in this sub-group placed increased importance on the proximity of family and long-term lifestyle considerations, such as retirement.
- Non-place attached (tenure <8 years)
 - Non-place attached respondents have lived in Townsville for less than 8 years. Respondents in this sub-group placed increased importance on the ecological and economic values of the Townsville coastline.

- Coastal facing residents
 - Coastal facing residents include respondents that live in suburbs along the Townsville coastline. Respondents in this sub-group placed increased importance on lived values that may be related to the coastal lifestyle (e.g. access to the beach and coastal communities and connectivity to places and public spaces), and were the only sub-group to identify private property as an at-risk coastal value.
- Non-coastal facing residents
 - Non-coastal facing residents include respondents that do not live in suburbs along the Townsville coastline. Respondents in this sub-group placed decreased importance on lived values that may be related to the coastal lifestyle, such as visiting the beach.
- Aboriginal and Torres Strait Islander
 - Aboriginal and Torres Strait Islander respondents placed increased importance on cultural and heritage values, and were the only sub-group to identify cultural sites and places as an at-risk coastal value.

Next Steps

The information obtained from the survey will be considered as part of assessing the changes to key areas and infrastructure along the Townsville coastline, brought on by storm tide, coastal erosion and permanent sea level rise. Adaptation planning will draw on the lived and coastal values identified by respondents as being important to the Townsville community. The findings will also be used to guide the development and assessment of potential coastal change adaptation strategies for Townsville.

1.0 Introduction

The changes brought by storm tide, coastal erosion and permanent sea level rise can have a big impact on our region and the day-to-day lives and wellbeing of our population. In partnership with the Queensland Government, Townsville City Council (Council) is planning for coastal change as part of the Adapting to Coastal Change in Townsville project. Council has obtained State Government funding via the QCoast2100 Program, to improve the resilience of our coastal region and adapt to coastal hazards (being storm tide, sea level rise and coastal erosion). Council is one of 28 council's undertaking similar projects. Council commissioned AECOM Australia Pty Ltd to undertake communication and engagement associated with the project.

As part of this project, Council is developing a long-term strategy to adapt to the changes brought by storm tide, sea level rise and coastal erosion. This strategy will identify how coastal inundation and coastal erosion affect the community and local infrastructure, and identify ways to manage the ongoing long-term (year 2100) changes to Townsville's coastline.

The project includes:

- Undertaking a community values survey to establish a baseline understanding of the Townsville community's sentiment towards climate change, coastal hazards and the cultural, environmental and lifestyle values that relate to Townsville's coastline;
- Mapping areas exposed to storm tide and coastal erosion, in both present day conditions and conditions in 2100, as well as areas of permanent sea level rise;
- Reviewing infrastructure within the areas exposed to coastal change;
- Identifying adaptation options for areas exposed to coastal change and to protect key infrastructure;
- Evaluating and selecting preferred adaptation options in consultation with the Townsville community and stakeholders;
- Preparing the Adapting to Coastal Change in Townsville Strategy; and
- Seeking community and stakeholder feedback on the Adapting to Coastal Change in Townsville Strategy, via a public submissions process.

2.0 Report Overview

The Adapting to Coastal Change in Townsville Community Values Survey (survey) is part of the Adapting to Coastal Change in Townsville project. The survey was open for community input from Monday 24 September to Friday 26 October 2018. Survey responses were collected via a random phone survey, online and in hard copy. The survey received 537 responses. This Adapting to Coastal Change in Townsville Community Values Survey Summary Report (report) presents and summarises the survey responses received, and will be used to inform the development of coastal change adaptation strategies for Townsville.

3.0 Survey Purpose

The survey sought to better understand the lived values and coastal values of the Townsville community, and the level of concern the Townsville community has about coastal hazards (storm tide, sea level rise and coastal erosion). The survey also sought to identify any differences in the lived and coastal values between groups in the community.

Lived values are valuations that individuals make, in isolation or as part of a group, about what is important in their lives and the places they live. These valuations may be articulated verbally or expressed through everyday activities. (University of Melbourne, 2014)

The lived values of interest are those that are voiced and experienced by residents in their everyday lives, such as education and employment opportunities, recreation and social activities, and environment and lifestyle factors.

Coastal values include the economic, social, cultural and environmental matters that individuals attribute, in isolation or as part of a group, to coastal areas. Coastal hazards include storm tide, coastal erosion and permanent sea level rise, and are naturally occurring processes that can impact local infrastructure, buildings and the natural environment.

The data collected from the survey will inform coastal hazard adaptation planning and decision-making for Townsville.

4.0 Survey Methodology

4.1 Survey Design

The survey adopted a Values Approach for Adaptation Planning (VAAP), based on a body of research undertaken by the University of Melbourne (University of Melbourne, 2014). It included 19 questions, organised into four sections. The survey is included at Appendix A. Table 1 provides an overview of the number of questions contained within each section of the survey, and the information the questions were designed to gather from the community.

Table 1 Survey design overview

| Survey section | Number of questions | Information to be obtained |
|----------------------|---------------------|--|
| Living in Townsville | 2 | Information about how the respondent's value Townsville and their lifestyle. |
| Coastal Townsville | 2 | Information about how the respondents spend their time in Townsville's coastal areas. |
| Coastal values | 5 | Information about how the respondents value the Townsville coastline, how concerned they are about coastal hazards, and their level of preparedness (risk tolerance) for coastal change. |
| Getting to know you | 10 | General information about the respondents to allow segmentation of the data into sub-groups. |

4.2 Distribution

The survey was conducted from Monday 24 September to Friday 26 October 2018 via:

- online survey
- hard copy survey, and
- random phone survey.

The survey was hosted on Council's website, and accessed via the Adapting to Coastal Change in Townsville web page. The online survey was promoted online via Council's website and social media channels (Facebook and Instagram), as well as through a number of traditional channels, including print advertising in the Townsville Bulletin and promotional materials distributed throughout Townsville. Hard copy surveys were administered from key Council hubs. An independent market research consultant was engaged to complete an external phone survey of 300 participants. Table 2 summarises the reach achieved through the use of promotional tools during the survey period.

Table 2 Online promotional tools reach

| Channel | Promotion tool | Reach |
|---------|-------------------------------------|---|
| Online | Adapting to Coastal Change web page | Accessed 582 times. Viewers found the web page via: <ul style="list-style-type: none"> • Google (190) • Facebook (181) • Directly (100) • Instagram (25), or • Other (86). |

| Channel | Promotion tool | Reach |
|-------------|---|---|
| | Facebook posts (four) | Achieved a total reach of 17,643 users and 546 individual engagements. Council's Facebook page has 34,189 followers. |
| Traditional | Hard copy surveys | Installed at Council libraries in Northtown, Thuringowa and Aitkenvale, the Council Customer Service Centre, and the Riverway Lagoon and Art Gallery. |
| | Emails and letters | Informing local elected representatives and government organisations about the project and the survey. |
| | Promotional materials including posters, pull-up banners, calling cards and information sheets. | Installed at 26 locations across Townsville (shown in Appendix B). |
| Direct | Random phone survey | Targeted 30 participants from each of Council's ten electoral divisions. |
| | Townsville Youth Council | Members were informed about the project and were invited to complete the survey. |
| | Townsville Community Safety Advisory Committee | Members were informed about the project and invited to complete the survey. |

5.0 Survey Results

This section provides a summary of the results of the survey. The results are based on the data obtained from 537 respondents. Results are presented graphically for questions one to eight. Results are also presented by respondent sub-group. In addition to the quantitative data, respondents also provided qualitative comments at questions one, five, six and nine. Table 8 in Section 5.7 describes the key categories of comments and provides a summary of the matters raised.

Section's one, two and three of the survey gathered feedback about the lived and coastal values of the Townsville community, to ensure that adaptation decision-making is informed by the community's values. Section three of the survey also gathered feedback from the community about coastal hazard awareness. Section four of the survey gathered general information about the respondents (demographics) to allow segmentation and analysis of the data.

5.1 Responses

A total of 537 responses were received. This comprised:

- 300 random telephone survey responses
- 210 online survey responses
- 27 hard copy survey responses.

5.2 Sample Size

A minimum target sample size of 300 respondents was required to achieve a 95% level of confidence that the responses would be representative of the broader community. To ensure the minimum sample size of 300 respondents was achieved, a random phone survey was completed. In order to obtain data from both coastal and non-coastal facing communities, the phone survey targeted 30 samples from each of the ten Council electoral divisions.

5.2.1 Confidence and Precision

Sample size is influenced by a number of factors including population size, precision level and confidence level. The level of precision, sometimes called margin of error, is the range in which the true value of the population is estimated to be. This range is expressed in percentage points (i.e. $\pm 5\%$). The confidence level is also expressed as a percentage, but indicates how many of the samples obtained will be representative of the population within the level of precision (i.e. if the survey were

taken repeatedly, the results from the sample would match the results from the actual population 95% of the time).

Based on the target sample size (n=300), the survey would achieve a confidence level of 95% and a precision level of $\pm 5.75\%$. This ensures that 95% of the samples obtained, will be representative of the population within $\pm 5.75\%$. Based on the total responses received (n=537), the survey was able to achieve a precision level of $\pm 4.25\%$. Therefore, 95% of the responses obtained, will be representative of the Townsville population within $\pm 4.25\%$.

5.3 Data Processing and Analysis

The complete data set was cleaned, to detect incomplete records, and ensure error-free analysis. From the total of 537 responses, 12 incomplete responses were identified (all incomplete surveys were received via hard copy survey). In order to not exclude this data, a category of “no answer” (N/A) was added to the data analysis. All percentages have been rounded to one decimal point. Due to rounding, some totals may not correspond with the sum of the separate figures.

Data was computer-segmented and analysed using the following breaks:

- Age (groups)
- Suburb (inland or coastal)
- Indigeneity (Aboriginal or Torres Strait Islander)
- Tenure (lived in Townsville <8 years or >8 years).

Significance tests were computer generated to identify differences in responses across these breaks. Statistical significance refers to any differences observed in the responses between sub-groups, which are not likely to be caused by chance. If the computer analysis reveals a statistically significant result, the next step is to consider whether the result is of any practical significance to the project.

Based on computer-segmentation and analysis, a number of sub-groups were identified with statistically significant responses. This means that the respondents in these sub-groups expressed lived or coastal values that were statistically different to the lived and coastal values identified overall in the sample. Respondents may be categorised in one or more sub-group, based on the demographic data provided. However, the lived and coastal values of these sub-groups are not statistically representative of the Townsville population.

This report examines the different lived and coastal values of 6 (six) sub-groups at Section 5.6. The six sub-groups, including any statistically significant demographics of the sub-group and why the sub-groups were determined to be relevant to the project, are identified in Table 3.

Table 3 Sub-groups

| Sub-group | Description of sub-group | Relevance to the project |
|--------------|---|---|
| Youth (n=44) | <ul style="list-style-type: none"> • This group includes respondents 24 years of age or younger. | The data showed that youth have significantly different lived and coastal values to all other age groups. |

| Sub-group | Description of sub-group | Relevance to the project |
|--|--|--|
| Non-place attached (n=101) | <ul style="list-style-type: none"> This group includes respondents who have lived in Townsville for less than 8 years (n= 101) This group includes a statistically significant representation of 25-34 year olds (26.7%) This group includes a statistically significant representation of tenants (35.6%) This group has a low representation of youth (9.9%). | Townsville has a large, transient population due to the defence presence, fly-in/fly-out workers from the mining industry, university students and long-stay tourists. The lived and coastal values of this sub-group have been examined to understand differences between non-place and place attached respondents. |
| Place attached (n=433) | <ul style="list-style-type: none"> This group includes respondents who have lived in Townsville for more than 8 years (n=433) This group includes a statistically significant representation of 55-64 year olds (23.6%) This group includes a statistically significant representation of home owners (77.6%) This group has a low representation of youth (5.8%). | VAAP defines place attached residents as those who have an emotional relationship to a specific place, as well as an emotional attachment to family and community in that place. The lived and coastal values of this sub-group have been examined to understand differences between non-place and place attached respondents. |
| Coastal facing residents (n=168) | <ul style="list-style-type: none"> This group includes respondents that live in coastal facing suburbs This group includes a statistically significant representation of 34-44 year olds (28.7%) This group includes a statistically significant representation of business owners (15.9%). | Coastal facing residents include property owners that may be personally impacted by coastal processes. The lived and coastal values of this sub-group have been examined to understand differences between coastal and non-coastal respondents, particularly in relation to impacts on private and public property. |
| Non-coastal facing residents (n=363) | <ul style="list-style-type: none"> This group includes respondents that live in non-coastal facing suburbs This group includes a statistically significant representation of 55-64 year olds (23.1%). | Non-coastal facing residents are not likely to be personally impacted by coastal processes. The lived and coastal values of this sub-group have been examined to understand differences between non-place and place attached respondents, particularly in relation to impacts on private and public property. |
| Aboriginal and Torres Strait Islander (n=25) | <ul style="list-style-type: none"> This group includes respondents that identified as Aboriginal or Torres Strait Islander. | Townsville has a much larger population of Aboriginal and Torres Strait Islander persons, compared to the state average (ABS, 2017). It is acknowledged that Aboriginal and Torres Strait Islanders have specific cultural values and connections to place. |

5.4 Respondent Profile

Respondents represented a cross-section of the Townsville population based on the demographics of age, identity and gender. The demographic profile of respondents corresponded closely with the population characteristics of Townsville (ABS, 2017). Small differences were found between the entire survey sample and the population data on gender, age groups and identity, but these differences were not considered in the interpretation of the data.

More than half of the survey respondents (56 %, n= 302) were male, and approximately 43% (n=228) were female. The remaining 1% (n=7) did not disclose their gender (Figure 1). Males were marginally overrepresented compared to the Townsville population data (ABS, 2017), which cites an almost fifty-fifty split between males and females in Townsville.

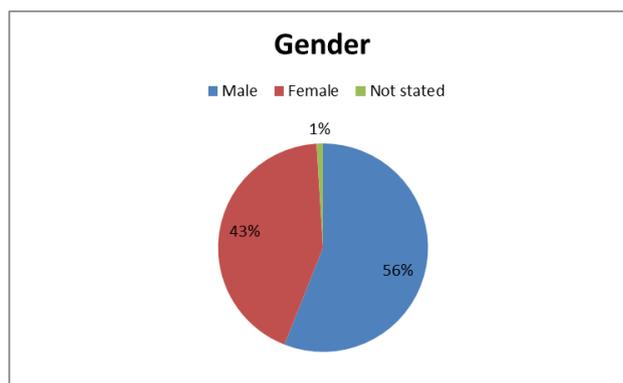


Figure 1 Respondent profile: gender

For the entire survey sample, those in the youngest age groups (under 24 years) and oldest age group (over 65 years) were marginally underrepresented, compared to the Townsville population data (ABS, 2017). Townsville's median age group (25-34 years) was marginally over-represented in the survey respondents. There was a significant over-representation of respondents from the 45-54 years and 55-64 years age groups, compared to the Townsville population data. A comparison of the respondent age groups against the Townsville population data is provided at Table 4.

Table 4 Age groups

| Age Group | Townsville Population | Respondents |
|----------------|-----------------------|---------------|
| Under 18 years | 7.0%* | 1.7% (n=9) |
| 19-24 years | 7.8% | 6.5% (n=35) |
| 25-34 years | 13.9% | 15.8% (n=85) |
| 35-44 years | 12.9% | 22.4% (n=120) |
| 45-54 years | 13.2% | 25.5% (n=137) |
| 55-64 years | 11.6% | 20.1% (n=108) |
| 65 and over | 13.7% | 8.0% (n=43) |

*Townsville ABS population data excludes age groups 0-14 years.

In 2017, 13,040 Aboriginal and Torres Strait Islander peoples lived within the Townsville LGA representing 7% of the total resident population (ABS, 2017). This is 3% higher than the state average. Approximately 4.7% (n=25) of respondents indicated that they identify as Aboriginal or Torres Strait Islander. For the entire survey sample, Aboriginal and Torres Strait Islander peoples were marginally underrepresented, compared to the Townsville population data (ABS, 2017).

The survey obtained 167 responses (31.1%) from coastal facing suburbs, and 364 responses (67.8%) from non-coastal facing suburbs in the Townsville LGA. Six respondents (1.1%) did not identify their residential suburb.

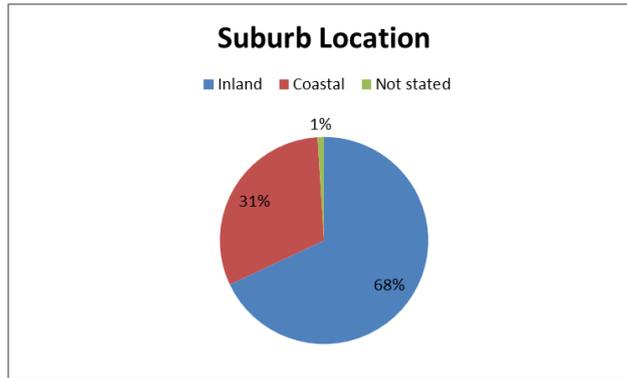


Figure 2 Respondent profile: suburb location

The majority of respondents (73.6%, n=395), own and live in their own home in Townsville. The respondents also rent (15.3%, n=82), live with family or friends (10.2%, n=55), live in public or community housing (2.4%, n=13), or own an investment property or holiday home (6.1%, n=33). All but one of the respondents (0.2%) confirmed that they are residents of Townsville.

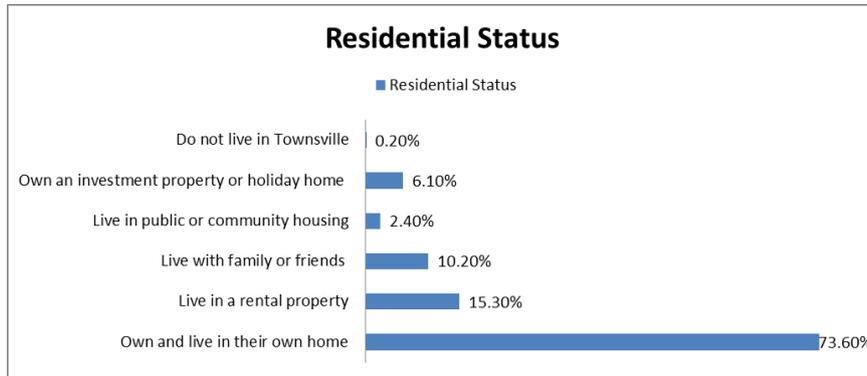


Figure 3 Respondent profile: residential status

More than 80% of the respondents (80.6%, n=433) have lived in Townsville for more than 8 years. The remaining cohort have lived in Townsville for 4-7 years (10.6%, n=57) or 1-3 years (6.5%, n=35). Less than 2% (1.7%, n=9) respondents have lived in Townsville for less than 12 months. The remaining 0.6% of respondents (n=3) did not respond. Only 10.2% (n=55) of respondents own a business in the Townsville.

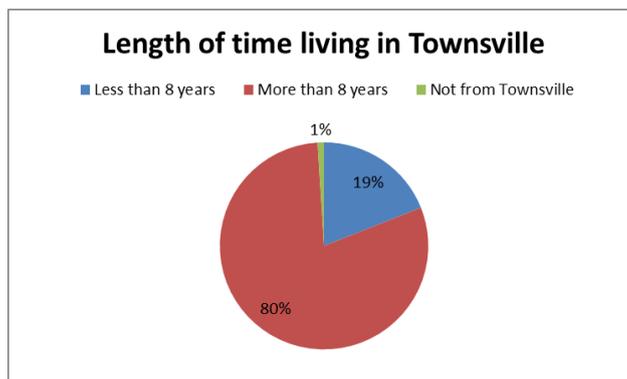


Figure 4 Respondent profile: length of time living in Townsville

5.5 Analysis by Survey Section

This section analyses the data obtained from the following survey sections:

1. Living in Townsville

- 2. Coastal Townsville
- 3. Coastal values

The precision level or margin of error for the data presented in Section 5.5 is ± 4.25% with a 95% level of confidence.

5.5.1 Living in Townsville (Lived Values)

The first two questions of the survey sought to establish the Townsville community’s lived values, to determine which expressed and experienced lived values are most important to the community. Respondents were asked to rate a range of values as either ‘not important’, ‘important’ or ‘very important’.

Q1. What do you consider to be an important reason for living in Townsville?

The results indicate that the lived values respondents ascribe to living in Townsville include lifestyle and employment opportunities, followed closely by educational opportunities, raising children and being close to family. The survey responses highlight that respondents strongly believe that starting or running a business is not an important reason for living in Townsville.

Respondents rated as ‘very important’ reasons for living in Townsville:

- Lifestyle (57.7%)
- Employment opportunities (51.8%)

Respondents rated as ‘important’ the following reasons for living in Townsville:

- Access to the beach and coastal communities (53.8%)
- Access to neighbourhood amenities (cafes, shops, health and wellbeing services) (48%)
- Access to parks and recreational areas (45.4%).

Respondents rated as ‘not important’ reasons for living in Townsville:

- To start a business/run a business (56.2%).

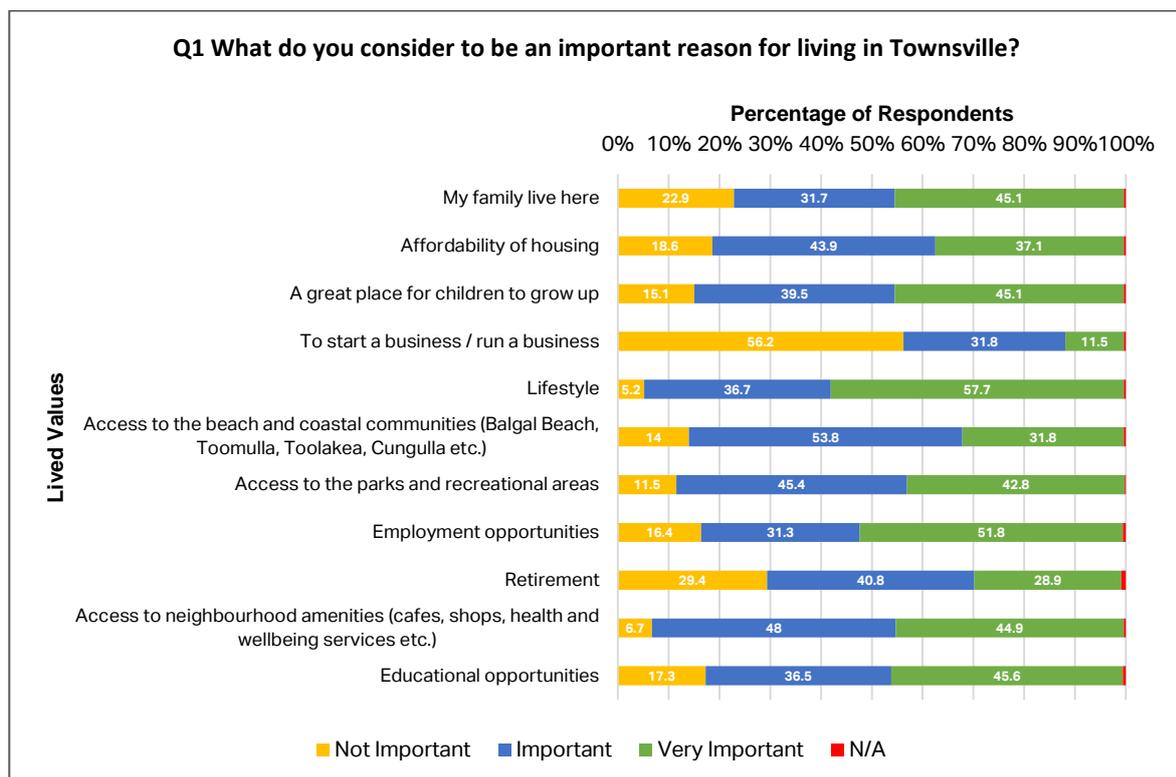


Figure 5 Survey responses: reasons for living in Townsville

Q2. How important are the following to your Townsville lifestyle?

The results indicate that safety and the natural environment are very important lived values to the Townsville lifestyle, followed closely by open spaces (street trees, footpaths, parks etc.), access to education and recreation (i.e. fishing, The Strand, Pallarenda, Riverway, Magnetic Island). Survey results indicate that respondents consider the Townsville nightlife (bars, dining, cinema, live music) and the local business network as the two least important aspects of the Townsville lifestyle.

The following lifestyle aspects were rated by respondents as ‘very important’:

- Safety (62.0%)
- Natural environment (53.3%)

The following lifestyle aspects were rated by respondents as ‘important’:

- Local business network (58.8%)
- Neighbourhood watch and community awareness (58.5%)
- Access to neighbourhood amenities (56.4%)

The following lifestyle aspects were rated by respondents as ‘not important’:

- Nightlife (bars, dining, cinema, live music) (33.5%)
- Local business network (26.6%).

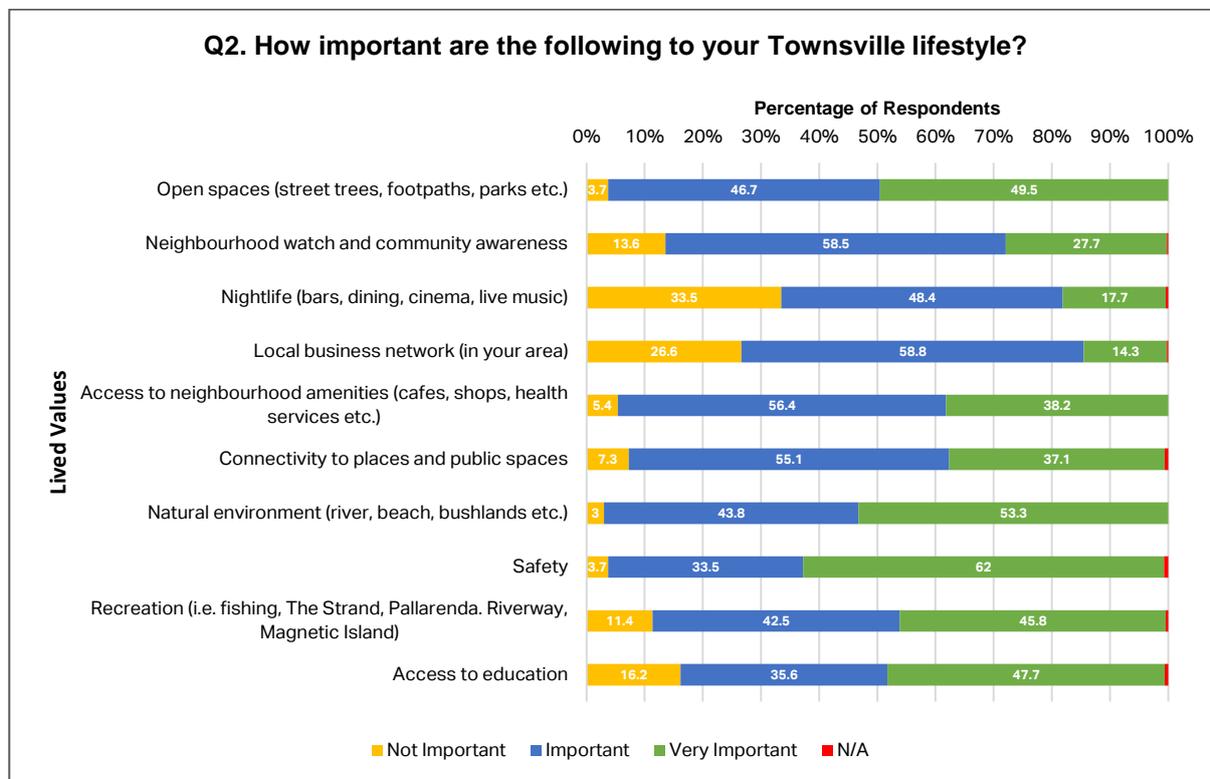


Figure 6 Survey responses: lifestyle factors

5.5.2 Coastal Townsville

Questions three and four sought to obtain data about where and how the community spend their time on Townsville’s coastline. Respondents were asked to indicate the frequency they visit certain coastal areas and the ways in which they use the coastal areas.

Q3. How often do you visit the following coastal locations in Townsville?

The results indicate that the majority of respondents visit The Strand, Townsville CBD and Pallarenda once every three months or more. Townsville’s CBD is most visited on a daily basis, which is likely because it is the central business and employment district. The survey data highlights that more than half of the respondents never visit Toolakea Beach, Cungulla, Toomulla Beach or Saunders Beach, whilst approximately one third of the respondents visit these beaches one to three times per year.

The coastal locations most visited (‘daily’, ‘weekly’ and ‘monthly’) by the majority of respondents were:

- Townsville CBD (62.4%)
- The Strand (60.1%).

The coastal locations most visited ‘daily’ by the majority of respondents were:

- Townsville CBD (11.2%)
- South Townsville (8.4%).

The coastal locations that are ‘never’ visited by the majority of respondents were:

- Toolakea Beach (60.9%)
- Cungulla (60.1%)
- Toomulla Beach (59.6%)
- Saunders Beach (54.9%).

Q3. How often do you visit the following coastal locations in Townsville?

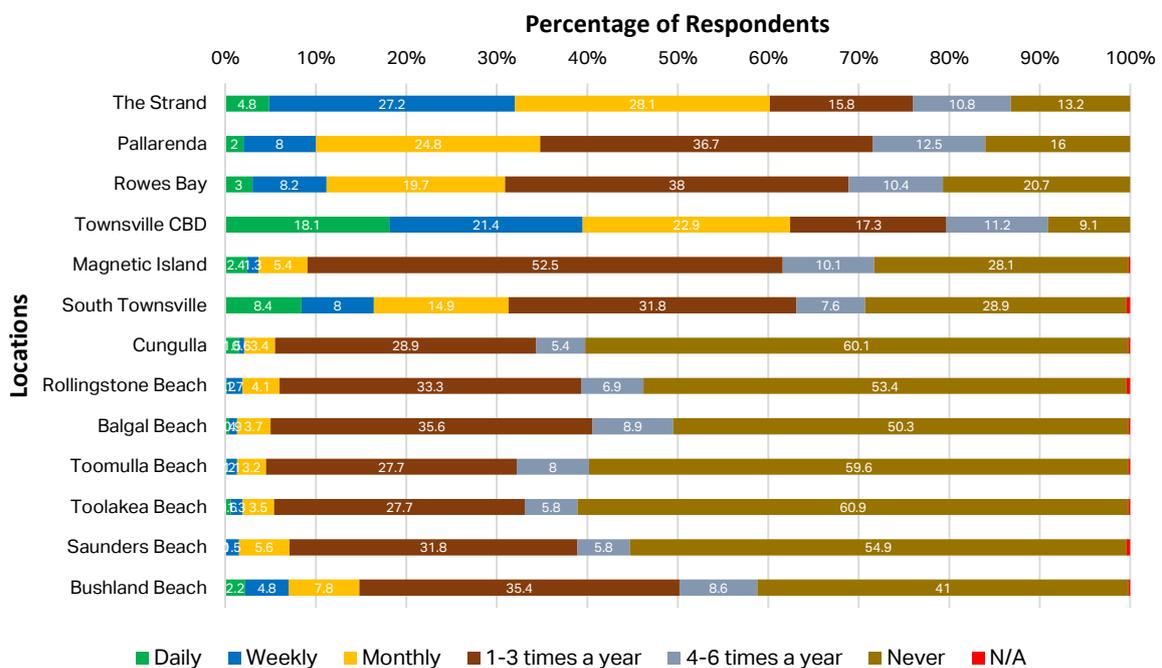


Figure 7 Survey responses: coastal locations

Q4. How often do you do the following activities in Townsville's coastal areas?

The results indicate that more than half of respondents walk and/or jog, and visit local shops, on a daily or weekly basis in Townsville’s coastal areas. Approximately one third of respondents visit the local beach, the local park, or dine out in Townsville’s coastal areas, on a daily or weekly basis. More than half of those who responded have never cycled or visited a dog park in Townsville’s coastal areas.

The following activities were undertaken most frequently (‘daily’ and ‘weekly’) in Townsville’s coastal areas:

- Visit the local shops (80.1%)
- Walk and/or jog (58.1%)

Activities ‘rarely’ and ‘never’ undertaken in Townsville’s coastal areas by respondents were:

- Visiting a dog park (83.7%)
- Cycling (72.4%)
- Attend sporting events (65.8%)
- Fishing, boating or snorkelling (66.3%)
- Picnic (66.3%).

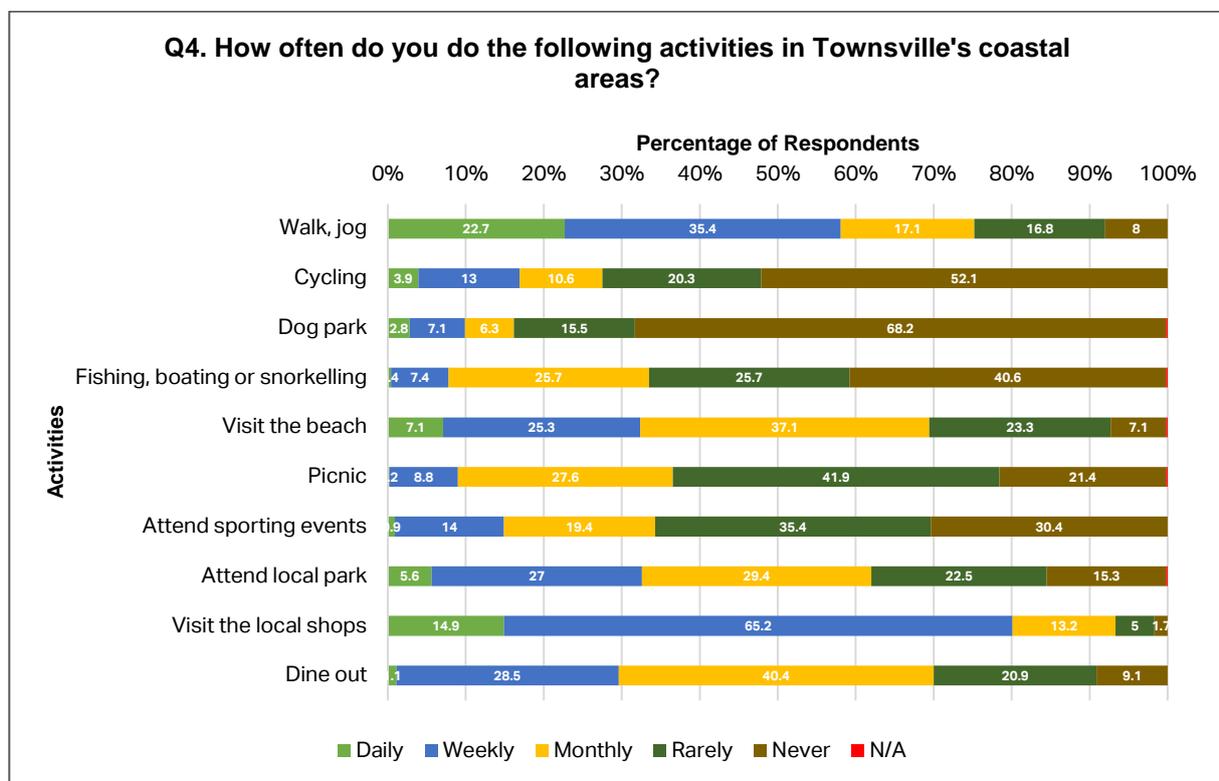


Figure 8 Survey responses: coastal activities

5.5.3 Coastal Values

The third section of the survey aimed to identify community values ascribed to the Townsville coastline, and the level of awareness and concern about the effects of coastal change from storm tide, coastal erosion and permanent sea level rise. This section also sought to identify the community’s preparedness to respond to natural disasters.

Q5. Why do you value the Townsville coastline?

The results indicate that the respondents value the Townsville coastline due to its scenic amenity, as well as the ability to exercise or walk on the beachfront, or do other beach activities (picnic, swimming). Respondents highlighted that they least value the Townsville coastline for water activities (boating, outriggering) and fishing.

The top three (3) aspects that respondents value the Townsville coastline are:

- Scenic amenity (78.4%)
- Exercising / walking on beachfront (68.1%)
- Beach activities (picnic, swimming) (55.2%).

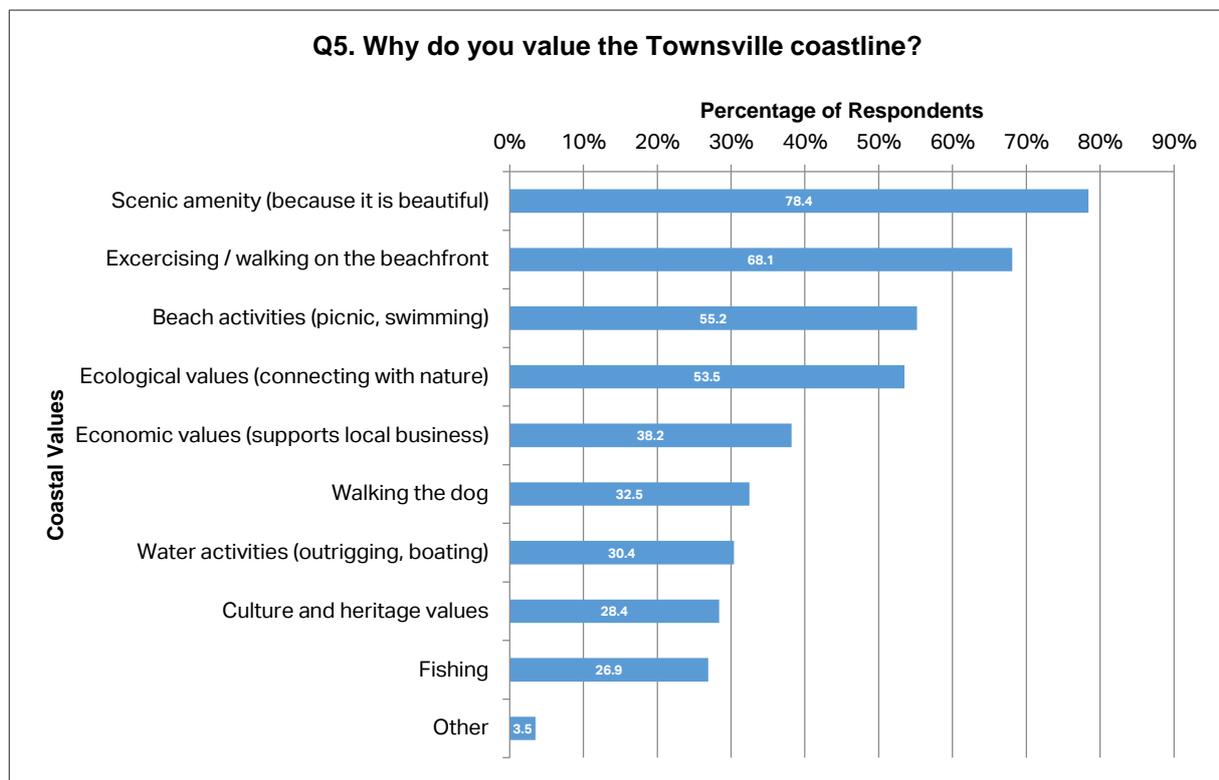


Figure 9 Survey responses: coastal values

Q6. How concerned are you about the effects of coastal change (from storm tide, sea level rise and coastal erosion)?

The results indicate that respondents are very concerned about at-risk coastal values including impacts on coastal vegetation and habitats, beaches for recreational use, public infrastructure and local business and tourism. Approximately one third of respondents are not concerned about community facilities (e.g. surf or sailing clubs) and private property being impacted by coastal hazards.

Respondents were most concerned ('concerned' and 'very concerned') with the following coastal features being impacted by coastal changes:

- Coastal vegetation and habitats (86.3%)
- Beaches for recreational use (86.3%)
- Public infrastructure (84.5%)
- Local business and tourism (82.9%)

Respondents were 'least concerned' and 'not concerned' with the following coastal features being impacts by coastal changes:

- Community facilities (e.g. surf or sailing clubs) (32.2%)
- Private property (30%).

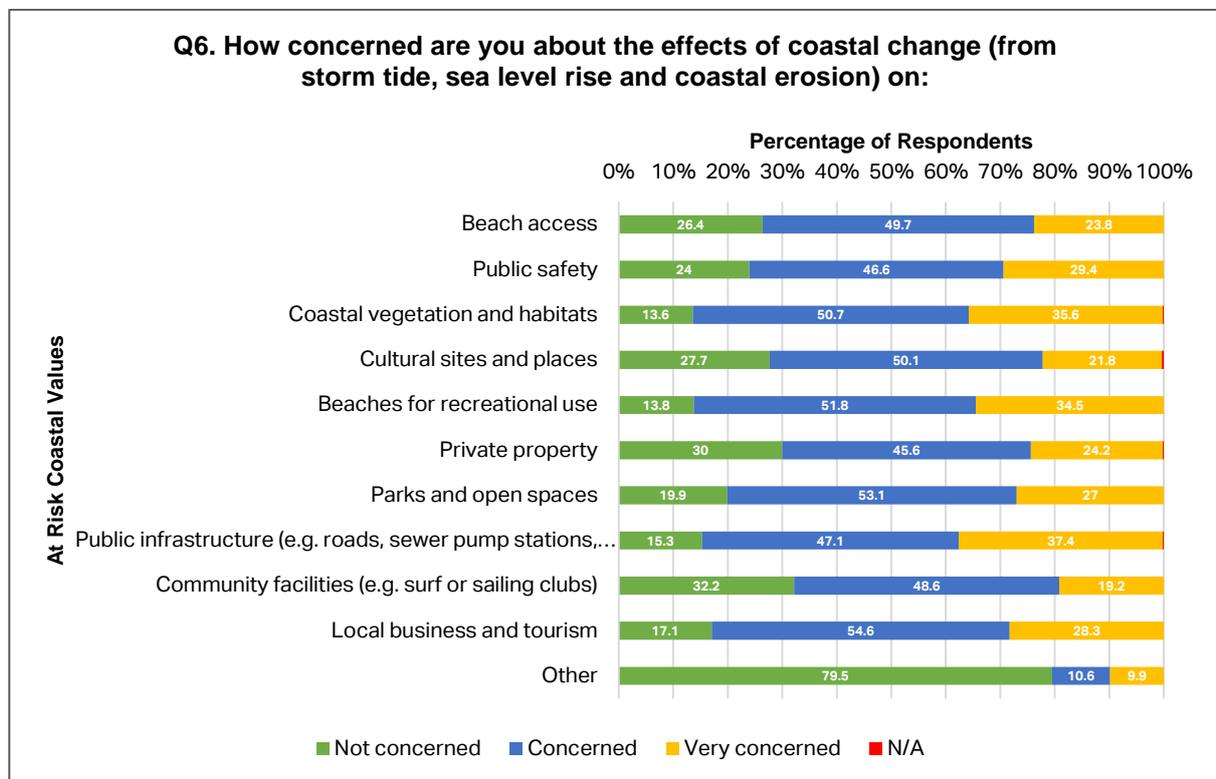


Figure 10 Survey responses: at-risk coastal values

Respondents provided a range of 'other' concerns. Those most frequently cited include concerns about the effect of coastal changes on house pricing, insurance costs, the local environment and ecosystem.

Q7. How concerned are you about the following coastal changes in Townsville?

The results indicate that respondents were most concerned about permanent loss of private and public land due to coastal erosion from a cyclone and sea level rise. Responses highlighted that respondents are not concerned about some gradual erosion on public and private land, as long as there is no impact on buildings or infrastructure.

Respondents were most concerned (‘very concerned’ and ‘extremely concerned’) with:

- Coastal erosion from a cyclone resulting in permanent loss of public land (not to be replaced) (46.4%)
- Gradual invasion of dry public land by water due to sea level rise (40.2%)
- Coastal erosion from a cyclone resulting in permanent loss of private land (36.3%)

Respondents were least concerned (‘not concerned’ and ‘slightly concerned’) with:

- Some gradual coastal erosion on public land with minimal impact on buildings and infrastructure (57.9%)
- Some gradual coastal erosion on private land with minimal impact on buildings (54.9%).

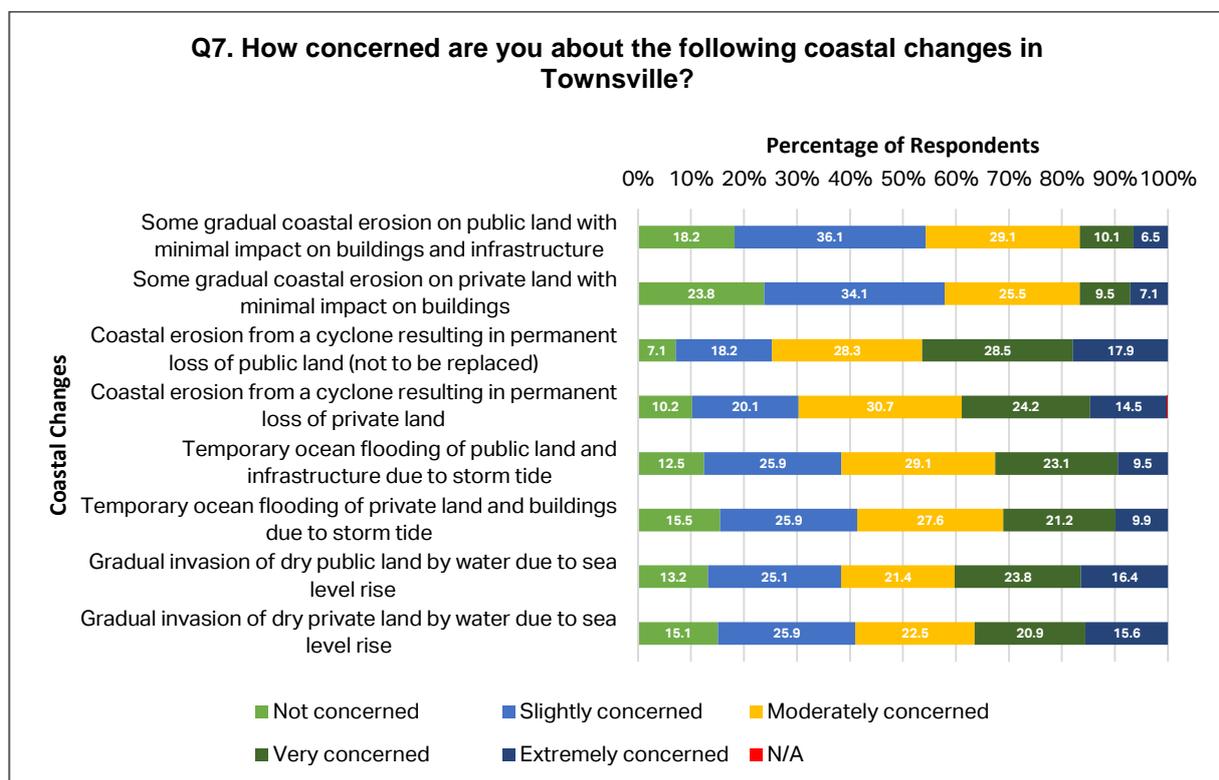


Figure 11 Survey responses: coastal changes

Q8. Do you feel your local community is well prepared to respond to natural disasters?

The majority of respondents feel that the Townsville community is 'well prepared' or 'somewhat prepared' to respond to natural disasters.

More than one third of respondents (36%) felt that the community was 'well prepared' to respond to natural disasters. Just over half (54%) of the respondents felt the community was 'somewhat prepared' to respond to natural disasters. Only 10% of respondents felt the local community was 'not prepared' to respond to natural disasters.

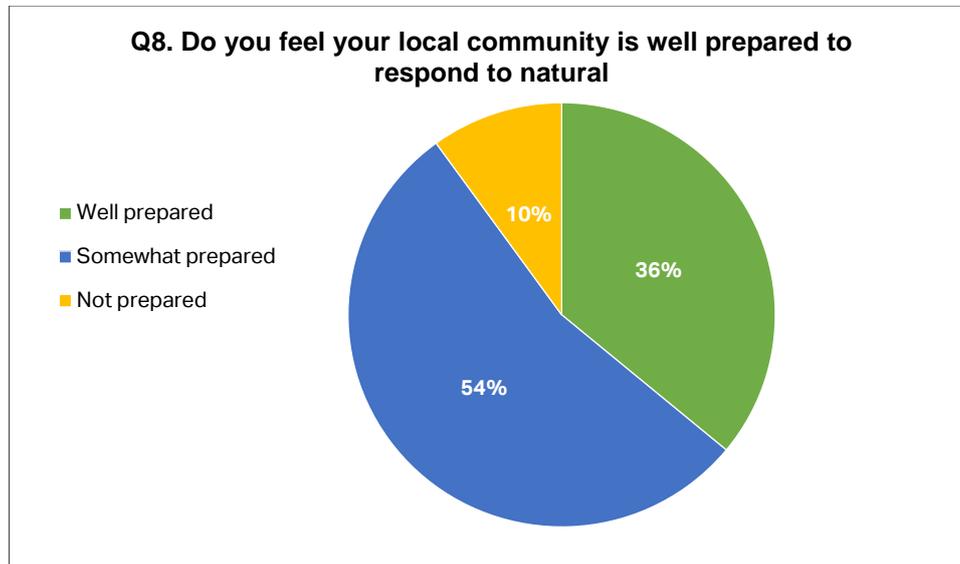


Figure 12 Survey responses: community preparedness

5.6 Analysis by Sub-group

While the information presented in Section 5.5 provides insight into the lived and coastal values of the Townsville community as a whole, there were differences between the lived and coastal values identified by some respondent sub-groups. This section describes the statistically significant differences in lived and coastal values of the sub-groups obtained from the following survey sections:

1. Living in Townsville
2. Coastal Townsville
3. Coastal values

Computer-segmentation and analysis identified six sub-groups that expressed lived or coastal values that were statistically significantly different to the lived and coastal values identified overall. Although the different lived and coastal values expressed by the respondent sub-groups are not statistically representative of the Townsville population, they have been included in this report. The VAAP holds that observing and understanding the differences in values that exist between sub-groups is fundamental to inclusive adaptation planning. These sub-groups are:

1. Youth (under 24 years)
2. Place attached (tenure >8 years)
3. Non-place attached (tenure <8 years)
4. Coastal facing residents
5. Non-coastal facing residents
6. Aboriginal and Torres Strait Islander.

5.6.1 Lived Values

There were a number of lived values (identified as ‘very important’) and disvalues (identified as ‘not important’) that were statistically significantly different across the identified sub-groups (see Table 5). A statistical significance occurs when the sub-group’s response is significantly different to the overall data set. Statistical significance refers to any differences observed in the responses which are not likely to be caused by chance.

In addition to the ‘very important’ lived values identified at Section 5.5.1, which included lifestyle, employment opportunities, safety and natural environment, five sub-groups identified additional lived values. It is these differences in lived values that future adaptation strategies will need to accommodate to ensure that all groups in the community are treated fairly.

‘Not important’ lived values are those lifestyle factors that a sub-group values the least. It is important to identify values that are considered ‘not important’ in addition to lived values that are considered ‘very important’, to understand community differences when planning for adaptation.

For example, although employment opportunities was a lived value overall, a statistically significant number of place attached sub-group respondents indicated that this was not an important lived value to the Townsville lifestyle. However, this sub-group did identify retirement as an important lived value to the Townsville lifestyle. Because this group has a statistically significant representation of 55-64 year old’s, this response may indicate lived values that are relevant to a particular life stage. Reinforcing this, youth identified retirement as ‘not important’, which may also indicate a response relevant to a particular life stage.

Table 5 shows the additional lived values and disvalues that were statistically significantly different to the overall data set, for each sub-group, and provides observations on this data. Some sub-groups do not have statistically significant results, which indicate that their lived values are generally aligned with overall data set.

Table 5 Lived values by sub-group

| Sub-group | ‘Very Important’ Lived values | ‘Not Important’ Lived Values | Observations |
|----------------------------|---|--|---|
| Youth (n=44) | Nightlife (bars, dining, cinema, live music) (36.4%, n=16) | Access to the parks and recreational areas (20.5%, n=9) Retirement (43.2%, n=19) Access to neighbourhood amenities (cafes, shops, health and wellbeing services etc.) (15.9%, n=7) | This sub-group identified nightlife as a ‘very important’ lived value. This may indicate a lived value that is relevant to a particular life stage. Similarly, this sub-group placed less importance on retirement, which is also likely relevant to a particular life stage. |
| Non-place attached (n=101) | <i>This sub-group did not have any statistically significantly different ‘very important’ lived values from the overall data.</i> | A great place for children to grow up (21.5%, n=22) | This sub-group identified raising children in Townsville as ‘not important’,. This sub-group includes a high number of transient residents, and respondents aged between 24-35 years old. This may indicate that this lived value is not relevant to this particular stage in life. |

| Sub-group | 'Very Important' Lived values | 'Not Important' Lived Values | Observations |
|--------------------------------------|--|--|---|
| Place attached (n=433) | My family live here (48.5%, n=210) Retirement (31.2%, n=135) | Employment opportunities (18.2%, n=79) Recreation (i.e. fishing) (12.5%, n=54) Access to education (17.6%, n=76) | This sub-group identified retirement as a 'very important' lived value and employment and education opportunities as 'not important'. This sub-group includes a high number of respondents aged between 55-64 year olds. This may indicate that these lived values are relevant to a particular life stage, which is consistent with the values of the non-coastal facing residents sub-group. |
| Coastal facing residents (n=168) | A great place for children to grow up (54.5%, n=91) To start a business / run a business (16.2%, n=27) Access to the beach and coastal communities (45.5%, n=76) Access to the parks and recreational areas (53.9%, n=90) Access to neighbourhood amenities (51.5%, n=86) Educational opportunities (56.3%, n=94) Open spaces (street trees, footpaths, parks etc.) (62.3%, n=104) Access to neighbourhood amenities (cafes, shops, health services etc.) (46.7%, n=78) Connectivity to places and public spaces (46.1%, n=77) Recreation (i.e. fishing) (58.7%, n=98) Access to education (56.9%, n=95) | My family live here (30.5%, n=51) | This sub-group identified the most lived values, particularly lived values that may be related to lifestyle (i.e. access to the beach and coastal communities, access to the parks and recreational areas, access to neighbourhood amenities, open spaces, connectivity to places and public spaces, and recreation). This sub-group includes respondents that reside in coastal facing suburbs. This may indicate that this sub-group places increased importance on the lifestyle factors that proximity to the coastline provides. This sub-group also includes a statistically significant number of business owners. |
| Non-coastal facing residents (n=363) | My family live here (49.2%, n=179) | Access to the parks and recreational areas (14.3%, n=52) Employment opportunities (19.8%, n= 72) Access to education (18.1%, n=66) | This sub-group identified employment and education opportunities as 'not important'. This sub-group contains a high number of 55-64 year olds. This may indicate that these lived values are relevant to a particular life stage, which is consistent with the place-attached sub-group. |

| Sub-group | 'Very Important' Lived values | 'Not Important' Lived Values | Observations |
|--|--------------------------------------|--|--|
| Aboriginal and Torres Strait Islander (n=25) | Affordability of housing (48%, n=12) | <i>This sub-group did not have any statistically significantly different 'not important' lived values from the overall data.</i> | This sub-group identified affordability of housing as a lived value. This sub-group also has a high number of respondents that identify as living in community / public housing. |

5.6.2 Coastal Townsville

There were several locations and activities (identified as 'daily', 'weekly' or 'monthly') that were statistically significantly different across the identified sub-groups (see Table 6). A statistical significance occurs when the sub-group's response is significantly different to the overall data set. Statistical significance refers to any differences observed in the responses which are not likely to be caused by chance.

In addition to the most popular coastal areas and activities identified at Section 5.5.2, which included visiting the local shops and walking/jogging at The Strand and Townsville CBD, five sub-groups identified additional coastal areas and activities. It is these differences in usage of coastal areas that future adaptation strategies should consider when adapting to coastal change.

For example, although the overall data indicated that visiting the dog park was 'rarely' and 'never' undertaken by the majority of respondents, a statistically significant number of youth and non-place attached respondents indicated that they do this activity in Townsville coastal areas on a regular (identified as 'daily', 'weekly' or 'monthly') basis. As the non-place attached sub-group includes a high number of 25-34 year olds, this may indicate that visiting the dog park is an activity relevant to a particular life stage.

Table 6 shows the additional coastal locations and activities that were statistically significantly different to the overall locations and activities, for each sub-group. Some sub-groups do not have statistically significant results, which indicates that their responses are generally aligned with respondents overall.

Table 6 Coastal location and activities by sub-group

| Sub-group | Locations | Activities | Observations |
|--------------|---|--|--|
| Youth (n=44) | Rowes Bay (40.8%, n=18) Magnetic Island (13.6%, n=6) South Townsville (56.8% n=25) Rollingstone Beach (11.3%, n=5) Toomulla Beach (13.7%, n=6) Toolakea Beach (9.1%, n=4) Saunders Beach (13.7%, n=6) Bushland Beach (36.4%, n=16) | Dog park (27.2%, n=12) Fishing, boating or snorkelling (38.6%, n=17) Visit the beach (81.8%, n=36) Attend sporting events (54.5%, n=24) Dine out (84.1%, n=37) | This sub-group identified a number of other coastal locations that they regularly frequent and activities related to social and leisure pursuits (i.e. dine out, visit the beach, attend sporting events, fishing, boating and snorkelling). This may indicate coastal activities relevant to a particular life stage. This may also indicate that this sub-group visits particular locations for social activities (i.e. South Townsville). |

| Sub-group | Locations | Activities | Observations |
|--|---|---|--|
| Non-place attached (n=101) | <i>This sub-group did not have any statistically significantly different coastal locations from the overall data.</i> | Cycling (26.7%, n=27) Dog park (16.9%, n=17) Attend local park (64.7%, n=65) Dine out (42.6%, n=43) | This sub-group identified a number of other coastal activities, particularly activities related to social and health pursuits (i.e. dine out, attend the local park, dog park, cycling), that they rarely undertake. This sub-group contains a high number of 25-34 year olds. This may indicate coastal activities relevant to a particular life stage. |
| Place attached (n=433) | <i>This sub-group did not have any statistically significantly different coastal locations from the overall data.</i> | <i>This sub-group did not have any statistically significantly different coastal activities from the overall data.</i> | <i>This sub-group did not have any statistically significantly different coastal locations or activities from the overall data.</i> |
| Coastal facing residents (n=168) | Pallarenda (41.5%, n=69) Rowes Bay (38.4%, n=64) Magnetic Island (16.2%, n=27) South Townsville (10.8%, n=68) Cungulla (10.2%, n=17) Balgal Beach (6%, n=10) Toomulla Beach (6.6%, n=11) Toolakea Beach (9.6%, n=16) Saunders Beach (10.8%, n=18) Bushland Beach (20.4%, n=34) | Cycling (34.2%, n=57) Fishing, boating or snorkelling (43.1%, n=72) Visit the beach (82%, n=137) Picnic (43.7%, n=73) Attend local park (68.7%, n=115) Dine out (76.6%, n=128) | This sub-group identified a number of other coastal locations that they regularly frequent and activities related to lifestyle activities (i.e. attend the local park, fishing, boating or snorkelling, visit the beach, picnic and dine out). This sub-group includes respondents that reside in coastal facing suburbs. This may indicate that this sub-group places increased importance on the lifestyle factors that proximity to the coastline provides. |
| Non-coastal facing residents (n=363) | <i>This sub-group did not have any statistically significantly different coastal locations from the overall data.</i> | Visit the beach (64.3%, n=234) Attend local park (59%, n=215) | This sub-group identified a low number of coastal activities. This may indicate that this sub-group does not participate in coastal activities on a regular basis (i.e. more frequently than monthly). |
| Aboriginal and Torres Strait Islander (n=25) | <i>This sub-group did not have any statistically significantly different coastal locations from the overall data.</i> | Visit the beach (32%, n=11) | This sub-group identified a low number of coastal activities. This may indicate that this sub-group does not participate in coastal activities on a regular basis (i.e. more frequently than monthly) |

5.6.3 Coastal Values

Some coastal values and at risk values (identified as 'concerned' or 'very concerned') were statistically significantly different across the identified sub-groups (see Table 7). A statistical significance occurs when the sub-group's response is significantly different to the overall data set. Statistical significance refers to any differences observed in the responses which are not likely to be caused by chance.

In addition to the top three coastal values identified at Section 5.5.3, which included scenic amenity, exercising / walking on the beachfront, and beach activities (picnic, swimming), the five sub-groups identified additional coastal values that were considered very important. It is these differences in usage of coastal areas that future adaptation strategies should consider when adapting to coastal change.

For example, although the overall data indicated that the majority of respondents were concerned about impacts on coastal vegetation and habitats, beaches for recreational use, public infrastructure, local business and tourism, a statistically significant number of coastal facing respondents and Aboriginal and Torres Strait Islander respondents, identified different at risk coastal values. Coastal facing respondents were the only sub-group to identify private property as an at risk coastal value. This may indicate that this sub-group ascribe personally motivated values to the Townsville coastline, as property owners. Aboriginal and Torres Strait Islander respondents identified cultural sites and places as an at risk coastal value, which is likely due to specific local history and connections to place.

Table 7 shows the additional coastal values that were statistically significantly different to the overall coastal values, for each sub-group. Some sub-groups do not have statistically significant results, which indicates that their coastal values are generally aligned with respondents overall.

Table 7 Coastal values by sub-group

| Sub-group | Coastal values | At risk coastal values | Observations |
|----------------------------------|---|--|--|
| Youth (n=44) | Water activities (51.2%, n=23) Fishing (39.5%, n=17) | <i>This sub-group did not have any statistically significantly different at risk coastal values from the overall data.</i> | This sub-group identified a number of coastal values, particularly related to leisure pursuits (i.e. water activities, fishing). This sub-group did not identify any at risk coastal values. This may indicate a level of risk awareness (including consequence and likelihood) that is relevant to a particular life stage. |
| Non-place attached (n=101) | Ecological values (connecting with nature) (64.1%, n=62) Economic values (supports local business) (45.5%, n=46) | <i>This sub-group did not have any statistically significantly different at risk coastal values from the overall data.</i> | This sub-group identified that they value the Townsville coastline primarily due to its ecological and economic values. This sub-group includes a high number of transient residents. |
| Place attached (n=433) | Fishing (29.2%, n=126) | <i>This sub-group did not have any statistically significantly different at risk coastal values from the overall data.</i> | This sub-group values fishing. This sub-group includes a high number of 55-64 year olds. |
| Coastal facing residents (n=168) | Ecological values (connecting with nature) (65.7%, n=110) Water activities (28.6%, n=64) | Private property (34.1%, n=57) | This sub-group values the ecology of the coast. This sub-group also identified that they were very concerned about the risks coastal hazards may have on private property. This may indicate that this sub-group ascribe personally motivated values to the Townsville coastline, as they reside or own property in a coastal facing suburb. |

| Sub-group | Coastal values | At risk coastal values | Observations |
|--|--|--|--|
| Non-coastal facing residents (n=363) | <i>This sub-group did not have any statistically significantly different coastal values from the overall data.</i> | <i>This sub-group did not have any statistically significantly different at risk coastal values from the overall data.</i> | <i>This sub-group did not have any statistically significantly different coastal values or at risk coastal values from the overall data.</i> |
| Aboriginal and Torres Strait Islander (n=25) | Culture and heritage values (28.4%, n=7) Fishing (44%, n=11) | Cultural sites and places (36%, n=9) | This sub-group values the Townsville coastline for fishing, culture and heritage and identified are concerned about the impacts coastal change may have on cultural sites and places. This sub-group likely has specific cultural values and connections to place. |

5.7 Other Survey Responses

In addition to the quantitative data detailed above, respondents also provided qualitative comments at questions one, five, six and nine. Table 8 describes the key categories of comments, and provides a description of the matters raised.

Table 8 Comment categories and description

| Category | Description of concern |
|---|---|
| Improve amenity of area / facilities | Requests for maintenance or upgrade of existing public land and infrastructure |
| Prioritise environment / climate change | Requests for immediate and extensive action to mitigate impacts. Specific recommendations included: <ul style="list-style-type: none"> • Regulation of large scale developments • Development setbacks • Relocation of low lying residential areas. |
| Natural disaster preparedness | Requests for review of building safety in cyclonic conditions. Requests for improved cyclone shelters. |
| Beach protection | Significant erosion concerns from coastal facing property owners. Specific recommendations include: <ul style="list-style-type: none"> • Sand replenishment • Construction of rock walls, breakwaters or artificial reefs • Banning vehicles from beaches. |
| Adaptation | Acknowledgement of coastal changes as natural process. Call's for community based adaptation by removing infrastructure from the coastline. Recommendations for Council partnership with James Cook University. |
| Safety | Requests for neighbourhood watch groups or increased police patrolling. Emphasis on youth crime as a more significant issue than climate change. |
| Public and active transport | Requests for more public and active transport infrastructure. |

6.0 Summary of Findings

The survey asked respondents a series of questions about their lived and coastal values, in order to obtain a statistically representative understanding of what the Townsville community value about living in Townsville. The survey also sought to gather information about the community's attitude to future changes to the Townsville coastline.

The survey data indicates that respondents consider lived values such as lifestyle and employment opportunities as very important reasons for living in Townsville. Safety and the natural environment were considered the two most important attributes that contribute to the Townsville lifestyle. The key coastal areas visited 'daily' by respondents were the Townsville CBD and The Strand. The coastal values that were 'very important' to respondents included the scenic amenity of the Townsville coastline, as well as the ability to exercise or walk on the beachfront, or do other beach activities (picnic, swimming). The results indicate that the respondents are very concerned about at-risk coastal values including impacts on coastal vegetation and habitats, beaches for recreational use, public infrastructure and local business and tourism. Overall, the survey results highlight that the majority of respondents feel that the Townsville community is 'somewhat prepared' or 'well prepared' to respond to natural disasters that arise from coastal change.

Although the overall data set provides insight into the lived and coastal values of the Townsville community as a whole, the survey also sought to identify any differences in the lived and coastal values between groups in the community. Analysis identified six sub-groups that expressed lived or coastal values that were statistically significantly different to the lived and coastal values identified overall. Although the different lived and coastal values expressed by the respondent sub-groups are not statistically representative of the Townsville population, they were determined to be relevant to the project. Understanding the differences in values that exist between sub-groups is fundamental to inclusive adaptation planning.

Youth respondents placed increased importance on social and leisure values and pursuits, such as nightlife, dining out and water and beach activities. Youth respondents disvalued retirement and did not identify any at risk coastal values that deviated from the broader community response.

Non-place attached respondents placed increased importance on the ecological and economic values of the Townsville coastline. This sub-group contains a high number of 25-34 year olds. Respondents of this sub-group disvalued raising children in Townsville.

Place attached respondents placed increased importance on the proximity of family and long-term lifestyle considerations, such as retirement. Place attached residents disvalued employment and education opportunities.

Coastal facing respondents placed increased importance on lived values that may be related to the coastal lifestyle, such as access to the beach and coastal communities, access to the parks and recreational areas, access to neighbourhood amenities, open spaces, connectivity to places and public spaces, and recreation. This sub-group identified a significant number of coastal locations visited on a regular basis, such as Magnetic Island, Balgal Beach, Cungulla, Toomulla Beach, Toolakea Beach and Saunders Beach. Coastal facing respondents were the only sub-group to identify private property as an at-risk coastal value.

Non-coastal facing respondents placed decreased importance on lived values that may be related to the coastal lifestyle, such as access to the parks and recreational areas. This sub-group identified a low number of coastal activities. This may indicate that this sub-group does not participate in coastal activities on a regular basis (i.e. more frequently than monthly).

Aboriginal and Torres Strait Islander respondents placed increased importance on the affordability of housing, and the cultural and heritage value of the Townsville coastline. This sub-group also placed importance on the Townsville coastline for recreational activities, such as visiting the beach and fishing. Aboriginal and Torres Strait Islander respondents were the only sub-group to identify cultural sites and place as an at-risk coastal value.

7.0 Next Steps

The information obtained from the survey will be considered as part of assessing the risks to key areas and infrastructure along the Townsville coastline, from storm tide, coastal erosion and permanent sea level rise.

Adaptation planning will draw on the lived and coastal values identified by respondents as being important to the Townsville community, and will consider the lived and coastal values of the sub-groups. The lived and coastal values will also be used to guide the development and assessment of potential coastal change adaptation strategies for Townsville. The coastal locations most visited by respondents will assist with rating the importance of adaptation within coastal localities, beyond the quantifiable aspects of monetary value, associated with loss and damage.

Council will continue to engage the community as part of developing the Adapting to Coastal Change in Townsville Strategy.

Appendix A

Adapting to Coastal
Change Survey



Adapting to Coastal Change

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QUEENSLAND 4810
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enquiries@townsville.qld.gov.au
www.townsville.qld.gov.au

Community Values Survey

Council through the Queensland Government QCoast2100 initiative is planning for coastal change in Townsville via the project titled, 'Adapting to Coastal Change in Townsville'. The project is developing a long-term strategy for the city to help us manage changes brought by storm tide, sea level rise and coastal erosion. To help plan for coastal change, council is inviting you to take part in this short survey.

The survey aims to identify what people value most about living in Townsville. The survey responses will be used by council to better understand what community values are likely to be affected by coastal change. The feedback received will inform the development of coastal change adaptation strategies for Townsville. Your answers will be treated confidentially. The survey should take no more than 5 minutes to complete.

The survey is open for community input from Monday 17, September 2018 to 5pm, Friday 19 October 2018.

Thank you for taking part in the
Adapting to Coastal Change in Townsville Community Values survey.

Protecting your privacy: Council is committed to ensuring that personal information collected, handled and disclosed by the organisation is dealt with in accordance with the *Information Privacy Act 2009*. To view our Privacy Policy visit townsville.qld.gov.au

Adapting to Coastal Change

LIVING IN TOWNSVILLE

Questions one (1) and two (2) are about what living in Townsville means to you.

1. What do you consider to be an important reason for living in Townsville?

| | Not Important | Important | Very Important |
|---|---------------|-----------|----------------|
| My family live here | | | |
| Affordability of housing | | | |
| A great place for children to grow up | | | |
| To start a business / run a business | | | |
| Lifestyle | | | |
| Access to the beach and coastal communities (Balgal Beach, Toomulla, Toolakea, Congulla etc) | | | |
| Access to the parks and recreational areas | | | |
| Employment opportunities | | | |
| Retirement | | | |
| Access to neighbourhood amenities (cafes, shops, health and wellbeing services etc) | | | |
| Educational opportunities | | | |
| Other | | | |

If **other**, please specify: _____

2. How important are the following to your Townsville lifestyle?

| | Not Important | Important | Very Important |
|---|---------------|-----------|----------------|
| Open spaces (street trees, footpaths, parks etc.) | | | |
| Neighbourhood watch and community awareness | | | |
| Nightlife (bars, dining, cinema, live music) | | | |
| Local business network (in your area) | | | |
| Access to neighbourhood amenities (cafes, shops, health services etc.) | | | |
| Connectivity to places and public spaces | | | |
| Natural environment (river, beach, bushland etc.) | | | |
| Safety | | | |
| Recreation (i.e. fishing, The Strand, Pallarenda, Riverway, Magnetic Island) | | | |
| Access to education | | | |
| Educational opportunities | | | |
| Other | | | |

If **other**, please specify: _____

Adapting to Coastal Change

COASTAL TOWNSVILLE

Questions three (3) and four (4) are about how you spend your time in Townsville's coastal areas.

3. How often do you visit the following coastal locations in Townsville?

| | Daily | Weekly | Monthly | 1-3 times a year | 4-6 times a year | Never |
|--------------------|-------|--------|---------|------------------|------------------|-------|
| The Strand | | | | | | |
| Pallarenda | | | | | | |
| Rowes Bay | | | | | | |
| Townsville CBD | | | | | | |
| Magnetic Island | | | | | | |
| South Townsville | | | | | | |
| Cungulla | | | | | | |
| Rollingstone Beach | | | | | | |
| Balgol Beach | | | | | | |
| Toomulla | | | | | | |
| Toolakea Beach | | | | | | |
| Saunders Beach | | | | | | |
| Bushland Beach | | | | | | |

4. How often do you do the following activities in Townsville's coastal areas?

| | Daily | Weekly | Monthly | Rarely | Never |
|---------------------------------|-------|--------|---------|--------|-------|
| Walk, jog | | | | | |
| Cycling | | | | | |
| Dog park | | | | | |
| Fishing, boating or snorkelling | | | | | |
| Visit the beach | | | | | |
| Picnic | | | | | |
| Attend sporting events | | | | | |
| Attend local park | | | | | |
| Visit the local shops | | | | | |
| Dine out | | | | | |
| Educational opportunities | | | | | |
| Other | | | | | |

If **other**, please specify: _____

Adapting to Coastal Change

COASTAL VALUES

Questions five (5) and six (6) are about how you value Townsville's coastal areas.

5. Why do you value the Townsville coastline?

| | |
|--|--|
| Exercising/walking on the beachfront | |
| Walking the dog | |
| Fishing | |
| Beach activities (picnics, swimming) | |
| Water activities (outrigging, boating) | |
| Scenic amenity (because it is beautiful) | |
| Ecological values (connecting with nature) | |
| Economic values (supports local business) | |
| Cultural and heritage values | |
| Other | |

If **other**, please specify: _____

6. How concerned are you about the effects of coastal change (from storm tide, sea level rise and coastal erosion) on:

| | Not concerned | Concerned | Very concerned |
|--|---------------|-----------|----------------|
| Beach access | | | |
| Public safety | | | |
| Coastal vegetation and habitats | | | |
| Cultural sites and places | | | |
| Beaches for recreational use | | | |
| Private property | | | |
| Parks and open spaces | | | |
| Public infrastructure (e.g. roads, sewer pump stations, water and gas pipelines, toilets, carparks) | | | |
| Community facilities (e.g. surf or sailing clubs) | | | |
| Local businesses and tourism | | | |
| Other | | | |

If **other**, please specify: _____

Adapting to Coastal Change

7. How concerned are you about the following coastal changes in Townsville?

| | Not Concerned | Slightly concerned | Moderately concerned | Very concerned | Extremely concerned |
|---|---------------|--------------------|----------------------|----------------|---------------------|
| Some gradual coastal erosion on public land with minimal impact on buildings and infrastructure | | | | | |
| Some gradual coastal erosion on private land with minimal impact on buildings | | | | | |
| Coastal erosion from a cyclone resulting in permanent loss of public land (not to be replaced) | | | | | |
| Coastal erosion from a cyclone resulting in permanent loss of private land | | | | | |
| Temporary ocean flooding of public land and infrastructure due to storm tide | | | | | |
| Temporary ocean flooding of private land and buildings due to storm tide | | | | | |
| Gradual invasion of dry public land by water due to sea level rise | | | | | |
| Gradual invasion of dry private land by water due to sea level rise | | | | | |

8. Rate below:

| | Not prepared | Somewhat prepared | Well prepared |
|--|--------------|-------------------|---------------|
| Do you feel your local community is well prepared to respond to natural disasters? | | | |

9. Do you have any other comments to add?

Adapting to Coastal Change

GETTING TO KNOW YOU

The last questions are general questions about you.

10. What age group are you in?

| | |
|--------------------------|-------------|
| <input type="checkbox"/> | Under 18 |
| <input type="checkbox"/> | 18-24 |
| <input type="checkbox"/> | 25-34 |
| <input type="checkbox"/> | 35-44 |
| <input type="checkbox"/> | 45-54 |
| <input type="checkbox"/> | 55-64 |
| <input type="checkbox"/> | 65 and over |

11. Do you identify as:

| | |
|--------------------------|-------------------|
| <input type="checkbox"/> | Female |
| <input type="checkbox"/> | Male |
| <input type="checkbox"/> | Other |
| <input type="checkbox"/> | Prefer not to say |

12. Do you identify as Aboriginal or Torres Strait Islander?

Yes

No

13. What suburb do you live in?

14. What is your property/residential status in Townsville? (Please tick all that apply)

| | | | |
|--------------------------|-------------------------------|--------------------------|---|
| <input type="checkbox"/> | I own and live in my own home | <input type="checkbox"/> | I live in public or community housing |
| <input type="checkbox"/> | I own a holiday home | <input type="checkbox"/> | I live with friends or family |
| <input type="checkbox"/> | I own an investment property | <input type="checkbox"/> | I live outside Townsville City Council area |
| <input type="checkbox"/> | I rent a home | <input type="checkbox"/> | Other |

15. Do you own your own business in the Townsville City Council Local Government Area?

Yes

No

16. Have you lived in Townsville your whole life?

Yes

No

17. How many years have you lived in Townsville?

Less than 12 months 1-3 years 4-7 years 8+ years

18. How likely are you to continue living in Townsville? (Please select one option)

| | | | |
|--------------------------|-----------------|--------------------------|------------------|
| <input type="checkbox"/> | Definitely will | <input type="checkbox"/> | Probably won't |
| <input type="checkbox"/> | Probably will | <input type="checkbox"/> | Definitely won't |
| <input type="checkbox"/> | Unsure | <input type="checkbox"/> | |

Appendix B

Promotional Materials Schedule

Appendix B Promotional Materials Schedule

| Location | Poster A4/A3 | Pull-up Banner | Calling Card | Information sheet | Hard Copy Survey | Comment Box |
|--|--------------|----------------|--------------|-------------------|------------------|-------------|
| Alligator Creek Service Station | ✓ | | | | | |
| Balgal Beach Fish Shop | ✓ | | ✓ | | | |
| Bushland Beach Coles | ✓ | | | | | |
| Bushland Beach Tavern | ✓ | | ✓ | | | |
| Bushland Beach Convenience Store | ✓ | | ✓ | | | |
| Coffee Club, The Strand | ✓ | | ✓ | | | |
| Coles Supermarket, The Strand | ✓ | | ✓ | | | |
| Cungulla Community Hall and Fishing Club | ✓ | | | | | |
| Noticeboard at Cungulla intersection | ✓ | | | | | |
| Fairfield Waters Shopping Centre | ✓ | | | | | |
| Magnetic Island Ferry Terminal (Townsville) | ✓ | | | | | |
| Magnetic Island Ferry Terminal (Magnetic Island) | ✓ | | | | | |
| Kokoda Memorial | ✓ | | | | | |

| Location | Poster A4/A3 | Pull-up Banner | Calling Card | Information sheet | Hard Copy Survey | Comment Box |
|--|--------------|----------------|--------------|-------------------|------------------|-------------|
| Pool | | | | | | |
| Long Tan Memorial Pool | ✓ | | | | | |
| North Shore Shopping Centre | ✓ | | | | | |
| Northern Beaches Leisure Centre | ✓ | | | | | |
| Perc Tucker Regional Gallery | ✓ | | | | | |
| Pinnacles Gallery | ✓ | | | | | |
| Riverway Lagoon and Art Gallery | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Rollingstone Community Centre | ✓ | | | | | |
| Rowes Bay Sustainability Centre and Wetlands | ✓ | | | | | |
| Saunders Beach Community Centre | ✓ | | | | | |
| Stores along The Strand | ✓ | | ✓ | | | |
| TCC Customer Service areas | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| TCC Libraries | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Townsville Civic Theatre | ✓ | | | | | |